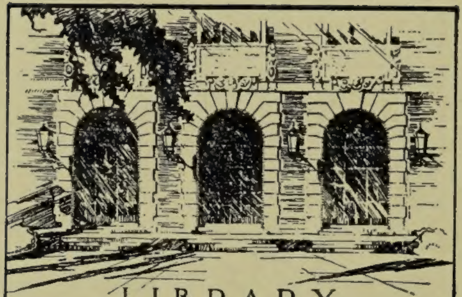

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INDEX TO VOLUME I FOR 1880.

A.

Abattoir, public, for Dublin, 62
Abdomen, Mr. H. L. Bernays on pistol-shot in, 53; tumours of, 245; cystic tumour of, 482
Abercrombie, Dr., varicella gangrænosa, 245; sarcomatous growths in kidneys, 812
Abortion, charge of, 601; missed, 698
Abscess, of cornea, keratomycosis aspergillina a cause of, 93; aneurism mistaken for, 41, 126, 491; in head of tibia, 519; spinal, 700; subphrenic, 891
Absorption by granulations, 25
Academy of Fine Arts, French, prize of, 562
——— of Medicine, New York, donation to, 336
——— of Medicine in Paris, report on animal vaccination, 140; members of, 456, 562, 980
——— Royal, note on, 670
——— of Surgery, Philadelphia, application for charter, 500
Academy headaches, 936
Acari from common fowl, 482
Accident, at Vauxhall, results of, 373
Accidents, police help in, in Paris, 263; in streets, help in, 501, 537, 609, 646, 681; proceedings in Parliament regarding, 950
Accommodation, spasm of in hypermetropia, 623
Acheson, Deputy Inspector-General J. I., death of, 994
Aconite, poisoning by, 216
Actions: Bader *v.* Gordon, 27; under Poor-law in Scotland, 105; against surgeons of Manhattan Eye and Ear Hospital, 409; of Pharmaceutical Society against London and Provincial Supply Association, 449; Howell *v.* West and others, 630, 699; against Dungannon Board of Guardians, 718; for libel, 908; for supposed spinal injury, 986
Acupressure, treatment of varicocele by, Mr. S. Osborn on, 52; letter on, 114; Mr. H. Palmer on, 127
Adams, Mr. E., gunshot-wound, 207
——— Mr. W., sequel of a case of tertiary syphilis, 739; treatment of lateral curvature of the spine, 810; the Council of the Royal College of Surgeons, 783
Addison's disease, case of, 887
Adulteration of food in Belfast, 296, 748
Advertisements, 757
Advertising, professional, 748
Afghanistan, medico-political affairs in, 744
Africa, medical arrangements of army in, 174, 299; Mr. Flower on races of, 649, 724, 769
Ague, chylous urine after, 208
Ainhum, specimens of, 14
Airy, Dr. H., report on outbreak of scarlatina, 107
Albinos, 246
Albumen, Dr. Grigg on metaphosphoric acid as a test for, 809, 870
Albuminuria, Dr. R. Saundby on certain points connected with, 841
Albuminuric retinitis, 775
Alcohol, cod-liver oil with, Mr. F. Y. Livy on, 167; Mr. E. N. Smith on, 204; letter on, 311; inquiry of Harveian Society into mortality referable to, 177, 312, 426; place and function of, 374; uses of, 564; in fever, Dr. Macnaughton Jones on, 687
Aldehyd in whisky, 673
Aldridge, Dr. Russell, presentation to, 190
Alford, Dr. H. J., transmission of small-pox by rags, 952
Alkali Acts, question in Parliament regarding, 871
Allan, Mr. James, apomorphia in hysteria, 477
Allbutt, Dr. Clifford, disseminated sclerosis, 246; dilatation of the stomach, 315; aortic regurgitation and the coronary circulation, 840
Allen, Staff-Surgeon M., case of, 497
——— Surgeon-Major R., presentation to, 31
Allison, Dr. A., an explanation, 114
Althaus, Dr. J., syphilitic thrombosis of basilar artery, 886
Alum in bread, 138
Amaurosis, case of, 814
Ambulance Lectures, Dr. L. A. Weatherley's, *rev.*, 484
Ambulance, volunteer, 173; classes in Edinburgh, 493, 827; in Glasgow, 493; in Dublin, 673; prizes, 746
America, preventable deaths in, 337; spurious medical degrees in, 350; Mr. Flower on races of, 549, 577, 616; graduation ceremonies in, 636; medical graduates in, 679; for phthisis, 958
Amputation, Mr. A. E. Barker on dry cotton-wool dressings in, 8; of shoulder in subclavian aneurism, 205, 924; through the hip-joint, 697
Amyot, Mr. T. E., nitro-glycerine, 477
Anæmia, idiopathic, Dr. J. M. Finny on, 5, 43; pernicious, and chronic Bright's disease, 285; the blood in, 452
Anæsthetic, bromide of ethyl as an, 565, 601, 746; compound, 600, 757, 836, 938; ethidene dichloride as an, Mr. Clover on, 641
Anæsthetics, M. Bert on, 640
Anagram, an, 153
Anatomy, Witkowski's Atlases of, *rev.*, 170; Mr. S. M. Bradley on relations of to fine arts, 447; comparative, of man, Mr. Flower on, 507, 549, 577, 616, 649, 687, 724, 769
Anders, Dr. J. M., hygienic and therapeutic relations of house-plants, 899
Anderson, Dr. E. C., metabolism of leucin and tyrosin, 589
——— Dr. McCall, difficulty of swallowing, 39; tinea imbricata, 364; embolism of superior mesenteric artery, 482; acute tuberculosis of lungs, 627; iodide of starch in lupus erythematodes, 652
Anderton, Dr. R., dislocation of wrist-joint, 399
Androgynia, case of, 20
Aneurism by anastomosis of ear, 625
——— of aorta, abdominal, 285; opening into vena cava, 811
——— of aorta, thoracic, with hæmorrhage into pericardium, 14; dissecting, 210; cases of, 248, 519, 521, 850; bursting into right auricle, 520, 811; communicating with right pulmonary artery, 521
——— arterio-venous in thigh, 443
——— of femoral artery cured by compression, 441; treated by ligature of external iliac, 518
——— femoro-popliteal, Mr. T. Holmes on, 41
——— of internal carotid artery mistaken for abscess, 491
——— of left ventricle, Dr. J. R. Wardell on, 617
——— of popliteal artery treated by Esmarch's bandage, 283; recurrent, Mr. Annandale on, 587
——— of posterior tibial artery opened by mistake, Dr. G. H. MacSwinney on, 126
——— of subclavian artery treated by amputation, 205, 924
Angina Ludovici, 78
Aniline, poisoning by, 175
Animals, epidemic diseases of in Natal, 206; Mr. A. Campbell on spread of typhoid fever to, 555; value of experiments on, 560, 596, 665; report of experiments on, 967
Ankylosis of hip, sections of femur for, 812; congenital, of tarsal bones, 956
Annandale, Mr. T., case of recurrent popliteal aneurism, 587
Anthropology, prehistoric German, exhibition of, 599
Anthropometry, letter on, 232
Antiseptic dressing in military surgery, Dr. W. H. McNamara on, 324; Surgeon-major Stafford on, 922; a new, Dr. H. L. Snow on, 476
——— ovariotomy, 243, 593, 594
——— surgery, Mr. T. Holmes on, 34, 148; Mr. Spencer Wells on, 72; statistics of in France, 491; a result of, 681; in Calcutta hospitals, 826; Mr. W. MacCormac on, *rev.*, 927; Boylston prize for essay on, 984
——— treatment of phthisis, Dr. G. H. Mackenzie on, 13
Antiseptics in ophthalmic surgery, Mr. E. Nettleship on, 166; Mr. S. Snell on, 241; in herniotomy, 443
Antivaccination fabrications, 935
Antivisection Bill in New York, 449, 489, 645; meeting, 981
Antrum of Highmore, cyst of, 849
Aorta, abdominal, aneurism of, 285; opening into vena cava, 811
——— thoracic, aneurism of with hæmorrhage into pericardium, 14; and pulmonary artery, transposition of, 168; dissecting aneurism of, 210; cases of aneurism of, 248, 519, 520, 521, 850; bursting into right auricle, 520, 811; communicating with right pulmonary artery, 521
Aortic regurgitation and the coronary circulation, Dr. T. C. Allbutt on, 840; Dr. R. D. Powell on, 923
Apomorphia in hysteria, Dr. J. Allan on, 477
Apoplexy, cerebral, 247; of lung from cardiac disease, Dr. W. R. Thomas on, 844
Apothecaries, Company of, pass lists. *See* Medical News in each number
Appeals, 40, 77, 103, 113, 152, 191, 230, 310, 350, 463
Apprentices, practice by, 176
Archeopteryx, specimen of, 859
Archer, Mr. R. S., slow pulse, 153
Arklow, water-supply of, 179
Arloing, M., inoculability of charbon, 938
Armistead, Dr., trichinosis from sausages, 709
Army, British, appointments to brigade-depôts, 7, 106, 535; the recent Royal Warrant, 23; retirements of medical officers, 53, 460; the Zulu rewards, 75; regimentalism and unification, 112; service in India, 189; pay in, compared with navy, 222; medical boards, 228; exchanges in, 229, 292; competitive examination for, 254; successful candidates, 347; brigade-surgeons, 347; Colonel Stanley on the Medical Warrant, 369, 386; hospital corps training-school at Aldershot, 528; medical school, opening of summer session, 562; appointments, 568, 677, 847; promotions, 677; proposed reorganisation of medical department of Guards, 743, 906; questions regarding exchanges, 994
Army, French, warm baths in barracks, 933
——— Indian, principal medical officers in Madras, 75, 643; remarks on medical service of, 134, 213, 405, 632, 856; competitive examination for, 254; letters on, 268, 307, 535, 905; successful candidates at examinations, 347, 460; proceedings in Parliament concerning changes in medical service, 348; surgeon-general, 643; retirements of medical officers, 645; appointments, 677, 794; promotions, 847; deputation to Lord Hartington, 865
Arsenic, contamination by vapour of, 61; Dr. E. Seaton on, 127; poisoning by, 104; in articles of common use, 178; in wall-papers, 257; Mr. M. Morris's report on, 275; Mr. N. Stevenson on danger of in dentistry, 362: inquiry into by Society of Arts, 669; in skin-disease, Dr. R. Farquharson on, 802
Arteries, iliac, embolism of, 285
Arterio-venous aneurism in thigh, 443
Artery, basilar, syphilitic thrombosis of, 886
——— carotid, internal, aneurism of mistaken for abscess, 491
——— femoral, aneurism of cured by compression, 441; treated by ligature of external iliac, 518
——— maxillary, internal, ligature of common carotid for punctured wound of, 587
——— mesenteric, aneurism of, 210; embolism of, 482
——— obturator, abnormal, wound of in operating for hernia, 695, 700, 847
——— popliteal, Mr. Holmes on aneurism of opened by mistake, 41; aneurism of treated by Esmarch's bandage, 283; case of, 519; recurrent aneurism of, 587
——— pulmonary, and aorta, transposition of, 168
——— subclavian, aneurism of treated by amputation, 205, 924
——— tibial, posterior, Dr. G. H. MacSwinney on aneurism of opened by mistake, 126
Arthritis, rheumatoid, Dr. W. M. Ord on, 155; coxo-femoral, 521
Artisans' dwellings in Cork, 376; and Labourers' Dwelling Acts, 823
Aseptic and antiseptic, 721
Ashby, Dr. H., contagion of typhoid fever, 477; dilated heart, 662; general tuberculosis with hæmorrhage from bowels, 695
Assistants, unqualified, 39; and certificates of death, 141
Ass, phantom tumour simulating pregnancy in an, 592
Assault on a house-surgeon, 954
Assmanshausen, 529
Association, British Medical, work of the, 21; suggestions regarding scientific work of, 31, 74; proposed regulations for general meetings, 147, 867, 943, 990; Dr. S. Gordon on objects and progress of, 195; programme of annual meeting, 263, 300, 715, 867, 943, 989; note on annual meeting, 331, 941; financial statement for 1879, 639; new branches of, 740, 749; notices regarding accommodation, 790, 990; Mr. Hart on the action of in improving sanitary organisation, 911; American opinion of, 941; exhibition of surgical instruments at, 993
——— Committee of Council, proceedings, 146, 638; protest regarding election of Registrar-General, 262
——— Committee on Parliamentary Bills, meetings, 180, 259; the Coroners' Bill, 180; the Army Medical Warrant, *ib.*; the Naval Medical Warrant, *ib.*; the Infant Life Protection Act, *ib.*; local legislation as to infection and infectious diseases, 259; deputation to President of Local Government Board on animal vaccination, 297; deputation on registration of infectious diseases, 340; deputation to Home Secretary on Infant Life Protection Act, 341; on Coroners' Bill, *ib.*
——— Committee on Habitual Drunkards, meeting, 181
——— Aberdeen, Banff, and Kincardine Branch fracture of skull, 169; enlarged axillary glands, *ib.*; necrosis of lower jaw, *ib.*; molluscum simplex, *ib.*; chronic tympanic catarrh, *ib.*; pessary for prolapsus uteri, 442; bacteria, *ib.*; larva in a gumboil, 626; operation for club-foot, *ib.*; excision of hip-joint, *ib.*;

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chronic peritonitis, *ib.*; traumatic tetanus, *ib.*; intra-uterine coagulum leading to inversion of uterus, 816; *post partum* hæmorrhage, *ib.*; belladonna in heart-disease with disease of kidney, 817

Association, Bath and Bristol Branch, ordinary meetings, 184, 264, 457, 674, 830; papers, 184, 265, 457, 674, 830; new members, 264, 457, 674, 830; the late Dr. W. Budd, 264; the office of Registrar-General, *ib.*; medical education, 674

—— Birmingham and Midland Counties Branch, ordinary meetings, 33, 70, 381; new members, 33, 70, 381; Council of Branch, 33, 70; papers, 33, 70, 381; Branch Secretaries and the Committee of Council, 70.—Pathological Section, genu valgum, 286; double talipes equino-varus, *ib.*; staphyloma corneæ, *ib.*; extra-uterine pregnancy, 443: antiseptics in herniotomy, *ib.*; biliary calculi, *ib.*; ovarian tumour, *ib.*; cystic tumour of kidney, *ib.*; preparation of eye in glycerine jelly, *ib.*; operating and gynæcological chairs, *ib.*; pleurisy in children, *ib.*; trephining for fractured skull, 519; granular kidney, *ib.*; abscess in head of tibia, *ib.*; popliteal aneurism, *ib.*; aneurism of aorta, *ib.*; corneal growths, *ib.*; amaurosis, 814; kidney from a case of diabetes, *ib.*

—— Dublin Branch, Dr. Gordon's presidential address, 195, 304; annual meeting, 303; report of Council, *ib.*; notification and registration of infectious diseases, 304; officers and Council, *ib.*; vote of thanks, *ib.*; dinner, *ib.*

—— Glasgow and West of Scotland Branch, discussion on croup and diphtheria, 301

—— Gloucestershire Branch, resolution respecting Dr. W. Farr, 183; meeting, 420

—— Metropolitan Counties Branch, resolution of Council regarding Dr. W. Farr, 299; report on medical education, 494; president's *conversazione*, 782.—East London and South Essex District, legal status of medical practitioners, 70; meetings, 420, 569, 830, 991; treatment of pneumonia, 569: communications, 830, 991.—North London District, meetings, 224, 346.—South London District, Dr. W. Farr and the office of Registrar-General, 181, 262; private lunatic asylums, 220, 342; treatment of fractured vertebræ, 662; high temperature after antiseptic ovariotomy, *ib.*

—— Midland Branch, meeting, 791; medical education, *ib.*; paper, *ib.*

—— North of Ireland Branch; annual meeting, 946; report of Council, *ib.*; officers and Council, 947; dinner, *ib.*

—— North of Wales Branch, intermediate meeting, 674; discussion, *ib.*; communications, *ib.*; new members, *ib.*

—— Southern Branch: Southampton District, notes on midwifery cases, 519; new members, 534; the late Deputy Surgeon-General Porter, *ib.*—Dorset District, meeting, 751; new members, 752; papers, *ib.*

—— South-Eastern Branch: annual meeting, 945; votes of thanks, *ib.*; president's address, *ib.*; report of Council, *ib.*; annual meeting in 1881, and officers, 946; dinner, *ib.*—East Kent District, meetings, 70, 569; pneumonia, 774; annual meeting, 868; West Kent District, meetings, 535.—East Surrey District: treatment of laryngitis, 131; double splint for disease and injury of hip-joint, *ib.*; suppuration of knee after gout, 132; meeting, 716; honorary secretary, 716; papers, *ib.*—West Surrey District, meetings, 535.—East Sussex District, meetings, 33, 638, 945; communications, 33, 638, 945; disseminated sclerosis, 851

—— South Wales and Monmouthshire Branch, spring meeting, 674; the late honorary secretary, *ib.*; new members, *ib.*; papers, etc., *ib.*; medical education, *ib.*; representatives in General Council, *ib.*; benevolent fund, *ib.*

—— Staffordshire Branch, ordinary meetings, 345, 605; new members, 345, 605; communications, 346, 605; medical education, 605

—— West of Ireland Branch, ordinary meeting, 534; papers, *ib.*

—— West Somerset Branch, spring meeting, 534; medical education, *ib.*; papers and cases, *ib.*

—— Yorkshire Branch, spring meeting, 752; new members, *ib.*; papers, *ib.*

Association, American Medical, annual meeting, 941

—— Bradford Friendly Societies' Medical Aid, 379

—— British Dental, formation of, 528, 825

—— Brussels Medical Graduates', monthly meeting, 72; annual dinner, 228

—— Chemists' and Druggists' Trade, proceedings of Executive Committee, 383

—— Edinburgh Sanitary Protective, annual meeting, 567

—— Irish Graduates', annual metropolitan dinner of, 494

—— Irish Medical, annual meeting, 902; report of Council, *ib.*; officers and Council, 902, 940; dinner, 903

—— Leicester United Friendly Societies' Medical, 32

Association, London and Provincial Supply, action by Pharmaceutical Society against, 448

—— Manchester Medico-Ethical, officers and council, 215; resolutions regarding the Manchester Children's Hospital and Dr. Humphreys, 372

—— Metropolitan and National Nursing, 40; annual meeting, 461

—— Poor-law Medical Officers', resolution regarding Dr. W. Farr, 69; proceedings regarding Medical Charities (Ireland) Bill, 848

—— for Relief of Incurables, Glasgow, annual meeting, 178

—— St. Andrew's Graduates, officers and Council, 862; annual meeting and dinner, 935

—— St. John's Ambulance, presidency of, 423; annual conference of lecturers and examiners, 896

—— Social Science, resolutions of Council, 909

—— of Surgeons practising Dental Surgery, officers and council, 27; dinner, 173; annual meeting, 214; president's address, 360; examination of teeth and mouth, 481; cystic disease of lower jaw, 775; thirty-five years' history of a maxillary tumour, *ib.*; irregular upper incisor, *ib.*; epulis, *ib.*; instruments, 852; peculiar suppurative disease of jaw, *ib.*

Asthma, Dr. Berkart on treatment of, 917, 960

Aston manor, sanitary report of, 384, 613

Astragalus, compound dislocation of, 520

Asylum, Border Counties, report of, 602

—— Clonmel District Lunatic, report on, 143

—— Cork District Lunatic, amateur performance at, 269; inspector's report on, 968

—— Cumberland and Westmorland Lunatic, fire in, 600

—— Fife and Kinross, discharge of a patient from, 827; report, 985

—— Glasgow Royal Lunatic, annual meeting. 142; consulting surgeon, 177: annual report of, 338

—— Hants County, report of, 900

—— Monaghan District Lunatic, reopening of, 413

—— Montrose Royal Lunatic, annual report of, 29

—— Morningside Royal Lunatic, annual meeting, 375

—— Northumberland Lunatic, annual report, 529

—— Richmond District Lunatic, annual report, 829

—— Waterford District, report, 941

—— Woodilee, report of, 747

Asylums, county lunatic, proceedings in Parliament regarding, 906

—— private lunatic, Dr. J. C. Bucknill on, 198, 221, 343; discussion on, 220, 342; Mr. W. G. Balfour on, 319

—— lunatic, in Madras, 372; in Victoria, 497; without locks, 983; in Ireland, medical officers of, 986

Ataxy, locomotor, osseous and articular lesions in, 244, 255; cases of, 592

Athetosis, Dr. Fletcher Beach on cases of, 882, 967

Atkins, Dr. Ringrose, osteomalacia in a case of chronic dementia, 965

Atkinson, Dr. F. P., overpopulation, 390

Atlas, of Anatomy, Witkowski's, *rev.*, 170; Letts's Popular, *rev.*, 288

Atmospheric alkalinity and yellow fever, 492

Atropin, pilocarpin an antidote to, 366; use of in cataract, *ib.*; an antidote to strychnin, 671

Atthill, Dr. L., ovarian and uterine tumours, 210, 284; cases of ovariotomy, 699

Audiphone, Rhodes's, Mr. J. Samuelson on, 12; Graydon's, Dr. O. Pritchard on, *ib.*; note on, 58; use of in deafness, Dr. J. P. Cassells on, 325; improved, 411, 464

B.

Baby-farming, cases of, 256, 670, 984; in the North, 666

Bacon, Dr. G. M., tumour of cerebellum, 280; Medical Register of Europe, 574; intestine ruptured through violence, 815

Bacteria, influence of in phthisis, 153; forms of, 442

Baelz, Dr. E., Japanese inundation fever, 929

Bags, hydrostatic, application of, 817

Bailey, Mr. G. H., ethidene bichloride and nitrous oxide, 757

Baines, Dr. C. W., case of triplets, 998

Baker, Mr. H. F., treatment of genu valgum without division of bone, 765

—— Mr. Robert, death of, 256; obituary notice of, 383

—— Mr. W. Morrant, rare form of skin-disease, 624

Bakewell, sanitary report of, 621

Balfour, Dr. T. A. G., case of pretended birth, 241

—— Dr. T. G., vital statistics of cavalry horses, 500

—— Mr. W. G., private asylums, 221, 319

Ball, Dr. C., sarcoma of foot, 248

Ballard, Dr. E., ways of pollution of drinking-water, 82; report on an outbreak of enteric fever, 642

Bandage, the solid India-rubber, 351; Dr. Spender on caution in the use of, 362; letter on, 424

Bandaging, Mr. Berkeley Hill's Essentials of, *rev.*, 288

Bantock, Dr. G. G., cases of completed ovariotomy, 877

Barham, Dr. C., presentation to, 215

Barker, Mr. A. E. J., the dry cotton-wool dressing in amputations, 8; nephrectomy by abdominal section, 401

Barker, Dr. Fordyce, rules for use of forceps, 499

Barlow, Dr. T., congenital atelectasis, 14; the Manchester Children's Hospital and Dr. Humphreys, 186; congenital syphilitic disease of larynx, 590; congenital syphilitic ulceration of tongue, 812

Barnardo, Dr., village homes, scarlatina at, 215

Barnes, Dr. Fancourt, clinical note on phlegmasia dolens, 921

—— Mr. J. J. F., icterus in pregnancy, 127

Barnsley, sanitary report of, 118

Barrow, Mr. A. B., cancer of stomach, 403

—— Mr. Benjamin, Epsom College, 758

Barry, Dr. D. P., surgical treatment of epistaxis, 809

Barton, Dr. J. K., caries of head of tibia, 248; hip-disease, *ib.*; latent caries, 739

Barwell, Mr. R., section of femur for angular ankylosis of hip, 812

Bassett, Rev. Mr., inquiry on, 332, 421

Bath, the morning, 39; Russian vapour, Dr. J. B. Gill on bronchitis treated by, 923

Bath, small-pox at, 59, 98; mineral waters of in chorea, Dr. Brabazon on, 731

Bathing in Japan, 910

Battey, Dr. R., intra-uterine medication by iodised phenol, 471; summary of results of oöphorectomy, 510

Beach, Dr. Fletcher, cases of athetosis, 822, 967

Beatson, Dr. G., remarkable injury from bursting of a shell, 515

Beatty, Dr. W. C., intraprofessional obligations, 464

Beatty, Mr. W. J., dislocation of lower jaw during extraction of teeth, 271

Bed-curtains, proposed abolition of in Paris hospitals, 456

Bedford, sanitary report of, 677

Beef and iron wine, Burrough's, 664

Beef-tea, peptonised, 649, 815

Belfast, small-pox in, 220; sanitary condition of, 296, 567, 712, 986; adulterations in, 296

Bell, the late Sir Charles, 646

—— Mr. Thomas, death of, 452

Belladonna, Dr. W. B. Mackay on treatment of tetanus by, 280; in heart-disease with disease of kidney, 817

Benger, Mr. F. B., liquor pancreaticus, 78

Benignant disease, 958

Bennett, Dr. A. H., electricity as a means of diagnosis in disease of the nervous system, 46, 161, 235

—— Dr. E. H., laryngo-tracheotomy in croup, 248; acute goître, 284; melanotic sarcoma of orbit, 285; traumatic perinephritis, 443; disease of knee-joint, 701; Colles's fracture of the radius, 759; comminuted fracture of upper third of femur, 962

Benson, Dr. C., death of, 143; resolution of Council of College of Surgeons in Ireland concerning, 258

Bentley, Mr. R., and Trimen, Dr., Medicinal Plants, *rev.*, 404

Benton, Mr. S., improved universal douche, 133

Benzoate of soda, inhalation of in phthisis, 23; Dr. I. B. Yeo on, 72

Bequests, 229, 269, 423, 453, 461, 471, 499, 566, 608, 804, 872, 956, 996

Berar, mortality in, 670

Bergeron, M., peptones, 938

Beriberi in Brazil, 450; in Calcutta, 491

Berkart, Dr. J. B., quebracho in dyspnœa, 167; treatment of asthma, 917, 960; chronic synovitis of knee-joint, 991

Bernard, Dr. W., mode of applying styptics in *post partum* hæmorrhage, 585; neurosal palpitation, 776; symptoms and treatment of diphtheria, *ib.*

Bernays, Dr. H. L., pistol-shot in the abdomen, 53

Berry, Dr. J. J., dislocation of radius backward, 485

—— Mr. W., the absorbent wool-pad, 622; icterus after scarlatina, 848

Bert, M., anæsthetics, 640

Bertillon, Dr., statistics of population in France, 183; small-pox hospitals, 863, 934

Bethnal Green, sanitary report of, 498; mortuary at, 953

Bezoar, oriental, 71

Biel, Dr., false quebracho bark, 530

Bile, conversion of colouring matter of into urobilin, 641

Bills, doctors', priority given to, 722

Birch, Dr. E. A., Goodeve's Hints on Management of Children in India, *rev.*, 664

Birkenhead, sanitary report of, 433

Birmingham, sanitary report of, 459; special correspondence from, 947

Bishop, Mr. John, Professor Spence on surgical statistics, 185

Bismarck, Princess, and magpie-dust, 270

Bismuth, oleate of in eczema, Dr. L. Lewis on, 968

Blackburn steam-car, 538, 680

Bladder, aspiration of in retention of urine, Mr. C. B. Pasley on, 167; Dr. W. M. Campbell on, 280; operation for extrophy of, Mr. J. Greig Smith on, 202, 321; Mr. John Wood on, 278; Mr G. E. Walker on recovery of a bougie broken in, 278; villous tumour of, 662; extroversion of, 815

Blake, Mr. J. F., the Westminster Dispensary, 681; application of the forceps, 771

Blind, statistics of in France, 992

Blood, casts of in bronchi, 282; in anæmia, 452; in yellow fever, 739; origin of corpuscles of, 789

Blood-cyst in diverticulum of ileum, 328
Blood-letting in headache with insomnia, Mr. John Brown on, 13
Bloody sweat, 809
Bodington, Dr. G. F., private asylums, 221
Bohemia, suicides in, 337
Boll, Professor, death of, 58
Bond, Dr. F. T., local legislation as to infectious diseases, 346
Bone, occipital, abnormality of, 247
——— transplantation of, 364; deficiency of at vertex of head, 520; Mr. Butlin on subperiosteal sarcoma of, 913
Bones, syphilitic disease of in fœtus, 71; changes of in locomotor ataxy, 244, 255; Dr. Ringrose Atkins on softening of in dementia, 965; Mr. Greenish on hereditary tendency to fragility of, 966
Bone-setting, cases of, 591
Bone-tubes, decalcified, Dr. Newman on, 692
Bookey, Dr., death of, 63
Booth, Dr. Mackenzie, chronic tympanic catarrh 169; toleration of opium in an infant, 735
Booth, sanitary report of, 833
Borax, combination of glycerine with, Mr. F. Long on, 556; Mr. C. E. Shelly on, 658
Borchardt, Dr. L., the Children's Hospital at Pendlebury, 149, 225
Börner, Dr. P., Reichs-Medicinal-Kalendar, *rev.*, 404
Bottles, safety, wanted, 141
Boucheron, M., treatment of deaf-mutism, 710
Bougie broken in bladder, Mr. G. E. Walker on recovery of, 278
Bouilly, Mr., growing pains, 745
Boulton, Dr. P., relation between height and weight, 232; growing pains, 771
Bourke, Mr. W., letter by, 671, 745
Bournemouth, winter temperatures at, 175, 311
Boutflower, Mr., sarcocele, 443
Bow-legs, osteotomy in, 592
Bowen, Mr. O., intussusception in an infant, 769
Bower, Mr. E. D., presentation to, 76
Bowles, Dr. R. L., pneumonia, 774
Brabazon, Dr. A. B., treatment of chorea by Bath mineral waters, 731
Bracey, Mr. A., death of, 947
Bradbury, Dr. J. B., scirrhus of pylorus with simple ulcer, 816
Bradley, Dr. M. M., scarlet fever in the puerperal woman, 279
——— Mr. S. M., treatment of varicocele by acu pressure, 114; arterio-venous aneurism, 443; Miss Lonsdale and Guy's Hospital, 605; Injuries and Diseases of the Lymphatic System, *rev.*, 854; obituary notice of, 870; resolution of Manchester Medical Society concerning, 896; letter on case of, 904
Bradshaw, Dr., aortic aneurism bursting into right auricle, 520
Braidwood, Dr. P. M., surgical statistics, 716
Brailey, Dr., tumour of brain and optic nerve, 15; change of vision in old age, 38
Brain, Dr. Russell on affection of in pneumonia, 13; tumour of, 15, 662; Dr. A. H. Bennett on action of electricity on, 161; recovery after severe injury of, 492, 816; ramifying cyst in, 625; neurasthenia of, 699
Bramwell, Dr. J. P., nerve-stretching as a remedy for sciatica, 920
Brandon, sanitary report of, 608
Brazil, beri-beri in, 450
Bread, alum in, 138
Breast, cancer of following eczema of nipple, 128; Dr. R. Morgan on, 280; Dr. Welply on, 555; tumour of, 210, 699; pathology of epithelial tumours of, 446; peculiar form of cancer of, 481; statistics of cancer of, 601; Mr. F. T. Paul on cylindrical epithelioma of, 624; inflammation of treated by cold applications, 722; male, scirrhus of, 776
Bridges, Dr. R., street music, 350
Bright's disease, mercury in, 132; pathology of, 168; chronic, and pernicious anæmia, 285
Brighton, special correspondence from, 418
Bristowe, Dr. J. S., ulcerative endocarditis or multiple embolism, 798
Broca, Dr. P., his election to the French Senate, 183, 254, 263
Bromide of ethyl as an anæsthetic, 565, 601, 746, 820; Mr. J. T. Clover on, 586; Mr. G. E. Norton on, 735; death from, 983
Bronchi, blood-casts in, 282
Brotherly kindness, 671, 720, 745
Brown, Mr. H., distinction between typhoid and typhus fevers, 110; eucalyptus globulus, 993
——— Mr. John, bloodletting in congestive headache with insomnia, 13
Brown Institution, report of, 568
Browne, Mr. W. H., doctors' conveyances, 609; effects of hydrofluoric acid, 720; midwifery engagements, 757
Brownen, Mr. G., experiments on digestive ferments, 512
Brussels, special correspondence from, 948
Bryant, Mr. T., double splint for hip-joint, 131; and the Council of the Royal College of Surgeons, 937
Buchanan, Dr. G. (Glasgow), lithotomy in Glasgow, 192; croup and diphtheria, 301; hospital statistics, 305; molluscum fibrosum, 364; tracheotomy in diphtheria and croup, 554
——— Dr. G. (London), animal vaccination, 740
——— Mr. Walter, case of bullet-wound, 735
Buckler, Dr. T. H., Anatomical Relations of Uterine Strictures, *rev.*, 777
Buckley, Mr. S., cervical caries, 516
Bucknill, Dr. J. C., private lunatic asylums, 198, 221, 343
Budd, Mr. G., the nature of rheumatic symptoms, 399
——— Dr. William, death of, 102; Mr. W. M. Clarke on, 163
Budget, supplementary, 935
Bulkley, Dr. L. D., propagation of disease through cigars, 100
Bullet-wound, Mr. W. Buchanan on a case of, 735
Bumstead, Dr. F. J., death of, 26
Burdett, Mr. H. C., Pay Hospitals and Paying Wards, *rev.*, 132; hospital abuse, 187; self-supporting and provident hospitals, 419
Burggraeve, Dr., the dosimetric system, 855
Burial difficulty in Livereool, 948
Burials Act, the new, 153, 232
Burman, Mr. C. C., epistaxis, 154
——— Dr. J. W., a novel aid to diagnosis, 77
Burnett, Mr. S., Translation of Dr. Landolt's Manual of Examination of the Eyes, *rev.*, 702
Burnie, Mr. W. G., the diagnosis of rötheln, 848
Burq, Dr., treatment of cholera by copper, 640
Burroughs' beef and iron wine, 664
Bury, Dr. J., cranial lesions in congenital syphilis, 286
Bury St. Edmunds, sanitary report on, 753
Business aspects of professional life, 978
Butlin, Mr. H. T., relations of sarcoma to carcinoma, 875, 913
Butter, artificial, alimentary value of, 862
Butterfield, Mr. H., diphtheria and milk, 953
Buzzard, Dr. T., case with symptoms of acute rheumatism, 130; osseous and articular lesions in locomotor ataxy, 244; paraplegia from Pott's disease treated by Sayre's splint, 363; rapid and almost universal paralysis, 518

C

Cabul, medical arrangements in, 58; letter from, 69; dispensary in, 489, 529
Cadge, Mr. W., and the Council of the Royal College of Surgeons, 742
Cæsarean operation in the United Kingdom, Dr. R. P. Harris on, 508; letter on, 869
Caffein, citrate of, 443
Cagots, the, 216
Calcium, chloride of, in phthisis, Dr. J. Sawyer on, 845
Calculating boy, a, 791
Calculi in Russia, 59; biliary, 443; multiple vesical after prolapsus uteri, 698
Calculus, cystin, 71, 811; from kidney, *ib.*; specimens of, 210, 284; impacted in urethra, 363; a large, 491; a difficult case of, 982
Calendar, Dr. Börner's German Medical, *rev.*, 404
California, cultivation of cinchona in, 746
Callus, formation of, 929
Cameron, Mr. A. H. F., administration of guaiacum, 53
——— Dr. C. A., aldehyd in whisky, 673
——— Dr. H. C., statistics of the Glasgow Infirmary, 35, 148; ruptured perinæum, 210; croup and diphtheria, 302
——— Mr. J. H., croup or diphtheria, 537
Campagna, Roman, the eucalyptus in, 866, 949
Campbell, Mr. A., spread of typhoid fever to animals, 555
——— Dr. W. M., aspiration of bladder in retention of urine, 280; glandular cancer of nasal mucous membrane, 325
Cancer, Chian turpentine in, Dr. Marsden on, 923; Mr. W. F. M. Jackson on, 968; Mr. H. Morris on cases of, 924, 969
——— of abdominal organs and peritoneum, 285
——— of breast following eczema of nipple, 128; Dr. R. Morgan on, 280; Dr. J. J. Welply on, 555; pathology of, 446; peculiar form of, 481; statistics of, 601; in male, 776
——— of liver, primary, 403
——— of lung, 169
——— melanotic, of thigh, 364
——— of nasal mucous membrane, 325
——— of œsophagus, 248
——— pathology of, 811
——— pelvic, pain in, 209
——— of pylorus, with simple ulcer, 816; with ulceration and abscess, 974
——— of Rectum, Mr. W. H. Cripps on, *rev.*, 484
——— of sigmoid flexure with gangrene of bowel, 281
——— of stomach, 403
Cancrum oris leading to necrosis of lower jaw, 738
Cane-sugar, digestion of, 543
Canterbury, Archbishop of, degree of M.D. conferred by, 26
Carbolic acid, poisoning by, 62, 214
Carcinoma, relations of to sarcoma, Mr. H. T. Butlin on, 875, 913. *See* Cancer
Cardiac neurosis, Dr. Hayden on varieties of, 838
Cards, 425, 609
Carica papaya, 640
Caries of tibia, 739; latent, *ib.*
Carlyle, Dr., traumatic tetanus, 626
Carpenter, Dr. A., fallacies based on a narrow view of the germ-theory, 79; suggested as a candidate for Parliament, 371; medical men in Parliament, 420; representation of University of London, 716
——— Mr. R. H. S., legal status of medical practitioners, 70; foreign degrees, 193; medical titles under the proposed new Medical Act, 352
——— Dr. W. B., health of, 599
Carr, Mr. John, ought hospitals to be self-supporting. 141
Carriages for medical men, 152
Carson, Dr. J. C. L., twins born with an interval of forty-four days, 242
Carter, Dr. A. H., pleurisy in children, 443
——— Dr. C. H., foreign body in vagina 210; extra-uterine fœtation, 971
——— Mr. H. B., nursing organisation in hospitals, 225
——— Dr. H. Vandyke, experimental pathology of spirillum fever, 327
——— Mr. R. B., Eyesight, Good and Bad, *rev.*, 854
Cartilages, loose in knee-joint in unusual number, 366
Carttar, Mr., death of, 523
Cartwright, Mr. H., examination of the teeth and mouth in constitutional disease, 481
Carver, Mr., undescended testicle, 520
Cash, Dr. A. M., removal of foreign body from orbit, 514
Casper, Mr. E., mirrors in railway carriages, 192
Cassells, Dr. J. P., the audiphone in deafness, 325
Cat, favus in the, 132
Cataract, traumatic, Dr. J. R. Wolfe on, 233; Mr. S. Snell on antiseptics in extraction of, 241; use of atropin in, 366
Catarrh, postnasal, Dr. J. Rogers on treatment of, 90; treatment of, 231, 311, 352; nasal, Mr. A. Wilson on iodoform in, 167; chronic tympanic, 169; acute aural, Mr. R. Torrance on paracentesis of membrana tympani in, 693
Catheter, new flexible silver female, 445; case for, 890
Cattlin, Mr. W. A. N., relations of dentistry to surgery, 360; peculiar suppurative disease of jaw, 852
Cayley, Dr. W., Croonian lectures on pathology and treatment of typhoid fever, 391, 430, 504, 544, 611, 685, 723
Ceely, Mr. R., animal vaccination, 147
Census in 1881, 291, 348, 821; of India, 489
Centenarians, 76, 637, 643, 784, 859, 908, 933
Cephalhæmatoma and subpericranial ecchymosis, 484
Cerebellum, Dr. Hughlings Jackson on tumours of, 196; Dr. Mackenzie Bacon on tumour of, 280
Cerebral Hyperæmia, Dr. W. A. Hammond on, *rev.*, 701
Certificate, false, charge of, 141
Ceylon, salaries in, 958
Chair supports in spinal curvature, Mr. C. Steele on, 845
Chairs, operating and gynæcological, 443
Chambers, Dr. T., uterine tumour, 971
Champneys, Dr., pain in pelvic cancer, 209; retroflexed uterus, 971
Chapman, Dr. T. A., causes of insanity, 330
——— Messrs. E. and Co., koumiss, 464
Charbon, inoculability of, 938
Chavasse, Mr. T. F., genu valgum, 288
Cheadle, Dr. W. B., late, on tertiary syphilis in children, 204
Cheltenham, sanitary report of, 890
Chemical Medicine, Dr. Thudichum's Annals of, *rev.*, 853
Chemists, respectable, 114
Chervin, M., stammering in France, 426
Cheshire, Mid, sanitary report of, 459, 571
Chest, malformation of, 660
Chevers, Dr. N., relapsing fever of India, 206
Cheyne, Mr. W. W., surgical statistics, 239
Chiari, Dr. H., defect of pericardium, 629
Chicken-bone in larynx, 593
Child, Mr. J. Fagan on excision of wrist in a, 756; cirrhosis of liver in a, 811; empyema in a, treated by paracentesis, 850; without limbs, 956. *See* Infant
Childhood, Mr. E. Owen on practical points in connection with surgery of, 273, 313, 357
Children, necessity of fireguards as a protection to, 140; sickly workhouse, 258; in hospitals, picture-books, etc., for, 266; gymnastics for, 337; imbecile, Scottish National Institute for, 375; tucking-in of bedclothes of, 425; pleurisy in, 443; in India, Goodeve and Birch on Management of, *rev.*, 664; Dr. H. G. Rawdon on treatment of cleft palate in, 915. *See* Infants
China, opinions in concerning milk, 154; foot-binding in, 372; hæmatemesis in, 411; opium-smoking in, 757; medical science in, 787; neglect of sick and wounded in war, 936; English women as doctors in, 983
Chinese opium, 564
Chloral, effects of, 129, 232; Mr. W. B. Mackay on

treatment of tetanus by, 280; Dr. G. Gray on treatment of strychnia poisoning by, 476; action of, 787; and chloroform, for anæsthesia, 938
Chlorine, death from, 454
Chloroform, deaths from, 99, 176, 178, 217, 372, 411, 863, 900; with chloral, for anæsthesia, 938; state of heart in death from, 957
Chocolate paste, malted, Fry's, 664
Cholera in Japan, 28, 938; Dr. W. Budd's researches on, 144; of fowls, 373, 784, 992; treatment of by copper, 640; in India, 750; removal in, 889
Chondro-sarcoma of leg, 238
Chorea during pregnancy, 516; treatment of by Bath mineral waters, Dr. A. B. Brabazon on, 231
Choreic spasms, anomalous, 815
Chrisma, a new basis for ointment, 817
Christie, Dr., provident dispensaries, 413
Christmas and New Year in metropolitan hospitals, 144
Chromate of lead, poisoning by, 456
Churchill, Dr. F., therapeutic value of hypophosphates, 472
Churchman, the, on hospitals, 670
Churton, Dr., position of patient in empyema, 246; gangrenous pneumonia, 622
Chylous urine after ague in India, 208
Cigars, propagation of disease by, 100
Cinchona febrifuge, the, 138; cure for drunkenness, 175, 646, 681
Cinchona, cultivation of in California, 746
Circular, 425
Cities, foreign and colonial, health of, 295, 827
Civilisation and insanity, 780
Claimant, how one may arise, Dr. T. A. G. Balfour, 241
Clarke, Dr., disease of spine without curvature, 627; length of condyles of femur, *ib.*
——— Mr. F. H., presentation to, 645
——— Dr. James, address and presentation to, 679
——— Dr. J. St. T., the Habitual Drunkards Act, 351
——— Dr. Lockhart, remarks on, 170; obituary notice of, 188
——— Dr. W. F., self-supporting hospitals and dispensaries, 32; Manual of Surgery, *rev.*, 288; provident dispensaries, 869
——— Mr. W. M., on Dr. William Budd, 163
Cleveland, Dr., encephalocele, 971
Climate, influence of in disease, 56; influence of in health and disease, 713
Clinton, Chief Justice, advice to experts, 451
Clouston, Dr., causes of insanity, 710
Clover, Mr. J. T., bromide of ethyl as an anæsthetic, 586; anæsthetics, 641; ethidene dichloride, 797
Club, Edinburgh University Students', 218; Catholic benefit, 231
Clubs and their medical officers, 312, 389, 462, 573
Clutton, Mr. H. H., translation of Esmarch's Handbook on Treatment of Wounds in War, *rev.*, 54; aneurism of femoral artery, 441, 518; acquired hypertrophy of a limb, 889
Coal-mines, new theory of death in, 183
Coats, Dr. J., dissecting aneurism, 210; mediastinal tumour with venous thrombosis, 482
Cocking's poroplastic splints and spinal jackets, 286
Cod liver oil, a substitute for, 100; with alcohol, Mr. F. Y. Livy on, 167; Mr. E. N. Smith on, 204; letter on, 231, 311
Codex, French, new edition of, 410
Coffee-stand in Belfast, 607
Cohn, Dr., acuteness of vision and perception of colours, 216
Cohnheim, Professor, contagion of tuberculosis, 704
Cold, rapid cure of a, 138; in head, consequences of, 490
Cole, Dr. T., a year's experience of gall-stones, 322
College, Ampleforth, circular of principal on infectious diseases, 100
——— Anderson's, Glasgow, chair of practice of medicine in, 985
——— Calcutta Medical, principal of, 708
——— Gonville and Caius, open scholarships, 75
——— King and Queen's of Physicians in Ireland, members, 37, 348, 361, 460, 955; pass lists, licentiates, 386, 460, 833, 955; fellows, 567; new educational regulations, 788
——— Malvern, scholarships and exhibitions, 68
——— Miami, of Medicine, annual commencement at, 636
——— Owens, soirée at, 336
——— Queen's, Belfast, prizes at, 770
——— Queen's, Cork, rustication of a student of, 567; prizes at, 956
——— Royal Medical Benevolent, scholarships gained by pupils of, 334; change in mode of election, 335, 343; action against head master and surgeon of, 630, 669; annual dinner of, 669; letters on, 676, 758
——— Royal, of Physicians of London, lectures, 99; meetings, 223, 345, 494; pass lists, members, 228; licentiates, 309, 718; alteration in laws regarding examinations for licence, 345; Dr. Gowers's Gulstonian lectures on epilepsy, 353, 393, 427, 465, 503, 547; Dr. Cayley's Croonian lectures on typhoid fever, 393, 430, 504, 544, 611, 685, 723; Dr. W. Roberts's Lumleian lectures on the digestive ferments, 539, 575, 614, 647, 683; fellows of, 669, 793; admission of retired medical officers to library, 783
College, Royal of Surgeons of Edinburgh, pass lists, 308, 754
——— Royal of Surgeons of England, meetings of Council, 69, 749; resignation of Examiners, 98; the Hunterian oration, 98; Erasmus Wilson professor, 98; pass lists, primary examinations, 111, 150, 571, 606, 678, 718, 754, 793, 833; pass examinations, 150, 189, 228, 644, 678, 793; dental licence, 348; pathological requirements of museum, 143; proposed pass and honour lists, 131; questions in anatomy and surgery, 192, 680, 796; in medicine, 192, 680, 796; clinical examinations, 221, 681, 873; questions for dental diploma, 389; questions in anatomy and physiology, 609, 757, 873; questions in pathology, therapeutics, and surgery, 875; programme of Professor Parker's lectures, 214; Mr. Parker's lectures on the vertebrate skeleton, 276, 321, 359, 396, 434; syllabus of Professor Flower's lectures, 292; new examiners, 408; number of candidates at preliminary examination, 439; at primary examination, 607, 718; at pass examination, 872; fellows of, 445; lectures, 449, 744; Mr. Flower's lectures on the comparative anatomy of man, 507, 549, 577, 616, 649, 687, 724, 769; triennial prize, 504, 749; alteration in primary examination, 577; the vacancies in Council, 742, 749, 783, 823, 860, 984; subjects for prizes, 743; new regulations regarding examinations, 750; proposed withdrawal from conjoint scheme, 750, 818, 930; syllabus of Mr. Hutchinson's lectures, 897; the election to Council, 986; annual show at, 989; the dinner of Fellows, 993; candidates for Council, 996
——— Royal of Surgeons in Ireland, pass list, licentiates, 111; new regulations respecting ophthalmic surgery, 532; fellows of, 547, 719; election of examiners, 567, 637, 712; officers and Council, 901
——— Rush, Chicago, *concours* for lectureship on gynæcology at, 449; graduates at, 489
——— Science, in Birmingham, 947
——— Trinity, Dublin, medical scholarships, 788
——— University, hygienic laboratory at, 372
——— University, Bristol, appointment to Chair of Chemistry, 338
Colleges, Royal, of Physicians and Surgeons of Edinburgh, pass lists, 308, 754
Colles' fracture, Dr. E. H. Bennett on, 759; dislocation of ulna in connection with, 778
Collie, Dr. A., etiology of enteric fever, 84; treatment of pneumonia, 569
Colliers, scarlatina among, 458
Collins, Dr. F., obituary notice of, 37
——— Dr. M., pennyroyal as an ecbolic, 681
——— Mr. R. H., cure of cold by abstinence from liquids, 722
——— Dr. W. J., vaccination, 65
Colloids, Influence of on Crystalline Form and Cohesion, Dr. W. M. Ord on, *rev.*, 595
Colon, contraction of, 154, 192; perforation of, 247
Colonial medical appointments, 231, 351, 424, 720, 796
Colours, perception of in uncivilised nations, 216
Colour-blindness among railway-servants, 254, 982; test for, 312
Combatants and non-combatants, 750, 907
Comfield, Mr. T., abuse of narcotics and sale of poisons, 272
Concert, a kitchen, 30
Confections, poisonous, conviction for selling, 479
Conference on public health, programme of, 562, 829
Congress, German Surgical, 600
——— International Medical, proceedings of Royal College of Physicians concerning, 223; meetings of committee, 532, 713
——— International Otological, 864
——— of Public Medicine, 337
Conjoint scheme, the, and the new Parliament, 563; and the Royal College of Surgeons, 750, 818, 930; letter on, 869
Conjugal interference with doctors, 573
Constabulary, Royal Irish, surgeons to, 673
Constantinople, lunacy and crime in, 825
Constipation, obstinate, in an infant, 40
Contagious Diseases Acts, proposed adoption of in Jersey, 214; circular regarding to workhouse medical officers, 335, 390,; select committee of the House of Commons on, 344, 417, 455, 824; results of, 378
Contrexéville mineral waters, 822
Convalescent home, Belfast, 30; Glasgow, annual meeting, 178; West of Scotland, 746
Convalescents from infectious diseases, management of, Dr. A. Ransome on, 688; Mr. F. Vacher on, 690
Conveyances, doctors', 538, 609
Convicts, insane, 899
Cookery, sick-room, demonstration on, 338
Cooking, effect of on food, 647
Co-operative stores, a new development of, 896
Copaiba, administration of with cubebs, Dr. H. L. Snow on, 586; Mr. T. G. Horder on, 693
Copeman, Dr. E., morning sickness relieved by dilating the os uteri, 279; death of, 333; obituary notice of, 382
Copland fund, 103
Copper, M. Burq's treatment of cholera by, 640; in preserved vegetables, 826
Corden, Mr., Meteorology of Croydon, *rev.*, 19
Cordes, Dr. A., treatment of whooping-cough, 39
Cordwent, Dr. G., physicians and patients, 796
Corfield, Dr. W. H., medical officer of the port of London, 574
Cork, health of, 30, 454, 901; artisans' dwellings in, 376; lunatics in workhouse of, 907
Corley, Dr. A. H., tracheotomy in croup in Ireland, 550; treatment of strangulated hernia, 700; hydrophobia, 739; hæmorrhage in herniotomy, 847
Cornea, a cause of abscess of, 93; staphyloma of, 286; growths on, 519; opacity of from exposure, 623; conical, *ib.*
Corner, Mr. F. M., surgical treatment of epistaxis, 771
Corns, a remedy for, 389
Cornwall, trichinosis in the, 101, 523
Coroner for West Kent, 563
Coroners, jurisdiction of, 173, 352; inquests, resolutions regarding, 174, 410; mode of election of, 175; proceedings of Parliamentary Bills Committee regarding, 180; deputation to Mr. Cross concerning, 341
Corrigan, Sir Dominic, funeral of, 219; obituary notice of, 227; writings of, 266; resolution of Pathological Society of Dublin concerning, 285
Coster's paste, 114, 192
Cottage hospitals, 452
Cottle, Mr. E. W., prevention of accidental poisoning, 569; treatment of ringworm, 806
Cotton-leaf as a galactagogue, 210
Cotton-wool dressing in amputations, Mr. Barker on, 8
Coupland, Dr., retarded hereditary syphilis, 168
Cousins, Dr. J. W., new spring-tourniquet, 286
Cowen, Mr., accident to, 489
Cow-pox and small-pox, relations of, 109, 305, 462; protective influence of, 225
Craig, Mr. James, obituary notice of, 383
Crawford, Surgeon-General T., 75
Cranium, pulsating tumours of, 402
Crean, Dr. R., the Brussels degree, 957
Crèches, 231, 263, 310
Creighton, Dr. C., relations of local to general tuberculosis, 520; degree of M.A. conferred on, 860
Cremation in Gotha, 173; in Milan, 215, 599, 983
Criminal lunatics, proceedings in Parliament regarding, 907
Criminality, negative, 940
Cripps, Mr. W. H., Cancer of the Rectum, *rev.*, 484; cancrum oris leading to necrosis of lower jaw, 738; imperforate rectum, *ib.*
Crisp, Dr. E., animal vaccination, 63
Crocker, Dr. H. R., congenital disease of scalp, 888
Croft, Mr. John, excision of hip-joint, 15; compound fracture of skull, 849
Croly, Mr., tumour of breast, 210; dislocation of femur on os pubis, 284; phlebitis of lower limbs after injuries of head, 483; cases treated by Lister's method, 593; nasal polypus, 594; spinal abscess, 700
Crookshank, Dr. H., order of Osmanli conferred on, 309
Cross, Mr. E., the Manchester Children's Hospital and Dr. Humphreys, 186
——— Dr. John, spasmodic action of sterno-mastoid muscles, 425
Croup, laryngo-tracheotomy in, 248; relation of to diphtheria, 301, 426, 537; Dr. A. H. Corley on tracheotomy in, 550; Mr. R. W. Parker on tracheotomy in, 552; Mr. W. Thomson on tracheotomy in, 553; Dr G. Buchanan on tracheotomy in, 554; case of, 701
Croydon, Mr. Corden on Meteorology of, *rev.*, 19
Crozier, Dr. J. B., Religion of the Future, *rev.*, 976
Crystalline Form and Cohesion, Dr. Ord on Influence of Colloids on, *rev.*, 595
Cubebs, administration of with copaiba, Dr. H. L. Snow on, 586; Mr. T. G. Horder on, 693
Cullimore, Dr. D. H., acute phthisis from direct contagion in a dog, 768
Cullingworth, Mr., misplaced testicle, 662; extroversion of bladder and other malformations, 815
Cuningham, Dr., report on cholera in India, 750
Cunningham, Dr., microscopic organisms in the intestinal canal, 707
Cupric test for uric acid, 479
Cutler, Dr. T., death of, 59
Cutter, Dr., Dictionary of German Terms, *rev.*, 283
Cyprus, cheap science in, 331
Cyst, vaginal, in an ewe, with fœtal remains, 593; ramifying, in brain, 625
Cystic tumour, dentigerous, 248; disease of kidneys, 482
Cystitis, chronic, Dr. W. Newman on treatment of by antiseptic injections, 735
Czerny, Dr., extirpation of the kidneys, 171

D.

Dairies, scarlatina in, 409
Dalton, Mr., appeal on benalf of, 40, 77, 113, 191, 230, 271, 350
Daly, Dr., foreign body in vagina, 210; acute pneumonia with unusually high temperature, 968
Damaschino, Dr., *post mortem* examination of the stomach, 710

Danaher, Mr. J. H., pessary twenty-five years in vagina, 795
Davidson, Mr. C., plugging the posterior nares, 679
——— Dr. J. H., the germ-theory of disease, 982
Davies, Mr. J. W., the medical officer of Clun district, 189
Davy, Mr. R., new surgical instruments, 890; treatment of spinal curvature by hammock suspension, 959
Day, Mr. W. Hankes, scarlatina inducing labour without puerperal fever, 127
—— Dr. W. H., cystic kidney removed by abdominal section, 71; varieties of nervous headache, 116
—— Mr. W. H., slow pulse, 113
Deacon, Mr. W. D., presentation to, 877
Deaf and Dumb, Institution for in Edinburgh, annual meeting, 531; school-board, education for, 822
Deaf-mutism, treatment of, 710
Deafness, Dr. J. P. Cassells on the audiphone in, 325
Death, sudden, curious case of, 29; causes of, 33; inquests in cases of, 256, 293; false certificate of, 141; certification of causes of, 294, 826
Deaths in public institutions, 256, 784; violent, 257, 784; preventable, in America, 337
Death-rate in Belfast, 712, 986
——— in Bombay, 527
——— in Calcutta, 527
——— in colonial and foreign cities, 295, 827
——— in Cork, 30, 901
——— in Dublin, 30, 828; quarterly, 219, 712; in 1879, 259
——— in Dundalk, 748
——— in Edinburgh, 30, 258, 531, 567, 827, 900, 985
——— in England and Wales in 1879, 299
——— English, changes in, 336
——— in Glasgow, 29, 30, 258. 396, 602, 827, 900, 985; for 1879, 864
——— at Ince-in-Wakefield, 335
——— in Ireland, 30, 143, 259, 296, 454; quarterly, 339, 901; in 1879, 940
——— in Leith, 30, 258
——— in London and large towns, 76, 81, 151, 190, 229, 268, 292, 300, 333, 349, 387, 408, 423, 461, 499, 533, 572, 608, 645, 679, 719, 743, 755, 782, 794, 821, 834, 872, 909, 933, 956, 980; in 1879, 984, 996
——— in Madras, 527
——— in Scotch towns, 29, 104, 105, 142, 178, 219, 295, 296, 338, 374, 413, 453, 493, 531, 566, 602, 637, 672, 711, 747, 787, 788, 828, 864, 900, 939, 985
Debout, M., Contrexéville mineral waters, 822
Decapitated criminal, experiments on a, 77
Decapitation, suicide by, 786
De Chaumont, Dr., filters, 910
Dedication, a, 77
Deeble, Mrs., 670, 708
Deformity, fashion in, 744
Degrees, university, 39; foreign, 193, 271; American, 350
Delusions, utilisation of, 311
Dementia, chronic, Dr. R. Atkins on osteomalacia in a case of, 965
Dental legislation, 634; Act, Sir J. Lubbock on, 896, 949, 993
Dentigerous cystic tumour, 248
Dentine, structure of, 938
Dentistry, relation of to surgery, 360; letter on, 463; Mr. N. Stevenson on danger of arsenic in, 362
Dentists, registration of, 490
Depaul, M., congenital small-pox, 792
Derby, sanitary report of, 696
Dereham, East, sanitary report of, 833
Derivation of words ending in -oma, 609
Devonport, sanitary report of, 954
Diabetes, viscera from a case of, 248; mellitus, with low specific gravity, Dr. R. E. Heath on, 280; insipidus, treated with ergot, Dr. Murrell on, 693; letters on, 795; kidney from a case of, 814
Diagnosis, question of, 39, 538, 646, 722; novel aid to, 77, 154; rapid, 294
Diarrhœa, origin and spread of by drinking water, Dr. N. Kerr on, 88; Dr. R. S. Hudson on, *ib.*; summer, etiology of, 519
Diastatic ferments, Dr. W. Roberts on, 541
Dicephalous monster, 481
Dick, Dr. Forbes, Guinea-worm, 681
—— Dr. H., cerebral pneumonia, 147
Dickinson, Mr. W. L., trichinosis, 832
Dictionary of German Terms, Dr. Cutter's, *rev.*, 288
Diet, Salisbury method of in consumption, 366; in Indian prisons, 529
Digestion of starch, 541; of cane-sugar, 543; of proteids, 575, 614; of fats, 615
Digestive ferments, Mr. F. A. Lees on, 438, 473, 512; Dr. W. Roberts's, Lumleian lectures on, 539, 575, 614, 647, 683
Diphtheria from sewer-gas, 61, 636; originating from drinking-water, Dr. N. Kerr on, 88; in Russia, 217, 562, 703; in Inverness, 258; death of a medical student from, 292; relation of to croup, 301, 426, 537; at Swanscombe, 306; in the Ludlow workhouse, 374; symptoms and treatment of, 776; and milk, 953
Diplomas, forged, of University of Naples, 529; manufactory of in Philadelphia, 564, 786, 983
Directory, Irish Medical, *rev.*, 133
Disease, influence of climate on, 56; epidemic among animals in Natal, 206; an unusual, 294
Diseases, infectious, in London, 59, 217, 411, 563, 863; in English towns, 448; in Irish towns, 748; notification of, Dr. J. W. Moore on, 158; remarks on, 172, 861; letters on, 189, 346, 384, 422, 952; report of Chairman of Parliamentary Bills Committee on, 259; interview with Mr. Sclater-Booth concerning, 340; in Dublin, 712; at Nottingham, 953; spread of, 339; carriage for conveyance of patients with, 489; treatment of convalescents from, Dr. A. Ransome on, 688; Mr. F. Vacher on, 690
Disinfectant, death from a, 454
Disinfection of drains, 310
Dislocation of astragalus, compound, 520
——— of femur backwards, 128; on os pubis, 284, 663
——— of humerus, subcoracoid, without rupture of capsule, 737
——— of jaw during extraction of teeth, 271
——— of radius backwards, 485
——— of semilunar cartilage of knee, 281
——— subastragaloid, new method of reduction in, 207
——— of ulna in connection with Colles's fracture, 778
——— of wrist-joint, Dr. R. Anderton on, 399; Mr. E. N. Smith on, 440; Mr. E. V. Whitby on, 586; Mr. G. Foote on, *ib.*; congenital, 929
Dispensaries, Liverpool, proposed payment of medical officers of, 449
Dispensary, Aberdeen, annual meeting, 531
——— in Cabul, 529
——— Edinburgh New Town, annual meeting, 493
——— Edinburgh Royal Public, annual meeting, 218
——— Edinburgh Western, removal of, 939
——— at Milltown, new, 190
——— Poor-law, in Plymouth, 457
——— Reading Medical, report of, 379
——— Royal Victoria, annual report of, 457
——— Sailors', Liverpool, 496, 948
——— for Skin-Diseases, Glasgow, annual meeting, 602
——— Tower Hamlets, opening of new building, 834
——— Westminster, 681
Dittel, Dr., difficult case of stone in bladder, 982
Dixon, Mr. J., the improved audiphone, 464
Dobell, Dr. H.. sediment-collector, 629, 682, 720
Doctor in the kitchen, 160, 861
Dog, Dr. D. H. Cullimore on phthisis from contagion in a, 768
Dogs, stray, order regarding, 900
Dolan, Mr. T. M., prevention of hydrophobia, 420
Domville, the late Inspector-General W. T., proposed memorial of, 215
Donations, 461, 886
Donkin, Dr. H., scientific endowment at Oxford, 110; tooth-grinding and gout, 279; Duchenne's palsy and the patellar tendon-reflex, 734
Donovan, Dr. D., illness of, 339; death of 485; proposed memorial of, 531
——— Dr. J. L., testimonial to, 941
——— Mr. W., lacerated perinæum, 942
Dorking, sanitary report of, 10
Dosimetric medicine, 271, 855
Douche, improved universal, 133; new uterine, 445
Dowse, Dr. T. S., neurasthenia of brain and spinal cord, 699
Doyle, Mr. J. P., a singular case, 835
Drainage of Muthill, 30; of Paisley, 787; in the metropolis, 951
Drainage-tubes, of decalcified bone, 483; Dr. W. Newman on, 692
Drains, disinfection of, 310
Dreschfeld, Dr., tumours from abdomen, 245; locomotor ataxy, 592
Druggists in Jersey, 214; discontinuance of prosecutions of, 371
Drugs, cost of, 293; in epilepsy, 895
Drunkards, Habitual, Act for control of, 57, 252, 377; licence under, 100, 608; application under, 141; meeting of Committee on, 181; letters on, 226, 266, 351, 425, 538; home for, 224; Mr. Justice Hawkins on the care of, 370
Drunkenness, the cinchona cure for, 175, 271, 646, 681
Drysdale, Dr. C. R., the Liverpool Lock Hospital, 836; vaccinia maligna vel gangrænosa, 910
Dublin, health of, 30, 828; public abattoir for, 62; sanitary works in, 142; quarterly reports of health of, 219, 712; health of in 1879, 259; tenement houses in, 865
Duchenne's palsy and patellar tendon-reflex, Dr. H. Donkin on, 734
Duckworth, Dr., scleroderma, 811; treatment of rheumatic fever by salicylate of soda, 904
Duffey, Dr. G. F., peritoneal carcinoma, 285; iodic purpura, 626
Duke, Dr. A., aid in forceps delivery, 693
Duke, a medical, 566
Dumbleton, Dr., death of, 28
Dumont, Dr. D., Neapolitan socks, 177
Dumontpallier, Dr., apparatus for lowering temperature, 456, 530
Dunbar, Dr. H., the medicine and surgery of Homer, 48; pension granted to, 981
Duncan, Dr. E., croup and diphtheria, 302
Dundalk, healtd of, 748
Dundas, Dr. J., spasm of œsophagus, 39
Dungannon Union, the medical officers of and their fees, 719
Duodenum, ulcer of, 281
Duro-arachnitis, 248
Dust-workers, phthisis arising among, 177
Duty, professional, questions of, 907, 954, 957
Dyer, Dr. A. K., the Interments Act, 271
Dyspnœa, Dr. Berkart on quebracho in, 167

E.

Eales, Mr., staphyloma corneæ, 286
Eames, Miss, presents to, 755
Ear, aneurism by anastomosis of, 625; middle, *post mortem* examination of, 627; Mr. R. Torrance on paracentesis of membrana tympani in catarrh of, 693
Easby, Dr. W., the Brussels M.D. degree, 271; iodoform in ulcers, 362
Eastes, Mr. G., congenital occlusion of duodenum, 281
Eberman, Dr. H. F., rare vertebral fracture, 62
Ebstein, Dr., pyonephrosis, 20
Ecbolic, pennyroyal as an, 681
Eczema, of nipple followed by cancer of breast, 128, 232; Dr. R. Morgan on, 280; Dr. J. J. Welply on, 555; at umbilicus, 357; oleate of lead in, Dr. J. Sawyer on, 809, 923; Dr. L. Lewis on oleate of bismuth in, 968
Edge, Dr. A. M., chorea during pregnancy, 526
Edinburgh, health of, 30, 258, 531, 567, 827, 900, 985
Edis, Dr. A. W., lying-in hospitals and vaccination-stations, 869
Edison's polyform, 825
Edmunds, Dr. J., magisterial definition of insanity, 307
Educational pressure, 743, 779, 783, 892
Edwards, Mr. H. G., an anomalous eruption, 271
Egyptian darkness, 934
Egyptians, Mr. Flower on the, 770
Elbow-joint, free incisions into, 246; and shoulder, Mr. W. MacCormac on a case of excision of, 763; osteoplastic resection of, 891
Elder, Dr. S., immediate placental delivery in natural labour, 20
Election, the general, and the profession in Ireland, 532. *See* Parliament
Electric shock, death from a, 175
Electricity as a method of physical diagnosis, Dr. A. H. Bennett on, 46, 161, 235
Elephant, birth of an, 566
Elephantiasis of penis, 71; pathology of, 589
Elliot, Dr. R., sanitary topics, 307
Embolism, multiple, in acute rheumatism, 696, 775; fatty, 781; multiple, Dr. Bristowe on, 798; systemic and pulmonary, Dr. W. V. Lush on, 843
Emmet, Dr. T. A., substitute for cod-liver oil, 100; postural treatment, 177; Principles and Practice of Gynæcology, *rev.*, 287
Emphysema, rapid *post mortem*, 710
Empyema, position in, 246; in a child treated by paracentesis, 850
Emulsive ferment, Dr. W. Roberts on, 615
Encephalocele, cases of, 773, 971
Endocarditis, ulcerative, Dr. Bristowe on, 798
Endometritis, chronic hyperplastic, Dr. G. E. Herman on, 729
Endoscope, the Nitze-Leiter, 480
English, plain, 60; exotic, 722
Epididymitis, hypodermic injection of morphia in, 485
Epilepsy, magpie-dust for, 270; Dr. Gowers's Gulstonian lectures on, 353, 393, 427, 465, 503, 547; loss of weight in, 558; in syphilitic patients, 629; drugs in, 898
Epiphany cakes in France, 183
Epistaxis, treatment of, 154, 758; Dr. E. Hamilton on surgical treatment of, 691; Mr. F. M. Corner on, 771; Mr. W. D. Hemming on, 809; Dr. D. P. Barry on, *ib.*; Mr. E. W. Thurston on, 848; remarkable cause of, 176
Epithelioma of pharynx, 281; of breast, cylindrical, Mr. F. T. Paul on, 624; of neck following chronic skin-disease, 810; case of, 925
Ergot, substitute for, Dr. S. W. Smith on, 440; Dr. Murrell on use of in diabetes insipidus, 693; letter on, 795
Ergotin in *post partum* hæmorrhage, 581
Erysipelas of epidemic type, Sir W. R. E. Smart on, 200
Eruption, anomalous, 113, 271, 311, 350
Erythema uterinum, 247
Esmarch, Dr. F., Surgeon's Handbook on Treatment of Wounds in War, *rev.*, 54
Etching with hydrofluoric acid, 39
Ether, deaths from, 215; dangerous effects of, 537; hypodermic injection of in *post partum* hæmorrhage, 582
Ethidene dichloride, and nitrous oxide, 757; Mr. Clover on, 797

Ethyl, bromide of, as an anæsthetic, 565, 601; Mr. Clover on, 586; death from, 983
——— iodide of in capsules, 21
Eucalyptus, letter on, 537; in the Roman Campagna, 866, 949, 993, 994
Eulenburg, Dr. A., and Guttmann, Dr. P., Physiology and Pathology of the Sympathetic System of Nerves, *rev.*, 522
Eustachian tube, function of in hearing, 456
Evans, Mr. E., treatment of whooping-çough, 39
Eve, Mr., syphilitic disease in long bones of fœtus, 71; direct dislocation of femur backwards, 128; fish-bone in œsophagus, 517; fracture of base of skull, 518; aneurism by anastomosis in ear, 625; laryngeal perichondritis in typhoid fever and small-pox, *ib.*; subcoracoid dislocation of humerus without rupture of capsule, 737; cystic degeneration of kidneys, 811
Ewart, Dr. J. C., bacteria, 442
——— Dr. Joseph, enteric fever in India, 283
——— Mr. W., extrapericardial aneurism bursting into pericardium, 14; ramifying cyst in brain, 625
Ewe, vaginal cyst with fœtal remains in an, 593
Ewens, Mr. J., oöphorectomy, 193
Excision of hip-joint, 15, 626; new method of, 16
——— of knee for synovial disease, Mr. F. J. Gant on, 766
——— of shoulder and elbow, Mr. Mac Cormac on a case of, 763
——— of upper jaw for glandular cancer, 325
——— of wrist, Mr. J. Fagan on, 760
Exencephalic infants, 791
Exhibition in Brussels, 948
Exostosis, an unusual, 232
Experiments on animals, returns of, 458, 967; value of, in progress of medicine, 560, 596, 665
Experts, Chief Justice Clinton's advice to, 451
Extension, double, in disease and injury of the spin and pelvic joints, Mr. J. Wood on, 837
Extra-uterine pregnancy, cases of, 443, 737 773, 971
Eye, Dr. A. Samelson on recurrent sarcoma of, 325; preparation of, in glycerine jelly, 443; new method of mounting, 481; wound of, 521, 624; sympathetic ophthalmitis after excision of, 590; cases of disease of, 623; piece of metal in, 700; Dr. Landolt's Manual of Examinations of, *rev.*, 702; Mr. Nettleship's Student's Guide to Diseases of, *rev.*, 777; Dr. Galezowski's clinic of diseases of, 792; Dr. E. Meyer on Diseases of, *rev.*, 817
Eyeball Tension, Mr. Spencer Watson on, *rev.*, 854
Eyelid, horny growth from, 590
Eyesight, Good and Bad, Mr. R. B. Carter on, *rev.*, 854

F.

Face, sarcoma of, 248, 812; recurrent tumour of, 924
Factories and medical officers, 537
Factory Bill for India, 28, 489; legislation, 187, 255
Faculty of Medicine in Paris, new clinical classes in, 98; proposed new chair of Pathology, 600
——— of Physicians and Surgeons of Glasgow, qualification of, 193; *conversazione*, 493
Fagan, Mr. J., disease of the wrist, 760
Fairbank, Dr. T., obituary notice of, 382
Famine, and fever, 339, 994; influence of, on growth of population, 378
Farquharson, Dr. R., and the Parliamentary representation of West Aberdeenshire, 293; arsenic in skin-diseases, 802
Farr, Dr. W., and the office of Registrar-General, notes on, 28; resolution of Council of Poor-law Medical Officers' Association, 69; successor of, 101; resolution of South London District of Metropolitan Counties Branch, 140, 181; resolution of Sheffield Medico-Chirurgical Society, 223; of Norwich Medico-Chirurgical Society, *ib.*; proceedings of Committee of Council, 262; resolution of Bath and Bristol Branch, 264; proceedings in Parliament concerning, 268, 298, 348; resolution of Council of Metropolitan Counties Branch, 299; retiring allowance to, 344; proposed testimonial to, 378, 418, 456, 708, 721; Companionship of Bath conferred on, 527
Fashion in deformity, 744
Fat, liquid, excretion of by urine, 20; Dr. W. Roberts on digestion of, 615
Fatty embolism, 781
Favus, cases of, 132
Fearnley, Mr. W., the terms aseptic and antiseptic, 721
Fees, note regarding, 680; for operations, 955
Femur, direct dislocation of, backwards, 128; dislocations on os pubis, 284, 663; normal length of condyles of, 627; compound fracture of after excision of knee-joint, 661; section of for angular ankylosis of hip, 812; subperiosteal sarcoma of, 913; Dr. E. H. Bennett on practice of upper third of shaft of, 962
Féré, M. C., subpericranial ecchymosis and cephalhæmatoma, 485
Ferment, milk-curdling, 614; emulsive, 615
Ferments, digestive. *See* Digestive ferments.
Fever, and famine, 339, 994; want of correlation between pulse and temperature in, 365; Dr. Page's Facts about, *rev.*, 404; in Hare Island, 454; Dr. Macnaughton Jones on alcohol in, 687; in India, 774, 972
Fever, enteric, Dr. E. Ballard on pollution of drinking water with contagium of, 82; etiology of, Dr. A. Collie on, 84; Dr. R. S. Hudson on spread of by drinking water, 88; and milk, Mr. R. P. Oglesby on, 89; in Ayrshire, 105; Dr. W. Budd's researches on, 165; tympany of masking retention of urine, 246; in Paris, 253, 333; in India, 283, 502, 533, 774; at Penzance, 292; with cerebral symptoms, 364, 663; prevention of, 390; Dr. Cayley on pathology and treatment of, 391, 430, 504, 544, 611, 685, 723; Dr. Ashby on infection of, 477; with acute nephritis and hæmaturia, 517; spread of to animals, Mr. A. Campbell on, 555; parasites in voluntary muscles in, 624, 633; laryngeal perichondritis in, 625; spread of by polluted water, 642, 672; in Glasgow, 747, 788, 827, 864, 985; as an infectious disease, 953
——— inundation, in Japan, 929
——— relapsing, of India, 206
——— spirillum, experimental pathology of, 327
——— tubercular, 521
——— typhoid. *See* Fever, enteric
——— typhus, and enteric, distinction between, 36, 110; in Limerick, 865
——— yellow, in Brazil, 253, 333, 527; and atmospheric alkalinity, 492; micro-photographs of blood in, 739
Fibroid polypus, 698
Fibula, subperiosteal sarcoma of, 915; Mr. W. Thomson on Dupuytren's fracture of, 919
Fiddes, Dr. D., obituary notice of, 383
Field, Mr. E., cerebral pneumonia, 232
Filtering materials, 834, 910
Finger, melanosis of, 590
Fingers, spontaneous gangrene of, 556
Finlay, Dr. C., yellow fever and atmospheric alkalinity, 492
Finnell, Dr., rupture of heart from indirect violence, 834
Finny, Dr. J. M., idiopathic anæmia, 5, 43; duro-arachnitis, 248; tubercular fever, 521; thoracic aneurism communicating with pulmonary artery, *ib.*; hydrophobia, 739; purpura hæmorrhagica, 804
Fire at Royal Victoria Hospital, 412
Fischer, Dr. H., rare parasites of human skin, 452
Fish-bone in œsophagus, 517
Fistula, traumatic salivary, 282
Fitzpatrick, Dr. T., accidental uterine hæmorrhage, 720
Flies, plague of, 957
Flitwick water, Dr. G. G. Rogers on, 13
Flinn, Mr. D. E., unqualified practitioners and their nominees, 39
Flooring of hospitals, 835, 874
Flower, Mr. F. J., guaicacum resin, 154
——— Mr. W. H., lectures on comparative anatomy of man, 507, 549, 577, 616, 649, 687, 724, 769; fashion in deformity, 744; scientific training, 902
Fœtus, syphilitic disease of long bones of, 71; recording movements of by gastrograph, 773
Fogs, fatality of in London, 254; explanation of, 292
Food, unwholesome, seizure of, 375; artificially digested, Dr. Roberts on, 647, 683
Foot, Dr. A. W., thoracic aneurism, 521
Foot, subastragaloid dislocation of, 207; binding of in China, 372; latent caries of, 739
Foot-warmers for railway carriages, 102
Foote, Mr. G., dislocation of wrist-joint, 586
Foramen ovale, patent, 701
Forbes, Dr. Litton, Translation of Dr. de Wecker's Ocular Therapeutics, *rev.*, 663
Forceps, obstetric, Dr. R. H. Hilliard on, 287; rules for use of, 499; Dr. A. Duke on aid in delivery by, 693; Mr. J. F. Blake on, 771; for ovum or placenta, 590; new, 976
Fore-arm, incomplete fracture of, 285
Foreign body in vagina, 210; in orbit, Dr. A. M. Cash on, 514; in œsophagus, 517; in larynx, 593; in eye, 700, 778; in prostatic urethra, Mr. C. E. Steele on, 771
——— degrees, 193, 271
Forgery, benevolent, 526
Forgotten benefits, 610
Foster, Mr. Michael, obituary notice of, 188
——— Mr. N. S., postnasal catarrh, 311
Foulis, Dr., union of segments of aortic valve, 775
Found dead, 958
Fournié, Dr. E., function of Eustachian tube in hearing, 456
Fournier, Dr., on syphilis, 992
Fowl, acari from the, 482
Fowl-cholera, 373, 784, 992
Fowler, Mr. J., conservative surgery of the hand, 764
——— Dr. Trevor, case of triplets, 998
Fox, Mr. Francis, irregularities of the teeth, 557
——— Dr. G. H., Photographic Illustrations of Skin-Diseases, *rev.*, 133
——— Mr. J. M., report of the Mid-Cheshire district, 571
——— Dr. T. C., neurotic origin of lichen planus, 398
Fracture of femur, compound, after excision of knee-joint, 661; Dr. E. H. Bennett on, 962
——— of fibula, Dupuytren's, Mr. W. Thomson on, 919
——— of forearm, incomplete, 285
Fracture of humerus, compound and comminuted, 660
——— of scapula, Mr. C. E. Richmond on two cases of, 692
——— of skull, 169; compound, with depression, 479; of base, 518; compound, antiseptic treatment of, 849, 958
——— of vertebræ, treatment of, 662
Fragilitas ossium, Mr. R. W. Greenish on hereditary tendency to, 966
France, south of, the season in, 27; population statistics of, 183; revaccination in, 563, 785; the blind in, 992
Francis, Dr. C. R., enteric fever in India, 502; treatment of ozæna, 610; endemic plague in India, 972
Franks, Mr. K., chicken-bone in larynx, 593
Fraser, Dr. T. R., alcohol, 374
Fraudulent diplomas. *See* Diplomas.
Frazer, Dr. W., skulls found in excavations at Donnybrook, 285; Descriptions of Skulls and Human Remains, *rev.*, 702
Freer, Mr. E. H., treatment of angular curvature, 39
Frostbite, statistics of, 709
Fry, Mr. J. F., obstinate vomiting in pregnancy, 399
Fulford, Mr. W. E., hospital abuse, 187
Fungus from tropical ringworm, 403

G.

Gairdner, Dr. W. T., croup and diphtheria, 303; evidence before Select Committee on Medical Acts Amendment Bills, 415; cystic tumour of abdomen, 482
Galabin, Dr. A. L., ovariotomy during pregnancy, 397; multiple vesical calculi from prolapsus uteri, 698; pathological anatomy of erosion of cervix uteri, 971
Galactagogue, the cotton-leaf as a, 210
Galezowski, Dr., his ophthalmic practice, 792
Gallippe, M., copper in preserved vegetables, 826
Gall-stone, large, passed *per anum*, 71, 192; Dr. T. Cole on a year's experience of, 322
Galvanic Battery, Dr. H. Tibbits on use of, *rev.*, 523
Gamgee, Mr. J. S., antiseptics in herniotomy, 443; absorbent wool-pad, 622, 629
Gangrene of lung, 248; of bowel with cancer of sigmoid flexure, 281; spontaneous, of thumb and fingers, 556; of foot and leg after cancer of pylorus, 974
Gant, Mr. F. J., compound fracture of femur after excision of knee-joint, 661; excision of knee-joint, 766
Gaols, Indian, dietary of, 529
Garden, Dr., excision of hip-joint, 626
Garland, Mr. E. C., presentation to, 190
Garraway, Mr. E., treatment of whooping-cough, 39
Gastric juice, effect of, 575
Gastrograph, registration of fœtal movements by, 773
Gastrostomy, case of, 246
Gay, Mr. John, recurrent mammary tumour, 811
Gelseminum sempervirens, 856, 893
Generative organs, female, Mr. R. Maples on a case of absence of, 735
Genu valgum, Mr. E. Owen on treatment of, 273; case of, 286, 592; Mr. H. F. Baker on treatment of without division of bone, 765
George, Mr. R. F., obituary notice of, 37
Germ-theory, Dr. A. Carpenter on fallacies arising from narrow view of, 79; note on, 982
German medical products, 928
Germany, vital statistics of, 497
Gill, Dr. J. B., bronchitis relieved by Russian vapour-bath, 923
Glanders in Kensington, 451, 458; in the metropolis, 950
Glasgow, health of, 29, 30, 258, 602, 827, 900, 985; death-rate of, 396; mortality of past year in, 864
Glaucoma, Mr. H. Greenway on treatment of by ice, 166; Mr. Priestley Smith on, *rev.*, 975
Gloucester, sanitary report of, 664
Gluck, Dr., nerve-grafting, 671
Glycerine, effect of combination of with borax, Mr. F. Long on, 556; Mr. C. E. Shelly on, 658; pancreatic, Mr. F. A. Lees on, 658
Godson, Dr. Clement, uterus and appendages from a case of internal hæmorrhage, 209; removal of fibrous outgrowths from fundus uteri, 698; encephalocele, 773
Goff, Dr. Bruce, croup and diphtheria, 302
Goître, acute, 284; causing death by pressure on œsophagus, 443
Golding-Bird, Mr. C. H., stretching and section of sciatic nerve, 969
Goodchild, Mr. J. A., the season in Italy and the South of France, 27; bacteric influences in phthisis, 133
Goodeve's Hints for Management of Children in India, *rev.*, 664
Goodhart, Dr. J. F., acute rheumatism treated by salicylic acid, 129; gangrene of bowel with cancer of sigmoid flexure, 281; keloid, 888
Gordon, Dr. C. A., fever in India, 774
——— Dr. S., the British Medical Association, 195
Gout, suppuration of knee-joint after, 132; and tooth-grinding, Dr. H. Donkin on, 279
Gowers, Dr. W. R., Gulstonian lectures on epilepsy, 353, 393, 427, 465, 503, 547 pseudo-hypertrophic paralysis, 771

Grace, Mr. E. M., jurisdiction of coroners and mistakes of juries, 352
Graduation ceremonies in America, 636
Grant Bey, Dr., 898
Granulations, absorption by, 25
Gray, Dr. G., attempted suicide by strychnia treated by hydrate of chloral, 476
Greene, Mr. J., animal vaccination, 67
Greenhow, Dr. E. H., typhoid fever with acute nephritis and hæmaturia, 517; rheumatic fever treated with salicin and salicylic acid, 812
Greenish, Mr. R. W., hereditary tendency to fragilitas ossium, 966
Greenway, Mr. A. S., congenital small-pox verified by microscopic investigation, 848
—— Mr. H., treatment of glaucoma by application of ice, 166: health of south-coast towns, 385, 498
Greenwood, Mr. C. E., the morning bath, 39
Greg, Mr. L., Metropolitan and National Nursing Association, 40
Greger, Mr. Max, Hungarian wines, 928
Griffiths, Dr. W. H., and Duffey, Dr. G. F., Materia Medica and Pharmacy, 628
Grigg, Dr. W. C., death at Queen Charlotte's Lying-in Hospital, 411, 420; metaphosphoric acid a test for albumen, 809, 870
Grose, Dr. S., new spring mattress, 287
Gross, Dr. S. D., Memorial in Honour of Ephraim McDowell, *rev.*, 628
Growing pains, 745; Dr. P. Boulton on, 771
Gruel, peptonised, 649
Guaiacum resin, administration of, Mr. W. W. Morris on, 14; Mr. A. H. F. Cameron on, 53; Mr. F. J. Flower on, 154
Gueneau de Mussy, Dr. N., the meeting of the Association in Cork, 742
Guards, reorganisation of the medical department of the, 743
Guérin, M. J., report of his professional career, 183
Guinea-worm, the, 488, 610, 681
Gull, Sir William, Miss Lonsdale and the nursing at Guy's Hospital, 706
Gumboil, larvæ in a, 626
Gum-lancet, use of the, 231, 311
Gunning, Mr. J. S., slow pulse, 113
Gunshot-wound, case of, 207
Guttmann, Dr., benzoate of soda in phthisis, 24. *See* Eulenburg
Gymnastics for sick children, 337
Gynæcology, Dr. T. A. Emmet's Principles and Practice of, *rev.*, 287

H.

Habershon, Dr. S. O., case of pyelitis, 207; chylous urine after ague in India, 208; Miss Lonsdale and the nursing at Guy's Hospital, 707
Hack, Dr., absorption by granulations, 25
Hackney Common, 981
Hæmatemesis in China, 411
Hæmatocele, pelvic, simulating irritant poisoning, Dr. R. B. Low on, 809
Hæmatoidin, excretion of crystals of through urine, 20
Hæmaturia in typhoid fever, 517
Hæmoglobin, spectra of, 364
Hæmoptysis, death from in the tropics, Mr. C. B. Pasley on, 53
Hæmorrhage in whooping-cough, 19; internal, 209; from bowels in tuberculosis, 695; from gastric ulcer, 970; in herniotomy. *See* Herniotomy
—— uterine, use of elastic air-ball in, Dr. S. W. Smith on, 440, 735; Dr. S. S. Roden on, 622; Dr. A. V. Macan on, 578; Dr. T. M. Madden on, 580; injection of hot water in, Dr. W. Walter on, 582; Mr. J. Walters on, 584; Dr. Bernard on a mode of conveying styptics in, 585; Dr. F. Pollard on alleged dangers of intra-uterine injection of perchloride of iron in, 619, 657; accidental, Mr. W. J. Smith on sudden death from, 659; letters on, 681, 720, 835, 874, 957; cases of, 816
Hague, Dr. S., inversion of the uterus, 886
Hair-restorer, Mexican, 153
Hair, premature grey, 424; Dr. W. G. Smith on a rare nodose condition of, 654
Hall, Dr., pessary for prolapsus uteri, 442
—— Dr. De Havilland, intrathoracic sarcoma, 557
Hamilton, Dr. E., surgical treatment of epistaxis, 691
—— Mr. J. L., German report on the plague in Russia, 890
Hammock suspension in spinal curvature, Mr. R. Davy on, 959
Hammond, Dr. W. A., Cerebral Hyperæmia, *rev.*, 701
Hancock, Mr. H., death of, 59; resolution of Council of College of Surgeons concerning, 112
Hand, Mr. J. Fowler on conservative surgery of, 764
Handbills, 722
Handford, Mr. H., rupture of heart from external violence, 768
Hänisch, Dr., injury of the stomach by the stomach-pump, 679
Hardie, Mr., villous tumour of the bladder, 662
Hardwicke, Dr. H. J., foreign degrees, 271
Hardy, Mr. H. N., the English conjoint scheme, 869
Hare Island, epidemic of fever in, 454
Hariab valley, 60
Harle, Mr. C. E., monthly sanguineous discharge in an infant, 848
Harris, Dr. R. P., the Cæsarean operation in the United Kingdom, 508
—— Dr. Vincent, tetanus after ovariotomy, 590; and Mr. D'Arcy Power, Manual for the Physiological Laboratory, *rev.*, 975
Harrison, Mr. John, obituary notice of, 951
—— Mr. Reginald, the Council of the Royal College of Surgeons, 823, 935, 984
Hart, Mr. Ernest, animal vaccination, 63, 68; scheme for improvement of naval medical service, 222; vaccination and small-pox, 223; the Truth about Vaccination, *rev.*, 484; action of the British Medical Association in improving sanitary organisation, 911
Hartismere, sanitary report of, 677
Harvey, William, memorial of, proceedings of Royal Medical and Chirurgical Society concerning, 376; intra-uterine medication by, 682
Hastings, Mr. G. W., his election as member of Parliament, 633
Hastings, sanitary report of, 851
Haughton, Dr. E., animal vaccination, 66, 153
—— Rev. Dr. S., phantom tumour simulating pregnancy in an ass, 592
Hayden, Dr. T., movable kidney, 365; varieties of cardiac neurosis, 838
Hayem, M., the blood in anæmia, 452
Hayes, Mr. P. J., hæmorrhage in herniotomy, 905
Head, phlebitis of lower extremities after injuries of, 483; deficiency of bone at vertex of, 520; Dr. J. S. Lombard on Regional Temperature of, *rev.*, 523
Headache, with insomnia, Mr. J. Brown on bloodletting in, 13; nervous, Dr. W. H. Day on varieties of, 116; academy, 936
Heart, rupture of, 14, 834; Mr. Handford on, 768; tuberculosis of, 93; malformation of, 168, 812; disease of, and hard times, 336; Dr. J. R. Wardell on aneurism of left ventricle of, 617; constriction of valves of, 625; fatty, *ib.*; dilated, 662; union of segments of aortic valve of, 775; disease of with gangrene of lower limbs, 814; disease of with kidney-disease, belladonna in, 817; Dr. Hayden on varieties of neurosis of, 838; Dr. W. R. Thomas on apoplexy of the lung from disease of, 844; state of in death from chloroform, 957
Heath, Mr. C., Mr. Furneaux Jordan's lithotomy, 204; aneurism of subclavian artery treated by amputation, 205; popliteal aneurism treated by Esmarch's bandage, 283; Manual of Minor Surgery and Bandaging, *rev.*, 484; history of a maxillary tumour, 775
—— Dr. R. E., glycosuria with low specific gravity, 280
Heaton, Dr. J. D., death of, 527; obituary notice of, 570; resolution of Council of Leeds School of Medicine concerning, 600
Height and weight, relations of, 232
Helmsley, sanitary report of, 621
Hemming, Mr. W. D., the climate of Bournemouth, 311; surgical treatment of epistaxis, 809
Hemsted, Dr. E., application of plaster-of-Paris bandage, 204
Herbalist, conviction of a for manslaughter, 253; verdict of wilful murder against a, 601
Herbelin, M. G., death of, 59
Hereditary tendencies, prize on, 27
Herman, Dr. G. E., chronic hyperplastic endometritis, 729
Hernia in childhood, Mr. E. Owen on, 313; strangulated, details in management of, 700; rapid collapse in, 738
—— diaphragmatic, 281
—— inguinal, strangulated, inoculated by blood in scrotum, Dr. J. C. Uhthoff on, 52
—— of lung, 682
—— utero-inguinal, 20
Herniotomy, division of obturator artery in, 695, 700; knife for, Dr. A. H. Corley on, 847; Mr. Hayes on, 905
Herpes, case of, 502
Hewitt, Dr. Graily, hysterical vomiting caused by displacement of uterus, 888; report on cases of uterine distortion or displacement, 971
Hexham, sanitary report of, 753
Hicks, Dr. H., private asylums, 221
—— Dr. J. B., nursing systems, 11; recording fœtal movements by the gastrograph, 773; extra-uterine fœtation treated by abdominal section, *ib.*
Higgens, Mr. C., ophthalmic cases, 623
Hill, Mr. Berkeley, Essentials of Bandaging, *rev.*, 288; sarcoma of scapula, 478
—— Dr. J. H., the eucalyptus globulus, 537
Hilliard, Dr. R. H., obstetric forceps, 287
Hindenlang, Dr. C., paracentesis of the pericardium, 855
Hindoo wit, ancient, 538
Hip-joint, obscure injury of, 15; forty-five cases of excision, of, *ib.*; new method of excision of, 16; double splint for disease and injury of, 131; disease of, 248, 521; excision of, 626; amputation through, 697; angular ankylosis of, section of femur for, 812
Hirschberg, Dr. J., extraction of metal from vitreous body by magnet, 778
Hirtz, Professor, monument of, 895
Hodgson, Mr. G. F., relations of small-pox and cow-pox, 305
Hoggan, Dr. G., degeneration and regeneration of nerves, 403; painful subcutaneous tumour, 811
Holland, Mr. P. H., resignation of, 708
Holland, physiological laboratories of, 176; deaths in, 448; population of, 934
Holman, Dr. C., delays in telegraphic messages, 670
Holmes, Mr. T., antiseptic surgery and its statistics, 34, 148; case of femoro-popliteal aneurism, 41
Holsworthy, sanitary report of, 677
Holthouse, Mr. C., the Habitual Drunkards' Act, 226
Homer, Dr. H. Dunbar on the medicine and surgery of, 48
Hood for degree of M.D. in Glasgow, 610
Hope, Rear-Admiral, death of, 294
Horder, Mr. T. G., administration of cubebs with copaiba, 693
Horny growth on wrist, Mr. W. Beattie-Smith on, 886
Horse-flesh, sale of in Paris, 371
Horse-pox, 992
Horses, cavalry, vital statistics of, 500
Hospital, Addenbrooke's, quarterly court of, 26; training of nurses at, 60
—— Barrington's, Limerick, annual meeting, 151
—— Belfast Royal, finances of, 63; proposed bazaar, 375; election of senior house-surgeon, 603; quarterly court, 828
—— Belfast Workhouse, report on, 375
—— Chalmers', Edinburgh, report of, 142
—— Charing Cross, Christmas at, 144; president of, 291; closure of beds, 933
—— for Chest Diseases, City of London, anniversary festival, 719
—— for Chest Diseases, City Road, anniversary festival, 641
—— for Children, Aberdeen, annual meeting, 295
—— for Children, Belfast, annual meeting, 179
—— for Children, Belgrave, Christmas at, 145
—— for Children, at Brighton, new, 418
—— for Children, Edinburgh, Royal, annual meeting, 296
—— for Children, Evelina, Christmas at, 145
—— for Children, Glasgow, proposed, 142
—— for Children, Great Ormond Street, Christmas at, 145; annual dinner, 594
—— for Children, Manchester, and Dr. Humphreys, 97, 405; letters on, 149, 185, 225, 226, 265, 305; resolution of Manchester Medico-Ethical Association, 372
—— for Children, North-Eastern, Christmas at, 145; annual meeting, 794; opening of new wards, 860
—— for Children, Victoria, donation to, 309
—— Christ's, diet at, 191
—— City of Dublin, finances of, 712
—— for Consumption, at Brompton, appointment in, 253
—— for Consumption, at Ventnor, annual meeting, 266; report, 500; dinner, 771
—— Dental, Edinburgh, annual meeting, 218
—— Devonshire, at Buxton, proposed completion of buildings, 527
—— Eye and Ear, Manchester, action against surgeons of, 409
—— Eye, Ear, and Throat, Ulster, report of. 220
—— Fever, Cork, annual meeting, 339
—— Fever, Delancey, report, 571
—— Fever, London, annual report, 292
—— floating, proposed, at Memphis, 996
—— French, annual dinner, 229
—— German, anniversary festival, 673
—— Guy's, the nursing at, 35, 73, 110, 230, 272, 289, 374, 525, 563, 569, 605, 676, 706, 756; Christmas at, 144; want of funds at, 784; biennial dinner, 829; demonstration by students, 934; proceedings at annual meeting, 981
—— Hertford British, in Paris, 863
—— for Incurables, Edinburgh, annual meeting, 257
—— for Incurables, Royal, anniversary festival, 679
—— International in Naples, report of, 177
—— King's College, appointment in, 451
—— Leith, annual meeting, 258
—— Lock, Glasgow, annual meeting, 178
—— Lock, Liverpool, Mr. F. W. Lowndes on, 727; letter on, 836
—— London, donation to, 26; warden of, 172
—— Lying-in, Queen Charlotte's, registration of deaths at, 411, 420; vaccination, 821, 869
—— Lying-in, General, resignations at, 785, 898; inquiry at, 859; letter on, 948
—— Maternity, Cork, annual report, 672
—— Maternity, Edinburgh Royal, appointments at, 142; annual meeting, 412; report, 453
—— Meath, presentation to house-surgeon, 62 prizes at, 718
—— Mercy, Cork, cost of milk in, 552
—— Middlesex, Christmas at, 144; appointment at 333

Hospital, Monkstown, annual meeting, 413
——— Ophthalmic and Aural, Belfast, annual meeting, 532
——— Ophthalmic and Aural, Cork, annual meeting, 748
——— Orthopædic, National, lectures at, 635
——— Portsmouth Royal, proposed alterations in, 337
——— Queen's, Birmingham, annual report of, 714; bazaar for, 947
——— Rotunda, erroneous report on, 901
——— Royal Free, report of, 269
——— St. Bartholomew's, donation to Samaritan Fund of, 859
——— St. Mary's, Christmas at, 145; distribution of prizes at, 861; appointment, 933
——— St. Thomas's, paying patients at, 894, 987
——— St. Vincent's, Dublin, surgeon of, 413; arrangements for ophthalmic cases, 637
——— Samaritan, Belfast, annual meeting, 220; quarterly meeting, 748
——— Samaritan Free, dinner, 345
——— Seamen's, annual court, 387; picture of, 743; annual report, 942
——— Sheffield Public, for Skin Diseases, 668
——— for Skin-diseases, St. John's, action for libel, 898, 948
——— Steevens', changes in medical staff, 142, 258; the medical school of, 454; resignations, 603
——— Sussex County, annual meeting, 418
——— Torbay, annual meeting, 380
——— University College, annual dinner, 418; appointments in, 794; people's contribution fund in aid of, 903
——— Victoria Royal, Netley fire at, 412
——— in Vienna, new, 61, 938
——— Westminster, Christmas at, 145; dinner, 450
——— for Women, Birmingham, the telephone in, 292
——— for Women, Finsbury Square, placards of, 114
——— Wonford House, annual report, 822
——— Workhouse, at Barnhill, training of nurses at, 105
——— Workhouse, at Belfast, reports on, 375
Hospital Saturday, Dublin, 106; New York, 490; Birmingham, 947
——— Sunday, London, 198; New York, 254, 490; Belfast, 375; Liverpool, 783
Hospitals, self-suporting, and dispensaries, 32; Pay, Mr. H. C. Burdett on, *rev.*, 132; ought they to be self-supporting? 141; organisation of relief in, 173; abuses of, 187; quiet for, 217; nursing organisation in, 225, 389; middle class, 230; liabilities of, 409; self-supporting and provident, 419; clinical value of out-patient practice in, 446, 561; cottage, 452; of Paris, teaching in, 455; the *Churchman* on, 670; in Calcutta, Listerism in, 826; titles of resident officers of, 835; flooring of, 835, 874; neighbourhood of infectious, 863
Houses, tenement, in Dublin, 865
Hovell, Mr. De Berdt, animal vaccination, 65; *post partum* hæmorrhage, 681
Howell, *versus* West and Jones, 630, 699
Hudson, Dr. R. S., spread of enteric fever and diarrhœa by polluted drinking-water, 88
Hulke, Mr. J. W., sutural union of median nerve, 282
Hume, Dr., death of, 106
Humerus, excision of head of, 594; compound and comminuted fracture of, 660; subcoracoid dislocation of without rupture of capsule, 737; subperiosteal sarcoma of, 915
Humphreys, Dr., and the Manchester Children's Hospital, 97, 149, 185, 225, 265, 305
Humphry, Dr. G. M., glandular tumour of upper lip containing cartilage, 816
Hunt, Dr. J. W., pleuritic effusions treated with jaborandi, 659
——— Mr. W. A., presentation to, 190; tricycles *versus* horses, 874
Hunter, Surgeon-General W. O., 951
Hutchinson, Mr. Jonathan, supposed rupture of roots of brachial plexus, 14: rare disease of skin, 15; elephantiasis of penis, 71; living specimen of true leprosy, 245; recovery from morphœa, 624; lupus and its treatment, 650; rapid collapse in strangulated hernia, 738
Hydatid mole, 210
Hydatids of lungs and liver, 517; of spleen and lung, Dr. W. S. Paget on, 734
Hydrocele, bilateral vaginal, 20
Hydrofluoric acid, etching by, 39; effect of, 681, 720
Hydrophobia, deaths from, 104, 258, 672, 900, 938; pathology of, 338, 739; prevention of, 420; new remedy for, 744
Hydrostatic bags, application of, 817
Hygroma, congenital cystic, 556
Hygrometry, study of, 333
Hyoscyamia as a hypnotic and antispasmodic, 629
Hyperæmia, cerebral, Dr. W. A. Hammond on, *rev.*, 701
Hypertrophy, acquired, of one limb, 889
Hypodermic injection of morphia in epididymitis, 485
Hyposphosphine, 855
Hyposphosphites, Dr. F. Churchill on therapeutic value of, 472
Hysteria, Mr. J. Allan on apomorphia in, 477

I.

Ice, Mr. H. Greenway on treatment of glaucoma by, 166
Icterus in pregnancy, Mr. J. J. F. Barnes on clinical import of, 127; a sequel of scarlatina, Mr. W. Berry on, 848
Identity, mistaken, 720
Ileum, intussusception of into colon, 248; blood-cyst in diverticulum of, 328
Imbecile children, report of Scottish National Institute for, 375; annual meeting of Stewart institution for, 567
Ince-in-Wakefield, high death-rate at, 335
India, factory Bill for, 28, 489; army medical service of, *see* Army; fever in, 283, 502, 533, 774, 972; leprosy in, 527; dietary in gaols of, 529; wild beasts in north-west provinces, *ib.*; cholera in, 750; endemic plague in, 972
India-rubber bandage, letters on, 351, 424; Dr. Spender on caution in use of, 362
Indigo-producing substances in urine, 247
Inebriate, home for, 224
Infant, obstinate constipation in an, 40; ovarian tumour removed from a, 246; Dr. J. M. Booth on toleration of opium in an, 735; intestinal obstruction in a new-born, 738; Mr. O. Bowen on intussusception in an, 769; Dr. Oliver on cirrhosis of liver in an, 846; Mr. C. E. Harle on monthly sanguineous discharge in an, 848. *See* Child
Infant Life Protection Act, deputation concerning, 341; necessity of extension of, 824
Infants, mortality of at Worcester, 635; at Great Yarmouth, 783; exencephalic, 791. *See* Children
Infectious diseases. *See* Diseases
Infective organisms, vitality of, 58
Infirmary, Cork South, changes in, 940
——— Eye, Edinburgh, annual report, 178
——— Eye, Glasgow, annual report, 219
——— Eye, Sunderland and North Durham, report of, 419
——— Edinburgh Royal, proposed female managers of, 29, 62, 142; Christmas entertainment, 30; kitchen concert, *ib.*; general court, 62, 142; ovariotomy in, 177; Samaritan Society of, 218; donations from pupils and teachers in Edinburgh, 672; appointment of assistant physician in, 747, 787, 864
——— Glasgow Royal, statistics of, 35, 73, 148, 185; New Year's day meeting, 105; annual meeting, 178
——— Greenock, appointment of oculist in, 939
——— Highgate, alleged ill-treatment at, 935, 994
——— Worthing, proposed new, 293
Inquests in England and Wales, 255, 784; in sudden death, 256, 293; letters on, 271, 537
Insane patient, care of a, 910, 957
Insanity, magisterial definition of, 307, 385: and sanitation, 530; causes of, 710; and civilisation, 780. *See* Lunacy
Instruments, new surgical, Mr. R. Davy on, 890; exhibition of at annual meetings of Association, 993
Intemperance, deaths from, 636. *See* Alcohol and Drunkards
Interments Act, 153, 271
Intestine, gangrene of with cancer, 281; microscopic organisms in, 707; Dr. S. Mackenzie on annular stricture of, 733; rupture of by violence, 815
Intraprofessional obligations, 464, 501
Intra-uterine medication, Dr. W. S. Playfair on, 467; Dr. E. J. Tilt on, 470; by iodised phenol, Dr. Battey on, 471; Dr. J. W. Miller on an instrument for, 472; notes on, 568; as practised by William Harvey, 682
Intussusception of ileum into colon, 248; in an infant, Mr. O. Bowen on, 769
Inversive ferment, 533
Iodic purpura, 626
Iodide of ethyl, in capsules, 21
——— of starch in lupus erythematodes, Dr. McCall Anderson on, 652
Iodised phenol, Dr. Battey on intra-uterine medication by, 471
Iodoform in treatment of nasal catarrh and wounds, Mr. A. Wilson on, 167; in ulcers, Dr. Easby on, 362; as an external and internal remedy, Mr. J. B. James on, 400
Ireland, health of towns in, 30, 143, 179, 259, 296, 454, 748; distress in, 192, 376; quarterly reports of health of, 339, 901; Medical Charities Bill, 779, 907; medical appointments by Lord Lieutenant of, 788, 940; registration of births and deaths in, 907; health of in 1879, 940; mortality in, 951
Iron, perchloride of, in uterine hæmorrhage, Dr. T. M. Madden on, 581; Dr. F. Pollard on, 619, 657
Irvine, Dr. J. P., aortic, mitral, and tricuspid constriction, 625
Italy, the season in, 27; cold in, 33; revival of scientific teaching in, 675
Itching, formula for relief of, 558

J.

Jaborandi, pleuritic effusion treated by, 659
Jackson, Mr. A., Medical Register of Europe, 462
——— Mr. E. C., obituary notice of, 37
——— Mr. G., examinations at the Royal College of Surgeons, 231
——— Dr. J. Hughlings, tumours of the cerebellum, 196
——— Mr. W. F. M., danger attending administration of Chian turpentine, 968
James, Mr. G., hæmorrhage from gastric ulcer, 970
——— Mr. J. B., iodoform as an external and internal remedy, 400
Japan, cholera in, 28; local government in, 785; bathing in, 910
Javal, M., atropine in cataract, 366
Jaw, lower, saw for section of, 21; necrosis of, 169; tumour of, 248; unilateral dislocation of during extraction of teeth, 271; necrosis of from cancrum oris, 738; thirty-five years' history of a tumour of, 775; sarcomatous tumours of, 915
——— upper, excision of, 325; peculiar suppurative disease of, 852
Jeaffreson, Dr. H., representation of the University of London, 676
Jefferiss, Dr. W. R. G., surgical statistics, 350
Jersey, proposed application of Contagious Diseases Acts in, 214
Jessop, Mr. T. R., typhoid tympany masking retention of urine, 246
Johnston, Dr. J., sterno-mastoid tumour or induration, 622
Joints, suppuration of after acute rheumatism, 817
Jones, Dr. C. Handfield, nurses and doctors, 149; phthisis treated by hyperventilation, 725
——— Dr. H. Macnaughton, alcohol in fever, 687
——— Mr. O'Brien, action against by Mr. Howell, 630, 669
——— Mr. Thomas, poststernal tumour, 286; tuberculous testicle, 662
Jordan, Mr. F., a method of performing lithotomy, 115, 204, 616
Journal, new German, of clinical medicine, 527
Jury of matrons, 294

K.

Kane, Dr. H. H., questions regarding action of hydrate of chloral, 787
Keats, John, proposed memorial of, 153
Kebbell, Mr. A., the solid India-rubber bandage, 351
Keloid in small-pox scars, Dr. W. H. McNamara on, 14; case of, 888
Kempe, Mr. A., postnasal catarrh, 352
Kempster, Dr. W., medical psychology in the United States, 452
Kennedy, Dr. Evory, appointed a deputy-lieutenant, 30
——— Dr. H., mercury in Bright's disease, 132; fatty heart, 625
Kensington, sanitary report of, 449
Kenyon, Mrs., bequest by, 61
Ker, Mr. H. R., ovarian tumour, 443
Keratomycosis aspergillina a cause of abscess of cornea, 93
Kerr, Dr. N., infectious diseases originating from drinking water, 88; the distress in Ireland, 192; the Habitual Drunkards' Act, 266; mortality referable to alcohol, 426
Keswick, sanitary report of, 790
Key, Dr. Axel, loose cartilages in knee-joint, 366
Kidd, Dr. G. H., erythema uterinum, 247
Kidney, calculus of, 71; cystic, removed from a child, *ib.*; pathology of Bright's disease of, 168; extirpation of, 171, *see* Nephrectomy; movable, 365; removal of cystic tumour of, 443; granular, pathology of, 480; cystic degeneration of, 811; sarcomatous growths in, 812
Kilmainham prison, appointment of surgeon to, 454
King, Dr. Enoch, statistics of placenta prævia, 452
Kirkwall, medical officer of, 30
Kitchen concert at Edinburgh Royal Infirmary, 30
Kitchen, doctor in the, 160, 861
Knee, suppuration of after gout, 132; dislocation of external semilunar cartilage of, 281; unusual number of loose cartilages in, 366; disease of, 700, 701; Mr. Gant on a case of excision of, 766; chronic synovitis of, 991
Knife, grooved, for reception of saw in Ogston's operation, 891
Knock, alleged miracle at, 411
Knock-knee. *See* Genu valgum
Körte, Dr., suppuration of joints after acute rheumatism, 817
Koumiss, 464
Kowaleski, Dr., loss of weight in epileptics, 558
Kuram valley, 60
Kurz, M. E., congenital diverticulum of the œsophagus, 558

L.

Laboratories, physiological, in Holland, 176
Labour, natural, immediate delivery of placenta in, 20; induced by scarlet fever, Mr. G. E. Walker on, 53; Mr. W. H. Day on, 127; Mr. J. S. Nairne on painful

spot after, 90; retention of portions of placenta after, 246
Ladies, ambulance lectures to, 375
Lambeth degree of M.D., 26
Lamp, new frontal, 133
Landolt, Dr., enlargement of ophthalmoscopic images, 1; Myopia, *rev.*, 628; Manual of Examination of the Eyes, *rev.*, 702
Landon, Dr., remarkable cause of epistaxis, 176
Lane, Mr. J. R., dinner to, 174
Lange, Dr., extirpation of larnyx, 498
Laparotomy, removal of uterine fibroids by, 698
Larva in a gum-boil, 626
Laryngitis, acute and chronic catarrhal, Dr. F. Semon on treatment of, 121, 131; membranous, in an adult, 169
Larynx, respiratory troubles in syphilitic affections of, 235; congenital syphilis of, 245, 590; extirpation of, 498; chicken-bone in, 593; perichondritis of in typhoid fever and small-pox, 625; internal laryngotomy in occlusion of, 685; in phthisis, 701
Lattey, Mr. W., an anomalous eruption, 113
Laudanum, poisoning by, 103, 860, 921
Laundries, registration of, 376
Lead, poisoning by, 636; oleate of in eczema, Dr. J. Sawyer on, 809, 923
Lectures: enlargement of ophthalmic images, Dr. E. Landolt, 1; clinical, on idiopathic anæmia, Dr. J. M. Finny, 5, 43; dry cotton-wool permanent dressing in amputations, Mr. A. J. Barker, 8; clinical, on femoro-popliteal aneurism, Mr. T. Holmes, 41; clinical, on electricity as a means of diagnosis in diseases of the nervous system, Dr. A. H. Bennett, 46, 161, 235; clinical, on a method of performing lithotomy, Mr. F. Jordan, 115; clinical, on some varieties of nervous headache, Dr. W. H. Day, 116; at Royal College of Surgeons of England, 214, 292, 449, 744; clinical, on traumatic cataract and other injuries of the eye, Dr. J. R. Wolfe, 233; on the surgery of childhood, Mr. E. Owen, 273, 313, 357; on the structure and functions of the vertebrate skeleton, Mr. W. K. Parker, 276, 321, 359, 396, 434; science in Glasgow, 338, 413; Gulstonian, on epilepsy, Dr. R. W. Gowers, 353, 393, 430, 465, 503; for practitioners, 373, 822; Croonian, on the pathology and treatment of typhoid fever, Dr. W. Cayley, 391, 430, 504, 544, 611, 685, 723; on comparative anatomy of man, Mr. Flower, 507, 549, 577, 616, 649, 687, 724, 769; at Gresham College, 527; Lumleian, on the digestive ferments and on artificially digested food, Dr. W. Roberts, 539, 575, 614, 647, 683; on Novel Modes of Treatment of Syphilis, Dr. C. Sigmund, *rev.*, 628; on ocular therapeutics, Dr. L. de Wecker, 663; drawing-room, of National Health Society, 745, 861: on ethidene-dichloride, Mr. J. T. Clover, 797; ambulance, in Edinburgh, 827; on relations of sarcoma to carcinoma, Mr. H. T. Butlin, 875, 913; at Royal College of Surgeons, syllabus of Mr. Hutchinson's, 897
Lee, Mr. Henry, animal vaccination, 64
—— Dr. R., exhibition of surgical instruments at annual meetings, 993
Leech, Dr. D. J., the Manchester Children's Hospital and Dr. Humphreys, 226; citrate of caffeine, 443
Leeds, Mr. Thomas, proposed memorial of John Keats, 153
Lees, Dr. D. B., malformation of heart, 168
—— Mr. F. A., Savory's peptic liquor, 113; therapeutic researches on digestive ferments, 438, 473, 512; pancreatic glycerine, 658
Leg, chondro-sarcoma of, 738
Legal Medicine in Belgium universities, 948
Legg, Dr. J. W., hypertrophy of masseter and temporal muscles, 403; Guide to Examination of Urine, *rev.*, 777
Leggatt, Mr. A., obituary notice of, 678
Legislation, aberrant local, 290
Legoff, Dr. R., death of, 373
Legs, papilloma of, 132; artificial, 958
Leith, health of, 30, 258
Leloir, M., poisoning by aniline, 175
Leonard, Mr. Crosby, obituary notice of, 36
Leopold, Dr. G., utero-inguinal hernia, 20
Lepers, Chinese, in Sydney, 214
Leprosy, living specimen of, 245; in India, 527
Lesserteur, M., new remedy for hydrophobia, 844
Letts's Diaries, *rev.*, 54; Popular Atlas, *rev.*, 288
Leucin and tyrosin, partial change of by the liver, 589
Leucocytosis of pregnancy, 328
Levée, medical men present at, 292, 408
Levinstein, Dr. E., morphinism, 668
Lewis, Dr. L., oleate of bismuth in eczema, 968
Leyden, Dr. E., subphrenic pyopneumothorax and abscess, 891
Libel, charge of, 908
Library, the Grosvenor, 58
Lice, an epidemic of, 456
Lichen planus, Dr. Colcott Fox on neurotic origin of, 398
Lieber, Dr., keratomycosis aspergillina, 93
Life, protection of, 450
Life-peerages, 933
Limb, acquired hypertrophy of a, 889
Limbs, absence of, 956
Lincoln's Inn Fields, proposed opening of to public, 318, 898
Lindsay, Dr. Murray, drugs in epilepsy, 898
Liouville, Dr., his compulsory vaccination bill, 563, 785, 934
Lip, glandular tumour of containing cartilage, 816
Lipoma, case of, 33; mixtum, 594
Liquor pancreaticus, 78
Lister, Mr. J., Mr. Spence on surgical statistics, 237, 276; degree of D.C.L. conferred on, 895
Listerism in Calcutta hospitals, 826. *See* Antiseptic Surgery.
Litholapaxy, 210
Lithotomy, Mr. F. Jordan on a method of performing, 115, 616; Mr. C. Heath on, 204; Mr. Teevan on, 440; in Glasgow, 192
Litten, Dr., androgynia with ovarian disease and hydrocele, 20
Little, Dr. F. E., abnormality of great cardiac veins, 521
Liver, cirrhosis of, 364; primary cancer of, 403; and lungs, hydatids of, 517; diffuse sarcoma of in an infant, 738; acute atrophy of, 739; cirrhosis of in a child, 811; Dr. Oliver on cirrhosis of in an infant, 846
Liverpool, Mr. F. W. Lowndes on constitutional syphilis in, 727; special correspondence from, 947
Livy, Mr. F. Y., cod-liver oil with alcohol, 167
Local Government Board, new medical officer of, 59; new medical inspector, 253; new orders of, 486; report of Medical Officer of, 603; vote for, 871
Loch Katrine water, 423, 514
Locomotor ataxy, osseous and articular lesions in, 244, 255; cases of, 592
Lombard, Dr. J. S., Experimental Researches on Regional Temperature of Head, *rev.*, 523
London, health of suburbs of, 102; infectious disease in, *see* Diseases; small-pox in, *see* Small-pox; health of, *see* Public Health; water-supply of, *see* Water
Long, Mr. E., liquor pancreaticus, 78
—— Mr. F., treatment of ozæna, 556
Longmore, Surgeon-General T., and the Order of the Legion of Honour, 253; the wounded in the streets of London, 265
Longstaff, Dr. G. B., etiology of summer diarrhœa, 519; relation between scarlatina, puerperal fever, and erysipelas, 661
Longtown rural district, sanitary report of, 588
Lonsdale, Miss, and the nursing at Guy's Hospital, 605, 676, 706
Louise, Princess, accident to, 408
Lovegrove, Dr. C., treatment of ranula, 756
Low, Dr. Bruce, baby-farming, 666; death from pelvic hæmatocele simulating irritant poisoning, 809
Lowe, Mr. R., peerage conferred on, 668
—— Dr. G. M., volunteer surgeons, 502
Lowndes, Mr. F. W., constitutional syphilis in Liverpool, 727
Lownds, Dr. T. M., prolapsus ani, 78
Lubbock, Sir John, elected member of Parliament for the University of London, 859; the Dental Act, 896, 949, 993
Lucifer matches, poisoning by, 104
Lunacy, grievance in, 388; commission of in Constantinople, 636, 673; Glasgow Board of, 711; increase in, 956. *See* Insanity.
Lunatics, illegal reception of, 42, 370; maintenance of, 63, 105; metropolitan, 498; in Middlesex, 598, 936; dangerous, in workhouses, 828; resident, 835; in Cork workhouse, 907
Lund, Mr. E., removal of tongue by scissors, 815
Lungs, atelectasis and emphysema of, 14; syphilis of and its relation to pulmonary consumption, 93; malignant growth in, 169; Mr. G. Budd on tubercle of apex of, 242; gangrene of, 248; and liver, hydatids of, 517; hernial protrusion of, 682; and spleen, Dr. W. S. Paget on hydatid of, 734; large cavities in, 739; basic cavity of treated by paracentesis, 926
Lupus and its treatment, Mr. Jonathan Hutchinson on, 650; erythematodes, Dr. McCall Anderson on iodide of starch in, 652; Dr. J. H. Stowers on nature and treatment of, 653; Mr. Balmanno Squire on linear scarification in, 654
Luscombe, Mr. W. E., a curious kind of pessary, 646
Lush, Dr. J. A., retirement of from Parliament, 527
—— Dr. W. V., systemic and pulmonary embolism, 843
Luton, sanitary report of, 954
Lymphatic glands, blood in lymph-sinuses of in pernicious anæmia, 328
—— System, Mr. S. M. Bradley on Injuries and Diseases of, *rev.*, 854
Lyons, Dr. R. D., and the representation of the City of Dublin, 532, 567

M.

Macan, Dr. A. V., hæmorrhage in pregnancy and parturition, 578
McCarthy, Mr. J., alveolar sarcoma of face, 812
MacCormac, Mr. W., result of a case of excision of shoulder and elbow joints, 763; Antiseptic Surgery, *rev.*, 927
McCrea, Dr. S., death of, 572
McDonnell, Mr. D., death of, 136
—— Dr., and the vice-regal court in Ireland, 940
McDowell, Dr. Ephraim, Dr. Gross on Memorial in Honour of, *rev.*, 628
Macewen, Dr. W., Statistics of the Glasgow Royal Infirmary, 35, 148; transplantation of bone, 364; decalcified drainage-tubes, 483; osteotomy and death from diphtheria, 627
McGeagh, Dr., presentation to, 794
Mackay, Dr. G., the Guinea-worm, 610
—— Dr. W. B., tetanus treated by belladonna and chloral, 280
McKendrick, Dr. J. G., Outlines of Physiology, *rev.*, 18
Mackenzie, Dr. D. J., growth of nail after removal of fibrous tumour by caustic, 771; contagion of tubercle, 873
—— Dr. G. H., antiseptic treatment of phthisis, 13; diseases of the nostrils, 38
—— Dr. J. I., ulcer of the stomach penetrating into the liver, 692
—— Dr. Stephen, stricture of the intestine, 733; malformation of heart, 812
Macleod, Dr. G. H. B., croup and diphtheria, 302
—— Mr. W. B., combination anæsthetic, 836
MacMunn, Dr. C. A., the Spectroscope in Medicine, *rev.*, 444; conversion of bilirubin into urobilin, 641
McNamara, Dr. W. H., keloid in small-pox scars, 14; dressing of wounds in military surgery, 324
McPhail, Dr., talipes equinus, 627; scirrhus of male breast, 776
MacSwinney, Dr. G. H., aneurism of posterior tibial artery laid open by mistake, 126
McVail, Dr. J. C., surgical treatment without antiseptics, 436
Madden, Dr. T. M., prevention and treatment of *post partum* hæmorrhage, 580
Madeira, Mr. Spencer Wells on an Easter holiday trip to, 767
Madras, lunatic asylums in, 372
Magistrates, medical, 109, 229, 269, 318, 362, 521, 656, 679, 794, 834, 950, 956
Magitot, M., dentine, 938
Magpie-dust, 270
Mahomed, Dr., suggestions concerning the scientific work of the Association, 31, 74
Maidstone, sanitary report of, 605
Malformation of chest and spine, 660
Malignant pustule, 819
Malins, Dr. E., two cases of oöphorectomy, 772
Malt, Allen and Hanbury's extract of, 664
Man, Mr. Flower on comparative anatomy of, 507, 549, 577, 616, 649, 687, 724, 769
Manby, Mr. A. R., eczema of nipple, 232
Mangling as a source of infection, 827
Mann, Mr. John, contracted colon, 192
Maples, Mr. R., complete absence of female generative organs, 735
Mapother, Dr., contraction of the mouth, 483; stomatoplasty, *ib.*; injury of cervical spine, 593
March, Dr. H. C., new uses of old remedies, 592
Marine lint as an antiseptic dressing, 476
Marriott, Dr. C. H., nursing systems, 73
Marsden, Dr. A., Chian turpentine in cancer, 923
Marsh, Mr. Howard, bone-setting, 591
Marshall, Dr., croup and diphtheria, 302
Martin, Dr. John, how to cure fits of sneezing, 90; tucking in of children's bedclothes, 425
Martindale, Mr. W., effervescent aperient salts, 21; Coster's paste, 192; picrotoxin and its preparations, 351
Martyrs, medical, 59, 373, 601
Marzolo, Dr. F., death of, 599
Mason, Dr. S. R., uterine polypus, 247
Masonic charities, 462
Masson, Dr. D. T., treatment of epistaxis, 758
Massy, Surgeon-General H. H., dinner to, 527
Masterman, Dr. G. F., new uterine douche, 445; treatment of ozæna, 586
Mastoid bone, disease of, 973
Materia Medica and Pharmacy, Dr. Handsel Griffiths and Dr. Duffey on, *rev.*, 628; chair of in Glasgow University, 671
Matrons, jury of, 294
Mattress, new spring, 287
Mayor, a medical, 309
Mears, Dr. E., Practical Surgery, *rev.*, 484
Measles, recent prevalence of, 334, 825; Dr. Ransome on management of convalescents from, 689; in Plymouth, 708, 742, 821, 825, 895; at Nottingham, 937
Meat of consumptive animals, punishment for sale of, 99; condemned, 994
Medal, the Gilbert Blane, 137; the John Hunter, 899
Medical Acts, the Government Bill for amendment of, 213; Amendment Bill of British Medical Association, 251; proceedings in Parliament regarding, 268, 833; titles under, 352; Select Committee on, 371, 414; evidence of Dr. Struthers, 414; of Dr. W. T. Gairdner, 415
—— appointments in colonies, 351
—— advertisements and circulars, 114, 153, 390, 425, 574, 757

Medical assistants, unqualified, and certificates of death, 141
——— certificates from officers of hospitals, 78
——— Charities (Ireland) Bill, 779, 907
——— clubs, private, 32
——— coroners, letters on, 39
——— Council, the General, remarks of the Medical Licensing Bodies on recommendations of, 211, 249; representative of Queen's University in, 531
——— Council, the Ontario, 62
——— degrees, the Lambeth, 26; foreign, letters on, 193, 271; the Brussels, books recommended for, 271; American, 351
——— Diary, Letts's, 54
——— diplomas, forged, 529, 982; manufactory of, 564
——— Directory, the Irish, *rev.*, 133
——— education, report of Committee of Metropolitan Counties Branch on, 494; discussion in West Somerset Branch, 534; resolutions of Staffordshire Branch, 605; Bath and Bristol Branch, 674; South Wales and Monmouthshire Branch, *ib.*; and apprenticeship, 818
——— ethics, 351, 425
——— etiquette, 113, 192, 422, 502
——— duke, a, 566
——— fees. *See* Fees
——— graduates, American, 679
——— inspection of schools, 136
——— graduation ceremonies in America, 636
——— Institute, Birmingham, annual meeting, 528; new building, 947
——— Institution, Liverpool, officers and Council, 190
——— life, business aspects of, 978
——— magistrates, 109, 229, 269, 318, 362, 521, 656, 679, 794, 834, 950, 956
——— man, apology to a, 745
——— martyrs, 373, 601
——— members of parliament, 567, 633
——— men, annuities for widows and children of, 147; attendance on families of, 464, 538
——— officers of health. *See* Public Health
——— officers, Poor Law. *See* Poor Law
——— officers of sick clubs. *See* Clubs
——— practitioners, unqualified, and nominees of, 39; conjugal interference with, 573; legal status of, 70; vacation courses for, 373
——— products, German, 928
——— psychology in the United States, 452, 530
——— reform, elementary considerations concerning, 329, 367; letters on, 464, 949
——— *Register*, note on, 410
——— Register of Europe, 462, 574
——— registration by Branch Councils, 218
——— Relief, Metropolitan, Sir C. Trevelyan on, *rev.*, 288
——— science in China, 787
——— service, night, in Paris, 826
——— titles, 352
——— Visiting List, Dr. A. Sheen's, *rev.*, 19
——— witness rewarded by a judge, 257
——— witnesses, fees for, 38, 77
Medication, intra-uterine. *See* Intra-uterine.
Medicine-chests, public, 599
Medico-Parliamentary: the office of Registrar-General, 268, 308; Medical Act (1858) Amendment Bill, 268; Medical Act (1858) Amendment (No. 2) Bill, *ib.*; new master in lunacy, 308; trichinosis, 348, 497; the case of Dr. Farr, 348; water-supply, 348, 386, 458; Irish gaol-surgeons, 348; the census, 348, 458; Cruelty to Animals Bill, 348, 458; Indian Medical Service, 348, 458; Artisans' and Labourers' Dwellings Improvement (Scotland) Act Amendment Bill, 386; the Army Medical Service, *ib.*; vaccination statistics, *ib.*; Vaccination Bill, 423; small-pox in London, 458; superannuation of Poor-law officers, *ib.*; glandered horses, *ib,*; Contagious Diseases Acts, *ib.*; experiments on living animals, *ib.*; the case of Acting Staff-Surgeon Allen, 497; notice of motion, 793, 951; medical education and regulation, 833; Alkali Acts, 871; the Local Government Board, *ib.*; medical officers in the army, 906, 994; county lunatic asylums, 906; criminal lunatics, 907; Irish registration, *ib.*; Medical Charities (Ireland) Bill, *ib.*; street accidents, 950; glanders and farcy, *ib.*; animal vaccination, *ib.*; mortality in Ireland, 951; drainage in the metropolis, *ib.*; the Vaccination Acts, *ib.*; condemned meat, 994; reports of famine fever, *ib.*; medical officers of health, *ib.*
Melanosis of finger, 590
Melbourne, special correspondence from, 184, 497, 716
Memorial of Inspector-General W. T. Domville, 215; of Surgeon-major Porter, 254; of Dr. Murchison, 271, 782; of Dr. A. A. Woods, 309; of Mr. A. Thom, 436; of Surgeon-Major Shepherd, 528; of Dr. E. McDowell, Dr. Gross on, *rev.*, 628
Memphis to be transformed, 60
Mercury in Bright's disease, 132; death of a child from, 295; periodontal deposit of, 852
Meredith, Mr., ovarian tumour, 15
Merryweather, Miss Mary, death of, 719
Metamorphic milk, 390
Metaphosphoric acid a test for albumen in urine, Dr. W. C. Grigg on, 809, 870
Meteorology, recent, 826
Metric system, the, 390, 858
Metropolitan improvements and overcrowding, 635
Metrorrhagia, Dr. G. E. Herman on treatment of, 729
Meyer, Dr. E., Maladies des Yeux, *rev.*, 817
Michie, Dr., *post partum* hæmorrhage, 816; belladonna in disease of heart and kidneys, 817
Microscopes, cheap, 997
Microscopic organisms in intestinal canal, 707
Microtome for large sections, 61, 664
Midwife, extraordinary injury by a, 60
Midwifery, notes on cases of, 519; in Siam, 682; engagements, 757; and surgical dressings, 942
Milk, condensed, 38; communication of typhoid fever by, Mr. R. P. Oglesby on, 89; in Glasgow, 864, 985; spread of scarlatina by, 107, 139; Chinese opinions regarding, 154; metamorphic, 390; supply of in Mercy Hospital, Cork, 552; pancreatic digestion of, 648; researches on, 823; and diphtheria, 953
Milk-curdling ferment, Dr. W. Roberts on, 614
Miller, Dr. J. W., instrument for intra-uterine medication, 472
Mills, Mr. Arthur, note on, 527
Ministry of health, 793
Miracle, alleged, at Knock, 411
Mirrors in railway carriages, 101, 192
Moffatt, Mr. G. T. B., death of, 423
Mole, hydatids, 210
Molluscum contagiosum, non-glandular theory of, 327; case of, 363; histology of, 589
——— fibrosum, 364
——— simplex, 169
Molony, Dr. H., appeal on behalf of widow of, 310, 463
Monckton, Dr. S., presentation to, 872
Monstrosities, 698, 971, 982
Moore, Dr. E. M., dislocation of ulna in connection with Colles's fracture, 778
——— Dr. J. W., compulsory notification and registration of infectious diseases, 158; typhoid fever with cerebral symptoms, 364, 663
——— Mr. Milner, intraprofessional obligations, 501; aneurism of aorta, 519
——— Dr. Norman, malignant growth in lung, 169; ulcers of stomach and duodenum, 281
——— Dr. William, want of correlation between pulse and respiration in fever, 365
——— Dr. Withers, disseminated sclerosis, 851; address to South-Eastern Branch, 945
Morgan, Dr. R., eczema of nipple followed by cancer, 280
Morgue, medical jurisprudence at the, 183
Morphia, poisoning by, 141; hypodermic injection of in epididymitis, 485; tolerance of, 537
Morphinism, chronic, 667
Morphœa, recovery from, 624; unilateral, with exostoses and corneal opacity, 975
Morris, Dr. E., voting at the Royal College of Surgeons, 993
——— Mr. H., obscure injury to hip-joint, 15; traumatic salivary fistula, 282; pulsating tumours, 402; epithelioma of neck following skin-disease, 810; cases of cancerous disease, 924, 969; disease of mastoid bone, 973
——— Mr. M. A., arsenical poisoning, 275; Manual of Skin-Diseases, *rev.*, 288
——— Mr. W. W., guaiacum resin, 14
Mortality, statistics of, and sanitary conditions, 137; changes in English rates of, 336
Morton, Dr. J., statistics of the Glasgow Royal Infirmary, 73, 185
Mortuary at Bethnal Green, 953
Moule, Rev. H., death of, 218
Moullin, Dr. J. Mansell, application of hydrostatic bags, 817
Mountain Ash, sanitary report of, 619
Mourners' cloaks, 785
Mouth, contraction of, 483
Moxon, Dr. W., Miss Lonsdale and the nursing at Guy's Hospital, 707
Mulder, Professor, death of, 787
Mules, Dr., goître causing death by pressure on œsophagus, 443; new method of mounting eyes, 481
Munro, Dr. W., yaws and syphilis, 231
Murchison, the late Dr. C., memorial of, 271, 782; bust of, 372
Murder of a French doctor, 601; an ex-mayor tried for, 998
Murphy, Mr. J. J., slow pulse, 153; rapid pulse, 194
Murray, Surgeon-General Dr. J., removal in cholera, 889
——— Dr. J. C., effects of chloral, 232
——— Mr. W. F., compound fracture of the skull and the antiseptic treatment, 958
Murrell, Dr. W., sequel of a case of diabetes insipidus treated with ergot, 693
Museum, the Parkes, demonstration at, 217; donations to, 256
——— of Royal College of Surgeons, pathological requirements of, 143; additions to, 989
Music in streets, 350
Muthill, drainage of, 30
Myoma of uterus, 285
Myopia, Dr. E. Landolt on, *rev.*, 628
Muscles, electric reaction of in disease, 162; masseter and temporal, hypertrophy of, 403; sterno-mastoid, spasmodic action of, 425, 464, 662

N.

Nævus, Mr. E. Owen on treatment of, 314
Nails, suppuration and exfoliation of, 282
Nairne, Mr. J. S., the *post partum* uterine painful spot, 90
Napier, Mr. W. D., instruments, 852
Narcotics, abuse of and sale of poisons, 272
Naunyn, Dr., variola and vaccination, 99
Navy, Royal, medical service of, disabilities of, 57, 144, 172, 179; promotions in, 75, 385, 550; letters on, 109, 185, 460, 571, 643, 677, 869, 905, 949, 952; new Director-General of, 138; appointments, 151, 268, 347, 385, 460, 535, 643, 677, 951; pay of of officers of, 222; scheme for improvement of, *ib.*; candidates for examination, 254
——— Royal, and friendly societies, 460
Neale, Mr. J. E., nursing systems, 90
Neapolitan socks, 177
Neck, removal of deformities from scars in, 580; epithelioma of after chronic skin-disease, 810
Negro races, Mr. Flower on, 649, 687
Nephrectomy, remarks on, 171; cases of, 173, 336, 401
Nerve, median, sutural union of, 282
——— optic, tumour of, 15; neuritis of, 849
——— pneumogastric, effect of section and ligature of, 599
——— sciatic, stretching and section of, 969
Nerve-stretching in neuralgia, 851, 969; in sciatica, Dr. J. P. Bramwell on, 920
Nerves, of brachial plexus, supposed rupture of, 14; motor, effect of electricity on, 162; sensory, effect of electricity on, 163; degeneration and regeneration of, 403; Sympathetic, Drs. Eulenburg and Guttmann on Physiology and Pathology of, *rev.*, 522; grafting of, 671
Nervous system, Dr. A. H. Bennett on electricity as a means of diagnosis in diseases of, 46, 161, 235
Nettleship, Mr. E., antiseptics in ophthalmic surgery, 166; sympathetic ophthalmitis after excision of eyeball, 590; Students' Guide to Diseases of the Eye, *rev.*, 777
Neuralgia, nerve-stretching in, 851
Neurasthenia of brain and spinal cord, 699
Neuromata, multiple, 485
Neurosis, cardiac, Dr. Hayden on varieties of, 838
Neville, Dr. W. C., ovarian tumour removed from an infant, 246
Nevins, Dr. J. B., evidence on Contagious Diseases Acts, 417, 455
New year in metropolitan hospitals, 144
Newington, Dr., private asylums, 220
Newman, Dr. D., spectra of hæmoglobin and vomited matters, 364
——— Dr. W., decalcified bone-tubes, 692; treatment of chronic cystitis by antiseptic injections, 735
Newth, Dr. A. H., paralysis of œsophagus, 39
Night medical service in Paris, 450
Nipple, eczema of followed by cancer of breast, 128, 232; Dr R. Morgan on, 280; Dr. J. J. Welply on, 555
Nitroglycerine, 406, 487; Mr. T. E. Amyot on, 477; Mr. A. W. M. Robson on, 556
Nixon, Dr. C. J., cirrhosis of kidneys, 364; hæmorrhagic infarctions of lungs and spleen, 365; cholera or malignant scarlatina, 663
Noake, Mr. S. J., ergot in diabetes, 795
Noble, Mr. J. B., a repudiation, 425
Nock, Mr. E., help in street-accidents, 537
Non-combatant service, 750, 907
North, Mr. S. W., notification of infectious diseases, 189
Norton, Dr. E. Q., treatment of consumption by Salisbury method of diet, 336
——— Mr. G. E., bromide of ethyl as an anæsthetic, 735
Nose, gradular cancer of mucous membrane of, 325; polypus of, 594
Nostrils, disease of, 38; new method of plugging, 566; Mr. C. Davidson on plugging the, 659
Noxious things, definition of, 407; vapours, 409
Nunn, Mr., peculiar form of cancer of breast, 481
Nunneley, Mr. T., his remarks on bromide of ethyl, 601
Nurses, and doctors, 97, 149, 186, 187, 425; Glasgow training home for, 219; Birmingham and Midland Counties Institution for, 371; superintendent of in South Africa, 670, 708; Society for providing in Dublin, 788; training school at St. Thomas's Hospital, annual meeting, 896
Nursing, systems of, Dr. J. B. Hicks on, 11; letters on, 73, 225, 272, 389; Mr. J. E. Neale on, 90; Mr. F. T. Paul on, 125; at Guy's Hospital, letters on, 35, 73, 110, 230, 374, 569, 756; remarks on, 289, 563; Miss Lonsdale's article on, 525, 605, 676, 706

O.

Obersteimer, Dr., chronic morphinism, 667
Obituary: Mr. C. Leonard, 36; Mr. E. C. Jackson, 37; Dr. F. Collins, *ib.*; Mr. R. F. George, *ib.*; Surgeon-major J. H. Porter, 106; Dr. E. C. Seaton, 140, 188; Dr. C. Benson, 143; Mr. A. Thom, 176; Dr. J. Lockhart Clarke, 188; Mr. M. Foster, 188; Rev. H. Moule, 218; Sir D. J. Corrigan, 227, 266; Mr. R. Baker, 256, 382; Mr. W. H. O'Leary, 296; Dr. E. Copeman, 333, 382; Mr. R. Rainsford, 339; Mr. E. R. Owen, 347; Mr. W. Procter, 371, 421; Dr. T. Fairbank, 382; Mr. J. Craig, 383; Dr. D. Fiddes, *ib.*; Dr. J. D. Heaton, 527, 570; Mr. M. H. Stapleton, 570; Dr. W. Sharpey, 606; Dr. C. H. H. Sayre, 670; Mr. A. Leggatt, 678; Professor Mulder, 787; Mr. S. M. Bradley, 870; Dr. A. S. Taylor, 905; Mr. John Harrison, 951; Deputy Inspector-General J. I. Acheson, 994
Obligations, intraprofessional, 464, 501, 538
O'Connell, Mrs. M., sickly workhouse children, 258
Ocular Surgery, Dr. de Wecker on, *rev.*, 444; Therapeutics, Dr. de Wecker on, *rev.*, 663
Œsophagus, cancer of, 248; fish-bone impacted in, 517; congenital diverticulum of, 558
Oglesby, Mr. R. P., typhoid fever and milk, 89
Oldekoff, Dr., statistics of cancer of breast, 601
O'Leary, Mr. W. H., death of, 296; fund for widow and orphans of, 339, 378
Oliver, Dr. T., cirrhosis of liver in an infant, 846
Oöphorectomy, letters on, 154, 193; Dr. Battey's summary of cases of, 510; cases of, 772
Open spaces, 318
Operations, scarlet fever after, 358
Ophthalmitis, sympathetic, after excision of eye, 590
Ophthalmic Institution, Glasgow, annual meeting, 412
——— specimens, Mr. Priestley Smith on preservation of, 52
——— surgery, Mr. Nettleship on antiseptics in, 166; regulation of Royal College of Surgeons in Ireland regarding, 532
Ophthalmology, Mr. C. E. Walker's Essays in, *rev.*, 366; the British school of, 492
Ophthalmoscopic images, Dr. Landolt on enlargement of, 1
Opium, Chinese, 564; in uterine hæmorrhage, 581; Dr. J. M. Booth on toleration of in an infant, 735; smoking of in China, 757; a "corner" in, 862; prize essay on smoking of, 899
Orbit, sarcoma of, 210, 285; Dr. A. M. Cash on removal of foreign body from, 514
Ord, Dr. W. M., large gall-stone passed *per anum*, 71; large cystin calculus, *ib.*; oriental bezoar, *ib.*; conditions included under the term rheumatoid arthritis, 155; Influence of Colloids upon Crystalline Form and Cohesion, *rev.*, 595
Ormsby, Mr. G. H., inquest without medical evidence, 537
——— Mr. L. H., presentation to, 349
O'Ryan, Mr. J. F., case of pyæmia, 440
Osborn, Mr. S., treatment of varicocele by acupressure; 52
Osteomalacia in a case of chronic dementia, Dr. Ringrose Atkins on, 965
Osteotomy, cases of, 592, 627
Oswald, Dr. H. R., unusual exostosis, 232
Otis, Dr. F. N., illness of, 26; note regarding, 192
Out-patient practice, clinical value of, 446, 561
Ovariotomy in the Edinburgh Royal Infirmary, 177; antiseptic theory tested by statistics of cases of, 243; during pregnancy, Dr. Galabin on, 397; tetanus after, 590; cases of, treated antiseptically, 593, 594; aseptic, occasional high temperature after, 662; cases of, 699; Dr. G. G. Bantock on cases of, 877; history of Mr. Spencer Wells's practice of, 931
Ovary, tumours of, 15, 210, 284, 443; 814; in uterine hernia, extirpation of, 20; tumour of in an infant, 246; removal of with uterus, 284; axial rotation of tumours of, 481
Overcrowding and metropolitan improvements, 635
Owen, Mr. E., lectures on surgery of childhood, 273, 313, 357
——— Mr. E. R., obituary notice of, 347
——— Mr. Lloyd, corneal growths, 519
Oxalic acid, toxic action of, 544
Ozæna, Mr. Pugin Thornton on treatment of, 475; letters on, 502, 610; Dr. G. F. Masterman on, 586

P.

Pads for splints, 558; absorbent wool, 622, 629
Page, Dr., Facts about Fevers, *rev.*, 404
Paget, Dr. G. E., anomalous choreic spasms, 815
——— Dr. W. S., hydatid disease of spleen and left lung, 734
Painful joints, 451
Paisley, drainage of, 787
Palate, cleft, Dr. H. G. Rawdon on treatment of, 915
Palmer, Mr. H., acupressure in varicocele, 127
Palpitation, neurosal, 776
Palsy, Duchenne's, and patellar tendon-reflex, Dr. H. Donkin on, 734; Dr. Gowers on, 771
Pancreatic ferment Dr. W. Roberts on 542, 575
Pancreatin, Mr. G. Brownen on experiments with, 439
Papaya, digestive powers of, 640
Papilloma of legs, 132
Paracentesis thoracis, Mr. A. T. Wear on cases of, 514; of pericardium, 855; of basic cavity of lung, 926
Paralysis, rapid and almost universal, 518; congenital, 662; pseudo-hypertrophic, Dr. Donkin on, 734; Dr. Gowers on, 771
Paraplegia from Pott's disease, 363
Parasites, rare, of human skin, 452; in muscles in enteric fever, 625
Parent, Dr. D. Galezowski's ophthalmic clinic, 792
Paris, special correspondence from, 183, 263, 456, 640, 791, 992; sanitation in, 335; small-pox in, *see* Small-pox; hospital teaching in, 455; night medical service in, 826
Parker, Mr. R. W., new method of excising hip-joint, 16; the Manchester Children's Hospital and Dr. Humphreys, 305; sterno-mastoid tumour or induration, 515, 681; tracheotomy in croup, 552; diffuse sarcoma of liver in an infant, 738; chondro-sarcoma of leg, *ib.*; congenital talipes varus and talipes calcaneus, *ib.*
——— Mr. W. K., lectures on structure and functions of vertebrate skeleton, 276, 321, 359, 396, 434, 502
Parliament, medical men in, 420; medical members of, 566, 567, 633; representation of Scottish Universities in, 602, 637, 711; representation of University of London in, 669, 676, 716, 782, 859
Parsons, Dr. F. H., the Manchester Children's Hospital and Dr. Humphreys, 187
——— Mr. F. J., presentation to, 436
Partridge, Dr. T. B., a circular, 425, 574
Pasley, Mr. C. B., death during profuse hæmoptysis, 53; aspiration of bladder in retention of urine, 167
Pasteur, M., fowl-cholera, 784, 992
Patent medicines, taxation of, 184
Pathology, proposed new chair of in Paris, 600
Paul, Mr. F. T., nursing institutions, 125; cylindrical epithelioma of breast, 624
Pavy, Dr. F. W., cupric test-pellets for sugar, 209; estimation of uric acid, 479
Peabody fund and improved dwellings, 336
Peacock, Dr. T. B., rupture of heart, 14; empyema in a child, 850
Pearse, Dr. T. F., use of the gum-lancet, 231
Peerages for life, 933
Pellagra in Italy, 33
Pellizzari, Dr. C., epilepsy in syphilitic patients, 629
Pelvic suppuration, treatment of by abdominal section and drainage, 737; joints, Mr. John Wood on double extension in disease and injury of, 837
Pelvis, subperiosteal sarcoma of, 914, 915
Penis, large elephantiasis of, 71
Penny, Mr. E., nursing at Guy's Hospital, 210
Pennyroyal as an ecbolic, 681
Pension, civil list, 981
Pensions, good service, 951
Pepsin, Mr. G. Brownen on experiments with, 438; compared with trypsin, 575, 614
Peptic liquor, Savory's, 113
Peptogens, Dr. W. Roberts on, 614
Peptones, Dr. W. Roberts on characters of, 576; M. Bergeun on, 938
Peptonised food, Dr. Roberts on, 648, 683, 815
Percy, Dr., resignation at School of Mines, 26
Pericarditis, rheumatic, with tetany, Mr. W. Beattie Smith on, 844
Pericardium, diagnosis of adhesions of, 595; defect of, 629; paracentesis of, 855
Perichondritis, laryngeal, in typhoid fever and small-pox, 625
Perils of the way to doctors, 610
Perinæum, ruptured, Simon's operation for, 210; lacerated, 714, 942, 998
Perinephritis, traumatic, 443
Peritoneum, union of, 210; cancer of, 285
Peritonitis, chronic, 626; from swinging, 899
Perkins, Mr. A. S., presentation to, 436
Perroncito, Dr., the St. Gothard tunnel disease, 982
Perry, Dr. R., distinction between typhus and typhoid fevers, 36; multiple embolisms, 775
Pessary for prolapsus uteri, 442; curious, 646; uric, accident with, 662; glass, 722; twenty-five years in vagina, 795
Peters, Herr, influence of climate on disease, 56
Petresco, Dr. Z., Report on Plague in Russia, *rev.*, 91
Pettenkofer, Dr., order conferred on, 408
Phantom tumour simulating pregnancy in an ass, 592
Pharmacopœia, German, revision of, 599
Pharmacy Act, prosecution under, 256; in Victoria, 491
Pharynx, epithelioma of involving larynx and œsophagus, 281; extensive stenosis of, 588
Philadelphia, weather and health in, 636
Phillips, Dr. C. D., treatment of ranula, 756
Phlebitis of lower extremities after injuries of head, 483
Phlegmasia dolens, Dr. Fancourt Barnes on, 921
Phthisis, antiseptic treatment of, Dr. G. H. Mackenzie on, 13; inhalation of benzoate of soda in, 23, 72; bacteric influence in, 153; treatment of by Salisbury method of diet, 366; laryngeal, 701; Dr. Handfield Jones on treatment of by hyperventilation 725; from contagion in a dog, Dr. D. H. Cullimore on, 768; treatment of by chloride of calcium, Dr. Sawyer on, 845
Physicians and patients, letters on, 641, 717, 796, 836
Physiological laboratories in Holland, 176
——— Laboratory, Dr. V. Harris and Mr. D. Power's Manual for, *rev.*, 975
Physiology, Dr. McKendrick's Outlines of, *rev.*, 18 teaching of in schools, 105
Pick, Mr., subastragaloid dislocation, 207
Picrotoxin, properties of, 96; letter on, 351
Pilocarpin an antidote to atropin, 366; in asthma, Dr. Berkart on, 918, 960
Pinel, statue of, 562
Pisa, special correspondence from, 675
Pistol-shot in abdomen, Mr. H. L. Bernays on, 53
Placenta, immediate delivery of in natural labour, 20; retention of portions of after labour, 246; prævia, statistics of, 452
Plague in Russia, Dr. Petresco's Report on, *rev.*, 91; German, commissioners' report on, 890; endemic, in India, 972
Plants, Medicinal, Mr. Bentley and Dr. Trimen on, *rev.*, 404; in houses, hygienic and therapeutic relations of, 899
Plaster-of-Paris bandages, Dr. E. Hemsted on application of, 204; jacket, modifications of, 491
Playfair, Dr. W. S., intra-uterine medication, 467; the General Lying-in Hospital, 948
Pleurisy in children, 443
Pleuritic effusions treated with jaborandi, 659
Plexus, brachial, supposed rupture of nerves of, 14
Pneumonia, cerebral, Dr. J. Russell on, 13; letters on, 147, 232, 270; and typhus, 366; treatment of, 569; gangrenous, Dr. T. Churton on, 622; cases of, 774; acute with high temperature, Dr. F. H. Daly on, 968
Poisoning, accidental, prevention of, 569
——— by aconite, 216
——— by aniline, 175
——— by arsenic, 104
——— by carbolic acid, 62, 214
——— by chlorine gas, 454
——— irritant, simulated by pelvic hæmatocele, Dr. R. B. Low on, 809
——— by laudanum, 103, 860, 921
——— by liniment, 900
——— by lucifer matches, 105
——— by morphia, 141
——— by prussic acid, 269
——— by strychnia treated by chloral, Dr. G. Gray on, 476
——— by tansy oil, 701
——— by violet-powder, 565
Poisons, sale of, 272, 351
Police surgeons, 147
Political organisation, 154; excitement, deaths from, 596, 633
Pollard, Dr. F., alleged dangers of intra-uterine injection of perchloride of iron, 619, 657
Polypus, uterine, 247, 698; nasal, 594
Polyscope, electrical, 599
Pooley, Dr. J. H., congenital dislocation of wrist, 929
Poor-law, appointments, 36, 189, 307, 347, 422, 460, 535, 607, 643, 907, 955; medical officer of the Clun district, 189; superannuation, case of Mr. J. J. Terry, 229; Mr. A. G. Roper, 421; increase of salary of medical officers, 229, 347, 421; duties and fees of parochial medical officers, 307; appointment of non-resident medical officer, 347; stimulants in St. Pancras Workhouse, 521; superannuation of poor-law medical officers, 718, 871; question of professional duty, 907; fees for operations, 955
——— Ireland, appointments, 36, 189, 307, 347, 460, 535, 643; medical officer of North Dublin Union, 62; sickly workhouse children, 258; resignation of Dr. Whistler, 347, 664; reduction of salary of medical officer, 458, 567; action against guardians of Dungannon Union, 718; increase of salary of medical officers, 718, 753; second appointment to Carrigaline district, 753; lunatics in Cork Workhouse, 907; charges against a medical officer of Listowel dispensary district, *ib.*; order for appointment of a midwife, 976
——— Scotland, decision regarding maintenance of wife of a lunatic, 104; proposed reform of system of medical relief, 941
Poor, sanitation of the dwellings of the, 995
Poplar, sanitary report of, 400
Population, statistics of in France, 183; influence of famine on growth of, 378; excess of, 390; of Sweden, 441; of the Netherlands, 934; increase of, 981
Poroplastic splints and jackets, Cocking's, 286
Port, Dr., dermoid tumour of rectum, 811
Port-wine marks, removal of, 674
Porter, Surgeon-Major J. H., obituary notice of, 106; letter on, 150; proposed memorial of, 254; Lieutenant-General Roberts on death of, 294
——— Dr. W. G., rapid *post mortem* emphysema, 710
Portsea Island Union, appointment of public vaccinator, 833
Post Mortem Examinations, Dr. Virchow on, *rev.*, 484
Postural treatment, 177
Poulain, Dr. V., magpie-dust, 352

Powell, Dr. R. D., aortic regurgitation and the coronary circulation, 923; basic cavity of lung treated by paracentesis, 926
——— Mr. R. E., metamorphic milk, 390
——— Mr. W. H., parasites in enteric fever, 624, 633
Power, Mr. D'Arcy and Dr. V. Harris, Manual for the Physiological Laboratory, *rev.*, 975
Pratt, Dr. S., influence of congenital syphilis on vaccination, 191
Pregnancy, Mr. J. J. F. Barnes on icterus in, 127; leucocytosis of, 328; Dr. Galabin on ovariotomy during, 397; Mr. J. F. Fry on obstinate vomiting in, 399; extra-uterine, 443, 737; chorea during, 516; simulated by phantom tumour in an ass, 592
Prescription-book, Duplicate, *rev.*, 133
Prescription, original form of, 450
Presentations, Surgeon-major R. Allen, 30; Mr. E. D. Bower, 76; Mr. J. R. Lane, 174; Dr. Russell Aldridge, 190; Mr. E. C. Garland, *ib.*; Mr. W. A. Hunt, *ib.*; Dr. Barham, 215; Mr. Ormsby, 349; Mr. A. S. Perkins, 436; Mr. F. J. Parsons, *ib.*; Mr. F. H. Clarke, 645; Dr. James Clarke, 679; Miss Eames, 755; Dr. F. McGeagh, 794; Dr. S. Monckton, 872; Mr. W. O. Deacon, 877; Dr. J. I. Donovan, 941
Preservative fluid, 491
Princess Louise, accident to, 408
——— Pauline of Wurtemburg, marriage of, 669
Prison, diarrhœa in a, 27
Pritchard, Dr. U., Graydon's audiphone, 12
Prizes, the Wyatt-Edgell, 173; of Royal Lombardian Institute, 255, 895; of French Academy of Fine Arts, 562; triennial, of Royal College of Surgeons, 564, 749, 899; Walker, 599; Boylston, 984
Procter, Dr. William, death of, 374; obituary notice of, 421
Professional life, business aspects of, 978
Prolapsus ani, 78
Prosecution under Pharmacy Act, 256
Prostate, enlarged, 192; myoma of, 285
Proteolysis, digestive, 576
Provident dispensaries, spurious, 352; in the Metropolis, proposed plan for establishment of, 368, 631, 665; and public health, 453; letters on, 753, 869
——— Dispensary, Battersea, annual report, 380
——————— Brompton, annual report, 380
——————— Reading, annual report, 379
——————— Tunbridge Wells, annual report, 379
——————— Twickenham, annual report, 496
Pruritus ani, treatment of, 113
Prussic acid, poisoning by, 269
Psychology, medical, in the United States, 452, 530
Public health: reports of medical officers of health—Saffron Walden, 4; Dorking, 10; Barnsley, 118; St. Giles, 359; Tamworth, *ib.*; Aston Manor, 384, 613; Mid-Warwickshire, *ib.*; Rochdale, *ib.*; Wandsworth, *ib.*; Birkenhead, 433; Birmingham, 459; Mid-Cheshire, 459, 571; Kensington, 459; Maidstone, 605; Brandon and Byshottles, 608; Mountain Ash, 619; Bakewell, 621; Helmsley, *ib.*; Bedford, 677; Hartesmere, *ib.*: Holsworthy, *ib.*; Derby, 696; Workington, 736; Bury St. Edmund's, 753; Hexham, *ib.*; Keswick, 799; Bootle, 833; Saltley, *ib.*; East Dereham, *ib.*; Wareham, 834; Hastings, 850; Cheltenham, 890, Redditch, 854; Devonport, *ib.*; Luton, *ib.*; Registrar-General's weekly returns, 81, 101, 151, 190, 229, 268, 300, 349, 387, 423, 461, 499, 533, 572, 608, 645, 679, 719, 755, 792, 834, 872, 909, 956, 996; registration of infectious disease, *see* Disease; health of suburbs of London, 102; mortality statistics and sanitary condition, 137; rural municipalities, 139; aberrant local legislation, 290; health of colonial and foreign cities, 295, 827; public health in 1879, 299; reform in sanitary statistics, 306; sanitary topics, 307; appointments, 307, 347, 535, 778, 955; health of Rome, 309; recent prevalence of measles, 334; high death-rate at Ince-in-Wakefield, 335; changes in English rates of mortality, 336; appointment of medical officer of health for Chard, 421: payment of medical officers of health by fee, 421; medical officer of health for Exmouth, 422; reduction of salary of medical officer, 550; report of medical officer of Local Government Board, 603; weather and health in Philadelphia, 636; remarks on reports of medical officers of health, 642, 954; medical officer of health for port of London, 669, 782; effect of climate on health and disease, 713; the Eastwood Sanitary Authority, 778; ministry of health, 791; conference at Society of Arts, 829; Mr. Hart on action of British Medical Association in improving sanitary organisation, 911; tenure of sanitary appointments, 954; vital statistics of 1879, 984; sanitation of dwellings of the poor, 995
——————— Ireland, health of large towns in Ireland, 30, 143, 179, 259, 296, 454, 748; health of Dublin, 30, 828; quarterly reports of, 219, 712; in 1879, 259; health of Cork, 30, 454, 901; sanitary works in Dublin, 142; alteration in Registrar-General's returns, 143; quarterly reports of health of Ireland, 339, 901; influence of famine on growth of population, 378; health of Belfast, 602, 712, 986; health of Dundalk, 748; sanitary state of Limerick, 828; tenement houses in Dublin 865; health of Ireland in 1879, 940
Public Health: Scotland, health of large Scotch towns, 29, 104, 105, 142, 178, 219, 295, 296, 338, 374, 413, 453, 493, 531, 566, 602, 637, 672, 711, 747, 787, 788, 828, 864, 900, 939, 985; health of Glasgow, 29, 30, 258, 396, 602, 827, 900, 985; for 1879, 864; health of Edinburgh, 30, 258, 531, 567, 827, 900, 985; health of Leith, 30, 258; Edinburgh Sanitary Protective Association, 667; Registrar-General's report for 1879, 747; mortality for the year in Glasgow, 864
Puerperal woman, Dr. M. M. Bradley on scarlet fever in, 279
Pulse, slow, 113, 153; rapid, 194; and temperature in fever, want of correlation between, 365
Purjesz, Dr., pilocarpin an antidote to atropin, 366
Purpura, iodic, 626; hæmorrhagica, Dr. J. M. Finny on, 804
Purser, Dr. J. M., indigo-producing substances in urine, 247
Pustule, malignant, 819
Puzey, Mr. C., splint for contracted wrist and fingers, 764
Pyæmia and septicæmia, recent researches on, 134; Mr. J. F. O'Ryan on a case of, 440
Pyelitis, case of, treated by incision, 207
Pye-Smith, Dr., membranous laryngitis in an adult, 169; primary cancer of liver, 403; aneurism of abdominal aorta opening into vena cava, 811; medical education and apprenticeship, 818
Pylorus, cancer of, 974
Pyonephrosis, and excretion of liquid fat and hæmatoidin crystals in urine, 20
Pyopneumothorax, subphrenic, 891
Pyrotechnics, surgical, 310

Q.

Quebracho in dyspnœa, Dr. Berkart on, 167; false, 530
Quinine, consumption of, 710
Quinlan, Dr., cerebral apoplexy and abnormality of occipital bone, 247; perforation of colon, *ib.*; notification of infectious diseases, 384

R.

Race, improving the, 28
Radcliffe travelling fellowship, award of, 461
Radford, Dr. T., Cæsarean section, 869
Radius, removal of myeloid tumour of, 282; dislocation of backwards, 485; Dr. E. H. Bennett on fractures of lower end of, 759; dislocation of ulna in connection with Colles's fracture of, 778
Rags, transmission of small-pox by, 952
Railway carriages, mirrors in, 101, 192; foot-warmers in, 102
——— servants, colour-blindness among, 254, 982
Rainsford, Mr. R., death of, 339
Ranke, Professor, a child without limbs, 956
Ransome, Dr. A., management of convalescents from infectious diseases, 688
Ranula, large, with tumour of floor of mouth, 484; treatment of, 722, 756, 795
Rash, pustular, from sheep-washing, Mr. S. H. Steel on, 693
Rawdon, Dr. H. operative treatment of cleft palate in children, 915
Rayne, Dr. C. A., the Manchester Children's Hospital and Dr. Humphreys, 265
Rectum, imperforate, Mr. G. Owen on, 357; congenital malformation of, 483; Mr. W. H. Cripps on Cancer of, *rev.*, 484; treatment of prolapse of, 558; imperforate, 738; dermoid tumour of, 811
Red Cross, decoration of, 980
Redditch sanitary report of, 954
Reed, Mr. W. C., cod-liver-oil and alcohol, 311
Refrigerating apparatus, 530
Register, Medical, of Europe, 462, 574
Registrar-General, office of. *See* Farr, Dr.; reports of, *see* Public Health
Reid, Mr. T., physicians and patients, 836
Religion of the Future, Dr. J. B. Crozier on, *rev.*, 976
Renfrew, Dr., croup and diphtheria, 282
Restaurant, a vegetarian, 448
Retinitis albuminurica, 775
Revaccination, Mr. F. E. Scanlan on, 280
Rheumatic pericarditis with tetany, Mr. W. Beattie-Smith on, 844
Rheumatism, acute, treated by salicylic acid, 129; by salicin, 812; by salicylate of soda, 813, 904; case with symptoms of, 130; with nervous symptoms, 326; Mr. G. Budd on nature of symptoms of, 399; acute, with multiple embolisms, 696; articular, suppuration of joints after, 817
Rheumatoid arthritis, Dr. W. M. Ord on, 155
Rhodes's audiphone, Mr. J. Samuelson on, 12
Rice, Mr. P. M., relations of small-pox and cow-pox, 462
Richardson, Mr. B. W., vaginal cyst in an ewe containing fœtal remains, 593
Riche, M., artificial value of artificial butter, 862
Richet, M., report on physiological laboratories in Holland, 176
Richmond, Mr. C. E., cases of fracture of the scapula, 692
Ridge, Dr. J. J., mortality referable to alcohol, 312
Riegel, Dr., diagnosis of pericardial adhesions, 595
Riembault, M., death in coal-mines, 183
Rigal, M., formation of callus, 929
Right-handedness, 939
Rindfleisch, Dr., origin of blood-corpuscles, 789
Ringworm, tropical, fungus from, 403; Mr. W. Cottle on treatment of, 806; Mr. Alder Smith on, 885
Ritter, Dr. J., pneumonia and typhus, 366
Roberts, Mr. C. H., large gall-stone passed *per anum*, 192
——— Mr. Charles, anthropometry, 232; the eucalyptus in the Campagna, 949
——— Dr. G., atropia an antidote to strychnia, 671
——— Dr. Lloyd, ovarian cysts, 814
——— Dr. William, Lumleian lectures on digestive ferments, 539, 575, 614, 647, 683, 723; peptonised beef-tea, 815
Robinson, Mr., concentrated waters, 21
———— Dr., animal vaccination, 66
———— Dr. James, diagnosis of rötheln, 922; necropsies, 997
———— Mr. S. W., death of, 531; contribution in aid of family of, 603
Robson, Mr. A. W. M., use of nitro-glycerine, 556
Rochdale, sanitary report of, 384
Roden, Dr. S. S., ergot superseded, 622
Roe, Mr. A. S., infant *crèches*, 310
—— Dr., ovarian and placenta forceps, 592
Roger, M. H., hæmorrhages in whooping-cough, 19
Rogers, Dr. G. G., Flitwick water, 13
——— Dr. Joseph, treatment of postnasal catarrh, 90; magisterial definition of insanity, 385; representation of the University of London, 676
Romanes, Mr. G. J., mental evolution, 413
Rome, special correspondence from, 33; health of, 309
Roosa, Dr. St. John, consequences of cold in head, 490
Roper, Mr. A. G., suppuration of knee after gout, 132
Roseola uterina, 247
Ross, Dr. J., sclerosis in patches, 592; congenital paralysis, 662
—— Surgeon-General, diseases in animals in Natal, 206
Rötheln, diagnosis of, Dr. H. Tomkins on, 808; Mr. W. G. Burnie on, 848; Dr. J. Robinson on, 922; Mr. J. Woodman on, 968; letter on, 997
Rouse, Mr. James, new steam antiseptic spray-producer, 855
Rudd, Mr. W. A., sea-side lodgings, 424
Rudulf, M. R., rapid cure for cold, 138
Rural municipalities, 139
Russell, Dr. James, cerebral pneumonia, 13; syphilis with epileptic fits, 326; acute rheumatism with excessive nervous symptoms, *ib.*; attack analogous to gastric vertigo, 736
——— Dr. J. B., croup and diphtheria, 301
——— Dr. J. C., immersion microtome, 664
Russia, Empress of, 26; calculi in, 59; Dr. Petresco on the Plague in, *rev.*, 91; diphtheria in, 217, 703; vital statistics of, 500
Rutherford, Dr., asylums without locks, 983

S.

Saffron Walden, sanitary report of, 4
Sailors' Home and Dispensary in Liverpool, 496
St. Giles, sanitary report of, 359
St. Gothard tunnel disease, 982
Salaries in Ceylon, 958; of Poor-law and Public Health medical officers. *See* Poor-law and Public Health.
Salicin, rheumatic fever treated by, 812
Salicylate of soda, rheumatic fever treated by, 813, 904
Salicylic acid, acute rheumatism treated by, 129
Salivary fistula, traumatic, 282
Salivation, death from, 295
Salter, Mr. J. R., ether and chloroform, 537
Saltley, sanitary report of, 833
Salts, effervescing aperient, 21
Samelson, Dr. A., recurrent sclero-palpebral sarcoma, 325
Samuelson, Mr. J., Rhodes's audiphone, 12
Sänger, M., tuberculosis of heart, 93
Sanguineous discharge in an infant, Mr. C. E. Harle on, 848
Sangster, Dr. A., suppuration and exfoliation of nails, 282; non-glandular theory of molluscum contagiosum, 327; molluscum fibrosum, 363
Sanitary statistics, reform in, 306; topics, 307; conference in America, 500; organisation, Mr. E. Hart on action of British Medical Association in relation to, 911; appointments, tenure of, 954. *See* Public Health
Santesson, Dr., loose cartilages in knee in unusual number, 366
Sarcocele, case of, 443
Sarcoma of orbit, 210, 285; of face, 248, 812; of spermatic cord, 281; recurrent sclero-palpebral, Dr. A. Samelson on, 325; of scapula, 478; intrathoracic, 557; diffuse, of liver in an infant, 738; of kidneys, 812; Mr. H. T. Butlin on relations of to carcinoma, 875, 913
Sark, want of a medical man in, 633
Satterthwaite, Dr. T. E., multiple neuromata, 485
Saundby, Dr. R., pathology of Bright's disease, 168; pathology of granular kidney, 480; certain points connected with albuminuria, 841

Sausages, trichinosis from, 709
Savage, Dr. T., cystic tumour of kidney, 443
Saw, for section of lower jaw, 21
Sawyer, Dr. J., oleate of lead in eczema, 809, 923; treatment of phthisis by chloride of calcium, 845
Sayre, Dr. C. H. H., accident to, 634; death of, 670
—— Dr. L., the British and American Medical Associations, 941
Scalp, congenital disease of, 888
Scanlan, Surgeon-major F. E., revaccination, 280
Scapula, sarcoma of, 478; Mr. C. E. Richmond on fracture of, 692
Scarification, linear, Mr. B. Squire on treatment of lupus by, 654
Scarlet fever inducing labour, Dr. C. E. Walker on, 53; Mr. W. H. Day on, 127; spread of by milk, 107, 139, 409; in the puerperal woman, Dr. M. Bradley on, 279; after operations, Mr. E. Owen on, 358; among colliers, 458; prevention of spread of, 689; Mr. W. Berry on icterus after, 848; at Dr. Barnardo's village homes, 215, 565; in London, 217; at Burnham, 373; at New Brompton, 860; in Kendal, 947; at Carleton, 952
Scars in neck, removal of deformity produced by, 520
Schiller's Lay of the Bell, etc., Dr. A. Wood's Translation of, *rev.*, 976
Schnitzler, Dr., syphilis of the lung and pulmonary consumption, 93
School, Army Medical, end of winter term, 417; opening of summer session, 562
—— Greystoke Place, alleged disease at, 107
—— Medical, Edinburgh, lectureship on Natural History in, 531, 566
—— of Medicine, Leeds, resolution regarding Dr. Heaton, 600
—— of Mines, resignation of Dr. Perry, 26
Schoolmasters, a hint to, 100
Schools, medical inspection of, 136; in Madras, compulsory vaccination in, 710
Schossa, case of, 253
Schwimmer, Dr. E., local antiseptic treatment of small-pox, 891
Sciatica, Dr. J. P. Bramwell on nerve-stretching in, 920
Scientific training, Mr. Flower on, 902
Scirrhus of pylorus, 816. *See* Cancer.
Sclerema neonatorum, 403
Scleroderma, case of, 811
Sclerosis, disseminate, 246, 592, 851
Scotland, health of towns in, 29, 104, 105, 142, 168, 219, 295, 296, 338, 374, 413, 453, 493, 531, 566, 602, 637, 672, 711, 747, 787, 788, 828, 864, 900, 939, 985; storm in, 105; Registrar-General's report for 1879, 747
Scrotum, blood in, simulating hernia, Dr. Uhthoff on, 52
Scurvy, prevention of, 100
Seaside lodgings, 424
Sea-sickness, death from, 600
Seaton, Dr. E., arsenical contamination by vapour, 127; registration of infectious diseases at Nottingham, 953
—— Dr. E. C., death of, 140; obituary notice of, 188
Sea-water, supply of to London, 363, 783, 941
Sediment-collector, Dr. Dobell's, 629, 682, 720
Seeing by telegraph, 669
Seguin, Dr. E. C., hyoscyamia as a hypnotic and antispasmodic, 629
Seiler, Dr. C., microtome for large sections, 61
Semal, Dr., death of, 948
Seminal vesicles, dilatation of, 485
Semon, Dr. F., treatment of acute and chronic catarrhal laryngitis, 121; congenital syphilis of larynx, 245
Semple, Dr. R., the relations of croup and diphtheria, 426
Senile changes, 328
Septicæmia, recent researches on, 134
Servants, friendly society for, 192
Sewer-gas and diphtheria, 61, 636
Sewill, Mr. H., use of the gum-lancet, 311; Sir J. Lubbock and the dental diploma, 993
Sexton, Dr. S., tinnitus aurium, 963
Sharpey, Dr. William, obituary notice of, 606; funeral of, 637
Sheen, Dr. A., Medical Visiting-List, *rev.*, 19; workhouse medical officers and the Contagious Diseases Acts, 390; provident dispensaries, 753
Sheep-washing, Mr. S. H. Steel on pustular rash from, 693
Shell, Dr. G. T. Beatson on remarkable injury from bursting of a, 515
Shelly, Mr. C. E., combinations of glycerine and borax, 658
Shepherd, Surgeon-major, memorial of, 412, 528, 708
Shopwomen, counter-seats for, 822
Shoulder-joint, Mr. Mac Cormac on a case of excision of, 763
Siam, midwifery in, 682
Siamese twins type of monstrosity, 897, 982
Sigmund, Dr., Lectures on Novel Modes of Treatment of Syphilis, *rev.*, 628
Simon, Mr. John, retirement from Council of College of Surgeons, 669
Simpson, Dr. H., cardiac disease with gangrene of lower limbs, 814
Sims, Dr. Marion, bust of, 599; death from bromide of ethyl, 746
Sincock, Mr. J. B., arrest of circulation in a limb, 152
Skeleton, vertebrate, Mr. W. K. Parker on structure and functions of, 276, 321, 359, 396, 434
Skin, rare disease of, 15, 624; Dr. G. H. Fox's Photographic Illustration of Diseases of, *rev.*, 133; Mr. M. Morris's Manual of Diseases of, *rev.*, 288; parasites of, 452; Dr R. Farquharson on arsenic in diseases of, 802
Skull, fracture of, 169, 479, 518, 849, 958; lesions of in congenital syphilis, 286; deficiency of, 520; tumour of, 589; sarcoma of, 914, 915
Skulls found during excavations at Donnybrook, 285, 702; Zulu, 410
Smale, Mr. M., hysterical toothache, 362; Sir J. Lubbock and the dental diploma, 993
Small-pox, Dr. Macnamara on keloid in scars of, 14; relations of cow-pox to, 109, 305, 462; and vaccination, 223, *see also* Vaccination; the goddess of, 490; laryngeal perichondritis in, 625; incubation period of, 632; mode of spread of, 642; congenital, 792; congenital, Mr. A. S. Greenway on, 848; transmission of by rags, 863, 952; local antiseptic treatment of, 891; baths in, 938; at Bath, 59, 98; at Forfar, 104; in Dublin, 105, 712; in London, 140, 293, 334, 449, 458, 489, 636, 670, 709, 743, 897, 980, 981; in the United States, 141, 899; in Paris, 172, 253, 291, 333, 372, 408, 599, 668, 742, 782, 821, 891; in Arbroath, 178; deaths from, 217; in Belfast, 220, 454, 494, 531; in Corsica, 253; among unvaccinated communities, 412; among the Hampshire Militia, 782; at Reading, 793; at Montreal, 860; in Parsonstown, 865; at Hendon, 952; at Antwerp, 996
Smart, Sir W. R. E., erysipelas of epidemic type, 200
Smith, Mr. Alder, croton-oil treatment of ringworm, 885
—— Mr. E. Noble, cod-liver oil and alcohol, 204; dislocation at the wrist-joint, 440; treatment of fractured vertebræ, 662
—— Mr. F., treatment of uterine hæmorrhage, 835, 957
—— Dr. Gilbart, epithelioma of pharynx, 281; pharyngeal stenosis, 588
—— Mr. J. Greig, operation for extrophy of bladder, 202, 321
—— Mr. Priestley, preservation of ophthalmic specimens, 52; Glaucoma, *rev.*, 975
—— Dr. S. W., emetic for infants, 464; ergot superseded, 735
—— Dr. T., albinos, 246
—— Mr. Thomas, spontaneous gangrene of fungus, 556; congenital cystic hygroma, *ib.*
—— Dr. Walter G., cases of favus, 132; carcinoma of œsophagus, 248; intussusception of ileum into colon, *ib.*; gangrene of lung, *ib.*; chronic Bright's disease and pernicious anæmia, 285; rare nodose condition of hair, 654; patent foramen ovale, 701; phthisis laryngea, *ib.*
—— Mr. W. Beattie, rheumatic pericarditis with tetany, 844; removal of horny growth from wrist, 886
Smoking, abstinence from, 527
Sneddon, Dr. W., dilatation of stomach treated by syphon-tube, 51
Sneezing, Dr. J. Martin on case of fits of, 90
Snell, Mr. S., antiseptics in cataract extraction, 241
Snow, Dr. H. L., new antiseptic dressing, 476; joint administration of cubebs and copaiba, 586
Society, Anthropological, medical members of Council, 333
—— of Arts, inquiry into arsenic in manufactured goods, 669; conference on public health, 782, 829
—— of Arts, Royal Scottish, house-drainage, 671
—— Birmingham Medical Benevolent, annual meeting, 861
—— Clinical, of London: forty-five cases of excision of hip-joint, 15; new method of excising the hip-joint, 16; annual meeting, 104; officers and council, *ib.*; effects of chloral, 129; acute rheumatism treated by salicylic acid, *ib.*; fatal case with symptoms of acute rheumatism, 130; subastragaloid dislocation, 207; gun-shot wound, *ib.*; pyelitis treated by incision in loin, *ib.*; chylous urine after ague in India, 208; cupric test-pellets for sugar, 209; traumatic salivary fistula cured by catgut bougie, 282; sutural union of median nerve, *ib.*; suppuration and exfoliation of nails, *ib.*; myeloid tumour of radius, *ib.*; popliteal aneurism cured by Esmarch's bandage, 283; calculus impacted in membranous urethra, 363; paraplegia from Pott's disease, and intestinal obstruction, *ib.*; molluscum fibrosum, *ib.*; intrapelvic tumour, *ib.*; fish-bone impacted in œsophagus, 517; typhoid fever with acute nephritis, *ib.*; rapid and almost universal paralysis, 518; fracture of base of skull, *ib.*; femoral aneurism treated by ligature of external iliac, *ib.*; spontaneous gangrene of thumb and fingers, 556; congenital cystic hygroma, *ib.*; intrathoracic sarcoma, 557; sympathetic ophthalmitis after excision of eyeball, 590; bone-setting, 591; acute rheumatism with multiple embolisms, 696; amputation through hip-joint, 697; secondary hæmorrhage from a thigh-stump, 698; section of femur in ankylosis of hip, 812; rheumatic fever treated by salicin, *ib.*; rheumatic fever treated by salicylate of soda, 813; pigmented mole, 888; congenital disease of scalp, *ib.*; keloid, *ib.*; hysterical vomiting caused by displacement of uterus, *ib.*; acquired hypertrophy of limb, *ib.*; disease of mastoid bone, 971; cancer of pylorus, 972; unilateral morphœa, 974
Society, Destitute Sick, Edinburgh annual meeting, 29
—— Edinburgh Infirmary Samaritan, annual meeting, 218
—— Epidemiological: relapsing fever in India, 206; epidemic diseases in animals in Natal, *ib.*; fever in India, 283, 774, 972; removal in cholera, 889; German Commissioners' report on plague in Russia, 890; endemic plague in India, 972
—— Harveian, annual *conversazione*, 99; inquiry into mortality from alcohol, 177
—— Literary and Philosophical of Sheffield, president, 76
—— Medical, of Cambridge, formation of, 174; introductory remarks, 328; leucocytosis of pregnancy, *ib.*; pernicious anæmia, *ib.*; blood-cyst in diverticulum of ileum, *ib.*; senile changes, *ib.*; deficiency of bone at vertex of head, 520; undescended testicle, *ib.*; relation of local to general tuberculosis, *ib.*; anomalous choreic spasms, 815; intestine ruptured through violence, *ib.*; recovery after severe injury to brain, 816; scirrhus of pylorus with simple ulcer, *ib.*; glandular tumour of lip containing cartilage, *ib.*; lardaceous viscera, *ib.*; fungi of skin-diseases, *ib.*
—— Medical, of College of Physicians in Ireland, papilloma of legs, 132; cases of favus, *ib.*; mercury in Bright's disease, *ib.*; abnormality of occipital bone, 247; perforation of colon, *ib.*; indigo producing substances in urine, *ib.*; cancer of œsophagus, 248; movable kidney, 365; want of correlation between pulse and temperature in fever, *ib.*; fatty heart, 625; iodic purpura, 626; neurosal palpitation, 776; symptoms and treatment of diphtheria, *ib.*; vaccinia gangrænosa, 853
—— Medical, of Cardiff, officers, 309
—— Medical, of Manchester, annual meeting, 140; officers and council, *ib.*; cranial lesions in congenital syphilis, 286; post-sternal tumour, *ib.*; extra-uterine pregnancy, *ib.*; diagnosis and treatment of pleuritic effusions, *ib.*; occlusion of vagina, 443; goitre causing death by pressure on œsophagus, *ib.*; sarcocele, *ib.*; arterio-venous aneurism, *ib.*; citrate of caffeine, *ib.*; compound dislocation of astragalus, 520; aortic aneurism bursting into right auricle, *ib.*; instrument for removing cicatricial deformities in neck, *ib.*; lactation and uterine disease, *ib.*; osteotomy, 592; sclerosis in patches, *ib.*; new uses of old remedies, *ib.*; clonic spasm of left sterno-mastoid, 662; suspected syphilitic brain-tumour, *ib.*; congenital paralysis, *ib.*; misplaced testicle, *ib.*; tuberculous testicle, *ib.*; accident with wire-pessary, *ib.*; dilated heart, *ib.*; villous tumour of bladder, *ib.*; congenital tumour of arm, 814; ovarian cysts, *ib.*; cardiac disease with gangrene of the lower limbs, *ib.*; peptonised beef-tea, 815; extroversion of bladder, *ib.*; removal of tongue by scissors, *ib.*
—— of Medical Officers of Health, etiology of summer diarrhœa, 519
—— Medico-Chirurgical, of Glasgow, note on, 105
—— Medico-Chirurgical, Leeds and West Riding, pathological specimens, 246; disseminate sclerosis, *ib.*; albinos, *ib.*; incisions into elbow-joint, *ib.*; retained secundines after abortion, *ib.*; typhoid tympany masking retention of urine, *ib.*; position of patient in empyema, *ib.*
—— Medico-Chirurgical, Norwich, resolutions concerning Dr. W. Farr, 223
—— Medico-Chirurgical Sheffield, resolution concerning Dr. W. Farr, 223
—— Medico-Chirurgical, West Kent, meetings, 72, 126
—— National Health, drawing room lectures of, 745
—— for Nurses for the Poor in Belfast, annual meeting, 788
—— Obstetrical, of Dublin, ovarian tumour removed from an infant, 246; warty growths on vulva, *ib.*; erythema uterinum, 247; uterine polypus, *ib.*; ovum or placenta forceps, 592; phantom tumour simulating pregnancy in an ass, *ib.*;
—— Obstetrical, of London, officers and council, 174; uterus and appendages from a case of internal hæmorrhage, 209; specimens, 209, 481; pain in pelvic cancer, 209; the cotton-leaf as a galactagogue, 210; foreign body in vagina, *ib.*; rescinding of new rules, 214; monstrosities, 481, 698, 971; axial rotation of ovarian tumours, 481; alleged delivery after death from burning, *ib.*; fibroid polypus, 698; multiple vesical calculi after prolapsus uteri, *ib.*; missed abortion, *ib.*; removal of fibrous outgrowth from fundus uteri, *ib.*; removal of uterine fibroids by laparotomy, 698, 971; encephalocele, 773; recording the fœtal movements by the gastrograph, *ib.*; extra-uterine fœtation, 773, 271; retroflexion of uterus, *ib.*; pathological anatomy of erosion of cervix, *ib.*; cases of uterine dislocation or displacement, *ib.*
—— Odonto-Chirurgical, Edinburgh, annual meeting, 453
—— Odontological, of Great Britain, officers and

council, 104; specimens, 872; nerve-stretching in neuralgia, 851

Society, Pathological, of Dublin, caries of head of tibia, 248; tumour of lower jaw, *ib.*; laryngo-tracheotomy in croup, *ib.*; sarcoma of face, *ib.*; diabetes mellitus, *ib.*; dentigerous cystic tumour, *ib.*; intussusception of ileum into colon, *ib.*; thoracic aneurism, 248, 521; gangrene of lung, 248; duro-arachnitis, *ib.*; hip-disease, *ib.*; myoma of uterus, 285; melanotic sarcoma of orbit, *ib.*; chronic Bright's disease and pernicious anæmia, *ib.*; myoma of prostate gland, *ib.*; abdominal aneurism, *ib.*; incomplete fracture of forearm, *ib.*; the late Sir D. J. Corrigan, *ib.*; peritoneal carcinoma, *ib.*; embolism of iliac arteries, *ib.*; cirrhosis of liver, 364; melanotic cancer of thigh, *ib.*; typhoid fever without rose spots or diarrhœa, *ib.*; cirrhosis of kidneys and Cheyne-Stokes respiration, *ib.*; hæmorrhagic infarction of lungs and spleen, *ib.*; complete luxation of spinal column, 443; traumatic perinephritis, *ib.*; abnormality of great cardiac veins, 521; amputation through the hip for coxo-femoral arthritis, *ib.*; tubercular fever, *ib.*; thoracic aneurism communicating with pulmonary artery, *ib.*; wound of eyeball, *ib.*; enteric fever with cerebral symptoms, 663; cholera morbus or scarlatina maligna, *ib.*; luxation of femur on os pubis, *ib.*; patent foramen ovale, 701; croup, *ib.*; disease of knee-joint, *ib.*; phthisis laryngea, *ib.*; caries of tibia, with fracture and repair, 739; hydrophobia, *ib.*; latent caries, *ib.*

——— Pathological, of London: extrapericardial aneurism with hæmorrhage into pericardium, 14; congenital atelectasis, emphysema, and cyst of lung, *ib.*; supposed rupture of roots of brachial plexus, *ib.*; rupture of heart, *ib.*; ainhum, *ib.*; rare disease of skin, 15; tumour of brain and optic nerve, *ib.*; ovarian tumour, *ib.*; obscure injury of hip-joint, *ib.*; specimens exhibited by card, 15, 72, 169, 246, 404, 481, 590, 625, 739, 812; list of officers and council, 27; large gall-stone passed *per anum*, 71; large cystin calculus, *ib.*; oriental bezoar, *ib.*; calculus from kidney, *ib.*; cystic kidney removed by abdominal section, *ib.*; elephantiasis of penis, *ib.*; syphilitic disease of long bones of fœtus, *ib.*; retarded hereditary syphilis, 168; malformation of heart, 168, 812; dislocation of thumb, 168; pathology of Bright's disease, *ib.*; membranous laryngitis in an adult, 169; malignant growth in lung, *ib.*; osseous and articular lesions in locomotor ataxy, 244; tumours from abdomen, 245; varicella gangrænosa, *ib.*; living specimen of true leprosy, *ib.*; congenital syphilis of larynx, *ib.*; notes on meetings, 255, 633; congenital occlusion of duodenum, 281; gangrene of bowel with cancer of sigmoid flexure, *ib.*; dislocation of external semilunar cartilage of knee-joint, *ib.*; cicatrices in air-tubes, *ib.*; diaphragmatic hernia, *ib.*; ulcer of stomach and duodenum, *ib.*; epithelioma of pharynx, larynx, and œsophagus, *ib.*; sarcoma of spermatic cord, *ib.*; cystic tumour of spermatic cord, 281, 625; blood-cysts in bronchi, 282; anomalous skin-disease, *ib.*; pulsating tumours, 402; degeneration and regeneration of nerves, 403; fungus from tropical ringworm, *ib.*; primary cancer of liver, *ib.*; hypertrophy of masseter and temporal muscles, *ib.*; sclerema neonatorum, *ib.*; cancer of stomach, *ib.*; *Transactions* of, *rev.*, 404; pathology of granular kidney, 480; new method of mounting eyes, 481; peculiar form of cancer of breast, *ib.*; tumour of skull, 589; histology of molluscum contagiosum, *ib.*; pathology of elephantiasis, *ib.*; horny growth from the eyelid, 590; melanosis of finger, *ib.*; congenital syphilitic disease of larynx, *ib.*; tetanus after ovariotomy, *ib.*; supposed parasites in voluntary muscles in enteric fever, 624; recovery from morphœa, *ib.*; rare form of skin disease, *ib.*; ramifying cyst of brain, 625; aneurism by anastomosis in ear, *ib.*; laryngeal perichondritis in typhoid fever and small-pox, *ib.*; aortic, mitral, and tricuspid regurgitation, *ib.*; cancrum oris leading to necrosis of lower jaw, 738; imperforate rectum, *ib.*; rapid collapse in strangulated hernia, *ib.*; diffuse sarcoma of liver in an infant, *ib.*; chondrosarcoma of leg, *ib.*; congenital talipes varus and calcaneus, *ib.*; sequel of a case of tertiary syphilis, 739; microphotographs of blood in yellow fever, *ib.*; large pulmonary cavities, *ib.*; acute atrophy of liver, *ib.*; congenital malformation of arms, *ib.*; reports of Morbid Growths Committee, 811; pathology of cancer, *ib.*; painful subcutaneous tumour, *ib.*; recurrent mammary tumour, *ib.*; aneurism of aorta opening into right auricle, *ib.*; cirrhosis of liver in a child, *ib.*; dermoid tumour of rectum, *ib.*; cystic calculus, *ib.*; aneurism of abdominal aorta, *ib.*; scleroderma, *ib.*; cystic degeneration of kidneys, *ib.*; congenital syphilitic ulceration of tongue, 812; sarcomatous growths in kidneys, *ib.*; alveolar sarcoma of face, *ib.*

——— Pathological and Clinical, of Glasgow, hydatid mole, 210; sarcoma of orbit, *ib.*; circumcision, *ib.*; ruptured perinæum, *ib.*; dissecting aneurisms, *ib.*; tracheal casts, *ib.*; union of peritoneal surfaces, *ib.*; transplantation of bone, 364; molluscum fibrosum, *ib.*; tinea imbricata, *ib.*; spectra of hæmoglobin and of vomited matters, *ib.*; cystic tumour of abdomen, 482; cystic disease of kidney, *ib.*; embolism of superior mesenteric artery, *ib.*; mediastinal tumour with venous thrombosis, *ib.*; acari from common fowl, *ib.*; decalcified drainage-tubes, 483; acute tuberculosis of lungs, 627; disease of spine without curvature, *ib.*; *post mortem* examination of middle ear, *ib.*; talipes equinus, *ib.*; osteotomy, *ib.*; normal length of condyles of femur, *ib.*; retinitis albuminurica, 775; union of anterior segments of aortic valve, *ib.*; multiple embolisms, *ib.*; seirrhus of male breast, 776

Society, Pharmaceutical, annual dinner and *soirée*, 784

——— of Public Analysts, annual meeting, 145

——— for Relief of Widows and Orphans of Medical Men, quarterly court, 173

——— Royal, Fellows of, 933

——— Royal Medical Benevolent Fund of Ireland, annual meeting, 901

——— Royal Medical and Chirurgical: eczema of nipple followed by cancer of breast, 128; direct dislocation of femur backwards, *ib.*; amputation of subclavian artery treated by amputation, 205; antiseptic ovariotomy, 243; experimental pathology of spirillum fever, 327; non-glandular theory of molluscum contagiosum, *ib.*; officers and council, 336; annual meeting, 376; report of council, *ib.*; Harvey memorial fund, *ib.*; president's address, 377; votes of thanks, *ib.*; nephrectomy by abdominal section, 401; estimation of uric acid, 479; the Nitze-leiter endoscope, 480; extreme pharyngeal stenosis from syphilis, 588; partial metabolism by liver of leucin and tyrosin into urea, 589; malformation of chest and spine, 660; compound fracture of femur after excision of knee, 661; extra-uterine pregnancy treated by abdominal section, 737; treatment of pelvic suppuration by abdominal section, *ib.*; subcoracoid dislocation of humerus without rupture of capsule, *ib.*; treatment of lateral curvature of the spine, 810; epithelioma of neck following chronic skin-disease, *ib.*; basic cavity of lung treated by paracentesis, 926

——— Royal Microscopical, report of, 309

——— Statistical, resolution concerning Dr. W. Farr, 344

——— Surgical, of Ireland, recent specimens, 210, 284, 483; tumour of breast, 210; ovarian and uterine tumours, *ib.*; litholapaxy, *ib.*; dislocation of femur on os pubis, 284; removal of uterus and ovary, *ib.*; acute goitre, *ib.*; skulls found during excavations at Donnybrook, *ib.*; phlebitis of lower extremities after injuries of head, 483; contraction of mouth, *ib.*; stomatoplasty, *ib.*; congenital malformation of rectum, *ib.*; large ranula with tumour of floor of mouth, 484; vaginal cyst in an ewe containing fœtal remains, 593; ovariotomy treated antiseptically, 593, 594; injury of cervical spine, 593; chicken-bone in larynx, *ib.*; amputated foot, *ib.*; calculus, *ib.*; diseased knee-joint, *ib.*; the antiseptic method, *ib.*; nasal polypus, 594; lipoma mixtum, *ib.*; excision of head of humerus, *ib.*; chronic mammary tumour, 699; ovarian tumour, *ib.*; cases of ovariotomy, *ib.*; spinal abscess, 700; diseased knee, *ib.*; piece of metal in eye, *ib.*; fatty tumour *ib.*; treatment of strangulated hernia, *ib.*;

——— Temperance, French, prize questions, 933

Socotra, scientific exploration of, 104

Soda, benzoate of, inhalation of in phthisis, 23, 72

Solihull, sanitary arrangements at, 139

Soups, peptonised, 649

South-coast towns, health of, 385, 498

Southend, report of epidemic of typhoid fever in, 172, 214

Southey, Dr. R., acute rheumatism with multiple embolism, 696

Spear, Dr. J. M., plugging the posterior nares, 566

Spectroscope in Medicine, Dr. C. A. McMunn on, *rev.*, 444

Spence, Mr. J., saw for section of lower jaw, 21; surgical statistics, 119, 265, 434, 831

Spender, Dr. J. K., caution in use of India-rubber bandage, 362

Spermatic cord, sarcoma of, 281; tumour of, 625

Spinal cord, Dr. A. H. Bennett on action of electricity on, 161; neurasthenia of, 699; secondary degeneration of, 979

Spine, treatment of angular curvature of, letter on, 39; fracture of, 62; treatment of affections of, 70; Mr. E. Owen on treatment of diseases of in children, 313; paraplegia from Pott's disease of, 363; complete luxation of, 443; caries of in neck, 516; cervical, injury of, 593; disease of without curvature, 627; malformation of, 660; abscess of, 700; treatment of lateral curvature of, 810; Mr. John Wood on double extension in disease and injury of, 837; Mr. C. Steele on chair-supports in curvature of, 845; Mr. R. Davy on treatment of curvature of by hammock suspension and jacket, 959

Spleen, and left lung, Dr. W. S. Paget on hydatid disease of, 734

Splint, double, for hip-joint, 131; for contracted wrist and fingers, Mr. C. Puzey on, 764

Splints, air or water pads for, 558

Spray-producer, new, 855

Square, Mr. W. J., cooking from a doctor's point of view, 160

Squire, Mr. Balmanno, treatment of lupus by linear scarification, 654

Squire, Dr. W., microphotographs of blood in yellow fever, 739

Stafford, Surgeon-Major P. W., antiseptic dressings in military surgery, 922

Stammering, statistics of in France, 426

Staphyloma of cornea, 286

Stapleton, Mr. M. H., obituary notice of, 570

Startin, Mr. James, Coster's paste, 114; histology of molluscum contagiosum, 589

Starch, Dr. W. Roberts on digestion of, 541

Statistics, of mortality, and sanitary condition, 137

——— sanitary, reform in, 306

——— surgical, Mr. Spence on, 119, 265, 434, 831; Mr. Lister on, 237, 276; of Glasgow Royal Infirmary, 148, 185; letters on, 148, 185, 309, 350, 716; Dr. J. C. Mc Vail on, 436; remarks on, 558

Steel, Mr. S. H., pustular rash from sheep-washing, 693

Steele, Mr. C., chair-supports in spinal curvature, 845

——— Mr. C. E., extraction of foreign body from prostatic portion of urethra, 771

Steet, Mr. G. C., help in street accidents, 501, 609, 681

Stephens, Mr. E., friendly societies for servants, 192; the new Burials Act, 232

Stephenson, Dr., intra-uterine coagulum leading to inversion of uterus, 816

Sterno-mastoid muscle, tumour on induration of, 515, 622, 682; clonic spasm of, 662

Stethoscope, medical officers', 94

Stevens, Dr., animal vaccination, 67

Stevenson, Mr. N., dangers of arsenic in dentistry, 362

——— Dr. T., sclerema neonatorum, 403

Stewart, Dr. A. P., distinction between typhus and typhoid fevers, 110

Stewart Institution for Imbecile Children, 567

Stimulants in St. Pancras Workhouse, 521

Stoker, Mr. W. T., removal of uterus and ovary, 284; abdominal aneurism, 285; congenital malformation of rectum, 483; fatty tumour, 700

Stokes, Mr. W., litholapaxy, 210; dentigerous cystic tumour, 248; myoma of uterus, 285; amputation for coxo-femoral arthritis, 521; cases of ovariotomy treated antiseptically, 593; luxation of femur on os pubis, 663; amputation through hip-joint, 697

Stomach, dilatation of treated by syphon-tube, Dr. W. Sneddon on, 51; ulcer of 281; Dr. Clifford Allbutt on treatment of dilatation of, 315; cancer of, 403, 816, 974; injury of by stomach-pump, 679; Dr. J. I. Mackenzie on ulcer of penetrating into liver, 692; *post mortem* examination of, 710; hæmorrhage from ulcer of, 970

Stomatitis, ulcerative, outbreak of, 532

Stomatoplasty, case of, 483

Storey, Mr. J. B., wound of eyeball, 521

Störk, Dr. K., occlusion of larynx treated by internal laryngotomy, 685

Storm in Scotland, 105

Stowers, Dr. J. H., lupus, 653

Strange, Dr. W., notification of infectious diseases, 422; infant mortality in Worcester, 635

Straton, Mr. C. R., medical provident fund, 147

Streatfeild, Mr., unilateral morphœa with exostoses and corneal opacity, 975

Streets, accidents in, 216, 265, 501, 537, 609, 646, 681

Strugnell, Mr. F. W., inefficient vaccination, 187

Struthers, Dr. J., evidence before Committee on Medical Acts Amendment Bills, 414

Strychnia, attempted suicide by treated by hydrate of chloral, Dr. G. Gray on, 476; atropia an antidote to, 671

Stuart, Mr. J. A. E., the hypodermic syringe as an exhausting apparatus, 311; tricycles, 836

Stump, Mr. H. J., double amputations, 998

Sturge, Dr. W. A., secondary syphilis, 400; congenital malformation of arm, 739

Sturges, Dr. O., cerebral pneumonia, 270

Subphrenic pyopneumothorax and abscesses, 891

Sugar, cupric test-pellets for, 209; cane, Dr. W. Roberts on digestion of, 543

Suicides in Bohemia, 337

Sultan of Turkey, death of sister of, 138

Superannuation of Poor-law medical officers, 229, 421, 458, 498, 664, 718, 871

Superstition in Somerset, 309

Suppuration, pelvic, treated by abdominal section and drainage, 737

Surgeon, threatening a, 174

Surgery, Dr. Fairlie Clarke's Manual of, *rev.*, 288; Mr. Cattlin on relations of Dentistry to, 360; letter on, 463; Minor, Mr. C. Heath on, *rev.*, 484

Surgical dressings and midwifery, 942; statistics, *see* Statistics.

Sutro, Dr. S., treatment of whooping-cough, 39

Swammerdam, Jan, anniversary of death of, 395

Swan, Dr., diseased knee, 700

Swanzy, Mr. H. R., metal in eye, 700

Sweat, bloody, 809

Sweden, population of, 441

Swimming, teaching of, 633

Swinging, peritonitis from, 899

Sympathetic System of Nerves, Drs. Eulenberg and Guttmann on Physiology and Pathology of, *rev.*, 522

Syphilis, retarded hereditary, 168; congenital, influence of on vaccination, 191; late or tertiary in children, 204; and yaws, 231; congenital, cranial lesions in, 286; with epileptic fits, 326; secondary, cases of, 400; pharyngeal stenosis from, 588; Dr. Sigmund on Novel Modes of Treatment of, *rev.*, 628; constitutional, in Liverpool, Mr. F. W. Lowndes on, 727; letter on, 836; tertiary, sequel of case of, 739; treatment of in Paris, 992

Syphilitic disease of bones of fœtus, 71; of lung, 93; of larynx, respiratory trouble in, 235; of larynx, congenital, 245, 590; patients, epilepsy in, 629; ulceration of tongue, congenital, 812; thrombosis of basilar artery, 886

Syphon-tube, Dr. W. Sneddon on treatment of dilatation of stomach by, 51

Syringe, hypodermic, as an exhausting apparatus, 311

T.

Tait, Mr. Lawson, oöphorectomy, 154; the antiseptic theory and ovariotomy, 243; extra-uterine gestation treated by abdominal section, 737; treatment of pelvic suppuration by abdominal section and drainage, *ib.*

Talipes equino-varus, congenital, 381; equinus, 627; varus and calcaneus, 738

Tamworth, sanitary report of, 359, 872

Tansy, poisoning by oil of, 701

Tapeworm, a large, 873

Tarsal bones, congenital ankylosis of, 956

Tattoo-marks, removal of, 721

Taylor, Dr. A. S., death of, 821; obituary notice of, 905

——— Dr. F., cirrhosis of liver in a child, 811

Tea, spurious, 214; amount of used, 351

Teale, Mr. J. W., abnormally high temperatures, 126

Teeth, artificial, not necessaries, 26; dislocation of jaw during extraction of, 271; examination of in constitutional disease, 481; irregularities of, 557

Teevan, Mr. W. F., calculus impacted in membranous urethra, 363; Mr. Furneaux Jordan's lithotomy, 440

Telegraph, service, the, 139; seeing by, 669; delays in messages by, 670

Temperaments, 77, 154

Temperature, abnormally high, Mr. J. W. Teale on, 126; and pulse, want of correlation of in fever, 365; apparatus for lowering, 456, 530; high, after antiseptic ovariotomy, 662

Tempora mutantur, original of, 425

Tendon-reflex and Duchenne's palsy, Dr. H. Donkin on, 734

Terrillon, M., bromide of ethyl as an anæsthetic, 820

Testicle, undescended, 520; misplaced, 662; tuberculosis, *ib.*; Mr. H. T. Butlin on tumours of, 875

Testimonial to Dr. Farr, proposed, 578, 418, 456, 708, 721. *See* Presentation

Tetanus, Mr. W. B. Mackay on treatment of by belladonna and chloral, 280; after ovariotomy, 590; traumatic, 626

Thigh, melanotic carcinoma of, 364. *See* Femur

Thin, Dr. G., fungus from tropical ringworm, 403; pathology of elephantiasis, 589; pathology of cancer, 811

Thom, Mr. A., death of, 176; memorial of, 436

Thomas, Dr. C. H., the audiphone, 411

——— Dr. W. R., apoplexy of lung from cardiac disease, 844

Thompson, Mr. E. C., air or water pads for splints, 558

——— Sir H., the Nitze-Leiter endoscope, 480; on Food and Feeding, 860

——— Dr. James, uterine hæmorrhage, 874

——— Dr. R. E., hospital flooring, 874

Thomson, Dr. Hugh, croup and diphtheria, 302

——— Dr. W., foreign watering places, 832

——— Mr. W., complete luxation of spine, 443; tracheotomy in croup, 553, 701; Dupuytren's fracture of the fibula, 919

Thorburn, Dr. J., accident with a wire pessary, 662

Thornton, Mr. Knowsley, occasional high temperature after antiseptic ovariotomy, 662; removal of uterine fibroids by laparotomy, 698

——— Mr. W. Pugin, treatment of eczema, 475

Thudichum, Dr. J. L. W., Annals of Chemical Medicine, *rev.*, 853

Thurston, Mr. E. W., surgical treatment of epistaxis, 848

Tibbits, Dr. H., How to use a Galvanic Battery, *rev.*, 523

Tibia, caries of head of, 248; abscess in head of, 519; caries and fracture of, 739; sarcomata of, 914, 915

Tilt, Dr. E. J., intra-uterine medication, 470

Tin-foil, poisonous, 456

Tindall, Mr. A. A., St. John's Hospital *versus* the *Medical Press and Circular*, 948

Tinnitus aurium, letters on, 77, 232, 271, 352; Dr. S. Sexton on, 963

Tobacco, smoking of by women, 26

Tomes, Mr. John, relations of dentistry to surgery, 463

Tomkins, Dr. H., diagnosis of rötheln, 808

Tonga, 929

Tongue, congenital syphilitic ulceration of, 812; removal of by scissors, 815

Tooth-grinding and gout, Dr. H. Donkin on, 279

Toothache, hysterical, Mr. M. Smale on, 362

Torrance, Mr. R., paracentesis of membrana tympani in aural catarrh, 693

Toulmin, Mr. F., contraction of colon, 154

Tourniquet, new spring, 286

Toussaint, M., transmission of tuberculosis, 602

Tracheotomy in croup, 248; Dr. A. H. Corley on, 550; Mr. R. W. Parker on, 552; Mr. W. Thomson on, 553; in diphtheria and croup, Dr. G. Buchanan on, 554

Transfusion in uterine hæmorrhage, Dr. T. M. Madden on, 582

Trélat, M., chloral and chloroform for surgical anæsthesia, 938

Trevelyan, Sir C., Metropolitan Medical Relief, *rev.*, 288

Trichinæ in swine, 337

Trichinosis in the school-ship *Cornwall*, 101, 348, 497, 523; from eating sausages, 709; letter on, 832

Tricycles, 758, 856, 874

Triplets, cases of, 998

Trypsin, Dr. W. Roberts on, 575, 614

Tubercle of apex of lung, Mr. G. Budd on, 242

Tuberculosis, of heart, 93; local and general, 520; general, case of, 521; transmission of, 602, 704, 873; acute, of lungs, 627; of testicle, 662; acute miliary, 694; general, with hæmorrhage from bowels, 695

Tuke, Dr. D. H., the Cagots, 216; private asylums, 342

Tumours of abdomen, 245, 482

——— of bladder, villous, 662

——— of brain and optic nerve, 15; of brain, 662

——— of breast, 210, 699; pathology of, 446; recurrent, 811

——— of cerebellum, Dr. Hughlings Jackson on, 196; Dr. G. M. Bacon on, 280

——— of cranium, pulsating, 402; cases of, 589

——— dentigerous cystic, 248

——— fibrous, Dr. D. J. Mackenzie on removal of by caustic, 771

——— of kidney, cystic, 443. *See* Kidney.

——— of lip, containing cartilage, 816

——— of lower jaw, 248, 775

——— mediastinal, 286, 482

——— of ovary, 15, 210, 284, 443

——— painful subcutaneous, 811

——— in pelvis, 363

——— phantom, simulating pregnancy in an ass, 592

——— of radius, myeloid, 282

——— of spermatic cord, 625

——— sterno-mastoid, 515

——— of testes, Mr. H. T. Butlin on, 875

——— of uterus, 210, 285, 698, 971

Turnbull, Dr. L., bromide of ethyl as an anæsthetic, 565

Turner, Mr. D. W., scrap-books, etc., for children in hospitals, 266

Turpentine, Chian, in cancer, 600; Dr. A. Marsden on, 923; Mr. W. F. M. Jackson on, 968; letter on, 998

Twins, born with an interval of forty-four days, Dr. Carson on, 242; united, 897, 982

Tylecote, Dr. J. H., effects of climate on health and disease, 713

Tympanum, chronic catarrh of, 169; Mr. R. Torrance on paracentesis of membrane of, 693

Tyson, Mr. W. J., slow pulse, 113

Tytler, Dr. P., punctured wound of internal maxillary artery, 587

U.

Uhthoff, Dr. J. C., strangulated inguinal hernia simulated by blood in scrotum, 52

Ulcer of stomach penetrating into liver, Dr. J. I. Mackenzie on, 692

Ulcers, Dr. Easby on iodoform in, 362

Umbilicus, eczema at, 357

Underwood, Mr. A. S., nerve-stretching in neuralgia, 851

University of Aberdeen, proposed new chair of Pathological Anatomy, 637; pass list, 754; appointments in, 787

——— of Berlin, appointment in, 136

——— of Cambridge, pass lists, 348, 460, 640, 908, 995; Rede's lecturer, 633, 669; study of anatomy at, 860

——— of Dublin, pass lists, 111, 228, 386, 718; regulations concerning scholarships, 788

——— of Durham, pass lists, 228, 678

——— of Edinburgh, matriculation returns for 1879, 104; meetings of University Court, 178, 602; examiner in Botany, 218; large bequest to, 453; examinership in Clinical Surgery, 453; termination of session, 493; Lord-rectorship of, 637, 672; degrees conferred, 672; opening of summer session, 711

——— of Glasgow, chair of Materia Medica in, 338, 671; Lord-rectorship of, 637, 711; hood for M.D. degree, 610; graduation ceremony at, 711; new grade in Arts, 747; pass list, 754

——— Harvard, new regulations, 745

——— of Leipsic, appointment in, 137

——— of London, matriculation examination at Anderson's College, 29; remarks on, 95, 137; proposed separation of preliminary scientific and first M.B. examination, 111; representation of in Parliament, 139, 600, 668, 669, 716, 782, 859; letters on, 150, 676; examiners, 708; election of vice-chancellor, 821

University of Naples, forgery of diplomas of, 529

——— of Otago, professorship of Zoology in, 372

——— of Oxford, the medical faculty of, 99; scientific endowment at, 110; the degree in Natural Science, 184; notice by Regius Professor of Medicine, 213; Radcliffe Travelling Fellowship, 461; degree conferred, 640, 794, 992; honorary degrees, 895

——— of Philadelphia, the so-called, 113

——— of Pisa, notes on, 675

——— Queen's, in Ireland, meeting of senate, 531

——— Royal, in Ireland, appointment of chancellor and senate, 637, 672; proposed representation of in Parliament, 828

——— of St. Andrew's, election of assessor, 29; financial difficulties of, 493, 526, 537; a Scotch view of, 743; pass list, 754; letter on, 795; Lord-rectorship of, 827

Universities of Aberdeen and Glasgow, representation of in Parliament, 453, 493, 692

——— of Edinburgh and St. Andrew's, representation of in Parliament, 291, 338, 453, 493, 692

Urethra, calculus impacted in, 363; Mr. C. E. Steele on extraction of foreign body from, 771

Urinal, bed, a new, 94

Urine, excretion of liquid fat and hæmatoidin in, 20; Mr. C. B. Pasley on aspiration of bladder in retention of, 167; Dr. W. M. Campbell on, 280; chylous, after ague in India, 208; typhoid tympany marking retention of, 246; indigo-producing substances in, 247; Dr. J. T. Whittaker's Student's Primer on, *rev.*, 523; Dr. J. W. Legg's Guide to Examination of, *rev.*, 777

Uterometer, improved, 445

Uterine erythema, 247

——— douche, 445

——— Structures, Dr. T. H. Buckler on Anatomical Relations of, *rev.*, 777

Uterus, hernia and removal of, 20; Mr. J. S. Nairne on painful spot in after labour, 90; postural treatment of procidentia of, 177; removal of with ovary, 284; myoma of, 285; movements of, 295; pessary for prolapsus of, 442; induration of, *see* Intra-uterine; removal of fibrous outgrowths from fundus of, 698; removal of fibroids of by laparotomy, 698; inversion of from coagula, 816; Dr. S. Hague on inversion of, 886; hysterical vomiting from displacement of, 888; retroflexion of, 971; tumour of, *ib.*; report on cases of distortion or displacement of, *ib.*

V

Vacation courses for practitioners, 373

Vaccination Act, penalties under, 63, 179; Bill for amendment of, 951, 977

——— animal, the conference on, 55, 63; the French Academy on, 140; letters on 109, 147, 346, 381, 752; note on, 183, 231; deputation to Government on, 289, 294, 297; withdrawal of Dr. Cameron's Bill, 409, 422; in Bombay, 709; report of Dr. Seaton and Dr. Buchanan on, 740; pamphlet on, 835; official introduction of, 932; proceedings in Parliament regarding, 950; mode of performing, 997

——— successful, Government grants for, 147, 229, 268, 328, 458, 535, 608, 643, 753; inefficient, 187; influence of congenital syphilis on, 191; Mr. E. Hart on, 223; statistics of, 386; the Truth about, Mr. E. Hart on, *rev.*, 484; at the elections, 528; public, letter on, 535; compulsory, Bill for in France, 563, 785, 934; compulsory in Madras schools, 710; arrangements for in Portsmouth, 782; in lying-in-hospitals, 821, 869; marks of, 824; number of vesicles, 832, 950; compulsory in Bengal, 860

Vaccinia gangrænosa, 852, 910

Vacher, Mr. F., convalescents from acute infective fevers, 690

Vagina, foreign body in, 210; occlusion of, 443; cyst of in ewe, 593

Vanilla as a flavouring matter, 76

Vapours, noxious, 409

Varicella gangrænosa, 245

Varicocele, treatment of by acupressure, Mr. S. Osborn on, 52; letters on, 114; Mr. H. Palmer on, 127

Variola in animals, 99. *See* Small-pox

Veale, Dr. H., medical officers' stethoscope, 94; notes on midwifery cases, 519

Vegetables, preserved, copper in, 826

Vegetarian restaurant, a, 448

Veins, large thoracic, abnormality of, 521; jugular, ligature of, 810

Veli Mehmed, case of, 673, 786, 825

Vertebræ, fractured, treatment of, 662

Vertebrate skeleton, Mr. W. K. Parker on structure and functions of, 296, 321, 359, 396, 434

Vertigo, gastric, Dr. J. Russell on attack analogous to, 736

Viceregal medical appointments in Ireland, 788

Vidal, Mr. E., treatment of prolapse of rectum, 558

Vincent, Mr. G., 451

Violet-powder, poisonous, 565

Vipan, Mr. C., political organisation, 154

Virchow, Dr., androgynia with malignant cystoma of

ovary, 20; Method of Performing *Post Mortem* Examinations, *rev.*, 484; a member of German Parliament, 633
Vision, change of in old age, 38; acuteness of in uncivilised nations, 216
Visiting List, Dr. A. Sheen's, *rev.*, 19
Vitality, persistent, 574
Vitreous body, removal of metal from by magnet, 778
Vivisection, papers on, 114. *See* Experiments on Animals
Volker, Dr. O., osteoplastic resection of elbow-joint, 891
Volunteer ambulances, 173, 493, 746
——— review at Brighton, 599
——— surgeons, examination of, 463, 502
Vomited matters, spectra of, 364
Vomiting, obstinate, in pregnancy, Mr. J. F. Fry on, 399; hysterical, from displacement of uterus, 888
Vulva, warty growths on, 246

W.

Wahltuch, Dr., clonic spasm of sterno-mastoid muscle, 662; suspected brain tumour of syphilitic origin, *ib.*
Wakefield, sanitary report of, 872
Walker, Mr. C. E., scarlet fever inducing labour, 53; Essays on Ophthalmology, *rev.*, 366
——— Mr. G. E., removal of broken bougie from bladder, 278
Wall-papers, arsenic in, *see* Arsenic
Walsham, Mr. W. J., extreme pharyngeal stenosis, 588; horny growth from eyelid, 590; tumour of spermatic cord, 625; malformation of chest and spine, 660
Walter, Dr. W., treatment of *post partum* hæmorrhage by intra-uterine injection of hot water, 582
Walters, Mr. John, treatment of *post partum* hæmorrhage by injection of hot water, 584
Wandsworth, sanitary report of, 384
War, Dr. Esmarch and Mr. Clutton on Treatment of Wounds in, *rev.*, 54; of Rebellion, Medical and Surgical History of, *rev.*, 92; horrors of, 936
Ward, Mr. T. M., the medical officer of health for Exmouth, 422
Wardell, Dr. J. R., aneurism of left ventricle, 617
Warden, Dr. C., congenital talipes equino-varus, 381
Wareham, sanitary report of, 834
Warlomont, Dr., animal vaccination, 752
Warty growths on vulva, 246
Warwickshire, sanitary report of, 384
Watch, examination of as a means of diagnosis, 77, 154
Water, Flitwick, Dr. G. G. Rogers on, 13; Dr. Ballard on conveyance of contagium by, 82; Dr. Norman Kerr on, 88; Dr. R. S. Hudson on, *ib.*; polluted, and enteric fever, 642, 672; supply of in London, 103, 172, 295, 348, 386, 410, 463, 574, 601, 745, 935; Bill regarding, 410, 458; committee on, 909; in Arklow, 179; of Inverness, 258; of Yeadon, 334; of Rothesay, 711; of St. Andrew's, *ib.*; Loch Katrine, 423, 514; hot, injection of in *post partum* hæmorrhage, Dr. W. Walter on, 582; Mr. John Walters on, 584
Waters, concentrated, 21; English mineral, 682; Contrexéville mineral, 822
Watering places, foreign, 832
Watson, Sir T., relations of cow-pox and small-pox, 109, 346; birthday of, 408
——— Mr. C. S., the Manchester Children's Hospital and Dr. Humphreys, 187
——— Mr. Spencer, traumatic eyeball tension, 624; optic nerve neuritis, 849; Eyeball Tension, *rev.*, 854
Wear, Mr. A. T., three cases of paracentesis thoracis, 514
Weardale, sanitary report of, 808
Weather and Climatic Changes, Observations on, *rev.*, 19; and public health in France, 263; in Philadelphia, 636; recent, remarks on, 826
Weatherly, Dr. L. A., Ambulance Lectures, *rev.*, 484
Webb, Captain, swim of, 408
Wecker, Dr., Chirurgie Oculaire, *rev.*, 444; Ocular Therapeutics, *rev.*, 663
Wells, Mr. J. R., inflammation of breast treated by cold applications, 722
——— Mr. Spencer, honorary diploma sent to, 26; antiseptic surgery and its statistics, 72; notes on an Easter holiday trip to Madeira, 767; his thousandth ovariotomy, 931
Welply, Dr. J. J., disease of nipple followed by cancer of breast, 555
Welsh, Mr. J., treatment of ozæna, 502
West, Mr. J. F., Sayre's treatment of spinal curvature, 70, 113
——— Dr. S., large pulmonary cavities, 739; acute atrophy of liver, *ib.*
Wheeler, Mr. T., fees to medical witnesses, 38
——— Mr. W., soft melanotic carcinoma of thigh, 364; ranula with tumour of floor of mouth, 484; lipoma mixtum, 594; chronic mammary tumour, 699; caries of tibia, 739
Wherry, Mr., deficiency of bone at apex of head, 520
Whipham, Dr., cancer of pylorus with ulceration, 974
Whipping boys, new regulation concerning, 710
Whiskey, aldehyd in, 673
Whistler, Dr. T., resolution concerning, 572
Whitby, Mr. E. V., dislocation of the wrist-joint, 586
Whitefoord, Mr. C. C., case of, 526
Whitehead, Mr. W., compound dislocation of astragalus, 520
Whittaker, Dr. J. T., Students' Primer on the Urine, *rev.*, 523
Whooping-cough, hæmorrhages in, 19; treatment of, 39; deaths from in London, 59, 217, 334, 373, 599
Wilks, Dr. S., protective influence of cow-pox, 225
Willett, Mr. A., malformation of chest and spine, 660
Williams, Mr. R. P., increase of population in England and Wales, 981
——— Dr. S. W. D., care of an insane patient, 957
Wilson, Mr. A., iodoform in nasal catarrh and treatment of wounds, 167
——— Dr. E., hydatid of cyst and liver, 517
Wine, Burroughs' beef and iron, 664
Wines, Kadarka and Riesling, 928
Wingfield, the convict, 409
Winslow, Dr. L. S., private lunatic asylums, 342
Winterbotham, Dr. W. L., representation of the University of London, 716
Witkowski's Atlas of Human Anatomy, *rev.*, 170
Witness, medical, rewarded by a judge, 257
Witnesses, medical, fees to, 38
Wolfe, Dr. J. R., traumatic cataract, 233
Wolseley, Sir G., medical arrangements in camp of, 174
Wonford House Hospital, 822
Wood, Dr. Andrew, The Lay of the Bell, *rev.*, 976
——— Mr. Charles, the Manchester Children's Hospital and Dr. Humphreys, 226
——— Mr. John, extrophy of the bladder, 278; *conversazione*, 782; double extension in disease and injuries of spine and pelvis, 837
——— Mr. R. A. H., Addison's disease, 887
——— Dr. William, private lunatic asylums, 342
Woodman, Mr. J., rötheln, 968
——— Mr. S., the late Mr. Messenger Bradley, 904
Woods, Dr. A. A., memorial of, 309
Woodward, Dr. J. J., Medical and Surgical History of the War of the Rebellion, *rev.*, 92
Wool-pad, absorbent, 622, 629
Wool-sorters' disease, 862, 935, 981
Woolley, Mr., cholera in Japan, 938
——— Messrs. and Co., Dr. Dobell's sediment-collector, 682
Worcester, infant mortality at, 635
Workington, sanitary report of, 736
Workhouse, St. Pancras, stimulants in, 521
Workhouses, sickly children in, 258; medical officers of, and the Contagious Diseases Acts, 335, 390; dangerous lunatics in, 828
Worthington, Mr. G., condensed milk, 38
Wounds, Mr. A. Wilson on iodoform in treatment of, 167. *See* Antiseptic.
Wray, Dr. C., intra-uterine medication as practised by Harvey, 682
Wright, Mr. J. S., death of, 633
Wrist-joint, dislocation of, Dr. R. Anderton on, 399; Mr. E. N. Smith on, 440; Mr. E. V. Whitby on, 586; Mr. G. Foote on, *ib.*; Mr. J. Fagan on disease of, 760; Mr. C. Puzey on splint for contraction of, 764; Mr. W. Beattie-Smith on removal of horny growth from, 886; congenital dislocation of, 929
Wyeth, Dr. J. A., why are we right-handed, 939

Y.

Yarmouth, Great, infant mortality at, 783
Yarrow, Mr. H., disinfection of drains, 310
Yaws and syphilis, 231
Yeats, Dr., osteotomy, 592
Yeo, Dr. J. B., inhalation of benzoate of soda in phthisis, 72

Z.

Zoological Gardens, lectures at, 961
Zulu skulls, 410
Zymotic diseases. *See* Diseases, infectious.

ILLUSTRATIONS.

Enlargement of Ophthalmoscopic Images (Dr. Landolt)—Two Figures 3
Blood in Idiopathic Anæmia (Dr. J. M. Finny)—Three Figures 6, 7, 43
Rhodes's Audiphone (Mr. J. Samuelson)—Three Figures 12
Saw for Section of Lower Jaw (Mr. Spence) 21
The Medical Officer's Stethoscope (Dr. H. Veale) 94
New Bed-urinal (Messrs. Edwards and Bradley) .... *ib.*
Method of Performing Lithotomy (Mr. J. Jordan)—Two Figures 115, 116
Improved Universal Douche (Mr. S. Benton) 133
New Frontal Illuminating Lamp (Messrs. Salt and Son) .... *ib.*
Laceration of Cornea, with Sutures (Dr. J. R. Wolfe) 233
Von Gräfe's Toothed Forceps (Dr. J. R. Wolfe) .... *ib.*
Hirschberg's Instrument for Removing Iron from Eye (Dr. J. R. Wolfe) 234
Operations on Eye (Dr. J. R. Wolfe) .... *ib.*
Piece of Iron from Eye (Dr. J. R. Wolfe) 235
Treatment of Deformities of Legs (Mr. E. Owen)—Four Figures 274
New Spring Tourniquet (Dr. J. W. Cousins) 286
Obstetric Forceps (Dr. R. H. Hilliard) 287
Application of Sayre's Spinal Jacket (Mr. E. Owen)—Two Figures 314
Sacral Plexus, and Nerves of Bladder and Penis (Mr. E. Owen) .... *ib.*
Dislocation of the Wrist-joint (Mr. E. N. Smith) 440
Improved Uterometer (Messrs. Salt and Son) 445
New Flexible Silver Female Catheter (Messrs. Salt and Son) .... *ib.*
Air and Water Pads for Splints (Mr. E. C. Thompson)—Three Figures 558
Apparatus for Conveying Styptics to Uterus (Dr. W. Bernard) 585
Apparatus for Applying Water to Head (Dr. W. Bernard) .... *ib.*
Sediment Collector (Dr. Dobell) 629
Nodose Hairs (Dr. W. G. Smith)—Two Figures 655
Chignon Fungus (Dr. W. G. Smith) 656
Trichorexis Nodosa (Dr. W. G. Smith) .... *ib.*
Splint for Wrist (Mr. J. Fagan) 761
Excision of Shoulder and Elbow-joints (Mr. W. Mac Cormac)—Three Figures 763
Splint for Contracted Wrist and Fingers (Mr. C. Puzey) 764
Instrument for Genu Valgum (Mr. H. F. Baker)—Two Figures 765, 766
Instrument for Application of Hydrostatic Bags (Mr. J. M. Moullin) 817
Knife for Herniotomy (Dr. A. H. Corley) 847
New Steam Antiseptic Spray-Producer (Mr. Rouse) 853
Cases of Athetosis (Dr. F. Beach)—Three Figures 883, 884
Catheter Case (Mr. R. Davy) 890
Sharp-pointed Lion-Forceps (Mr. R. Davy) 891
Grooved Knife for Reception of Saw in Ogston's Operation (Mr. R. Davy) .... *ib.*
Dupuytren's Fracture of the Fibula (Mr. W. Thomson)—Three Figures 919
Treatment of Spinal Curvature by Hammock Suspension (Mr. R. Davy)—Three Figures 959, 960
New Forceps (Dr. A. Simpson) 976

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A LECTURE
ON THE
ENLARGEMENT OF OPHTHALMOSCOPIC IMAGES.

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It is important to bear in mind that the interior of an eye examined with the ophthalmoscope is no longer presented to us in the same conditions as an object is in the ear: the tympanum of the ear, for example, as seen through an otoscope. In the case of the eye, our observations are made through the medium of a dioptric system; the dioptric system, that is, of the eye itself. Upon this we even sometimes superimpose a lens, in order, it may be, to correct ametropia or to produce an inverted image.

It is scarcely necessary to observe that, in such conditions, objects at the fundus of the eye are not seen by us in their true dimensions. When we examine with the upright image, the *fundus oculi* lies immediately at, or in very close proximity to, the focus of a magnifying lens, and is in consequence enlarged, as are all objects similarly placed. On the other hand, in the indirect method of examination, the fundus lies beyond the focus of the magnifier, as is sufficiently shown by the resulting image being an inverted one. With the convex lens commonly made use of in ophthalmoscopy, this inverted image, while smaller than the erect, is nevertheless considerably larger than the object (the fundus) which produces it. These facts, however, will already have struck you in the experiments we have performed with our elementary artificial eye.

Now, it must always be looked on as a matter of no slight importance to determine the degree in which ophthalmoscopic images are enlarged. What should we think of a histologist who should take no account of the magnifying power with which he studied his preparations? and what no less of the ophthalmologist who never pauses to inquire about the real dimensions of the portion of fundus he may be examining? The subject, I hold, is not merely interesting from a scientific point of view, but is of the first importance practically. For instance, a neoplasm may have engaged the fundus or the tunics of the eye, and may puzzle us indefinitely if we be not able to gauge its true size. But more especially is it when we come to determine the dimensions and positions of objects within the eye itself, that this knowledge is of supreme moment. I will take as an example a case we may be examining, in which it may be absolutely necessary for us to know whether a certain lesion of the fundus is situated at a greater or less distance from the macula. Again, another case may present itself, in which we may be called on to say at how many *millimètres* from the papilla a foreign body is lying, lodged, it may be, in the tissues of the fundus, and which we have decided on removing. Such an operation undoubtedly is a delicate one, but has at times succeeded. But, in a given case, how much would the chances of success have been diminished if once we had ceased to be able to interpret the invaluable information yielded by the ophthalmoscopic appearances—that is, as soon as they had been interpreted aright by having been reduced to their true dimensions.

We propose, then, to devote our lecture of to-day to a brief explanation of the enlargement of ophthalmological images; but, before touching on this question, permit me to call your attention to the principles which underlie all optical enlargements in general. The study of these principles will much facilitate your comprehension of those more special optical enlargements on which we are now entering, and the consideration of which appears to me to be very far from useless or unnecessary. The subject itself, indeed, is fraught with so much that is interesting from many various points of view, that one cannot but feel somewhat surprised at its being so little understood by men who every day of their lives make use of optical instruments of one kind or another, be it telescopes, microscopes, opera-glasses, or ophthalmoscopes.

In a work on this subject,* I have given the following definition of enlargement. "Enlargement is the relation which the retinal image of an object, as seen with the naked eye, bears to the retinal image of the same object as seen through an optical instrument, the distance being the same in each case."

The true method to pursue in order to find the alterations in magnitude produced by optical instruments would be, then, to calculate the size of the image formed on the retina, first without, and then with, the instrument; the object observed being in each case maintained at an equal distance from the observer. The proportion then discovered to exist between the two retinal images respectively would be the expression of the enlargement produced by the instrument. For instance, suppose the retinal image in the first case to have a magnitude of 1, and in the second of 15, the increase in magnitude given by the optical instrument would be fifteenfold.

Suppose an observer to receive on his retinæ at one and the same moment the image of an object which he sees with his naked eye, and an image of the same object yielded by an optical instrument: it is clear that, under such circumstances, he could directly appreciate the relationship existing between the two images in regard to size, and would consequently, in this respect, be independent of all calculation. In certain cases, this can actually be done, as in determining the powers of spectacles, opera-glasses, and telescopes. For example, bring a telescope to bear with the right eye on the window of a distant house, and fix this object simultaneously with your left eye. In this way, you will have two images of the window before you, one of which will be of its natural size; the other will be magnified by the telescope. The two images, it is true, are not superimposed in the same eye, but, so to say, in the central organ which unites the impressions received from the two eyes. Now, once more, direct your telescope in such a way as to make the two images you see overlap at one corner, and then you will be able to estimate with sufficient accuracy how many times larger the window seems to be as seen through the telescope than it does as seen by the naked eye. With a view to greater exactitude in this method of determining enlargements, a graduated scale may be employed. This must be looked at simultaneously with both eyes—directly with one, indirectly with the other, with the intervention of the telescope. The resulting images become thus superimposed. There need, consequently, be no difficulty is estimating how many divisions of the scale as seen by the naked eye answer to one division as enlarged by the magnifying glass. To this way of determining the size of objects the name of "*méthode à double vue*" has been given.

The same end may be secured in another way; I mean by the use of one eye only. Take two graduated scales instead of one, both in all respects similar, only that one shall be placed immediately opposite you, while the other is placed at right angles to it, and consequently at your side; while both must be equidistant from your eye. The eyepiece of the telescope is furnished with a glass inclined at an angle of 45° to the axis of the instrument, and which is partly transparent and partly reflecting. To fulfil this condition, a fragment of mirror may be used, the silvering of which has been scored in all directions; or a piece of gilded glass, which possesses, when so prepared, a greater reflecting power than when plain; or, again, a prism, such as is used in the camera lucida. Now, if you look through the telescope thus prepared, you will see one of the scales magnified; while at the same instant the little mirror, by throwing back to your eye the other scale which is at your side, will show it to you in its true dimensions. The two images are thus superimposed upon the retina of the same eye, and an accurate comparison between them rendered possible. In all cases where both eyes are not of equal strength, this method is to be preferred to the one first mentioned. The two, however, are based on one and the same principle. The only difference between this proceeding and the

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* *Le Grossissement des Images Ophthalmoscopiques.* Paris: 1874.

méthode à double vue is, that here we institute a comparison between two images seen by one and the same eye; in the other, between two images seen respectively one by each eye.

To arrive at true results, however, in this way, it is absolutely necessary that the two objects—in this case, the two graduated scales—should be placed at exactly equal distances from the eye; for, supposing we were to approximate the scale which in the mirror we see reflected in its real size, or if we were to place it at a less distance than the one we are looking at through the telescope, its retinal image would become unduly large. Conversely, if we were to remove it to a greater distance, it would become smaller relatively to the image of the scale which we look at through the telescope. In short, it would be just as if, in the first case, we were to suppose the object seen through the telescope nearer in the second farther off than it is in reality.

We can at times make use of a similar method for microscopes as for telescopes. Here, we take for our object a glass micrometer graduated into hundredths of *millimètres.* This is placed on the stage of the instrument, and alongside of it is a scale marked off into *millimètres* only. In this way, we are able with one eye to look at the micrometer through the instrument, and with the other to look directly at the scale, and so to institute a comparison between the two resulting images.

Again, using one eye only, we may look at the micrometer magnified by the microscope, and at a camera lucida, or semitransparent glass, as has been already described. A graduated scale is placed by the side of the observer, at an equal distance from his eye and from the stage of the instrument. The image of the scale is then thrown by the mirror on to his retina, and a comparison is instituted between it and the scale seen through the microscope.

You will perceive, then, that when the scale and the object are placed at the same distance from the eye—that is, on the stage of the microscope—the magnifying power is determined in precisely the same way as it is in the case of telescopes.

But it may often happen that this method, so simple and rational, of determining the powers of an optical instrument, cannot be applied in practice. It is thus with certain microscopes, but notably with convex lenses (*loupe*). Here the object we observe is approached so closely to the eye, that it would be impossible to see it at the same distance with the naked eye. For this reason, we are precluded from placing the scale which serves as our standard of comparison at the same distance as the scale at which we are looking through the lens. Hence we resort to another plan, which is, to place our standard scale at a greater distance from our eye than the object at which we are looking through the magnifier. In this way, the retinal image of the object—*e.g.*, the micrometer—which we see through the magnifying lens, is compared with the retinal image of the scale placed at a greater distance from the eye. This method, you will readily perceive, is not so exact as the one used in estimating the powers of telescopes. There is a good deal of what is arbitrary about it; for the apparent size of the image furnished by the magnifier is larger in proportion as the scale with which it is compared is further off; because the retinal image of the scale with which we compare the retinal image furnished by the magnifier is small in exact proportion as the scale is removed further off. In other words, the further we project a retinal image, the larger it seems to be.

You may easily satisfy yourselves of this fact, and at the same time arrive at a thorough understanding of what is meant by "projecting a retinal image", by means of the following experiment. During several seconds, gaze intently at a bright-coloured object, such as a sheet of red paper placed on a dark background. After having looked fixedly for a certain length of time, the object will have formed a persistent image of itself on your retinæ. If now you fix your eyes on any grey surface, you will see upon it a representation of the object (in this case, green in colour) at which you have just been looking. This is what we call a "projection" of the retinal image. The projection will appear large in proportion to the distance at which the projecting surface is from your eye. In fact, the image you see upon this surface will always be in size the same as an object which, if placed at a similar distance, would produce a retinal image of a corresponding size. The retinal image, indeed, remains the same; but its projection—the object, that is, which you suppose to have produced that image—must necessarily be larger in proportion as you suppose it to be further off.

To "project a retinal image" to a given distance is, then, in other words, to suppose it produced by an object placed at that distance. We may compare retinal images with one another in this way: we may divide the surface of projection into sections, and then draw a comparison between any retinal image and the divided surface of projection.

You will perceive that it is the distance to which a retinal image is projected that determines its apparent magnitude. It is necessary, however, in order to make this method of measuring magnifying power practically useful, to arrive at a general agreement with regard to the distance to which the retinal image, as formed by the magnifying lens, shall be projected; or, in other words, as to the distance at which our test-scale shall be placed. For this purpose, a distance of from twenty-five to thirty *centimètres* has been decided upon, and has been designated the "average distance of distinct vision". At one time, it was believed that the normal eye in a state of repose was accommodated to this particular distance. Possibly, those who supposed such to be the case were myopic. However that may be, Donders, by shedding a new light on the doctrines of accommodation and refraction, has modified very considerably our notions as to the distance for which an emmetropic eye is adapted. Nevertheless, the distance of from twenty-five to thirty *centimètres* may be retained in the case of the magnifying powers of lenses, as it has the merit, apart from its simplicity, of approximating very closely to the truth. For when, with the aid of optical instruments, we form on our retinæ the images of very near objects, we suppose these objects to be placed at a certain distance from us—that is, we project them to a distance, the same as that at which we are accustomed to regard minute objects in general. Hence is explained the fact that drawings of microscopic objects, seen under the same powers, present nearly the same dimensions, though made by different observers. Nevertheless, the expression "average distance of distinct vision" not being exact, I have replaced it by the expression "*distance of projection*".

In practice, then, in order to determine the magnifying powers of a microscope, you must place on its stage a micrometer, and compare the image of this with a scale looked at by means of a camera lucida, and placed at a distance of from twenty-five to thirty *centimètres* from the eye.

We are now in a position to ask what method should we best adopt in order to solve the problem with which we have to deal—that is, the determination of the magnitudes of ophthalmoscopic images. Take, first, the upright image. In this case, we have the same conditions of the problem presented to us as in the examination of the magnifying powers of a lens. We observe an object—that is, the fundus of the eye—through the medium of a magnifying dioptric system, that is, the dioptric system of the eye itself. Furthermore, from habit and for reasons given above, we approach very closely to the object, in this case the eye we are examining, so closely, indeed, that a distinct view of the object would be impossible, were it not placed behind the dioptric apparatus of the eye under examination. We are thus compelled, in order to determine the size of an ophthalmoscopic image, to follow exactly the same method as when we determined the magnifying powers of a lens; that is, to project to a determined and constant distance the retinal image derived from the fundus of the eye under examination. This distance I have proposed to make thirty *centimètres.* I have done so, partly in order to be able to compare ophthalmoscopic with microscopic magnitudes, but more particularly because, as my calculations have established, the projection under such circumstances is exactly twenty times greater than the retinal image.

In order to determine according to the *méthode à double vue* the enlargement undergone by the direct image, I place behind the patient's head a plane vertical surface at the distance of projection, that is, at thirty *centimètres.* This surface is divided into spaces by vertical and horizontal lines, one *millimètre* apart. Now, while with one eye we examine the right eye of the patient, we direct our other eye on the vertical surface divided as above. Those who have had some little practice in such experiments will now see a portion of the fundus under examination—say, the papilla—projected on the plane surface, and divided vertically and horizontally into *millimètres.* (Fig. 1.) In this way, it is possible to measure the apparent size of the papilla, just as we measure an object placed behind a magnifying lens, or on the stage of a microscope.

In cases where, from a difference of refraction or visual acuity between the two eyes, this method becomes impracticable, I have pointed out another, which, like the camera lucida, allows of the experiment being performed with one eye only. (Fig. 2.) Behind an ordinary ophthalmoscope, I have placed a very small and thin mirror, deprived in part of its silvering by being scored in all directions. If preferred, a piece of gilded glass may be substituted for the mirror. The mirror is placed exactly behind the slit of the ophthalmoscope, and is kept in place by a small brass rod, movable round its own axis, in such a way that the small mirror can be inclined at a greater or less angle to the plane of the ophthalmoscope mirror. The necessary movements are performed by the thumb of the hand which holds the ophthalmoscope, and which presses, if required, on the bent end of the rod. In this experiment, the background, divided as above described, is placed at the side of, or better still, somewhat behind the experimenter's head. Now, look through the ophthalmoscope at a portion of the fundus oculi, and incline the little mirror at such an angle that it shall reflect the divided surface of projection. Once more you will see the ophthalmoscopic image, but this time it will be divided into squares of a *millimètre* each.

It is better, we may remark in passing, to make the divisions white on a black ground, instead of black on a white ground.

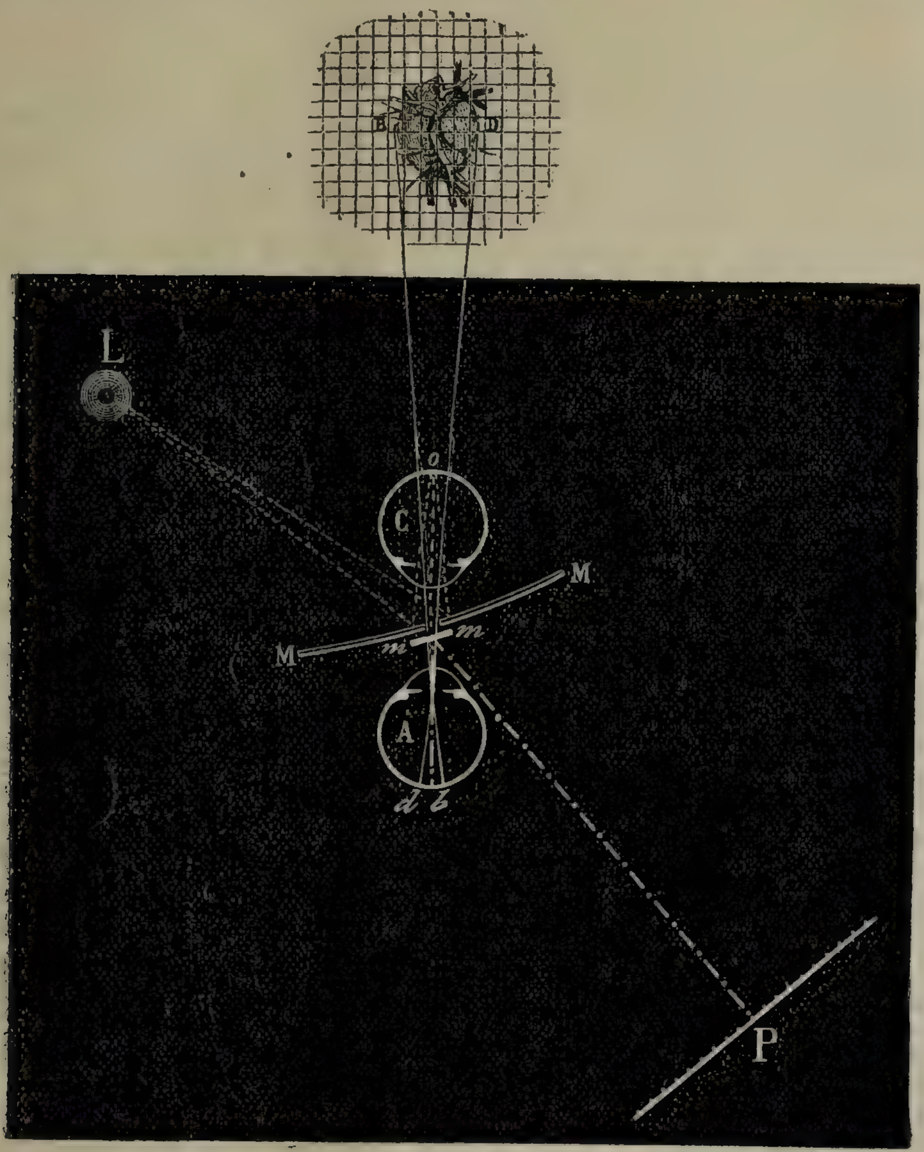

Fig. 1.

A condition essential to success in both methods is, that the observer's eye, while examining the fundus, should bring into play exactly the same amount of accommodation as is required to see at the distance of projection. This is in order that both the ophthalmoscopic image and the surface of projection may appear distinct at the same moment. For, were this precaution to be neglected, then, in the "*méthode à double vue*", one eye would have to accommodate itself in a different degree from the other, or, in the "*méthode à reflection*", the observer's single eye would have to alter its accommodation according as it fixed the fundus oculi or the surface of projection; and hence a simultaneous observation of the two objects would be impossible. The experiment, too, would become both fatiguing and inaccurate. An equality of accommodation is easily insured by means of the correcting lenses contained in my ophthalmoscope.

You perceive, gentlemen, that we have thus at our disposal two methods of measuring the apparent size of a given object at the fundus, looked at through the dioptric system of its own eye. The magnifying power of the dioptric system in question is evidently represented, as in the case of the microscope, by the relation which exists between the projected image and the real size of the object. If we have found, for instance, that the projection of an object at the fundus measures twenty *millimètres*, and we know that its real size is one *millimètre*, the enlargement is evidently twentyfold.

Unfortunately, the fundus oculi does not present any object of a constant or directly measurable size. The portion which, from its distinct appearance and well-defined outline—that is, the papilla—presents the best test-object for this experiment, is more or less variable in its dimensions. Thus, according to Listing, the papilla has a diameter of 1.55 *millimètres*; to Helmholtz, 1.81; to Hannover and Thompson, 1.616. In my own case, for my right eye, I have found it to be 1.86 *millimètres* in the horizontal diameter, and 2.1 in the vertical. G. H. Weber, who has made numerous measurements on the dead subject, has found respectively 1.72 and 2.1 in the two diameters.

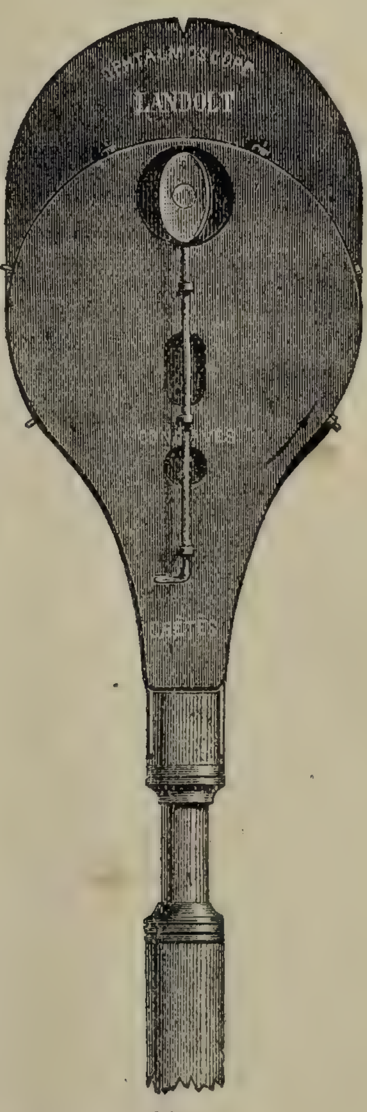

Fig. 2.

The method of determining by actual experiment the degree of enlargement under which the ophthalmoscopic upright image is seen can at best yield results only relatively exact. Nevertheless, it gives an approximation to the truth, which may be very valuable in practice. To obtain greater accuracy, and especially to gain a knowledge of the variations in size of the direct image in eyes of different refractions, recourse must be had to calculation.

In accordance with my definition of enlargement, we should be called upon, in any given case, to calculate the size of the image that an object at the fundus of the eye observed, and of a magnitude 1, would form on the observer's retina, and subsequently the size of the image so formed if projected to thirty *centimètres*. The size of the projection compared to that of the object would give the degree of enlargement. In this calculation, we must take into account the state of refraction of the eye examining, of the eye examined, the distance which separates them, and the correcting-glasses which have been employed.

Such calculations are not of the simplest. Moreover, faithful to the plan heretofore followed in my lectures, of refraining from all mathematical disquisitions, I shall not enter upon any now. You will find such given in detail in my monograph, *Sur le Grossissement des Images Ophthalmoscopiques*, to which I have already referred, or in the corresponding chapter on this subject by me in the *Traité Complet d'Ophthalmologie* by De Wecker and Landolt. I will content myself here with giving, in a very few words, the results at which I have arrived.

1. In an emmetropic eye, when examined with the upright image, the enlargement is twentyfold.

2. The degree of enlargement is less for a hypermetropic, and more for a myopic eye, and that in proportion to the degree of the ametropia.

3. The enlargement is less in the hypermetropia of curvature than in axial hypermetropia.
4. The enlargement is more considerable in the myopia of curvature than in axial myopia.

If it were possible to place the correcting-glass at thirteen *millimètres* from the cornea of the observed eye and of the observer's eye, the enlargement of the upright image becomes in all cases of axial ametropia the same as in emmetropia.*

Let us now proceed to consider the degree of enlargement undergone by the inverted image. The determination of this is a more simple matter than that of the upright image. You doubtless recollect that the inverted image is a real image, formed in the air by the union of the rays proceeding from the fundus of the eye under examination. This image being real, has a definite magnitude. It can be received upon a screen and measured directly, as if it were a tangible object. Here then at least there need be no hesitation as to the manner in which we should determine the degree of enlargement. The enlargement is, of course, the proportion existing between this image and the object to which it corresponds. We have, therefore, no occasion to consider the size of the image formed on the retina of the observer, any more than we have to consider the distance of projection. We have simply to measure the size of the inverted image, and compare it with the object at the fundus oculi to which it corresponds. The proportion existing between these two becomes the expression of the enlargement. M. Scheller was the first to point out a mode of measuring directly the size of the inverted image. His procedure, however, is very imperfect, and does not call for notice here. The method I prefer is one to which I have called attention in my work, *Le Grossissement*, already cited (page 78). It is as follows: "Take a cylinder such as that of Liebreich's demonstrating ophthalmoscope; one of its ends, modelled so that it can be applied to the orbit, contains a convex lens of say fifty-five *millimètres* focal length (D. 18), placed at a constant distance from the eye. The other end of the tube, to which the observer applies his eye, presents an opening at the side, intended to allow the light to fall on an ophthalmoscope mirror, fixed there. The inverted image is produced between the lens and the mirror. There would be no difficulty in introducing into this instrument a diaphragm marked with a network of square meshes, and steadied by a movable screw in a slit made in the side of the tube. The addition merely of this screw would permit of the diaphragm being placed at the exact spot where the inverted image was formed. We should thus obtain, at the same moment, an accurate indication of the distance the image was from us, as shown by a scale marked on the side of the cylinder, and its size, which could be directly determined from the size of the meshes of the network." The proportion existing between the size of the inverted image and the object at the fundus gives the degree of enlargement we require.

But here, gentlemen, we are met on the very threshold, as it were, of our inquiries, by the self-same difficulty which we encountered in the determination of the direct image. Here, as there, we miss at the fundus any object of known size. But if, proceeding another way, we know the degree of enlargement, we can deduce from the measured size of the inverted image the true size of the object to which at the fundus of the eye it corresponds. This we arrive at by calculation, but I have succeeded in simplifying so much the calculations required for the determination of the indirect image that they no longer present any difficulty. They may be even worked out in the mind more rapidly than the actual measurement of the inverted image can be made in practice. If we place the convex lens, which we use to produce the inverted image, at such a distance from the eye, that its focus coincides with the nodal point of the eye, which point is situated at a few *millimètres* only behind the plane of the pupil, that is to say, if we hold the lens in the position which has been pointed out, as being the most favourable for the inverted image, then the degree of enlargement will be expressed by the simple fraction $x=\frac{\phi}{g''}$. In this fraction, ϕ is equal to the focal distance of the lens which produces the inverted image: g'' is equal to the distance which separates the nodal point of the eye examined from its retina. This distance is equal to 15 *millimètres* in the emmetropic eye. It is longer in the myopic, shorter in the hypermetropic eye; and the difference increases or diminishes with the degree of ametropia. There is no difficulty in finding it for each case of ametropia. Thus, let us call the difference in length of this space in an emmetropic compared with an ametropic eye η, then η will always equal 300 *millimètres* divided by the focal distance of the lens which corrects the ametropia. The value of η must be added to 15 *millimètres* in the case of myopia, but subtracted in the case of hypermetropia.

Let us take an example. What will be the amount of enlargement of the inverted image in an emmetropic eye produced by a convex lens of 15 dioptrics? In the example chosen, ϕ, that is, the focal distance of the lens, is equal to 67 *millimètres*, g'' is equal to 15 *millimètres*, therefore the increase in size is $\frac{67}{15}$, or 4.4; that is to say, the papilla, for example, which we see in this inverted image appears 4.4 times larger than it is in reality. If it have a diameter of 1.5 *millimètres*, its inverted image will have $1.5 \times 4.4 = 6.6$ *millimètres*. Again, let us produce with the same lens of 15 dioptrics the inverted image of a hypermetropic eye of 5 dioptrics. What will be the degree of enlargement under which the fundus of this eye will be seen in the inverted image? In this case, ϕ of the formula is still 67 *millimètres*. In order to find g'', we must take the focal distance of the correcting lens (5 dioptrics)—that is, 200 *millimètres*—and divide 300 *millimètres* by it, in order to find the value of η, that is the difference in length between this eye and the emmetropic eye. We get then $\frac{300}{200}=1.5$ *millimètres*, which must be subtracted from the corresponding length of the emmetropic eye, for the hypermetropic eye is the shorter of the two. We have, then, in this case, for the value of g'', $15-1.5=13.5$ *millimètres*. The degree of enlargement is represented by $\frac{67}{13.5}$, or 5 nearly.

Let us now take the case of a myope who requires a concave 10 dioptrics = 100 *millimètres*—focal distance. The value of η here becomes $\frac{300}{100}=3$ *millimètres*; g'' is therefore equal to $15+3=18$ *millimètres*. With a convex lens of 15 dioptrics, the inverted image of this myope will be $\frac{67}{18}=3.7$ times larger than the object to which it corresponds. For a hypermetropia of 10 dioptrics, we should have obtained, for the value of η, $15-3=12$ *millimètres*, and the enlargement would have been $\frac{67}{12}=5.5$ times approximately. It results as a corollary from my formula, that the inverted image is large in proportion as the lens by means of which we produce it is weak, that is to say, as its focal length ϕ is long; and again, that it is large in proportion to the amount of hypermetropia present, that is, as g'' is small; and that, conversely, it is smaller in proportion as the myopia is great, that is, as g'' is large. We have measured, let us suppose, the size of the inverted image of the papilla produced by the aid of a convex lens of 5 dioptrics, as we did in the case of a hypermetropia of 5 dioptrics, and that we have found the papilla to measure 10 *millimètres* in diameter. Our calculations will have shown us that the enlargement of the inverted image in this case is fourfold; therefore, the papilla will have in reality a diameter of $\frac{10}{6}=2\frac{1}{2}$ *millimètres*. We may also determine the real size of an object of the fundus of the observed eye by the upright image by reducing the projection of that image to the size of the object it corresponds to. Thus, if we have found, by one of the methods above given, that the papilla projected to 30 *centimètres* has a diameter of 40 *millimètres*, we may say the increase in size of the upright image being twentyfold the true size of the papilla is $\frac{40}{20}=2$ *millimètres*. However, for the mensuration of objects at the fundus, it is preferable to project the upright image to a greater distance, for example, to 3 *mètres*.* The increase in size will evidently be proportionably greater. Thus, if we project it to 3 *mètres* instead of 30 *centimètres*, it will be two hundredfold instead of twenty. The image of the papilla will have, in the example chosen, a diameter of 40 *centimètres* instead of 40 *millimètres*. My ophthalmoscope with two mirrors serves very well for such mensurations.

Permit me, in concluding this lecture, to lay before you a table of the enlargements of the ophthalmoscopic image in the direct and indirect methods of examination respectively.

	Inverted image, with +15 diopts.	Upright Image.	Proportion.
Emmetropia	4.4	20	1 : 4.54
Axile hypermetropia (punctum remotum situated at 80 *millimètres*)	5.58	18.4	1 : 3.3
Hypermetropia of curvature, do.	4.78	15.8	1 : 3.3
Axile myopia, ditto	3.35	30	1 : 9
Myopia of curvature, ditto	4.2	38.2	1 : 9

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* Landolt, "Die Vergrösserung des aufrechten ophthalmoscopischen Bildes"; *Centralblatt für die med. Wissensch.*, 1876, No. 21.

* Landolt, "Le Grossissement des Images ophthalmoscopiques", in Wecker and Landolt, *Traite complet d'Ophthalmologie*, tome i.

SAFFRON WALDEN.—In this district, 106 deaths occurred during 1878, equal to a rate of 15.8 per 1,000. The proportion of deaths among infants under one year of age was satisfactorily low. No less than 57 per cent. of the deaths were in persons over sixty years of age, 37 per cent. above seventy, and 19 above eighty years of age. Only 3 deaths were registered from infectious diseases, excluding 5 from diarrhœa. Consumption, bronchitis, and other lung diseases caused 22 deaths, or 3.7 per 1,000 of the population. This is a reduction on the average rate of nearly 2 per 1,000. The Hospital for Infectious Diseases, recently established, seems to have been of great service in checking the spread of infection, 11 cases of small-pox and 2 of scarlatina having been admitted into it, with only one fatal result.

CLINICAL LECTURE

ON

IDIOPATHIC ANÆMIA.

Delivered in the City of Dublin Hospital.

By J. MAGEE FINNY, M.D.Univ. Dubl.,
Fellow of the King and Queen's College of Physicians in Ireland; Visiting Physician to, and Lecturer on Clinical Medicine in the Hospital.

GENTLEMEN,—The subject of my lecture to-day—Idiopathic Anæmia—is one of great rarity, and one in which, in the last few years, considerable interest has been awakened. To you, however, it has a special interest, as the cases which I shall use as illustrations of the disease have been under your immediate observation in the medical wards of this hospital, while, in the daily record of the symptoms and in the observation of the progress of each case, some of you have assisted me not a little. The disease is everywhere a rare one, but more particularly is it so in Ireland. With the exception of one case, recorded by Dr. Purser in the *Dublin Journal of Medical Science*, November 1877, there has not been another published instance in this country. It is, however, both possible and probable that in this, as in other countries, idiopathic anæmia has been mistaken for renal disease, cancer, fatty heart, and chlorosis. Such seems to have been the case with Andral and others. It is not a new disease, and yet you will probably not find it described, if mentioned, in your text-books, or even in books of reference. To Addison is due the credit of having described its distinctive features, and of having given it an identity it had not possessed prior to his time. As his description of this form of anæmia is still the best, I shall read the following extract from his writings (*New Sydenham Society*, vol. xxxvi, p. 212).

"For a long period, I had from time to time met with a very remarkable form of general anæmia, occurring without any discoverable cause whatever—cases in which there had been no previous loss of blood, no exhausting diarrhœa, no chlorosis, no purpura; no renal, splenic, miasmatic, glandular, strumous, or malignant disease. Accordingly, in speaking of this form in clinical lecture, I, perhaps with propriety, applied to it the term 'idiopathic', to distinguish it from cases in which there existed more or less evidence of some of the usual causes or concomitants of the anæmic state. The disease presented in every instance the same general character, pursued a similar course, and, with scarcely a single exception, was followed, after a variable period, by the same fatal result. It occurs in both sexes, generally, but not exclusively, beyond the middle period of life; and so far as I at present know, chiefly in persons of a somewhat large and bulky frame and with a strongly marked tendency to the formation of fat. It makes its approach in so slow and insidious a manner that the patient can hardly fix a date to his earliest feeling of that languor which is shortly to become so extreme. The countenance gets pale; the whites of the eyes become pearly; the general frame flabby rather than wasted; the pulse, perhaps, large, but remarkably soft and compressible, and occasionally with a slight jerk, especially under the slightest excitement; there is an increasing indisposition to exertion, with an uncomfortable feeling of faintness or breathlessness on attempting it; the heart is readily made to palpitate; the whole surface of the body presents a blanched, smooth, and waxy appearance; the lips, gums, and tongue seem bloodless; the flabbiness of the solids increases; the appetite fails; extreme languor and faintness supervene; breathlessness and palpitations being produced by the most trifling exertion or emotion; some slight œdema is probably perceived about the ankles; the debility becomes extreme. The patient can no longer rise from his bed; the mind occasionally wanders; he falls into a prostrate and half-torpid state, and at length expires. Nevertheless, to the very last, and after a sickness of perhaps several months' duration, the bulkiness of the general frame and the obesity often present a most striking contrast to the failure and exhaustion observable in every other respect. With perhaps a single exception, the disease, in my own experience, resisted all remedial efforts, and sooner or later terminated fatally."

After Addison's death, the disease seems to have been forgotten; and it was not until 1872, that Biermer of Zürich, by publishing fifteen cases of extreme anæmia, which he termed "Progressive Pernicious Anæmia", resuscitated the interest of the profession in it. Since then, numerous instances have been recorded, both at home and abroad. To those of you who may have special interest in it, I would suggest the perusal of an admirable *résumé* of the literature bearing on this subject by Dr. Pye-Smith in the *London Medical Record*, vol. v, pp. 314 and 437, and an excellent lecture by Dr. Mackenzie in the *Lancet*, December 1878.

CASE I. *Profound Anæmia; Occasional Attacks of Diarrhœa; Abdominal Pain; Irregular and High Elevations of Temperature; Marked Alterations in the Corpuscles of the Blood; Treatment by Arsenic; Recovery.* (Reported by Mr. Mason, Resident Medical Pupil.)—Thomas H., aged 27, married, clerk, was admitted into the City of Dublin Hospital on November 29th, 1877. Up to four years before admission, from which time he dates his illness, he had been a strong robust man, weighing twelve stone. His habits were regular and temperate; and his occupation as house-agent's clerk gave him plenty of out-door exercise. His mother is alive and well; but his father died of fatty heart. He has several children, who are all strong and healthy. He never had syphilis or miasmatic fever. Twelve years ago, he went to India, remaining there two years in the enjoyment of excellent health. In 1873, he suffered from dyspeptic troubles, flatulence, and constipation; and without being able to give any better account of his illness or more accurately to define its nature, he says he remained in a state of general bad health for fully nine months. The three succeeding years, he was in tolerably good health; and then again, in 1876, he became unwell. The prominent symptoms were great lassitude and inertness, loss of natural colour, changing to green and yellow; emaciation; and, after a time, diarrhœa. While suffering from the bowels, he experienced pain, persistent and accompanied with a dragging sensation in the region of the liver. He did not know if he had jaundice; his skin was, however, "yellow". On this occasion, he went under treatment in one of the metropolitan hospitals, where he remained a month, feeling little, if anything, better when he left. He derived, however, much benefit from the treatment of a medical man under whom he subsequently placed himself; and he recovered so far as to be able to resume his occupation. During this attack of illness, in 1876, he stated that for thirteen weeks he passed "black and nasty stuff" from his bowels, "and the pain in his liver was relieved by the motions"; but as to the nature of the discharge he was unable to speak. It is, however, more than probable it was but the evacuation following treatment by iron.

In the beginning of September in the year 1877, he experienced muscular weakness, and he noticed he lost colour, his hands, cheeks, and ears becoming unusually white and pallid. A severe pain also seized him in the old place in his right side. He did not, however, give up all attempts to work on, till a sharp attack of diarrhœa in October, which lasted without intermission for ten days, confined him to his bed, and weakened him so much as to render him unable to leave it till the day of his admission to hospital.

The following were his condition and the symptoms he presented on admission. He was a man of five feet seven inches in height, eyes blue, hair of a light brown. His skin was peculiarly pale, more sallow than simply bloodless. The colour of the ears, nostrils, and fingers, perhaps more than elsewhere, was of a remarkable semitransparent waxy hue, and the mucous membrane of the eyelids, tongue, and lips was white and blanched. There was no dropsy, though, after standing a little, œdema of the ankles was produced. The patient was so weak as to be hardly able to sit up in a chair for an hour; and, after a short time, even this was too much, and he was obliged to remain in bed. A careful physical examination, frequently repeated, of the organs of the body, failed to discover any change of their size, situation, or nature, except slight enlargement downwards of the liver. Beyond furring of the tongue, loss of appetite, constipation, and tenderness and pain over the seat of the liver, the symptoms were solely those of anæmia and general debility. The pulse, on admission, was 100, small and compressible; temperature normal; heart-sounds normal, but weak. Loud venous murmurs were audible in the neck, and noises in the ears were much complained of. The urine was free from sugar and albumen, and was normal in colour and quantity. Although the patient complained of considerable and, at times, acute pain over the upper border of the liver and the mammary region, physical examination of the lungs and liver alike failed to discover anything which might be considered as its cause. His arms and legs were flabby rather than attenuated, while a very fair amount of fat covered the thorax and abdomen. As there was an absence of evidence of malignant disease, phthisis, or chronic splenic enlargement, and an absence of all history of any drain of pus or blood from any part of the body, or of long and deleterious residence in hot countries, or of attacks of intermittent fever, it became a matter of no little difficulty to make any closer diagnosis of the disease than to say—what was self-evident to the veriest tyro—that the man suffered from anæmia. It was, indeed, easier to mark what the cause of this anæmia was *not*, than to affirm positively what it *was*. It was some time before a positive diagnosis was arrived at; not until the blood had been examined, and the treatment by iron had utterly failed to justify its continuance.

Without any assignable cause whatever, on three occasions in the months of December and January (while he was under the care of my colleague Dr. Benson), the temperature suddenly ran up to a high fever range, and nearly as quickly subsided. Two of these exacerbations were carefully noted by my clinical clerk Mr. Mason (*vide* tables). The first occurred a few days after admission. On the morning of December 5th, the fever stood at 104.4°, falling a degree by the evening, and to 99.6° next morning. It rose to 102° that evening, sinking to 99° on the morning of the 7th. It seemed to follow no rule of the continued fevers, as the morning heat at times exceeded that of the evening; and the pulse did not reach 110, while the temperature stood at 104.4°. The whole attack lasted nine days. The second attack was equally sudden in its onset, and alike in its duration, but it was more severe. On the evening of January 18th, the thermometer recorded the alarming temperature of 106°. Next morning, it sank to 99°. It again rose in the evening, but only to 104.2°, and fell on morning of 20th to 98.4°. For the three following days, it rose to 101.4°, being higher by over a degree in the morning than in the evening; and then, seemingly without any cause, on the 24th, the maximum temperature reached 104°, and the pulse 116. This exacerbation was followed by a proportionately deep depression, and in two days the attack passed away.

	Temperature.		Pulse.	
	M.	E.	M.	E.
December 5, 1877	104.5	103.0	108	112
,, 6, ,,	99.7	102.0	96	108
,, 7, ,,	99.0	99.8	100	95
,, 8, ,,	100.6	101.0	100	100
,, 9, ,,	99.0	98.7	94	100
,, 10, ,,	98.0	99.8	88	98
,, 11, ,,	98.0	99.3	88	100
,, 12, ,,	98.3	98.8	88	100
,, 13, ,,	99.0	99.0	90	84
,, 14, ,,	98.5	98.5	76	82
January 18, 1878	—	106	—	—
,, 19, ,,	99.0	104.1	—	—
,, 20, ,,	98.3	99.2	—	—
,, 21, ,,	100.8	100	104	96
,, 22, ,,	101.2	—	—	—
,, 23, ,,	100.6	100.8	—	—
,, 24, ,,	103.0	98.5	118	90
,, 25, ,,	99.0	100.0	100	96
,, 26, ,,	98.0	98.0	80	82
,, 27, ,,	98.4	—	—	—

These pyrexial attacks seemed to have nothing in common with remittent or intermittent malarious fever, as there were no stages of heat and cold, and they did not subside by sweating. As might be expected, after each of these attacks, the patient became weaker and more prostrated.

As the disease from which the patient suffered seemed to be very unusual, and, in spite of every treatment, the debility became more pronounced, the patient was seen by several of my medical friends, as well as by my colleagues, including Dr. Hudson, Professor Moore, Professor Purser, and Dr. R. J. Harvey. To the two latter gentlemen I am much indebted, for they rendered me valuable assistance in making the microscopical examination of the blood, and in noting the very remarkable changes in the size and shape of the red corpuscles.

I examined the blood for the first time on February 21st. Its altered characters were so new to me, that I asked Dr. Purser to examine it with me, as I was anxious to have his help, not alone for his skill as a microscopist, but because of the experience he had acquired in the case of idiopathic anæmia to which I have referred.

On March 21st, the blood, drawn by a prick of a needle, issued as a thin fluid of a very much paler colour than normal; the drops it formed were very small, and it stained the handkerchief a lake colour. This loss of colour was better seen under the microscope. There was no increase of the white cells; the red corpuscles did not form rouleaux, but lay either separate or in small clusters. They were very noticeably reduced in number. Several large corpuscles standing by themselves caught the eye at once, and for a moment were thought to be white cells; but closer inspection readily disabused this conception, as they were non-nucleated and of a yellowish colour. In addition to these large corpuscles, there were (*a*) a very considerable number of cells, much smaller than the normal red corpuscle, even to quarter its size, but having its characteristics; and (*b*) other strange-looking cells of every size and shape, oval, pear-shaped, bowl-shaped, crenated, and tailed (*vide* diagram). Aware of the frequency of retinal hæmorrhages in idiopathic anæmia, the eyes, both before and after the employment of atropine, were examined by my colleague Dr. Loftie Stoney, ophthalmic surgeon to the hospital. Beyond pallor of both retinæ and some dilatation of the veins, there was nothing abnormal observed—no streaks or punctate ecchymoses.

The diagnosis of idiopathic anæmia which I made when first I examined the blood was now fully confirmed; and the question most difficult to answer was how best to treat the disease, so as if possible to rescue the patient from that fatal termination, to which his corpse-like appearance seemed to be strongly pointing. I had, acting on the indication for iron, administered this metal in every form, and in the fullest doses, without seemingly any, even the slightest, benefit. I therefore determined to employ arsenic, partly empirically, and partly from the confidence its use had given me in the management of fatty heart and its anæmic symptoms. I was then unaware that Dr. Byrom Bramwell had found the best results from the use of arsenic in this disease.

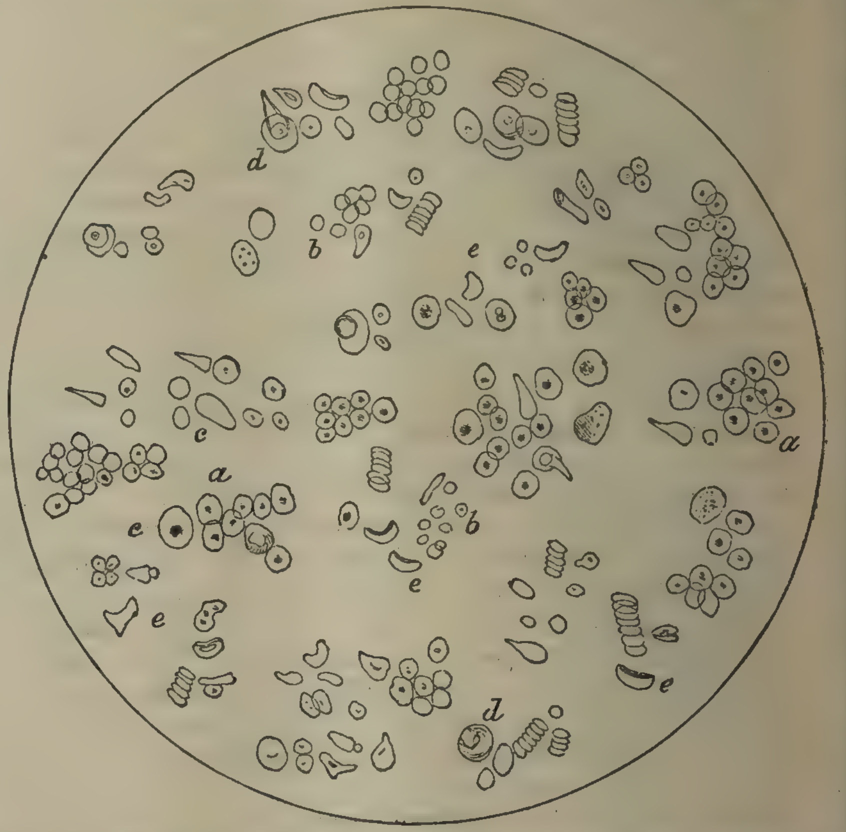

Fig. 1.—*a a.* Clusters of Normal Red Corpuscles. *b b.* Microcytes. *c c.* Large Coloured Corpuscles. *d.* Overlying Corpuscles. *e.* Irregular Masses.

On March 15th, I gave him Fowler's solution in three-minim doses, three times a day, in an ounce of infusion of gentian. Never was I so surprised as at the result of this treatment; for in less than a week improvement became manifest, and, by the end of a month, the patient was able to leave his bed without fainting, and to sit by the fire in an easy chair. The blood also, in April, showed commensurate improvement. No longer did it run down the finger in a stream, but presented a full drop and all the macroscopic appearances of healthy blood. The red corpuscles were increased in number; and although the small round and the large non-nucleated cells were visible, their number was greatly less, while the healthy discs showed a decided tendency to adhere together.

This improvement went on steadily; the patient put on flesh gradually, the pallid waxy hue became less pronounced, and, though weak and easily fatigued, he was able to leave the hospital for The House of Rest in Merrion on April 30th, where he remained a month. For two months without intermission, the arsenic was taken, the dose having been increased to four and five minims. In the beginning of June, this patient went back to his occupation, and, owing to the kindness of his employer, he was permitted to do only light work. He visited me on June 17th. I saw a marked change; the pearly colour of the sclerotics was gone; the mucous membranes of the eyelids, lips, and gums were red, and the whole appearance of the man was very much altered for the better, while the lemon tint of the face had quite disappeared. The patient expressed himself, "that his appetite was very good, and, except for the stiffness of his ankles" (due to slight œdema), "he had not felt so well for the last ten years".

I examined his blood on this occasion, and, with the exception of a few solitary small corpuscles which remained in the spaces left by the clusters and rouleaux of healthy corpuscles, it appeared normal. The urine was also normal, specific gravity 1018, free from albumen.

He has ever since been under my observation ; as occasionally during
last eighteen months, whenever he has suffered from indigestion or
ıstipation, he has paid me a visit, dreading lest these symptoms should
licate a return of his old complaint. He has grown stout and strong;
hair, which had been thin and light-coloured, has become strong,
ck, and dark, and he is closely and efficiently fulfilling the arduous
l constant duties attendant on his office.

ASE II. *Causeless Anæmia: Frequent Vomiting: Constant Abdo-*
nal Pain: Extreme Prostration: Universal Bloodlessness: Altera-
ns in Shape and Size of the Red Corpuscles: Absence of all Fever:
eatment by Arsenic: Recovery.—Joshua C., a shoemaker, aged 48,
s admitted under my care to hospital, on the order of my colleague
. Fitzgibbon, on August 1st, 1878. This patient had been for a
rt time in 1877 under my care, suffering from anæmia, and com-
ining of vomiting and severe gastric pain. At that time, I was un-
e to arrive at any positive diagnosis; but I confess I inclined towards
view of his case being one of cancer of the stomach, although I
ed to discover any abdominal tumour or any implication of organs
ewhere. After he left hospital in 1877, somewhat relieved, he was
ler medical treatment in two other hospitals, and finally was dis-
rged as an incurable case. His wife and friends then endeavoured
ave him admitted to the Hospital for Incurables as a case of cancer
the stomach; and, for the purpose of obtaining a medical certificate
hat effect, Dr. Fitzgibbon was asked to see him. Having witnessed
almost miraculous recovery Case I (Thos. H.) had made, Dr. Fitz-
bon, considering it a similar case, refused the certificate until he had
n subjected to my treatment and been under my care.

happened to be in the ward, in company with some of you, gentle-
ı, when this patient was carried up in the hospital-chair by the
ters. Such a miserable, old-looking, worn-out spectre I have rarely
nessed. His dark hair, which was worn long, brought out in
king contrast the sallow pallor of his face and lips; while his black
e eyes, with bluish sclerotics, seemed to start out of his head. The
ent was thin; and his face, hands, legs, and arms were wasted; but
abdomen was covered with a sensible layer of fat. All the usual
ptoms, subjective and objective, of anæmia were present, such as
ıthlessness, palpitations, fainting, coldness of extremities. The
se was quick, 112; heart's first sound short and abrupt, accom-
ied with a basic blowing sound; and there were venous murmurs in
neck. The patient presented to a marked degree the listlessness
apathy which have been noticed in idiopathic anæmia. The tem-
ıture was frequently noticed during his stay of eight weeks in hos-
l, and it was never above normal, but rather subnormal, usually
ging from 97.7° to 98° in the axilla, and under the tongue not ex-
ling 98.4°. The patient's chief complaint—in fact, his only com-
nt, except that of debility—was a constant severe pain in the epi-
rium and painful vomiting after every kind of solid food. In the
e situation, there was decided tenderness to the touch or pressure.
tongue was glazed and red at the tip, and the teeth were loose and
oded near the gum. The most careful examination failed to point
ny organic disease. Particular attention was directed to the liver,
en, kidneys, and stomach; but I could not satisfy myself that any
ormal condition of these organs existed. No tumour of the stomach
detected, nor any evidence of ulceration which would account for
frequent vomiting.

he blood, which was obtained with some little difficulty, a deep
cture being necessary to produce a single drop, was of thin consist-
, and ran down the finger like spirit, leaving a very faint stain.
er the microscope, the red corpuscles were much diminished in
ber and did not run into rouleaux. In fact, the appearance tallied
ly with that of Case I in February. There were, however, fewer
l red corpuscles, and the tailing of the larger ones was not so
ced. There was no increase of the white cells. The subjoined
ram (*vide* diagram) exhibits the irregularity of the corpuscles. This
ing (which was made by the camera by William Henry Line, A.B.,
nedical resident pupil) does not represent the appearances of a
e field, but shows the irregular corpuscles in several specimens,
h, as soon as they appeared in a field, were at once marked
ı.

ıe diagnosis of idiopathic anæmia was arrived at, and the same
peutic as was so serviceable in Case I—arsenic—was at once
ed. I gave three minims of liquor arsenici hydrochloricus, with
minims of tinctura ferri perchloridi and five minims of tinctura
vomicæ, in infusion of calumba, three times a day; and I en-
oured to meet the dyspeptic symptoms by a carefully regulated diet
by the administration of bismuth and lactopeptine after each

provement showed itself very gradually: at first, by an arrest of
omiting and nausea; then, little by little, by a diminution of the apathy and lacklustre which characterised this patient so much; and finally by returning vigour and strength. In six weeks, he was able to sit up, at first for a few hours in bed, and afterwards in a chair; and then he could take solid food without vomiting; and the last symptom to yield was the occasional attack of gastric pain. With these special improvements, his colour changed to something approaching that of health, the corpse-like aspect passed away, and his eyes became intelligent and even cheerful. The blood, which was frequently examined while under observation, marked a steady return to that of health both as to colour and consistence; while the red corpuscles increased in number, and there was a diminution of the microcytes and other cells of abnormal shapes.

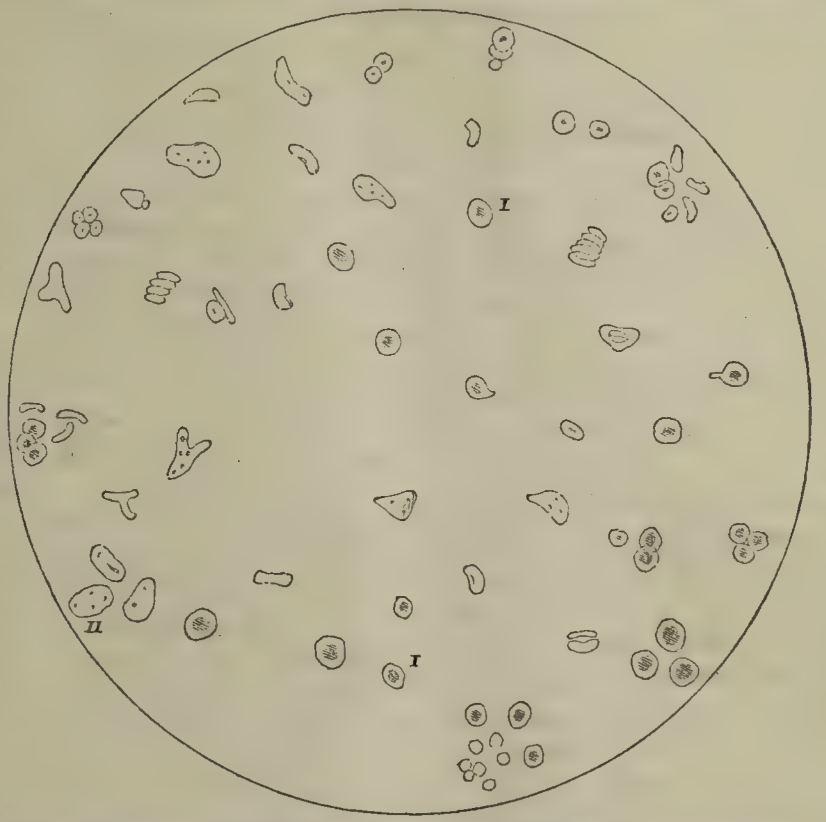

Fig. 2.—I represents a Normal Red Corpuscle. II. A Normal White Corpuscle. The other irregular corpuscles were not all from one specimen, but were marked down from several fields as illustrating the varieties of size and shape.

The patient left the hospital on September 29th, being able to walk down stairs and some short distance to the street. By my directions, the medicine was to be steadily persevered in for a considerable time. It happened, however, in this case, as has happened in many others, that once a patient leaves the constant oversight, regularity, and care of hospital, the medicine is omitted or altogether forgotten, and the progress to recovery retarded, if not arrested. Once or twice, indeed, his wife came for medicine, and reported improvement sufficient to enable him to undertake small jobs as a cobbler, but that his strength was not returning. It is, however, more than probable that, owing to his straitened circumstances, his diet fell short of what he had in hospital, both in quantity and in quality, as well as in the mode of its preparation. Nevertheless, on October 31st, 1878, he was able to walk sixty yards when he paid me a visit, and his appearance had further improved. During the present year (1879), I have frequently heard of this patient; and on the 23rd of October last he was able to walk over a mile and a half to see me, and presented, for him, a remarkably healthy aspect. His lips, etc., were of a good red colour. He was well covered with fat, and his muscles were fairly developed. I examined his blood on that occasion, and found it perfectly healthy, with the exception of a few cells of abnormal size and one or two crenated corpuscles. This latter phenomenon I attribute to the unavoidable delay in submitting the specimen of blood to the microscope.

[*To be continued.*]

THE appointment of Surgeon-Major H. B. Spurgin of the Militia Medical Department to the Medical Charge of the 29th Brigade Depôt at Northampton is of interest, as being made under the provisions of Articles 49 and 51 of the recent Medical Warrant, and may perhaps suggest to some of our readers who are Militia Medical Officers applications for similar posts in their respective localities.

A LECTURE

ON

THE DRY COTTON-WOOL PERMANENT DRESSING IN AMPUTATIONS.

Delivered at University College Hospital, November 24th, 1879.

By ARTHUR E. J. BARKER, F.R.C.S.I.,
Assistant-Surgeon and Assistant-Professor of Clinical Surgery at the Hospital.

GENTLEMEN,—The four amputation-wounds which I propose to make the subject of a few remarks to-day were, as most of you have seen, dressed according to the same method. But from questions which have been put to me here and elsewhere, I am led to think that the distinct principles which I have had in view as underlying this method have not been as clearly understood as is desirable. For this reason, and because you are likely to see the dressing used in other instances, I have thought that it might be well to place before you the *rationale* of the whole proceeding, and then endeavour to see how far it has been consistently met by our practice.

The first thing I must beg of you to observe is this: that I am not here to advocate the adoption of or to defend the cotton-wool or any other dressing, but to indicate to you those points in its employment which require explanation, and which seemed of interest in these cases, and worthy of further study. This I hope we may be able to undertake in a liberal and impartial spirit, trying the whole matter fairly and patiently. I would also ask you to remember that the main principles upon which the method is based are in no way antagonistic to those which underlie what we know as the antiseptic system. I should be sorry that you should carry away any other idea, believing, as I do, that the patient and temperate advocacy of those principles by Mr. Lister has been of incalculable benefit to surgery (whether right in every detail or not), and has produced an effect which will last as long as surgery is a science. If he have done nothing more, he has, at all events, forced upon the attention of the world, in a way that will not be forgotten, the necessity there is of aiming at absolute cleanliness. He has also directed the minds of surgeons, in a more thorough and intelligent manner than had previously been done, to the reason for and need of systematic drainage of discharges. Again, he has given additional force to the older advocacy of rest for wounds, as for all other injuries. These three, then, are the highest aims of the system which goes by Professor Lister's name: to put it briefly, *absolute cleanliness*, *adequate drainage*, and *complete rest*. That these principles are of fundamental importance all surgeons are long agreed, and we should be grateful to the man who has been the means to a great extent of forcing them recently into proper prominence, of harmonising and formulating them. But whether the method of dressing which he has designed and brought into common use is to be regarded as the only way of obtaining these ends, is a point upon which there may be considerable and quite consistent divergence of opinion among those who hold fast by the principles. Experiments in other directions, therefore, far from being wondered at or deprecated, should be welcomed and studied patiently and closely.

There had been many and various methods of dressing practised from time to time with one or other of the above-mentioned objects in view, even before the septic effects of the presence of germs had been suspected. One was supposed to secure a free escape of the discharges and their removal; another, greater cleanliness; another, greater rest. And as far as these single aims were concerned, some of them answered their purpose very well; but no really earnest attempt to design a dressing which should combine them all appears to have been made, until Mr. Lister developed his method into more or less of its present form. But that this dressing, though admirable, has its defects, both theoretically and practically, the inventor would probably be the first to admit, though some of his disciples at home and abroad do not appear inclined to do so. These defects it is not our object to dwell on here. Let me just say, however, that they are often magnified by ourselves in our zeal and with the best intentions. For instance, in our anxiety to secure thoroughly efficient drainage, we may place tubes in the wound to more than twice the amount and for more than double the time required; in fact, sufficiently to act very decidedly as irritant foreign bodies, thereby keeping the injured tissues in a state of physiological unrest, and calling forth perhaps a far more abundant secretion on the whole than if they were not present at all. Again, we sometimes mop, scour, and otherwise energetically handle the original wound in our anxiety to prevent any chance of its contamination, in a way that is almost sure to produce much irritation, and, as a consequence, a copious reactionary outpouring of serum not long after the first dressing has been applied. We thus actually initiate a contest between cleanliness, on the one hand, and true rest on the other; for we speak here of rest physiologically, not as the mere absence of movement of the part; and this contest once begun must be more or less prolonged if the principles of the dressing are to be consistently followed. For if the serum be poured out after a few hours very freely, we are obliged to take down our dressing and reapply it, and thus the unrest is reproduced, and this fresh disturbance of the wound will probably on its part again call forth extra secretion; and so on in a vicious circle. But these faults are our own, more or less, and not necessarily inherent in the method.

Let us now examine the mode of employing the dry cotton-wool dressing, and see how far the requirements of absolute cleanliness, adequate drainage, and complete rest, are met by it in the case of amputation-wounds. But first let us consider what is meant by these terms.

By absolute cleanliness we mean the exclusion from contact with our wounded surface at any time during its treatment, not only of all palpable organic and inorganic impurities, but also of certain almost invisible minute living organisms, which we know are present in the air, and which, it is believed by many, are capable while alive of producing decomposition in the secretions of wounds. To do this, however, it is necessary, in the first place, that they should reach the wound in a living, active condition, and further, find in the latter a fluid of a certain character and density in which they can propagate largely. It has been shown, for instance, by Professor Nägeli that one of the most, if not the most, dangerous of all these organisms is quite unable to exist long or to propagate in a moderately concentrated organic fluid, in which they will develope and swarm if it be a little diluted. Possibly it is for this reason, as has been pointed out, that where an open wound is only secreting enough lymph to glue its surfaces together, we never find fœtor and decomposition; whereas if the same kind of wound were effusing even serum which was retained about it, it would be fœtid and swarm with bacteria. Where the latter fell upon viscid organisable lymph, they had not sufficient moisture to support life; while this would be supplied by the serum. This is the explanation of a believer in the germ-theory of decomposition in wounds, and harmonises with some of Mr. Lister's observations. On this reasoning, if we could obtain a perfectly dry dressing and a moderately dry wound whose secretions should remain above a certain density throughout, the presence or absence of noxious germs would be a matter of indifference, for in such a case they would not be able to propagate. But such conditions could only be very exceptionally met with, and hardly ever in amputations, though they are known.

But the next best thing to this would be a dressing which should absorb all secretions from the wound, without contributing from its own meshes the supposed hurtful germs. This is aimed at in Mr. Lister's method; with what results we need not discuss here. We must remember, however, that it has been shown by his adherents that certain species of germs may be present in large numbers in wounds under his dressings, without producing any septic effect. We aim, however, at the exclusion of all germs, good, bad, or indifferent, whatever be their relation to sepsis. They come under the definition of dirt once given, and as such we ought to abhor them. Dirt, namely, has been defined as "nothing but misplaced matter"; and we suppose that the whole "coccus" family are misplaced in wounds, and shall not be in error if we endeavour to exclude them.

Next, what do we mean by adequate drainage? You should be aware that, roundly stated, there are three tolerably distinct species of fluid for which it may be necessary to provide a free escape in amputation-wounds. Shortly after the operation, we may have blood from small vessels, or parenchymatous oozing. Later, when reaction sets in, there may be abundant serous oozing, and, later still, true pus. All these may be perfectly aseptic, and yet produce much fever, etc., by the tension which they cause in the wound. This tension is apparently but one form of physiological unrest, the pent-up fluid causing stretching and pressure on the injured nerve-filaments in the wound, and consequent vaso-motor disturbance, resulting in rise of temperature. But these fluids, on the other hand, may have decomposed, and may then produce septic fever, from absorption, it is supposed, of the noxious matters so generated, into the blood.

Now, to avoid both these sources of danger, we must provide some way or other for the free escape of these fluids, whether by drain-tube, strip of lint, gutta-percha, or other substance interposed between the lips of the wound. But we must beware, in placing a foreign body in the latter for the sake of carrying off its secretions, that this body be not present in such amount, in such a way, or for such a time, as itself to produce undue irritation. For it would thus, as I said before, defeat its own object and provoke discharge. This is a point we are all constantly liable to forget, and do forget frequently, in the use of the ordinary drain-tube. It is often made unnecessarily large, and left in too long. Again, drainage should not be taken to mean merely conveying the secretions out of the wound, but also as far as possible away from the latter, so as to keep it in as dry a condition as may be for the reasons given. Remember always that dry organic substances are less liable to rapid decomposition than moist under similar conditions.

Turning now to the question of rest, we must bear in mind that the term as applied to wounds should have its fullest physiological signification. It should not be merely regarded as the absence of movement of the limb during and after the operation. A wounded part may probably be kept in a state of unrest quite as much by the continuous contact with it of an irritant fluid, whether applied as a dressing or accumulating in its own tissues, by a clumsy or misplaced drainage-tube, or by an unevenly applied bandage, as by being moved about or roughly handled, and the consequent constitutional disturbance may be equal or even greater. If, during the operation, the wound be wiped over with any particularly stimulating solution, be it of alcohol, carbolic acid, or anything else, a very real irritation of the exposed nerve-filaments and tissues is induced, and we violate one of the first laws of physiological rest. Cleansing solutions, then, should be as weak as possible, compatibly with the preservation of their special properties. But how much greater is the irritation when we sponge and scrub the face of a wound with strong solutions and with unnecessary zeal, as many are often forgetful enough to do, myself amongst the number. Such treatment is usually followed by copious reactionary outpouring of serum. Some wounds, it is true, have to be energetically excited to promote a decided reaction for special purposes, but not those of amputation, where we mostly have fresh clean-cut tissues. In arresting the primary hæmorrhage, then, and in cleansing, stitching, and placing a drainage-tube in the wound, we should usually aim at doing only as much to the raw surface as is absolutely necessary, and no more; and our cleansing solutions should not be too strong or used too long. In applying, also, our first dressing, we should use as much care as if it were going to be left on for weeks. And, if it could be left on for weeks, it would be so much the better. The wound thus at rest would incline to pour out only as much plastic material as would be necessary for union and could be rapidly organised, and would not be excited over and over again at each dressing to give out more fluid material in the shape of serum or pus. And supposing that we regard bacteria as hurtful, a wound comparatively dry from lack of excitement would offer a very unfavourable soil for their propagation, even if they had access to it. Suppose, then, two dressings perfectly pure in the first instance, that one would manifestly be best for the wound which could be left on longest. This, too, we are often liable to forget in our anxiety to see how all is going on about the part operated on. To the patients, also, it is in many cases of almost incalculable importance that they should be spared, not only the pain of disturbing the dressing, but, often far more, the mental distress they go through at such a time. Pain and anxiety are two powerful depressants of vital force; and it may make the difference of life or death to a feeble individual exhausted by disease whether he have an extra twenty-four hours of rest from disturbance of his wound, and the pain and emotional disturbance consequent thereon. How much better, then, is his state when he can be left entirely alone for days or weeks. Unfortunately, this is often impossible or undesirable with the present modes of drainage. Though it is no longer necessary to meddle with wounds in order to pull away ligatures (thanks to Mr. Lister's invaluable invention of the absorbable catgut—a very great step in the direction of rest), still there is the drain-tube in the wound as a foreign body. For this reason, we are obliged to take down any dressing which includes it, in order to shorten or remove it altogether, no matter whether the dressing itself could be left on otherwise or not. Could this be avoided, it would be most desirable. And it appears possible that it may be so in the future. In a recent number of Langenbeck's *Archiv*, there is a very interesting article by a Dr. Neuber, on the use of soluble drainage-tubes. In this, he relates his experience with such tubes in a number of cases. They were made of decalcified bone, which he had found by experiment to be the best material for the purpose. Using these, he was able to leave a Lister's dressing, with some extra packing of salicylated wool, undisturbed for fifteen days, when the tube was found to have been absorbed, and its track healed. Now, if these absorbable drain-pipes can be combined with the catgut ligature and suture, we may perhaps be able hereafter with care to put up an amputation-wound once for all in a pure, dry, absorbent material, and leave it so until it is completely healed before removing the first application. This, if achieved, would go near to realise our ideal dressing, combining cleanliness, adequate drainage, and complete rest.

Let us glance now at the dry cotton-wool permanent dressing as a method of wound-treatment, and see how much of these three factors it contains. We have all been familiar, no doubt, for many years with the use of this material for injuries of various kinds, and have seen it of benefit. But one of the first to employ it as a permanent dressing to be left on for weeks was M. Alphonse Guérin of Paris. And remember, please, that it is not the material employed, so much as the fact of his venturing to leave it so long undisturbed round a wound, that was the novel feature of his practice which has attracted much attention. I gather from reading, and from a conversation with himself, about a year and a half ago, that, as carried out by him, this method simply consisted in wrapping a very large quantity of ordinary cotton-wool round the wound, which had not been cleaned in any particular way. This was then bandaged tightly around the part, and so formed an elastic, even-pressing, and somewhat absorbent covering, which he left undisturbed for weeks, or until the part was healed, or nearly so. This certainly secured rest, but no particular provision was made for cleanliness at starting, nor, so far as I know, for drainage.

Not long after M. Guérin's visit, Mr. Erichsen suggested to me to give this plan a trial in the hospital. He had, I believe, done so himself in private, and had formed a favourable opinion of it. I did so, as you know, in an amputation of the leg, and had such a satisfactory result that I have employed it since in two amputations of the thigh, and one of the breast. As this is the only systematic test of the method that I know of in a hospital in this country, it appears worth while to take a few notes of the results. These you have been able to watch for yourselves, so I may be brief, and avoid too much detail. But I have essentially modified M. Guérin's method in these cases, feeling bound to do so, and as follows. Knowing what cotton-wool often is in hospital, where it is left about here and there—namely, a trap for dust and dirt—I have had all that employed here baked at a dry heat of 300° to 400° Fahr. This, you know, would render all organic matter in it innocuous, and certainly destroy all germs. Now, pure dry cotton-wool is well known to be a perfect shield against the access of dust and germs to substances covered by it. I need not allude to the familiar experiments which go to prove this, and that air is completely filtered of all decomposition-exciting impurities (whatever they may be) by passing through it. If this be true, a wound perfectly clean in the first instance, carefully enveloped in perfectly clean cotton-wool in sufficient amount to absorb its discharges, ought to remain quite free from contamination from without until the dressing is removed. The wool, so cleansed, was laid out just before the operation on a towel, to the depth of about six inches, and thus ready to be slipped without loss of time under the stump, and lapped over the end and along its upper surface as soon as the sutures were completed. It was broad enough to envelop the limb, and was firmly bound round the latter with a bandage for a long distance up. Now, what measures had we taken that the wound itself should have been put up within the wool in a really clean state? First, the hands of all participating in the operation were well washed in a five per cent. carbolic acid solution, about the properties of which I must assume we are all agreed. The whole limb both above and below the seat of operation was similarly treated, as also all instruments and appliances used during the latter. When this was completed in the usual manner, and the vessels secured with carbolised catgut, the Esmarch's bandage was removed. The wound was then sponged with iced carbolic solution, perhaps, I since think, with unnecessary energy on my part. After this, I wiped it over in the three first cases with five per cent. of carbolic oil before stitching it with antiseptic silk, and inserting an ordinary drain-tube. A strip of lint about as broad as the limb, dipped in the same oil, was then laid along the under surface of the stump, over its end and along its upper surface. Over this, the wool was now quickly folded as described.

These precautions ought to have secured a clean wound. As the spray was not used, the carbolic oil was employed as described. It was thought that it would adhere to the raw surfaces and flaps longer than the watery solution, and so render harmless any dust or invisible dirt which might fall upon them before they were enveloped in the wool. Should the same have fallen on the latter during our manipulations, the oiled lint would meet it, and render it innocuous for the wound. The dressing so applied was left undisturbed as long as possible. By this, I mean until either the thermometer indicated undue fever, whether from possible tension or toxic absorption, or the dressings began to give off an unpleasant odour.

Now, as to the three questions of cleanliness, drainage, and rest, what does our experience seem to teach us here?

Generalising on these four cases, the first point that strikes us is the large amount of complete rest secured to the wound and to the patient; a far larger, I must admit, and more perfect than I have ever attained by any other method. In Case 1, an amputation of the leg for sarcoma of the foot, the patient, a woman, aged 21, enjoyed the most perfect rest for ten days, until the first change of dressing; then for seven more, when the second dressing was applied, after which she was practically well, the wound having healed almost straight off, except where the drainage-tubes lay. In Case 2, an amputation of the thigh for disease of knee in a man aged 26, we had perfect rest for four days, then for two, when he had the only distress complained of. On the fifteenth day, after a few more dressings, he was up by the fire (the wound being almost healed), and was about on crutches a couple of days later. In Case 3, a patient aged 45 (amputation of breast for cystic disease), we had perfect rest for six days; then change of dressing, and again at intervals of four or five days, until an early cure. In Case 4, a patient aged 55 (an amputation above the condyles of the femur), we had complete ease from the date of operation until the end of the case. The dressings were only removed on the tenth, sixteenth, and twenty-third days. Now, except in Case 2, the patients were, from the beginning to the end, almost absolutely free from pain. And that the wounds were at rest was seen in the absence of almost every trace of reaction and of contraction in the flaps (which was peculiarly striking), and in the small amount of secretion found in the dressings; also by the temperature-chart. We had, then, freedom from pain, except in Case 2, before the second dressing. This pain was in his phthisical chest, however, and not in the wound. We had no tension from lack of drainage, as indicated by this absence of unpleasant sensations in the part and of marked temperature-disturbance. But, quite as important as this, the patients were spared at the most critical time of the case all the dread and worry of having the dressings changed and the wounded part handled. They lay quietly as first placed, with a soft, elastic, warm, and evenly pressing material round the whole limb; remember, for ten days in two cases, and for six and three in the others. The second interval of rest, too, lasted for seven and six days respectively in the first and last cases.

Our experience, then, in these instances would seem to show that, as regards the securing of mental rest for the patient and physiological rest for the wounded part, this mode of dressing has shown itself admirable. To my mind, I must admit that in this respect it goes far beyond the old method of simply laying the stump, covered with oiled lint, on a pillow. For here we have all this, and in addition firm elastic support to the muscles all the way above the wound; a support no less grateful to the patient, as diminishing the tendency to spasm, than important to the flaps as combating their retraction. I cannot but think, too, that the absence of all variations of temperature about the wound must be a matter of considerable importance. This the permanent dressing of dry cotton-wool prevented, by its bad conducting properties. Changes of temperature, particularly in a wound, mean disturbance of the equilibrium of the nerve-forces of the part, and consequent disturbance in its nutrition, the very thing we are doing our utmost to avoid.

In two of these cases, I should have left the first dressings on much longer if it had not been incumbent on us to remove the drainage-tubes and stitches. But these had done their work, and at the end of ten days, or even earlier, were only irritant foreign bodies.

This leads me to speak of drainage. That this was adequate, was indicated by the absence of unpleasant sensations on the part of the patient and of marked rise of temperature. Had there been tension of serum, blood, or pus to any noteworthy degree, both of these factors would have been present. Moreover, the secretions were fairly distributed through the wool around the wound, and had to a large extent dried up; so that, at the end of ten days, we found only a very small quantity, perhaps a couple of ounces of viscid pus, about the line of the wound.

We come now to the question of cleanliness, and how far its requirements were met in these cases. You have seen that, in applying the dressings, we went a long way in this direction. Now, during the ten days which elapsed before their removal in Cases 1 and 4, and six days in Case 3, what evidence had we that all was clean around the wound? First, there was the temperature chart to guide us. You will see by it that in all cases we had a rise towards the second day, and then a fall again. This ascent probably corresponded to reaction after the shock of the operation. It may have been due to the accumulation of a little serum within the flaps. At all events it was slight, and, moreover, transient. In Case 4, this was hardly present at all, but was followed on the fourth day by a rise to 101.4°, for an hour or two, after which the temperature gradually fell to normal, and remained nearly so until the end of the case. In Case 1 it slowly rose until, on the tenth day, we had 102.6°, after which it fell, and remained at nearly normal throughout. In the other two cases, I am not sure that the rise on the sixth and seventh days was not due to other causes than the wound. You must remember that, in Case 2, we had well marked evidences of phthisis, with spitting of blood. But in none of the cases had we a persistently high temperature, or one that called, in my opinion, for removal of the dressings. Next, we had no unpleasant sensations on the part of the patient to indicate tension, etc., in Cases 1 and 4. In Case 3, we had a slight sense of contraction about the wound, from the description like what would be caused by the drying of the blood on the dressings. This was on the fifth day. Another indication as to the cleanliness of the first dressing during the long interval before its removal, we gain from our sense of smell. Now, in Case 1, there was no odour at all from the wool during the first ten days; in Case 2, a faint sickly odour like dry blood was, I think, perceptible on the eighth day. But you may remember what difficulty some of you had in determining whether there was or not. On this day, when I was not present, Mr. Banks tells me that there was a great difference of opinion on the point among the class going round with Mr. Heath, but that the greater number were inclined to follow Mr. Heath, who was kind enough to test the dressing as to this point at the time, and who took the view that there was no smell. On the tenth day, however, it was plain, but very faint. In Case 3, the dressings had no smell of decomposition from beginning to end. In Case 2, they gave off a very marked odour almost from the beginning to the end. In cases 1 and 4, the second dressings had a slight odour a day or two before their removal, seven and six days after they had been applied.

Now as to the state of the dressings on their first removal, after ten days in 1 and 4, six and three days in the other cases. In Case 3, as has been stated, there was no odour from the start to the end. In all the others there was a pungent smell, like high game, in the small quantity of pus which lay about the wound. There was no question about this smell, it was very bad; but if we are to judge by the appearance of the wound and flaps, and the patient's general condition as to temperature, etc., the decomposition which it indicated was apparently doing no harm.

Now as to the pus present in the dressings: this was found in remarkably small quantity, considering the time it had to form. This was probably due in the first instance to the absence of irritation; in the next, to evaporation of its watery constituents through the wool. What was found was thick and viscid, certainly for the greater part much too concentrated to form a good soil for bacteria. As to the latter, they were present on all occasions in numbers, but apparently not very active. Mr. Silcock, to whom I am indebted for a more careful examination of the pus in regard to this point than I was able to make myself, tells me that there were no rod bacteria, but only micrococci present. Whether this has a bearing on the question of cleanliness, I think we must leave to further study of the whole matter. It is, however, so far interesting. On the removal of subsequent dressings, a similar pus and odour was present.

No one, then, who saw the removal of these dressings, would have said that the highest ideal of cleanliness had been reached, that is, if much stress is to be placed on the smell emitted. We must be careful, however, I think, not to lay too much stress on this smell, undesirable though it be. It is just possible that there may be some odours indicating danger, and others not; just as there are apparently harmless as well as harmful organisms to be found in the pus of wounds. At all events, the pus around and in contact with the wound was in a very desirable condition. Better than all, in conclusion, the patients had an uninterrupted, rapid, and good recovery in all cases.

We have now examined some of the principles upon which we have used this dressing. It has been an interesting experiment, and one from which I myself must say I have learned much; and chiefly the great value of prolonged rest; and that, in our struggle for cleanliness, we may needlessly go too far towards the production of unrest. Also that a wound put up carefully in a very clean condition, may be so left much longer than we usually think.

Further trial may teach us still more. If then we find the dressing wanting on the whole, let us by all means reject it without more ado. In the meantime, let us give some further study to its bad and good points in a fair, liberal, and candid spirit of inquiry.

DORKING RURAL DISTRICT.—There is no striking feature in the death-statistics of this district for 1878, its health, whether measured by the rate of mortality from all causes, or from zymotic diseases, or among young children, being very good. The general death-rate was 14.3 per 1,000 of the estimated population, a decrease of 1.1 on the mean for the last five years. Measles were not very prevalent, but whooping-cough was rather more fatal than usual, and a considerable number of cases of scarlatina occurred. Enteric fever was reported at nine houses in Dorking and in one at Westcott. Such remedial measures as were feasible were adopted in every case. The means for the disposal of the sewage of Dorking seems to require improvement; but there is hope of action in this direction being taken, as the formation of a special drainage district for the place is under consideration.

ON NURSING SYSTEMS.

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To some minds, the word "system" seems to have a magical import: what it really imports, it is scarcely thought necessary to follow out. In regard to the systems of nursing which are engaging our minds at present, it might be worth while to present to our views the leading features of those at present in vogue. For practical purposes, we may divide them into three kinds:

1. The Ward System:
2. The Central System:
3. The Nursing Institute.

1. *The Ward System.*—In this arrangement, we have the hospital authorities, a matron, sisters, and nurses. The sisters are engaged and dismissed by the hospital authorities; so that, except through the authorities, the matron cannot dismiss. She, of course, can report any one for misconduct, and recommend her dismissal. The sister is the head of her ward: for its well-doing she is responsible; but, in a manner, she has to serve two masters—*i. e.*, the lay authorities and the medical staff. She is, in so far as the latter are concerned, responsible to them; they can report any misdoing to the authorities. Hence it is necessary that she be superior to a simple nurse, and is in her own ward an embodiment of the hospital, the representative of the double head of the charity—the lay and medical staff. It will be seen, therefore, that she should be of a superior stamp, and should have been well tried before appointment. She ought to know nursing fully in its various branches, so as to be able to instruct the nurses under her. To secure the right stamp of person, a good salary should be given; not one which an ordinary cook could get. To make her as efficient as possible, she should not be treated as a machine, nor be the subject of petty tyranny. Her authority in the ward should be supported where possible; and, still more important, her love for the work should be developed by fostering that kind of *esprit de corps*, the glory of the regimental system. She ought, once proven, to be retained as a valuable treasure, which could never be replaced by a mere hireling. The head nurse, in her way, should be under the same influences and feelings, well trained to attend intelligently on the sick; but, beyond even skill, she should not be an eye-server, but have her heart in the work. Probationers of each kind should have an opportunity of learning in each of the departments of surgery, medicine, and the obstetric wards. When the educations of the sister are accomplished, then she should be attached to the department which she prefers, so far as it can be arranged. Thus opportunity will be given to the authorities of distinguishing the qualities of each, and excluding the unsuitable altogether. Now, it is clear that in any hospital arrangements, its highest efficiency will be attained when the sister and medical staff work heartily, I may almost say affectionately, together for the common good. If they have, therefore, been found to work harmoniously together, it can conduce to no good end to divide them; for naturally, after a certain time, the sister and nurse also feel a pride in quoting the number of years they have worked together with this or that surgeon or physician, at this or that hospital. This pride, natural and life-giving, it is, which it should be the object and duty of the authorities to develop; it is the soul of good work. This system I have named the "ward" system. The ward is the hospital "unit"; the sister is its exponent. Besides the advantages above mentioned, it has this, that, subject to proper supervision, it is self-working. However vigilant a central authority may be, it never can watch the doings of every member of the nursing staff; and, indeed, unless a sister or nurse can work without supervision, she is not fit for her post. This system is more consonant with English habits; it has its equivalent in the municipalities, and develops a habit of self-government. In a large hospital, whose patients belong to every nation and every creed, the sister and nurses should be of no narrow religious creed which would urge them to intrude their opinions unduly, and should be allowed to follow whatever religious usages they like.

2. *The Central System.*—In this, there are two principal variations; but the staff consists of much the same parts as in the "ward" system, only the relationships are different. In both varieties, the position of the sister or "ward-head" is lowered more or less, and in some instances she is not much more than head nurse. She is mainly, and in some instances entirely, responsible to the matron, or, as she prefers being called, lady-superintendent. She is engaged and discharged by the matron, in some cases with the sanction or endorsement of the acting governor; and thus, looking to the matron more as her centre, she is less interested in pleasing the medical authorities, as they would be not often consulted in anything connected with matters affecting the retention of her services. In good hands, this influence would not be detrimental, but it would be so in case of any dispute, or in any instance where, as in the "sisterhood" arrangement, there was any discussion as to the merits of the system. In other words, the more the arrangements favoured the formation of a clique amongst the nursing staff, the more difficult would it be to hear of, or find out the truth of, any errors or complaints. A combination, or something approaching to it, a *suppressio veri*, would be most fatal to efficient treatment of patients.

Now, in the central system, under whatever variety, the matron undertakes to keep a sharp supervision over the whole nursing staff, upon the sisters and nurses. This is not difficult in a small institution, but becomes more so the larger the establishment. As the sisters are less trusted, so they are less independent. This may be well with poor material to draw from, but, in an hospital with large resources, which ought to command any amount of talent, it is not the best method; for, by keeping down independence and by guiding them by rule of thumb, their talents lie latent, and highest efficiency is never arrived at. This central system possesses the faults of centralisation. It tends to bring all its agents to the same level, which, though it may not be very low, yet cannot rise to the highest standard. Doubtless, as before said, with bad material and in small institutions, a certain amount of passable work may be accomplished. But it never can be higher than the centre; should the head be only of moderate talent, though with a power of organisation, the whole nursing—that is, the actual assistance rendered to the patients—will be but moderately done. There is another fault, not without importance, that the higher the system the more the work tends to a strict routine, paralysing individual efforts, and cramping even the action of the principals themselves. Besides, the efficiency of the supervision lessens as the size of the establishment increases; the whole responsibility rests on the matron; and those who know the work of a large hospital, with 600 or 700 beds, will readily admit that this is no slight matter, but requires incessant and continuous wakefulness. But there is an outcome of this method which, however, by no means necessarily belongs to it—this is, the "nursing sisterhood". In this, the whole nursing staff are more or less closely united, after the manner of a guild, obeying the lady-superior, each sister being called by an assumed name, whereby to a certain extent the identity is lost, and the individuality is merged in the general sisterhood. Being united more to the superior, cohesion towards her is more evident in all their actions than in other directions. The superior is the "unit" to a large extent. Of course, when all are well trained and do their work to their best ability, they form an efficient band of nurses, very suitable for undertaking nursing in large towns amongst the rougher portion of the community; the arrangements are suitable for giving the weaker members of the sisterhood a centre of interest to which they can apply for advice in difficult moments. When, however, it is introduced into a hospital, it has, even under a careful and judicious superior, two disadvantages: *one* belongs to the central system generally before stated; but it also tends to form an unduly prominent factor in hospital work, and places a power in the hands of the "superior" not altogether to be desired in so compound an organisation as is the English hospital. But, in the hands of the injudicious, these faults become exaggerated, and an antagonism between them and the authorities and the medical staff is capable of arising. Indeed, that this latter unfortunately has resulted is well known, especially where the nursing has been what we might call "farmed out" to a nursing sisterhood. Under this arrangement, the superior has it in her power, more or less completely, to remove or induce to go every nurse in a hospital at a day's notice should any dispute arise with the authorities. Another disadvantage is the possible antagonism to the medical staff, to whom it is naturally the handmaid; whenever it is possible for the nursing arrangements to dictate to the medical staff or to the hospital authorities, it is self-evident that the hospital as a whole—that is, a place for the cure of patients—must suffer in efficiency. This disadvantage is not imaginary, and in greater or less degree shows itself under these conditions of nursing arrangements. The only check to these disadvantages is, that the nursing staff should be an integral part of the hospital, directly under the authorities.

There is another development of the sisterhood which sometimes is seen, though not necessarily connected with it. I mean the changing of the nurse frequently—every few months; because, it has been stated, she should not have too much attachment for locality. The error of this idea has only to be stated. Is there no advantage in the nurse knowing a patient's ways, the physician or surgeon's methods, and this emphatically in special methods of treatment, which it has taken years to teach? It is a mistake to suppose that a nurse is equally good for every department; on the contrary, some do surgical work, some obstetric, and so forth, better than other kinds. If division of labour mean anything, it eminently holds good in nursing. But what can changing a nurse constantly mean, after she has been well taught, but that she is more under the power of the superior, and ready to act in combination? There may be seasons and places where the nurse may be required to stand up against ignorance; but the nurse should be attached in feeling to patients and wards by continuity of work.

3. *The Nursing Institute.*—This is a simple form or plan for teaching nurses; but it is frequently confused with the central nursing system. No doubt they can be and often are, worked together, and the one may be considered as in some measure supplementing the other; but it is not well so to confuse them. In any case, persons are received who, having been lectured on the details of their future work, are brought into contact with its practice in the wards of a hospital and infirmary. They should see the various departments consecutively, and might be employed as under-nurses under the supervision of the head-nurses. The proportion, however, they bear to them should be less, or they will confuse the work, liable as they are to make mistakes. How far such an institution can be carried out in a hospital with a medical school attached ought to be a matter of careful consideration; in any case, they should be held well in hand. Still more important it is, that they should not make the work of the head of the central system impossible; it being already so onerous and responsible that few women would have the constitutional powers sufficient for the work in a large hospital.

In all these systems, it is by their practical application to the needs of the patient, and in the carrying out the desires of the medical staff, that "systems" must be judged. If a "system" be worshipped and believed in as a substitute for efficiency, then a grave error is committed; and, while in the *régime* of a sisterhood there is much to attract the sentiment of the public and the sympathies of the benevolent, yet it is very apt to degenerate into routine, and the mode or manner to take the place of patient in their thoughts.

Probably, none of the nursing systems have hitherto arrived at the highest state of efficiency. Some have aimed too high; some have failed from want of thorough training; most have omitted to take advantage of mechanical helps; others have studied sick dietary too little. Probably, we medical men have not done as much as we could have done in the matter, and, engrossed with more difficult problems, have somewhat overlooked this very important subject.

RHODES'S AUDIPHONE.

By JAMES SAMUELSON, Esq., Claughton.

DURING a recent visit to the United States, I purchased one of the audiphones which are attracting so much attention in that country. The following account of the instrument will be interesting.

The audiphone resembles a fan in appearance. It consists of an elastic or resilient plate about ten inches square, which resembles ebonite in appearance, but is in reality a plate of white composite metal japanned and burnished. It is mounted on a black handle of ebonite; and, by means of a cord and tassel, it is capable of being bent to any curve, in which it is retained by a neat clamp on the handle, through which the cord passes.

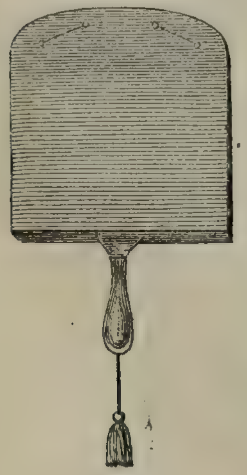

Fig. 1

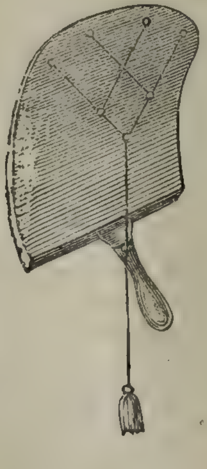

Fig. 2.

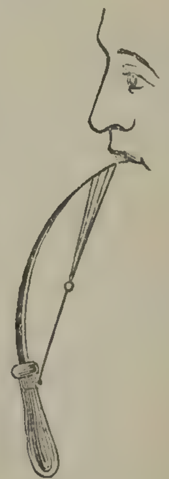

Fig. 3.

Fig. 1 shows the instrument in its ordinary condition; Fig. 2, when it is curved; and Fig. 3 shows its application. It is placed against the *upper* row of teeth, and the speaker speaks against it. The audiphone acts as a sound-board, and the sound is carried through the upper jaw to the auditory nerve. It should be held tolerably far back, and the edge of the plate should rest between two teeth on each side of the jaw. The inventor claims more for it than I find it from experience to accomplish. I have tried it in public three times, and several times in private—in all, upon thirty or forty persons of varying degrees of deafness arising from a great variety of causes; and, although I should not wish the following to be considered as a scientific or conclusive report upon it, I think it will be found pretty accurate.

Of course, if the auditory nerve be atrophied or diseased in any way, no result is obtainable. Where the hearing comes and goes—to speak popularly—it does not seem to be of much benefit. In many cases, the trumpet appears quite as efficient as the audiphone. But then the following consideration occurs: the patient has become accustomed to the use of the one instrument (the trumpet), whilst the other is only tested for the first time. I have, however, found cases in which the patient could not hear any one through the trumpet excepting some person with whom he is in the habit of speaking constantly, whilst his face brightened up when I spoke to him with the audiphone, and he answered me promptly and accurately. In one case, that of a well-known public man in Liverpool, the result has been very striking. He considers that the lost sense of hearing is restored to him through the audiphone, and has ordered a couple from the makers; but meanwhile he has purchased a large flat ivory paper-knife, and he tells me that it is a great enjoyment to him, whilst he is reading his newspaper, to place one end of the blade in his teeth and the other on a musical box, the tunes from which are clearly audible.

It is difficult to say in what affections of the auditory apparatus the audiphone is of the greatest use. My impression is that, when the tympanum or the bones of the ear are so much injured as to produce almost complete deafness, the audiphone is the most efficient, as all external sounds are excluded; but then, again, the condition of this part of the mechanical apparatus may affect the whole auditory system, and in that case nothing is gained by the use of the instrument. Temperament has something to do with the matter. Some people are very stupid, or expect too great results at once. They think that, as soon as the audiphone is placed against the teeth, their old faculty should return at once; and I have known the same persons tell two completely opposite stories about the result of the experiment upon them, to two different friends.

One thing is certain: if a hearing person exclude sounds from his ears by means of cotton-wool, he can, as a general rule, hear fairly well by means of the audiphone, without any effort of the speaker's voice. It seems to me that aurists and teachers of the deaf will be very much benefited by the invention: the former, through being able to use it as an instrument for diagnosis (I believe the ticking of the watch is largely used already); the latter, where the child is deaf from some injury to or imperfection of the mechanical portions of the auditory apparatus. The whole thing is quite in its infancy.

GRAYDON'S AUDIPHONE.

By URBAN PRITCHARD, M.D., F.R.C.S.,

Aural Surgeon to King's College Hospital and to the Royal Ear Hospital.

I HAVE been much interested in the accounts of this instrument, some details of which appeared in the JOURNAL of December 20th, as I have been working in the same direction the last two years, and with some encouraging results. My object, like that of Mr. Rhodes, has been to substitute for a defective middle ear some mechanical means which would do the duty of the membrane and chain of ossicles; that is to say, to conduct the sound-vibrations of the air to the fluid of the labyrinth without the great loss which ordinarily occurs when the sound-waves pass from a gaseous to a fluid medium. Up to the present, all the aids to hearing have been designed either for collecting the sound-waves and directing them to the membrana tympani, like the ear-trumpets and tubes, or simply for magnifying sounds like the microphone.

My little instrument is composed of a vibratory drum, of the size and construction recommended by Professor McKendrick for the phonograph, with a convenient handle for the listener to hold. This drum has attached to its centre on one side a style, longer than that for the ordinary phonograph and tipped with boxwood; from the other side proceeds a speaking-tube. Now, if a very deaf person (it must be external or middle ear deafness) hold the boxwood tip to one upper tooth, or to the mastoid process, he can hear a whisper spoken through the speaking-tube, the sound-vibrations being conducted through the skull to the external ears.

So far, this instrument is successful, and the proposition is solved; and as, at least in nine-tenths of the cases of deafness, the internal ear is quite unaffected, I thought at first it was a complete success; but further testing proved that the transmission of sounds was not sufficiently perfect for practical purposes.

I next proposed trying the addition of the microphone, and for this purpose Dr. Wallich had kindly offered me the use of his instrument and his valuable assistance; but I now believe that I have been forestalled by Mr. Rhodes, although I have not had an opportunity of seeing his instrument yet.

The following simple experiment may be tried by anyone, and will illustrate the principle on which both Graydon's audiphone and mine are intended to work. Take an ordinary toy telephone, consisting of a drum and string attached to the centre of the membrane; hold the string in the teeth; and, with this duly stretched, let some one speak into the drum. Now, if the ears be closed by the fingers, the conversation will be heard through the skull.

Of course, we have yet to see whether these instruments will prove of practical value; but I feel convinced that it is by working in this direction that we may hope to obtain that universal desideratum, spectacles for the deaf.

THE ANTISEPTIC TREATMENT OF PHTHISIS PULMONALIS.

By G. HUNTER MACKENZIE, M.D.,
Lecturer on Diseases of the Throat in the School of Medicine, Edinburgh.

THE article by Dr. Burney Yeo in the JOURNAL of the 20th of December last induces me to bring forward a method of treating ordinary inflammatory phthisis, from which I have obtained good results. Having, some months ago, found bacteric organisms in the sputum of a phthisical patient, it occurred to me whether their presence might be associated with a process of blood-poisoning from the decomposition and putrefaction of the products of inflammation in the pulmonary bronchi and air-cells. I accordingly experimented with various antiseptic inhalations of different strengths, and latterly have been using pure carbolic acid or creasote. I have had made, by Mr. Young of this city, a respirator somewhat resembling that of Dr. Roberts of Manchester, but which covers both mouth and nose, and has a double breathing-chamber for containing pieces of sponge saturated with a strong carbolic or creasote solution. The sponge is covered with a light layer of cotton-wool, to act as an additional filter and prevent the outward evaporation of the antiseptic. The respirator is worn *as continuously as possible* both by night and day. By this means, not only is the respired air purified, but the volatile antiseptic is drawn in with each inspiration and thoroughly permeates the lungs. A renewed application of the fluid is made night and morning by means of a camel's hair brush. I have had no difficulty in inducing even young children to wear the respirator for lengthened periods, the only drawback having been a tendency to chafing of the skin by the continuous pressure of the borders of the instrument. This, however, has been overcome by having the instrument bordered with soft sponge, which answers admirably. My experience of this method of treatment has as yet been limited, and confined to cases in their first stage. The results obtained, however, have been so satisfactory as to justify me in discarding the internal administration of the various specifics and continuing the inhalations alone. It is, of course, impossible for me to say that cases of phthisis are absolutely cured by this system of treatment; but the distressing symptoms of phthisis—the night-sweats, cough, and impaired appetite—have been so ameliorated as to justify me in publishing this preliminary note, reserving for a future communication further details of the method and notes of the cases tried by it.

A CASE OF "CEREBRAL PNEUMONIA."

BY JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

A CASE which was under my care in the Birmingham General Hospital is worth notice, as illustrating two points of considerable interest in the natural history of pneumonia; the former relating to the diagnosis, the latter to the pathology of the disease. First, the case was one in which the nervous disturbance at the outset was unusually prominent and severe, "so as in some cases, and especially with children, to divert attention from the pulmonary condition". In Dr. Sturges' able work on Pneumonia, from which the preceding quotation is made, other interesting illustrations are given.* The second particular is that high pyrexia continued through four days, before pulmonary symptoms made their appearance. Some important remarks on this phenomenon, not altogether rare in pneumonia, are made by Dr. Sturges, especially in two notes, pp. 33 and 168; and the value of the observation in relation to the theory of the disease is made apparent in the same volume.

It is worth noting, in connection with the diagnosis, that not only were physical and general signs of pneumonia absent during these four days, but that respiration was hardly quickened until the local signs were developed. I would observe, with respect to the cerebral symptom, that, although the pain in the head was most severe, and the vomiting constant, the boy exhibited a striking contrast with a case of meningitis in the same ward. The latter boy was found lying in bed, coiled up under the clothing, and intolerant of interference; the instant the examination was ended, he was again beneath the covering, with the rapidity of a spring released. My present patient had much more urgent pain and vomiting, but comparatively little intolerance of light, and was not much troubled by examination.

The boy was ten years of age. He shivered one morning, having been previously in good health; was dull during the day, complained of headache, and vomited. When he was brought to the hospital the same evening, his temperature was 103.6°, and 105° at midnight. In the course of the following day, the temperature dropped to 102°, but began again to rise, reaching 104° on the fourth morning. Meantime, the pulse was 120; respiration never above 25. During this time, the boy had intense headache, and constant vomiting of green fluid. There were neither physical nor general symptoms of chest-affection, though attention was carefully directed to the condition of the lungs. There was a slight eruption of herpes at one angle of the mouth. On the fourth day, some extension of splenic dulness was observed; the cerebral symptoms were partially relieved. Next morning, general consolidation was discovered of the right lower lobe. The pulse had risen to 130-140, the respiration 34-40; and all symptoms of cerebral disorder had completely cleared away. The remainder of the case was typical of pneumonia; the temperature beginning to fall in the night of the seventh day of the attack, and reaching the normal standard on the next morning but one. The urine contained from one-eighth to one-fourth of the column of albumen. Recovery was complete and rapid.

THERAPEUTIC MEMORANDA.

FLITWICK WATER.

AT the Royal Hospital for Diseases of the Chest, I have been induced to use the natural mineral water of Flitwick, a village about two miles from Ampthill, in Bedfordshire. This water, according to the analysis of Professor W. White, contains in each gallon:

	Grains per Gal.
Oxide and Carbonate of Iron	144.00
Sulphate of Magnesia and Soda	59.20
Carbonate of Lime	11.54
Muriate of Magnesia (chloride)	15.16
Silica	3.40
Carbonate of Magnesia	5.42
,, Soda	0.22
Ulmic, Malic, and other acid constituents of vegetable matters	13.32

One of the most marked cases in which benefit accrued from its use was that of a railway signalman, excessively anæmic after protracted hæmoptysis, and with whom all the usual ferruginous preparations disagreed. I have also notes of six other hospital patients: two debilitated after acute rheumatism, where the perchloride of iron caused headache and constipation; and four chlorotic females, on whom this potent chalybeate acted beneficially when the usual iron medicines were not well borne. I hope this note may lead my professional brethren to give this water a trial. G. GODDARD ROGERS, M.D.

BLOODLETTING IN HEADACHE WITH INSOMNIA DUE TO CONGESTION OF THE BRAIN.

WITHIN two years, I have treated three cases of headache associated with intractable sleeplessness, in each of which bloodletting was followed by speedy and effectual cure.

CASE I.—Mrs. A., aged about 30, complained of headache and sleeplessness. The headache was always worse when lying down. The subconjunctival vessels were much congested. For four weeks, various internal and external remedies were tried in vain, such as the iodide and bromide of potassium, blisters, hot and cold fomentations, etc. To procure sleep, I prescribed, with very little benefit, large doses of chloral and other hypnotics. Failing to give relief, I suggested bleeding. I opened the right cephalic vein, and drew off in a full stream about fifteen ounces, when the patient said that her headache had quite gone, and that she felt very comfortable. About twenty ounces were drawn off, when the patient fainted. She soon recovered, and went to bed and slept well. In this case, venesection at once and effectually removed the headache and insomnia, which had resisted all the ordinary medicines after weeks of patient trial.

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* I might refer also to observations of a similar character in relation to the onset of cardiac inflammation, given by Dr. Latham in his *Clinical Lectures on Diseases of the Heart.*

CASE II.—Mr. B., aged about 40, stout and plethoric, suffered for several days from headache and sense of fulness in the head, and oppression and sleeplessness. The headache and insomnia, as in the former case, resisted the various medicines, hypnotics, lotions, and leeches, which were tried. Bleeding was resorted to, and, as in the former case, the headache vanished before the operation was completed; and the patient slept well, and made a quick recovery without any medicine.

CASE III.—Mr. H., aged 47, foreman in a corn-mill, stout, full habit, suffered for three years from headache and oppression of the brain. He had been treated without permanent benefit by several medical men; none had bled him. On August 10th, 1879, the patient came to me and complained of pain across the top of his head, like a "boring" between the skull and the brain; also fulness and oppression; also feeling to stagger when walking, like a person drunk; also sleeplessness. For five weeks I tried the effect of various drugs, with but little benefit. Leeches to the head gave a little relief. On September 18th, I bled the patient to sixteen ounces; and, before the operation was finished, the headache was cured, and the following night the patient slept better than he had for several months. This patient also got perfectly well without any medicines.

REMARKS.—The following were common to each of the three cases; namely, headache and sleeplessness. The insomnia was characterised by this fact, that chloral and other hypnotics were almost powerless to procure sleep, though given in large and repeated doses. There were increased vascularity of the conjunctivæ and fulness of the jugular veins. In Case III, I examined the retina, and found the veins were much enlarged. These symptoms of venous congestion of the brain suggested what I believe to be the rational treatment of venesection. Each of the patients was relieved of the headache before the bleeding was finished, and slept well the night after. Leeches were applied to the head in every case, but with only partial relief. In leeching, the flow of blood is too slow to relieve the venous tension. In bleeding, it is desirable to let the blood flow in a *full stream*, as it relieves the tension of the veins, and produces a more speedy and marked effect than if bled from a small opening. From careful observation, I believe that headache and insomnia due to congestion of the brain will not yield to hypnotics, and that in these cases bloodletting is the proper remedy; and that it will cure both, besides in some cases probably warding off an attack of apoplexy. With care in the selection of cases, we have in bloodletting one of the quickest and most effective therapeutic agents.

JOHN BROWN, L.R.C.P.Lond., Bacup.

GUAIACUM RESIN.

GUAIACUM RESIN is now so frequently given in quinsy, rheumatism, gout, syphilitic and scrofulous skin-diseases, and the officinal forms are so inelegant, that a preparation which mixes readily with water, and is not gritty like the powder, has long been a desideratum. The ammoniacal tincture is not perfectly suspended by the addition of syrup, mucilage, etc., and the powder quickly subsides in the mixture containing sugar and gum acacia, which, when shaken up, becomes frothy and difficult to measure; besides which, the sediment becomes so hard as not to be easily shaken up. A very useful alkaline solution of guaiacum, readily miscible with water, with which it forms a smooth opaque emulsion, keeping for months in its diluted form without decomposition or precipitation, and which, when undiluted, does not fur the bottle like tinctura guaiaci compositum, has been recently introduced by Mr. T. D. Sneath, wholesale druggist, Newark-on-Trent. The strength is five grains in one ounce; the dose one to three drachms; and the price less than that of the tincture of the *British Pharmacopœia*.

W. W. MORRIS, L.R.C.P.Lond., etc.,
East Bridgford, Nottingham.

CLINICAL MEMORANDA.

KELOID IN SMALL-POX SCARS.

WITH reference to Dr. Goodhart's case of Keloid in Small-pox Scars, it may be worthy of remark that I have seen the disease very frequently developed in the cicatrices of re-vaccination amongst soldiers, though I cannot remember having seen it in the scars of primary vaccination. It may be that scars formed in childhood are not so liable to be affected as those in the adult.

W. H. MCNAMARA, M.D., Surgeon-Major A.M.D., Famagosta.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 16TH, 1879.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

Extrapericardial Aneurism: Hæmorrhage into Pericardium.—Mr. EWART showed a specimen of an aneurism of the ascending aorta in a painter aged 23, who was suffering from granular kidney. He had enjoyed good health till September 1878, when he had rheumatic fever. In April, œdema of the legs set in, which was followed in July by dyspnœa and præcordial pain. The symptoms rapidly increased, and he died on October 13th. There was a systolic murmur, loudest at the base, and a faint diastolic murmur at the apex. *Post mortem*, an aneurism was found communicating with the ascending aorta by a small orifice only one-sixth of an inch in diameter. The wall was lined with condensed fibrous clots. The pericardium was filled with dark fluid blood. No communication could be found between it and the aneurism, nor was there any rent of any kind in the pericardium. Mr. Ewart was hence led to believe that the blood had filtered through from the aneurism into the pericardium under high pressure, which was certainly present.—Dr. NORMAN MOORE doubted the correctness of Mr. Ewart's explanation. He had that afternoon made a *post mortem* examination in a case of advanced granular disease of the kidneys, where the pericardium was filled with blood-stained effusion. A similar condition, he thought, was common in such cases.—Mr. EWART stated, in reply, that there were no signs of pericarditis in his case.

Congenital Atelectasis, Emphysema, and a Cyst of the Lung.—Dr. BARLOW showed the lungs of a child three months old, who had suffered from slight cough, but without dyspnœa. The heart's apex lay to the right of the sternum, but there was no pleuritic effusion. A diagnosis of the co-existence of atelectasis and emphysema was made, which proved to be correct. In the interior of the upper lobe of the left lung was a cyst, of the size of a Spanish chestnut, containing air. No opening could be found in it; the lining was smooth, and when held up to the light, the wall was seen to be composed of collapsed air-vesicles. He believed such cysts were very rare, as he had never seen one like it before, nor could he find a description of such a cyst in any of the books he had consulted.

Supposed Rupture of the Roots of the Brachial Plexus.—The PRESIDENT exhibited a patient who had fallen from a height, and who was supposed to have ruptured the roots of the four lower nerves forming the brachial plexus on the left side. There was complete paralysis with atrophy of the muscles of the left upper extremity, with the exception of the biceps, which retained a little power. The lower half of the pectoralis major was similarly affected, the upper half being healthy. The latissimus dorsi was paralysed and atrophied, but the scapular muscles were healthy. That the roots of the nerves were affected rather than the cords was shown by the condition of the left eye. The pupil acted, but was incapable of dilating beyond a certain point. The eyeball was retracted within the orbit, and the palpebral fissure was diminished in size, making it evident that the cervical sympathetic was implicated. There was loss of sensation in the skin below the elbow, and there was a peculiarity in the circulation, the hand being livid and cold and the pulse scarcely perceptible in any of the arteries of the arm or forearm. He had seen a similar case some years ago, in which the arm and ocular symptoms had been identical with those just described. He thought that though rupture of the brachial plexus was a common lesion, this particular variety of rupture was rare. A *post mortem* examination in a case of rupture of the roots had been recorded, and in this case the upper root had been found intact. It would thus appear that the upper root was less liable than the others to be affected.—Dr. NORMAN MOORE mentioned a case of brachial plexus paralysis recently in St. Bartholomew's Hospital, due to cancer, which appeared to have begun in the sheaths of the nerves. The cancer extended up to the spinal cord, and produced complete paraplegia.—Mr. GODLEE thought that the posterior cord was not so much affected in the President's case as the other two cords; for there was a good deal of sensation over the shoulder; and he thought that the deltoid retained a little power.

Rupture of Heart.—Dr. PEACOCK exhibited a specimen of ruptured heart. It was from a man aged 35, who, in a fight, received a blow in the epigastrium, and was subsequently kicked in the stomach. He died in forty minutes. A rupture, three and a half inches in length, was found in the wall of the right ventricle. The valves were healthy, as also were the vessels. There was no kidney-disease, but the muscular structure was fatty.

Ainhum.—Mr. HULKE showed for Dr. DA SILVA LIMA of Bahia specimens of this rare disease. In it, the little toe becomes enlarged and bulbous; a constriction then begins to appear over the middle phalanx, which becomes gradually deeper, until the toe drops off. The middle phalanx is found to be wasted, the osseous tissue being replaced by a fibrous structure, which subsequently wastes. The present specimens were taken from a negro, eighty years of age. Similar cases had been recorded in the eighteenth and nineteenth volumes of the Society's *Transactions*.

Rare Disease of the Skin.—The PRESIDENT exhibited a boy who presented a form of skin-disease of which he had recently seen two examples. In both instances, the patients were young boys of nearly the same age and the same configuration. The disease consists of a group of little patches, which at first look like warts, but in reality consist of little cysts, which may become confluent. There is a remarkable tendency to ecchymosis. The disease is very persistent, and changes very little. In the one case, it had lasted for five, and in the other for two or three years. In one case, it was situated on the point of the shoulder; in the other, on the chin. The fluid is contained in cavities which are apparently dilated lymphatics, and it consists of corpuscular lymph. The late Dr. Tilbury Fox had shown a somewhat similar case last year; but his case was connected with a nævoid condition. Dr. Fox had seen the President's cases, and did not consider them identical with his own.—Dr. SANGSTER read a detailed report of a microscopical examination he had made of a portion of skin excised from one of the President's cases, and from which the above conclusion as to the origin of the vesicles was drawn. Acari folliculorum were also found.—Dr. T. C. FOX stated that the case referred to by the President as occurring in the practice of his late brother was that of a man aged 21. The nævoid condition had existed since birth, but the other had only begun when he was six months of age. Both went on developing. He himself believed that the case was similar to the President's both clinically and microscopically, and that the vesicles were dilated lymphatics.—Dr. HOGGAN did not think there was any connection between the two sets of cases. He thought the President's cases were due to dilatation and destruction of sebaceous follicles from obstruction of their ducts. In Dr. Fox's case, the most prominent feature was the presence of vacuolating cells; of these there were none in the President's case.—Dr. THIN thought the localisation of the disease pointed to a local rather than a constitutional origin. There was no tendency to ulceration or to destruction of the skin beyond the dilated spaces. He thought it possible that the acari folliculorum had set up an inflammation of the skin, and that this was the real origin of the disease. He saw no evidence in either case to justify the idea that the lymphatics were affected.—Dr. SANGSTER, in reply, stated that he had seen Dr. Fox's specimens, and he did not think them quite of the same nature as his own. He did not think that his specimens bore out Dr. Hoggan's suggestion that the disease was connected with the sebaceous glands. He thought it quite possible that the acarus might have something to do with the origin of the disease.

Tumour of the Brain and of the Optic Nerve.—Dr. BRAILEY showed this specimen, taken from a child aged three months. There was no family history of cancer. At birth, the right eye was slightly protruded and a little congested. The protrusion increased, and the child died of marasmus, without cerebral symptoms. The right anterior lobe of the brain was found to be disintegrated, and its place taken by new growth. The growth extended into the orbit, flattening the eye, and enclosing, but not involving, the optic nerve. Microscopically, the tumour was composed of a stroma of strong fibrous bands, enclosing cells of an epithelial character. It looked, at some points, very much like a carcinoma, but he believed it was really an alveolar sarcoma.—The PRESIDENT thought it was almost impossible to distinguish an alveolar sarcoma from carcinoma.—Mr. GODLEE thought that in most cases of alveolar sarcoma, in addition to the coarse stroma with large spaces, it was possible to distinguish a fine stroma between the individual cells.—Dr. THIN suggested that in such cases eosin should be used as the staining agent, for this would only stain epithelial cells.

Ovarian Tumour.—Mr. MEREDITH showed an unilocular truly ovarian cyst, which had been removed by Mr. Knowsley Thornton from a single woman, aged 47, who had complained of enlargement of the abdomen for ten years. The cyst was tapped in 1871, but it refilled in four months. Shortly afterwards, she complained of a sudden pain in the abdomen, which was followed by an alteration in its shape. This was followed by very copious diuresis; and in four or five days, all swelling of the abdomen had disappeared. It again enlarged, but only to go through the same sequence; and this recurred four or five times every year. After removal, the walls of the cyst were found to be thin and non-vascular, especially at the upper part. There was ulceration of the lining membrane in many places, some of the ulcers having gone through all the coats except the outer. A great part of the lining membrane had undergone the buffy atheromatous change. The interest of the case lay in the frequent spontaneous ruptures, and in the proof of the large quantities of water which can be absorbed by the peritoneum.

Obscure Injury to the Hip-Joint.—Mr. MORRIS showed the hip-joint of an old man who had sustained an injury leading to some morbid condition of the hip-joint, which was thought to be a fracture of the neck of the femur, but with the addition of some anomalous symptoms suggesting dislocation. After death, it was found that the neck was fractured, but that there was a large bony outgrowth from the great trochanter, due apparently to ossification of the tendon of the quadratus femoris. To this was due the sensation which had suggested dislocation.

Specimens exhibited by Card.

1. Dr. LEDIARD: Two specimens of Dislocation of the Hip in Hip-Joint Disease.—Mr. BAKER remarked of these specimens, that they had probably been brought to confute a statement he had made that dislocation was very rare in hip-joint disease. He believed that a real dislocation only occurs in some few cases, where, from synovial effusion, the ligaments become elongated and the head is allowed to escape from the socket, in which case it is drawn up above the acetabulum by the muscles attached to it. The ordinary conditions are those exhibited by the specimens of Dr. Lediard; in one case, the epiphysis of the head becomes separated from the rest of the bone, which is then drawn up by its muscles; in the other, the edge of the acetabulum is destroyed, and the bone slips up from want of the support which the edge supplied. These cases are common.
2. Mr. HULKE: Specimens and Drawings of Cancer of the Breast.
3. Mr. EWART: Broad Fibrocretaceous Ring surrounding the Heart in the position of the Auriculo-Ventricular Sulcus.
4. Mr. EWART: Complete Occlusion of the Right Division of the Pulmonary Artery, the result of Disease; Atheroma of the Pulmonary Artery.
5. The PRESIDENT: Two Cases of Osteitis with Exposure of Bone, as the result of Hereditary Syphilis.
6. Dr. LEDIARD: Kidneys united by a Broad Fibrous Band.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 12TH, 1879.

E. HEADLAM GREENHOW, M.D., F.R.C.P., President, in the Chair.

Forty-five Cases of Excision of the Hip-Joint.—Mr. CROFT brought forward an analysis of these cases, and exhibited a large number of the patients on whom he had successfully operated. His aim had been to show that excision of the hip-joint might be made successful, and that greater success attended the operation when it was performed before abscess had opened than later. Before operation was resorted to in any case, every known reliable treatment had been tried to arrest the progress of the disease. Ten cases had urgently needed speedy relief. Thirty-five had been treated in the hospital for periods varying from one month to a year. No case had been operated upon until threatening abscess had manifested itself. Forty-five operations had been performed on forty-four patients, one child having had both joints excised. Eighteen cases were cured; eleven were under treatment or observation; six patients had died from causes referable directly or indirectly to the operation; one child had died of diphtheria of the air-passages; nine patients had been relieved by operation, but had died, some at long periods, some at shorter periods, from causes not attributable to the operation, and from causes from which the children would otherwise have died. Of the eighteen cases cured, Mr. Croft knew certainly that sixteen were absolutely cured, and sound and well at the present time, twelve of them being in the adjoining room, and two others were potentially cured, in one of whom the sinus had accidentally reopened just lately, after having been closed for a considerable period, whilst the other child was cured of her hip-disease though she was dying of phthisis. Fourteen of the cases had movable joints affording flexion and extension, and nine enjoyed a considerable range of flexion, and could perform adduction and abduction to some extent. Four could stand alone firmly and steadily on the leg which had been operated upon. This fact was especially demonstrated after the discussion. In each patient the limb was straight, without any permanent flexion on the pelvis. Each child stood erect, without lordosis of the spine. In many, the apparent shortening amounted to three and a half inches. Mr. Croft directed attention to a very interesting fact in his series of cases, that, in measuring the femur on the side operated upon and comparing it with the normal femur, the difference between the lengths was decidedly less than the distance between the heel and the floor. This he attributed to the preservation of the epiphysis of the great trochanter as a step in the operation, and to the excision being performed subperiosteally, after Sayre's mode of operating. Of the eighteen cases cured, twelve were instances of chronic panarthritis, commencing, as he believed, in the synovial membrane; and six were instances of the similar disease commencing in ostitis and terminating in more or less necrosis. Three of the cases were operated upon antiseptically, and two partly antiseptically. In six, abscess had been incised and sinus had persisted, but in only two of the eighteen cured cases were the sinuses chronic. In three, perforation of the acetabulum had taken place; and amongst the cases recorded in the list of dead, chronic sinuses had been open in eleven, and perforation of the acetabulum had been found in five. Thirteen patients had been under treatment in the hospital for periods varying from two days to three months, four from three to six months, and one for eleven months before operation was resorted to. For further details, Mr. Croft referred to the tables, patients, and preparations of the morbid parts. Thirty-six specimens were exhibited. Concerning those who were dead, Mr. Croft stated that the total number was sixteen out of forty-five operations. This number included four cases in which, with his present experience, he should not think excision to be the best treatment. The deaths were spread over fourteen years. Five deaths occurred from preventable disease, one from diphtheria of the air-passages, three from pyæmia, and one from septicæmia. Six of the total number were attributable, directly or indirectly, to the operation, viz., one from septicæmia, three from pyæmia, one after suppuration in the knee following erysipelas (he died from shock of amputation of the limb at the hip ten months and more after excision), and one from thrombosis and asthenia sixteen days after excision. The patient who died from pyæmia, in 1878, was not dressed antiseptically, and it was an exceptionally severe case, the lad being the subject of caries of the lumbar and sacral vertebræ and of psoas abscess. The nine other cases (deaths not attributable to operation) all lived for some length of time after operation. As there was still more or less disease at the seat of operation at the time of death, he had put these cases in the list of dead, although death was in no way attributable to operation. The periods of survival were stated and appeared in the tables; they varied in extent from two months and a half (patient dying from rapid general tuberculosis) to four years. The causes of death in the nine cases were: one from tubercular meningitis without waxy changes in the liver, etc.; seven from tubercular disease with waxy changes of the liver and kidneys, etc.; one from tubercular disease of the lungs, and of other bones than pelvic. Mr. Croft protested against the total number recorded as dead being mistaken for the total number of deaths in consequence of operation, or from the sequelæ of operation. The nine patients who died from tubercular disease and waxy disease of the liver, etc., would certainly have died from those diseases if the patients had not been operated upon at all. Three of the six cases in which death occurred in consequence directly or indirectly of the operation, would be, according to Mr. Croft's present views, unfit cases for operation. The disease in each case had been in progress for more than three years. In another case, the operation was performed with the object of relieving the patient of suffering, and it fulfilled its object. After some remarks on the little value of statistics which did not supply information with regard to the state of the patient, character of the disease, stage of the disease, and its duration, Mr. Croft stated that, of the eleven cases still under treatment or observation, three were in hospital and eight had returned to their own homes, after having been sent to Margate or elsewhere. Reverting to the subject of the advantages attending excision of the joint before sinuses had formed and become chronic, the author stated that, of the cases of cure, eighteen in number, six only had had sinuses, two of these chronic, and four recent; whilst of those included in the dead list, eleven were the subjects of open chronic sinus or sinuses before operation. Amongst the cured and dead cases, there were three and five cases of "perforation" respectively. He thought it a fair inference that chronic sinuses and the occurrence of perforations of the acetabulum did severally or together influence the progress of cases for the worse. Mr. Croft argued from this in favour of early antiseptic operation before abscess had burst and sinus formed. In conclusion, Mr. Croft said there were several points to which he particularly wished to refer, but at present he would only refer to seven of them. Operative interference was indicated in the following classes of cases. *a.* When there was a collection of fluid in and about the joint in a case of well marked hip-disease in which all the physical signs were present, and especially starting pains, antiseptic incision should be made, as if the surgeon intended to excise, and he should only desist on finding the articular structures in a condition from which they could rapidly recover and yield a movable joint. *b.* When pus associated with panarthritis (strumous disease of this joint) was known to be present, even if the surgeon was uncertain with regard to the state of the bones, he should excise. *c.* If the surgeon were certain that necrosis had occurred, he should excise. The causes of failure in excision of this joint were: *a.* Operating too late in the progress of the case; not removing enough (1) in the acetabular region, (2) of the femoral portion, (3) of the synovial membrane and capsule; *b.* Not providing free exit for discharges; *c.* Not operating antiseptically. Hip-excisions were not as successful as the excisions at the knee-joint because, in excising the acetabular portion of the joint, the surgeon did not remove the disease so thoroughly as it might be removed at the femoral portion of the knee-joint. Early, or relatively early, operation had the following advantages. 1. In cases of tubercular disease, early complete excision afforded the best prospect of cure. 2. It gave immediate relief from pain of tension and spasmodic starting pains. 3. It was made before muscles were much atrophied or stiffened by inflammation products. 4. It shortened the duration of suffering and illness. 5. It enabled the child to go about earlier than it could if left without interventive treatment. 6. It enabled the surgeon to procure a painless movable joint at the hips. 7. The shortening was only a trifle more than it was in the most favourable cases of ankylosis after destructive strumous disease of the joint.

After the meeting broke up, Mr. Croft satisfied Mr. Lister and Mr. Mac Cormac that four of the patients could stand steadily and firmly on the leg which had been operated upon. These patients were Charles Boswell, now fifteen years of age, who was operated on eight years ago; Albert Curry, now ten years of age, who was operated upon nearly seven years ago; Margaret MacCarthy, now sixteen years of age, who was operated upon nearly four years ago; and Hector Webb, now eleven years of age, who was operated upon nearly two years ago. The parts removed from thirty-six of the forty-five joints were displayed in bottles placed on the tables.

A New Method of Excising the Hip-Joint, with Remarks on the Pathology and Treatment of Hip-Disease.—Mr. R. W. PARKER read a paper on this subject. CASE I. M. Y., aged 8, was admitted into the East London Hospital for Children in March 1879. For two or three weeks, she had had acute pain in the right knee and leg; she was feverish, and without appetite; was kept in bed. On admission, the upper part of the thigh and the region of the hip were found much swollen and very painful. There was no appreciable fluctuation; the soft parts in the groin were slightly œdematous; there were no enlargements of glands. Passive movements caused great pain. An extension-apparatus was ordered. At the end of a fortnight, she was examined under chloroform, seeing that her condition was worse. Grating was not discovered in the joint; neither could fluctuation be made out—the femur moved freely in the acetabulum. The temperature was high and variable. A low typhoid condition supervened, and for a time she was very ill. At the end of another month, she had materially improved in her health, but her local trouble, on the other hand, continued to progress. An abscess now formed in the upper part of the thigh, which had to be opened. Eleven weeks after her admission, she was again chloroformed, in order the better to examine the joint. Grating was now found, and there was a free discharge of pus from the wound. An incision was made from the anterior superior spine of the ilium downwards along the anterior margin of the great trochanter, cutting between the sartorius and rectus muscles on the inner side, and the tensor fasciæ and the borders of the two lesser glutei on the outer side. This exposed the anterior surface of the neck of the femur, as the capsule was found to have been destroyed by the disease. The diseased bone was sawn off *in situ* with a key-hole saw. After the removal of the bone with sequestrum-forceps, and during the examination of the condition of the acetabulum, a portion of the epiphysis was found detached and necrosed. The child made a slow recovery, and was sent into the country in about two months after the operation. She could now get about, but there were still some open sinuses. She was comparatively fat and well. CASE II. J. A., aged 6, was admitted with an abscess in the upper and outer part of the thigh; it had been noticed three weeks. Pus was evacuated on at least two occasions, but the boy did not improve. Three months after his admission, grating was detected in the joint, which was excised. The head of the femur was found detached and necrosed. He was now well, and walking about. CASE III. S. B., aged 14, was admitted with a large abscess involving the upper third of the thigh. The boy rapidly lost flesh; the hip-joint became affected secondarily; caries of the femur set in, and destroyed its upper third. Amputation at the hip was performed. The head of the bone was found necrosed in the acetabulum. The boy died. CASE IV. E. E., aged 3, had a fall three weeks before her admission. A week later, the thigh began to swell, and the hip-joint to be painful. Three months later, after extension and rest had been tried, there was grating in the joint, with abscess.

Excision was performed; the remains of the head were found detached and carious in the acetabulum. She made a good recovery, though she could not yet walk. CASE V. T. A., aged 7, began to limp when three years old, and had suffered "on and off" ever since. He was taken in and kept in one recumbent position, and an extension apparatus applied. But an abscess formed; and within the next six weeks there was palpable grating in the joint. Excision was performed, and the head of the bone was found detached. It was not necrosed. The new method of exposing the joint and removing the carious bone was proposed, because it avoided the necessity of cutting across any muscular fibres. The posterior incision, on the contrary, must separate the glutei and many other muscles from the upper end of the femur, besides interfering with the vascular anastomoses. Mr. Parker thought it desirable, too, to saw off the bone *in situ*, rather than forcibly push up the bone through the wound; for in doing so, the periosteum was frequently detached for some distance below the disease. While he did not wish to attach much importance to the exact method of operating, yet, in a disease where the final results of operative treatment were not all that could be desired, he thought the question of operation should be referred to. He had done eight excisions in all, and had found this epiphysal necrosis in five cases. It was not until Mr. Hulke pointed out the fact that he (Mr. Parker) became aware of the rarity of this affection, for he should rather expect to find necrosis of the epiphysis, owing to the impaired nutrition, and the interference with the physical condition of the surface to which it was attached. On inquiry, he found that many cases had occurred, and he believed that, if looked for, it would be more frequently present than absent. The clinical points in his cases which were common to all, or the majority, were: progressive disease in spite of careful nursing and treatment; comparatively rapid onset and progress; early formation of abscess; the young age of the patients. It was not necessary to say what an important influence the social condition of the patients would have on the plan of treatment which could be recommended in a given case, for the child of a poor labouring man could not be adequately treated at home; and therefore it was useless to tell the patients that rest was all that was required. The existing hospitals, on the other hand, were not able to carry out an expectant plan of treatment, and the question of operative interference then was the only alternative. The results of the disuse were most unsatisfactory without adequate treatment in a hospital. Seeing how many cases which recovered were found to have the femur flexed on the pelvis, was there not possibly a clinical indication therein, and were we giving to a diseased joint that absolute physiological rest which was essential for a cure in forcibly keeping up extension during lengthened periods? While he was willing to admit that the results of operation at the present time were not entirely satisfactory, he would ask, was not this due to waiting until the strength was gone, until the limb was wasted to a mere outline, until the disease had attacked surrounding structures, and until, in many cases, secondary disease in distant organs had been induced by the long-continued suppuration, such as rendered a "cure" all but a physical impossibility. The epiphyseal sequestra were exhibited.

Mr. HOLMES had formerly performed this operation many times, but not so often as Mr. Croft. The results of the operation must depend entirely on the selection of the cases. In hospital cases, an unfavourable result must be experienced because of the bad hygienic surroundings through the patient's existence; but in private practice, as a consequence of the greater care and better health precautions, greatly improved results followed operation. Hospital treatment so continuously failed of giving any permanent benefit in these cases, that the surgeon ultimately resorted to the knife in sheer despair. Such, however, he could not regard as the correct course. He thought it to be improper treatment to make incision, even antiseptically, into an abscess in the joint. He had been accustomed once to excise a joint if he proved to himself the existence of an abscess, and of crepitation, but had given up the practice. A patient whose health was not irredeemably shattered, and with only a superficial caries of bone, might recover without operative interference. The natural cure resulting was far more perfect than any that would succeed to surgical efforts. There was less shortening in such cases, the ankylosis was more perfect, and the general result far more favourable than that brought about artificially. He had never seen a patient thus operated on able to stand erect afterwards; dissection proved that the union following excision was chiefly ligamentous. He did not, however, argue against operation *in toto*, for in some cases it was essential to improvement. A recent case of extensive caries, which he had seen with Mr. Pick, was one demanding operation undoubtedly; and similarly when sequestra existed in the joint, they could be removed only after the operation for excision. But excision was not indicated by abscess and simple caries. Cure was possible in such cases by means of opening the abscess, freely washing the wound, and subsequently submitting the joint to regular extension at not too distant intervals. The surgeon must not be influenced by a death-rate, of whatever proportion, but be guided in each case by its own merits. Excision of the hip-joint would never be as successful an operation as the analogous one on the knee, because it was not possible to remove bone in extent sufficient to eradicate the whole mass of disease. Of antiseptic treatment in these cases he had no experience. He believed the average outcome of operations would be always about the same—one-third would die, one-third be cured, one-third doubtful.—Mr. HULKE thought Mr. Croft's analysis a very valuable contribution to surgical literature, but it would require careful and attentive study. His own experience of these operations was limited. Until he heard Mr. Croft's explanation, he had been dismayed to find the number of deaths after operation so large, but was glad to know that all were not due to the operation itself. Six deaths, however, out of a total of 45 cases, gave a mortality of about one in seven. He had recently gathered statistics of hospital practice, and out of 313 cases of joint-disease, he found the hip-joint involved in eighty-six, but of these only six could be truly described as morbus coxæ. Excision was performed in sixteen of these, and in only one did death ensue immediately from operation. This, he believed, would be a fair average, if cases were properly selected. He agreed with Mr. Holmes entirely, and his examination of the cases then exhibited induced him to think that the operation had possibly been undertaken where it was not always necessary. From one boy exhibited, he elicited that the disease had pronounced itself only a month before excision was resorted to, and when treatment had been undergone for no more than one week. He personally trusted mainly to the indications afforded by patients' general condition; if the health was fairly good—that is, if ground were not being lost—he did not feel called on to excise, but only when there was obvious deterioration. He approved free incision as an aid to copious drainage, and always treated the wound freely with chloride of zinc. He did not resort to Listerism, but, apart from it, avoided chance of putrefactive changes as far as possible, thereby obtaining good results. Mr. Hulke called attention to a particular form of splint (exhibited), which he declared to be more serviceable than the Thomas's splint, mentioned by Mr. Croft.—Mr. LISTER had been pleased to hear Mr. Hulke's testimony in favour of chloride of zinc, having used it freely himself in such cases. It prevented putrefaction in presence of septic elements, and was invaluable where sinuses giving exit to putrid material existed. He had seen many lives saved through it. Employed together with free drainage in excision, risk might be practically avoided. He had met with no case indicating amputation rather than excision. Since witnessing Sayre's method at Philadelphia, he had always followed it. It limited hæmorrhage, permitted free access to the joint and acetabulum, was subperiosteal, and this presented many important advantages. If a joint must be opened, it had better be done so freely. In the last case on which he had operated, a young lady had been for a long time afflicted with hip-disease; many sinuses existed, and a profuse discharge. He had excised after Sayre's method, and perfect ankylosis ensued. He found a mass of exfoliation and diseased bone, but the case was doing well at this time. Here, too, he had made copious use of zinc chloride. Mr. Holmes had not referred to the treatment of abscesses antiseptically, in which openings appeared. Such an abscess should be opened with the adoption of every possible precaution against putrefaction, and the evils attendant thereon. He was disappointed to hear only "free washing" spoken of in the present time, and was quite certain that it would be productive of no results comparable to those obtained by antiseptic methods. The treatment of cases in which no shortening of the limb had taken place was a matter of extreme importance. In three cases of the kind in King's College Hospital, the abscesses (in adults) were of rheumatic origin. They had been opened antiseptically; no fever supervened, no shortening took place, and good movable joints remained. He had seen many strumous patients in whom good results had followed opening of the abscesses, and he was firmly convinced that incision, where practicable, resulted in a more permanent recovery than could be obtained by means of excision, not excepting cases in which exfoliation had occurred. In one instance, he had found a considerable quantity of half-necrosed bone present, and judged excision would be necessary. Determining, however, to wait awhile before operating, and submitting the joint meantime to antiseptic treatment, almost perfect restoration took place, only a small sinus being left. A house-surgeon, however, thinking recovery secured, omitted, on his own responsibility, the antiseptic precautions at this stage; suppuration quickly ensued, and eventually amputation was necessary. Antiseptic treatment, continued Mr. Lister, should be invariably followed where an abscess with unbroken surface presented.—Mr. MORRANT BAKER had performed twenty-four operations for hip-joint excision; two patients died from the immediate effects, and one some considerable time afterwards. He did not think a greater mortality than this ought to follow the operation. The time occupied need not be excessive, four or five, or at most seven or eight, minutes sufficing; and by using a fine saw, with ordinary care, there ought to be no greater danger incurred by the patient than that attending simple incision into the joint. He was an advocate of free drainage. When the trochanter was left, he had never noticed any want of firmness in the joint. A perfect result, however, could not be anticipated. Excision would give the patient a better chance of a comfortable existence, but the indications should be the sole guide to the operation. Rules for guidance could not be laid down with certainty; individual judgment must determine the merits of each case. Excision was an unwise proceeding if much ankylosis had taken place. The presence of loose sequestra must always be a strong argument in favour of excision. He had found such dead bone in many of his own cases. He exhibited a case in which he discovered the head of the bone (femur) lying loose in the acetabulum. The influence of amyloid disease was not sufficiently considered in its reference to this disease. Even when much advanced, it did not necessarily prevent ultimate recovery, a case in illustration having been under his notice in St. Bartholomew's Hospital. He was convinced that good results would follow excision in a vast number of cases.—Mr. John Wood had performed the operation for excision very often, and frequently where advanced amyloid disease existed. He thought cure would follow proper rest and extension in many cases; but occasionally excision was indicated from the first. In his own practice, he interfered as little as possible with the natural position of the muscles, and could point to very successful results, even where he had removed a considerable portion of the pelvis. One case in which he omitted full antiseptic treatment, but employed zinc chloride, carbolic acid lotion, and full drainage, did very well. He thought the conduct of the surgeon should be guided by a consideration of the symptoms *en masse*, but when dead bone was felt with the probe, then operation was imperatively called for. He deprecated the exposure of the bone, but advocated its removal subperiosteally, and through as small an incision as possible, the operation being thus reduced to little more than that required to open an abscess. He was inclined to operate in those cases only in which the efforts of nature to effect a cure by ankylosis had manifestly failed of success.—Mr. Mac Cormac was of opinion that the mortality in Mr. Croft's cases was not excessive, consideration being had to the unfavourable nature of the average hospital patients. He thought sufficient stress had not been laid on the character of disease indicating necessity for operation. In a large number of cases, the white swelling of the hip-joint was connected with the existence of miliary tubercle in the bone itself, and Professor Kœnig of Göttingen had demonstated this in sixty-nine out of seventy-one cases. This must be a very urgent reason for early operation.—Mr. Howse considered it surprising that so many favourable results did follow late operations. He advocated the removal of the trochanter major, but condemned the closure of the wound by sutures. The trochanter, if left, would act as a shield before the acetabulum, and thus retain any carious bone, to the patient's injury. He objected also to a too free removal of the acetabulum and surrounding pelvis, as likely to induce collection of pus between the pelvic fascia and wall.—Mr. Croft replied that he could not think his conclusions materially shaken. Mr. Holmes's statement concerning the unsatisfactory limb left after operation did not convey any forcible objection to operative interference; while adversely criticising the formulæ he had given in his paper, Mr. Holmes had suggested no better or reliable means of deciding the necessity of making exploratory incisions; and regarding the early operation, Mr. Mac Cormac had added his testimony in favour of it, by dilating on the frequency of tubercular infection. No one, said Mr. Croft, who would examine his preparations, could accuse him of performing any single operation without full reason; and he did not think any improvement on his method of proceeding had been suggested. The patient referred to by Mr. Hulke, as having been operated on a month after the onset of the symptoms of disease, was suffering from acute necrosis, and in the extremest agony, the operation being imperative in his case. As to his method of operation, he had at different times used two incisions, a longitudinal and Y-shaped one; had followed Sayre's mode, and always preserved the periosteum and the great trochanter without severing the attached muscles. In many cases, he could show that the process had been reunited. He did not find it cause any obstruction, as suggested by Mr. Howse, and that gentleman was also mistaken in supposing that he (Mr. Croft) intended to imply that excision must invariably follow distension and grating in the joint. Where, however, a collection of pus existed, and advanced disorganisation, then, even in the absence of any sinus, an incision should be made to permit accurate examination of the part, which might be followed by excision if, upon such examination, it should appear to be required. The average result in his cases was, that the femur operated upon was about an inch and a quarter shorter than its fellow.

The President announced that a committee, consisting of Messrs. Hulke, Holmes, Bryant, Croft, and Howard Marsh, would be appointed to report on the whole subject under discussion.

REVIEWS AND NOTICES.

The Outlines of Physiology in its Relations to Man. By J. G. McKendrick, M.D., F.R.S.E., Professor of Physiology in the University of Glasgow. Glasgow: James Maclehose.

Possessing such excellent and recent works on Physiology as those by Carpenter, edited by Mr. H. Power; Hermann, translated and recast by Professor Gamgee; and that by Dr. Michael Foster, it might not unnaturally be supposed that the publication of a fourth was superfluous. The completeness of the above works, while it makes them extremely valuable to those studying physiology specially, and as books of reference, render them unsuitable as text-books for students of medicine generally. For them, a book is required containing simply the fundamental principles and facts of the science. The works of this sort, formerly used, have now become so antiquated that their use has been discontinued, although a decade has not elapsed since some of them were published—so rapid has been the advance of physiological science within the last few years. No new works of the same kind having been brought forward to take their place, students have been compelled to use one or other of the larger works above-named. The result has been that much time, which should have been devoted to learning the groundwork of physiology, has been more or less uselessly spent reading up minute details and theoretical discussion. We are much pleased, therefore, to find that a suitable text-book has at length been placed within their reach by so distinguished a physiologist and experienced a teacher as Dr. McKendrick, in his *Outlines of Physiology in its Relations to Man*, which should completely obviate this waste of energy, and supply a want which has been felt for some time alike by teachers and students.

The first twenty-three pages of this work are occupied by a general introduction, in which the nature and objects of Physiology are explained, and the characters of living beings, including man, are briefly reviewed. In treating of the relations of man to the rest of the animal kingdom, Dr. McKendriok carefully avoids expressing any opinion regarding the development theory, but contents himself with stating in what respects man resembles the anthropomorphous animals, and how he differs from them. Passing on, then, to the subject proper, he divides it into three divisions—Chemical, Histological, and Special Physiology. Of these, the first is always considered by students to be the most uninteresting and difficult part of the science. The author, however, has succeeded in making this portion as short and simple as possible. As an example of how he conveys to the mind of the reader a definite idea regarding a subject upon which there is a variety of conflicting opinions, in a single sentence, we may refer to what is said on page 55 concerning the mode of action of organised ferments.

The histological portion would, we think, have been much improved and more useful had it contained diagrams of the various structures. For example: how much better would the various kinds of epithelium be understood had there been a small woodcut, showing the microscopical appearances of each! We think it also unfortunate that the author has deemed it advisable to omit all anatomical and histological descriptions of the tissues, as a short account of the chief characters and a diagram of each, even although it might have entailed an addition of fifteen or twenty pages, would have made the work much more acceptable and useful. We trust that Dr. McKendrick may see fit to alter his opinion on the subject before a second edition appears. Showing the methods by which the facts of the science have been acquired alongside of the facts themselves, or, in other words, combining theoretical and practical physiology, is an excellent feature of the work. By this means, many things that are difficult to remember are impressed firmly on the mind with comparatively little exertion. The student must not, however, for a moment imagine that, by using this work, he will be saved the trouble of attending a course of practical physiology, and learning how to use the instruments himself. The diagrams of the different instruments figured are of comparatively little use, except to those who have seen and used the instruments themselves; to them, however, they are very useful, as the illustration at once refreshes the memory, and brings to mind what has been learned in the laboratory.

Under the heading Special Physiology is contained a description of the nutrition and innervation of the body; of the mechanism of the voice, and attitudes and movements of man; and of reproduction. There are also chapters on animal heat and on death. More than half the work is devoted to the consideration of the first two of these subjects, namely, nutrition and innervation, both of which are very well described. The former contains an account of digestion, absorption, the blood, respiration, assimilation, secretion, excretion, and exchange of materials; while, in the latter, the functions of the peripheral nerves and of the great nerve-centres, the terminal organs, and the senses are discussed. The chapter on the mechanism of the body in locomotion is very interesting and instructive. We think the chapters on reproduction would have been much improved, and more easily understood, had some diagrams been introduced to illustrate the descriptions. At the end of the book, there are five short appendices, which will prove to be valuable adjuncts. They contain matter which it was not advisable to introduce into the text-book in regular course, such as the curvatures of the cornea and lens, focal distance, etc.

The work contains two hundred and eight diagrams, the majority of which are of instruments or tracings obtained by the graphic method of registration. We are glad to observe that the decimal system has been partially used throughout the work. We trust that, in the next edition, it will be entirely adopted, and so aid the movement which is now being made to introduce the system universally into medicine. Finally, we have much pleasure in confidently recommending this work to students of medicine and others, as being the one, of all others of recent date, best suited for their requirements.

NOTES ON BOOKS.

Handy Medical Visiting-List. By ALFRED SHEEN, M.D., Surgeon to the Cardiff Infirmary. (Second Edition. Cardiff: William Lewis.) The Visiting-Lists or Medical Diaries most in use appear to Dr. Sheen to have the following faults. 1. The practitioner is obliged to carry a twelve months' list, in addition to other matter, about with him. 2. He is confined to a page for a week, or, if he want an extension, must have a book of double substance. 3. A good deal of room is taken up with obstetric and vaccination engagements, which many practitioners do not want, at least in their pockets. The Visiting-List here introduced is intended to remedy these defects. It is simple, small in compass, can easily be carried in an ordinary pocket-book, or by itself, and has no specified space for a week, but can be used equally well whether the patients number twenty or a hundred. Pages for midwifery are purposely left out. The dates and the month are to be written in. There are four leaves in each book without perpendicular columns, for noting down various memoranda at the time. Not only visits to patients, but all engagements, for the current week at least, may be entered in a Visiting-List (thus doing away with the necessity for an accompanying journal). The lists are of very small size, taking up little room in the pocket, and of very moderate price.

The Weather and Climatic Changes. By OBSERVATOR. (F. E. Longley, Warwick Lane.) *The Meteorology of Croydon.* By M. G. CORDEN. (J. Ward, Croydon.) These books are essentially different; the former being a small pamphlet written in a popular style without tables, and the other consisting, as might be expected, chiefly of very elaborate tables and their discussion. "Observator", after noting the importance of meteorological forecasts to the farmer, physicians, and others, refers to an alleged change of climate as shown by "severe frosts and drifting snows having perceptibly given place to greatly increased rains and disastrous floods", and he attributes this to the enormous quantity of coal burnt in this country, amounting to about 120,000,000 tons *per annum*, and the consequent evolution of 1,440,000,000,000 cubic feet of gas and watery vapour. That the combustion of coal in large cities does affect the amount of sunshine and the night temperature has long been admitted, but that it affects the climate of the whole country has yet to be proved. He treats his subjects under the following headings: "Climatic changes", "Spots on the Sun", "Meteorology and Weather Forecasts", "Prognostics and Popular Sayings", and "Eclipses Past and Future". Under the heading "Spots on the Sun", he refers to their influence on temperature, and arrives at the conclusion that we cannot, by variation in their number, account for the low temperature and cloudy atmosphere which have lately prevailed in summer. This is a wise deduction as regards the influence of sunspots, for anyone who has examined Schwabe's MSS. (on which the theory of their influence is chiefly based) can only come to the conclusion that the whole matter requires complete reinvestigation. Prognostics and popular sayings occupy a large proportion of the little book, and cannot be summarised, so that anyone desirous of obtaining a fair epitome of this branch of meteorology had better buy the book; but we are bound to admit that the forecasts printed therein have not proved very successful.

Mr. Corden's essay was read before the Croydon Microscopical and Natural History Club, and gives very full tables of the meteorological observations taken by him between 1867 and 1877, and by Dr. Westall from 1848 to 1867. It is, however, to be regretted that the instruments were not well placed, at any rate in 1868, and were undoubtedly shifted during the period, so that the observations are not absolutely strictly comparable. The extremely hot summer of 1868, when a temperature of 96.6° was recorded at Greenwich and 94.0° at Croydon, is included in the tables. The highest mean temperature of the year occurred at Croydon in 1857, when it was 51.99°; and the lowest in 1860, when it was 47.29°. The mean temperature for the ten years 1848-57 was 49.44°; for 1858-67, 49.64°; and for 1868-77, 50.52°, or about one degree in excess of 1848-57. The mean winter temperature for 1867-77 was 39.9°, the coldest being 37.1° in 1870-71; and the warmest 42.3° in 1871-2. The mean summer temperature was 62.5°; the highest having occurred in 1868, when it was 65.3°, and the lowest in 1869, when it was only 60.8°. The lowest night temperature recorded was zero or 32° below freezing-point, which occurred on January 4th, 1867. The dew-point temperatures, the direction of the wind, barometer readings, and rainfall records are also published in this essay.

SELECTIONS FROM JOURNALS.

MEDICINE.

HÆMORRHAGES IN WHOOPING-COUGH.—At a recent meeting of the Paris Académie de Médecine (*La France Médicale*), M. Henri Roger read a paper on this subject. He treated successively of epistaxis which is produced in a direct way by the convulsive efforts of coughing, and only becomes dangerous occasionally by its abundance and repetition when it is connected with blood-poisoning; of subconjunctival and palpebral ecchymoses, equally dependent on the fits of coughing, which are a good indication of pyrexia, and sometimes serve to distinguish the cough of whooping-cough from common bronchitis; of otorrhagia, purpura, and certain visceral hæmorrhages. Hæmoptysis as well as hæmatemesis was afterwards studied in detail; and M. Roger demonstrated by numerous cases that these hæmorrhages are exceptional in children. In nearly all cases of whooping-cough, there is pseudo-hæmoptysis, the blood being furnished by the nasal fossæ, the pharynx, the mouth and gums, and never by the pulmonary organs. After epistaxis, the most ordinary hæmorrhage is that from the mouth at the moment of the fits of coughing. The gums are congested, become fungous, and bleed; the tongue, violently projected during the paroxysms, becomes eroded by the friction of its lower surface against the teeth, frequently producing ulcers of the frænum; sometimes it is even bitten. The lips are dry, and the little invalid often pulls off the epidermis; and every erosion or ulceration, however small, bleeds when the cough comes on. The starting-point of the buccal hæmorrhages is sometimes in the gums, and sometimes in a lesion of the mucous membrane or tongue. The blood may also come from the pharynx, and especially from the nasal fossæ; and, in the latter case, the buccal hæmorrhage is accompanied and led off by epistaxis. Sometimes the blood ejected from the mouth has a complex origin, and proceeds both from the nasal mucous membrane and from the buccal cavity. It is only at the end of the paroxysm of coughing that the child throws up bloody froth, arising from the intimate mixture of the blood with the bronchial mucous matter broken up and aërated. This expulsion of blood is of very little moment; and yet few symptoms produce greater alarm in the relatives, and even in the medical attendant of the patient, simply because this bloody ptyalism is taken for an hæmoptysis. Children suffering from prolonged attacks of whooping-cough might have been suspected to be affected by tuberculosis. Examination of the mouth, however, would have been sufficient to indicate the source of the blood. M. Roger has shown that it is only after their tenth year that young subjects are liable to spitting of blood; and that this symptom, which nearly always marks the commencement of phthisis in adults, is exceptional. Early childhood, which is ruthlessly ravaged by tuberculosis, may be pronounced exempt from hæmoptysis; pulmonary hæmorrhage rarely, if ever, being at that age the initial symptom of phthisis. M. Roger does not hold that true hæmoptysis is impossible; but he affirms that it is rare, and on this point differs from Trousseau, who asserts it to be rather general. In the same way as there is pseudo-hæmoptysis in whooping-cough, there is also pseudo-hæmatemesis. When a child suffering with whooping-cough seems to vomit blood, the nasal fossæ should be carefully examined; and it is soon seen that the blood has flowed by the posterior nares, and often insensibly into the stomach, where it may accumulate in considerable quantity. If it be expelled almost immediately, the flux by the nostrils is still visible; if it be tardily evacuated, when the epistaxis has ceased, some drops or clots on the nose may point out whence it comes. Hæmatemesis is, like hæmoptysis, quite exceptional in extreme youth, and only very rarely met with in sparse cases of purpura hæmorrhagica. To resume: there are two kinds of hæmorrhages—hæmatemesis and hæmoptysis—which the physician should erase from the list of the complications of whooping-cough.

PYONEPHROSIS, AND EXCRETION OF LIQUID FAT AND HÆMATOIDIN-CRYSTALS THROUGH THE URINE.—Professor Ebstein publishes in the *Deutsche Arch. für Klin. Med.*, Band xxiii, the following case, which had come under his notice. A woman aged 34 had been suddenly taken ill with high fever and gastric disturbance. When received into the hospital seven days later, the temperature had become normal; but on the left side of the abdomen was a swelling of the size of a child's head, which evidently belonged to the left kidney. The secretion of urine was scanty, though normal. Twelve days after she entered the hospital, she began to complain of pain resembling a sharp attack of colic, in the region of the bladder and the left ureter. The urine which was passed at that time was strongly tinged with blood, and contained a great quantity of clots of blood, but no casts. During the following days, the renal tumour decreased in size; but the urine continued to be bloody for the next eight days. The quantity of urine excreted had considerably increased. Six days after hæmaturia had first been observed, it was noticed that the urine, after standing, became covered with a layer of numerous drops of fat, giving it the appearance of very rich *bouillon*. This secretion of fat through the urine continued for the next four weeks, when the patient left the hospital. If examined immediately after the urine had been passed, the drops of fat were of a fine yellow colour, clear and transparent; but, on having been allowed to stand, they presented a greyish colouring, and coagulated into whitish scaly masses. When examined under the microscope, the latter were seen to consist of bundles of fine and slightly curved acicular crystals and hæmatoidin-crystals, and of amorphous pigment. The sediment of the urine contained red blood-corpuscles, pus-cells, pavement-epithelium, occasional fat-drops which contained needle-shaped crystalline bodies, and yellowish shreds and patches resembling blood clots in a state of degeneration, and containing large numbers of the fat-drops described above. Renal epithelium or casts were never observed. Ebstein supposes that the case was one of pyonephrosis of the left kidney, or rather a case of "pyo-hæmatoliponephrosis"; and that the excretion of fat and hæmatoidin was caused by the degeneration of the blood-clots.

PATHOLOGY.

ANDROGYNIA: MALIGNANT CYSTOMA OF RIGHT OVARY: BILATERAL VAGINAL HYDROCELE.—The case in which these conditions were found is described by Drs. Litten and Virchow in Virchow's *Archiv*, Band lxxv. The subject was sixteen years of age, and of feminine habit. At the age of fourteen and a half, a pseudo-menstrual discharge from the sinus uro-genitalis commenced, and recurred, with much pain, at regular intervals of four weeks. Later on, the menses ceased, and returned irregularly several months afterwards; they were accompanied with distinct swelling of the mammary glands. When the hæmorrhagic discharges ceased, a swelling of the body became perceptible and gradually increased. At the same time, the urine became greater in quantity, and its passage was attended with pain. The continued development of an abdominal tumour and the loss of strength ended in death. At the necropsy, the head was found covered with rich brown long hair; there was no trace of hair on the cheeks or on the upper lip. The breasts were distinctly developed; the nipples were depressed, but tolerably developed. The hypogastrium was much distended, and the navel obliterated. The mons Veneris was flat, of the male rather than of the female type, and was covered with scanty straight hairs. From the symphysis there sprang a penis-like body (erectile during life) measuring in length about two inches and one-fifth in front and nearly an inch behind; it was curved backwards, and was furnished with a prepuce strongly drawn back over the glans. On the posterior surface of the glans was a rather deep urethral furrow. Between the superficial folds of skin corresponding to the nymphæ, the sinus uro-genitalis commenced; this was only four-fifths of an inch in length and very narrow; at its end was the vagina, two inches and three-quarters long, and not penetrable by the finger. The cavity of the cervix uteri was little more than two inches long; that of the body of the uterus was nearly two inches and a half. There was no prostate, nor vesiculæ seminales. In both inguinal regions, especially the right, round bodies of the size of plums could be felt during life; some regarded them as testes, others as ovaries. They were found to consist of thickened portions, in a state of cystic degeneration, in the course of the processus vaginalis, and no doubt arose from partial obliteration of this. Virchow had already, during the patient's life, decided that they could not be testes, as palpation of the body in the right inguinal canal, which could be easily felt through the skin, did not detect any indications of an epididymis. The left ovary was present, but did not present any trace of irritation. The right ovary was converted into a large multilocular cystic tumour. The contents of this, in different portions, were partly watery, partly hæmorrhagic, partly an atheromatous pulp; the structure of its stroma was partly fibrous, partly sarcomatous, partly cartilaginous. Tumours of this kind are very rare in the ovary, but are more frequently met with in the testes. An unusual feature in this case was the development of metastatic cystosarcoma in the liver. The cause of death was hydronephrosis, purulent pyelonephritis, and ulcerative tubercle of the kidney. There were also narrowing and insufficiency of the aorta, an anomalous formation of the lobes of the right lung, and persistence of the thymus gland.

UTERO-INGUINAL HERNIA: EXTIRPATION OF UTERUS AND LEFT OVARY.—G. Leopold relates in the *Archiv für Gynäcologie*, vol. xiv, a case of which the following abstract is given in the *Centralblatt für die Med. Wissenschaften* for October 11th. The subject, a well-developed woman aged 28, had experienced menstrual molimina since the age of fourteen; there was no discharge of blood, but she had for several days severe pain in the left groin. In this situation, an irregular tumour of the size of a plum swelled up considerably at each catamenial period, and was again diminished in the intervals. As her general health was much impaired, and eight years of married life had remained unfruitful, Dr. Leopold was consulted. He found in the left external inguinal fossa a tumour as large as half a hen's egg; this he took to be an abnormally placed ovary, from the median pole of which a strong cord could be traced as far as the left labium majus. On the right side, behind the horizontal ramus of the os pubis, a small cylindrical body could be felt. The vagina was a small *cul-de-sac* 1.2 inches deep; nothing could be felt in it but the bladder and rectum. At the next menstrual period, the face was noted to be bloated and of a dark brown red colour; there were also epistaxis, convulsions, and rigors; and the tumour in the inguinal canal enlarged. Dr. Leopold now removed the tumour. It was found to be the upper section of a small uterus, traces of which disappeared in the form of a scarcely perceptible cord. The ovary, the Fallopian tube, and the small uterus were removed; the pedicle was securely ligatured and returned; and the wound closed. The patient made a good recovery, and had no return of the menstrual molimen. In the removed uterus was a cavity as large as a pea, filled with mucus, and having a smooth mucous membrane and a delicate vascular network. Blood had apparently not been effused into the cavity. Dr. Leopold regards the case as one of imperfect development of the Müllerian ducts, the left one of which was drawn into the inguinal canal. The ovary that was removed showed signs of active formation of follicles; the uterine horn always swelled considerably; and nevertheless there was no discharge into the uterine cavity.

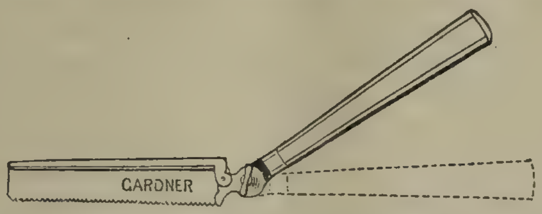
OBSTETRICS.

IMMEDIATE PLACENTAL DELIVERY IN NATURAL LABOUR.—Dr. S. Elder of Indianapolis puts forth, in the *Transactions of the Indiana Medical Society*, U.S.A., the theory that delivery of the placenta should be as nearly coincident with the delivery of the child as may be; and this result he works for by kneading the fundus of the uterus through the abdominal walls as the child passes the outlet, endeavouring thereby to induce the expulsion of the secundines by the same pains that effect the delivery of the child. If this measure be not sufficient, he immediately, before any attention to the new-born, gives manual assistance *per vaginam*, insisting that, where such manipulation is called for, it should be done before the maternal organs have recovered from the shock caused by the passage of the child, for the dual reason that it is less perturbating to the mother and more facile for the accoucheur. Illustrating his theory by the detail of seven cases, Dr. Elder says that his process affords security against *post partum* hæmorrhage, against hour-glass contraction, against uterine inertia, against adherent and retained placenta, against frequent severe protracted after-pains, and against septicæmia and prolonged lochial discharge; that it saves valuable time, and saves suffering and anxiety on the part of the mother; that it is better for the child, as the cord is not tied until the placenta is delivered; and that it is in accordance with the natural indications, and carries out the physiological indications of the process of complete parturition.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SAW FOR SECTION OF LOWER JAW.

SIR,—In the BRITISH MEDICAL JOURNAL of December 13th, there is a notice a new form of saw for section of the lower jaw, designed by my colleague Professor Annandale. The saw which I used for that purpose before the introduction of chloroform was one of Liston's pattern, which answered admirably, as the patients were then seated during the operation. After chloroform came into use and the patients were necessarily placed recumbent, I felt the inconvenience alluded to by Mr. Annandale; but I did not cast off my old friend. I had it adapted to altered circumstances by having it jointed and fitted with a pinching screw to fix the joint, so that I could change the relative position of the blade and handle to any angle I found convenient. I have now used it for many years, both in the Royal Infirmary and in private practice, and found it answer the purpose perfectly; whilst to me it looks more workmanlike than that represented in the JOURNAL. The woodcut shows the blade and handle at the angle most generally convenient. The dotted outline indicates the blade and handle in the straight position. I am, etc., JAMES SPENCE.



Edinburgh, December 22nd, 1879.

CONCENTRATED WATERS.

WE have received from Mr. Robinson, operative chemist and distiller, of Pendleton, Manchester, samples of concentrated waters, such as dill, aniseed, camphor, peppermint, rose, elder, etc. Mixed with either distilled or filtered water, they remain clear, and in the proportion of one to forty and one to thirty-two constitute the aromatic waters of the British and United States *Pharmacopœias*. These concentrated waters, which have an old well-established reputation, will be found remarkably handy in dispensing, whether that be in the surgery of the general practitioner or the dispensing department of the retail druggist.

IODIDE OF ETHYL IN CAPSULES.

THE iodide of ethyl has been much recommended for inhalation in asthma, in which cases it seems to give great relief. M. Sée is very enthusiastic in its praise. Mr. Martindale of New Cavendish Street provides it in small capsules of very thin glass enclosed in silk. Thus, by crushing a capsule, the vapour may be inhaled without risk of excess or any sort of danger or even inconvenience. We are inclined to think that, like nitrite of amyl (which has been found most efficacious in relieving the dyspnœa of advanced phthisis, as well as of angina pectoris), the uses of the inhalation of iodide of ethyl will be extended, now that this convenient mode of administration has been provided.

EFFERVESCING APERIENT SALTS.

MR. W. MARTINDALE, 10, New Cavendish Street, has forwarded to us samples of two granular effervescing preparations.

Sodæ Sulphas Effervescens.—This contains half its weight dried sulphate of soda; and, allowing for the loss of water of crystallisation in drying, a teaspoonful will equal a drachm of the crystallised salt.

Sodio-Magnesiæ Sulphas Effervescens.—This has half its weight consisting of equal parts dried sulphate of soda and dried sulphate of magnesia.

The composition of these two preparations is definite and simple. Besides the sulphates, only a little citrotartrate of soda is added to make them effervesce; and they have the advantage of being portable.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 3RD, 1880.

1880.

THE New Year opens with good promise of increased influence and usefulness for the Association, and of continuous expansion of its work. We are little in the habit of indulging in retrospects, but, keeping a face steadily turned to the future, aim always at pressing on in the path of progress, and prefer to think nothing done while so much remains undone. To review the proceedings of the past year is a task which we leave to the able hands of the many colleagues and contemporaries, and of the annual orators, who find in it a fertile and instructive theme. The last year has been pregnant with good, sound, solid, and multifarious work. Antiseptic surgery has taken firm root in London. Scientific research is beginning to establish itself more largely as a recognised feature in the proceedings of our principal Societies and our great Associations.

We shall presently give an account of the report on pyæmia, which will be found in the just published *Transactions of the Pathological Society of London*. This is the first great serious research taken in hand on a large scale by that Society. It cannot be said to have been a complete success; but, as will be seen, it is far from being a failure, and moreover it has laid the foundations of much future good work. We hope that the example of the Pathological Society will be followed by the Clinical Society of London, which started in life with much valiant declaration of scientific and serious intent, which it has as yet done comparatively little to justify. Year after year, it has seemed to forget more and more its bright promises—the declaration of its founders that it was intended to assist and to harmonise accurate, careful, and well-compared investigation, and to give to clinical medicine and surgery something more of coherent shape, definite principles, and recognised standards, than they at present possess. It has become a sort of aristocratic and high-class reproduction of the older but more democratic London Medical Society; and the proceedings of the younger and more pretentious Society have not always shown that superiority which they were guaranteed to offer. The members and Council of the Clinical Society ought certainly seriously to consider whether it is not their duty to attempt to formulate definite problems and frame skeleton forms for their solution, such as may fairly be expected of a Society which aims at something higher than the mere desultory record of cases or the accidental discussion of points of practice arising out of scattered observations.

Dr. Mahomed, in a paper which we print in another column, suggests that the British Medical Association should undertake a similar task through its Branches in respect to questions which may be well observed by individual practitioners, before whom are set definite subjects of observation, with schedules in which to enter details as to which information is required. The suggestion is, of course, not new; it is one which has been repeatedly made, periodically discussed, and more than once tried without any remarkably good effect. On the other hand, it will often be found, in the history of all societies, that projects tried and set aside as failures have, when resumed under more favourable circumstances, proved to be largely successful. It will be very satisfactory if this should be found to be possible in respect to the organised kind of observation and record for which Dr. Mahomed asks. The British Medical Association both has advantages, and labours under disadvantages, for such inquiries. It is a body so large as to be at the present moment very nearly coextensive with practically the whole of the working members of the profession. Thus the number of observers ready at hand is large enough, and more than large enough. But the very extent of the numbers to be dealt with forms a difficulty in the case. Who are to be selected, and on whom lies the responsibility of responding to the appeal? In so large a body, each man is apt to say, "This is the business of so many thousands of others, that I may be well excused for neglecting it and attending to my own business". And practically it has been found that schedules issued over so large a surface bring but scanty returns, and these only rarely of the best quality. Scientific work is more often done well by a compact organised committee of selected men, to each of whom his own department is appointed, than by a mass of heterogeneous self-appointed observers, each of whom is less conscious of his special responsibility, and less open to guidance or direction by communication with his colleagues. We are far, however, from thinking that no means can be found by which such an inquiry as Dr. Mahomed asks for might be organised within the Association. His paper appears to us to be suggestive, and to call for deliberate discussion; and there seems no reason why, if a certain number of well-informed public-spirited members of the Association be disposed to join in carrying out the inquiry, there need be any serious difficulty in organising and equipping the committee entrusted with it with the necessary means for carrying it on energetically. The work of the Scientific Grants Committee for next year promises to be very interesting; but this would be a special and valuable addition to the contributions which the Association now annually offers to original scientific research in medicine and the collateral sciences.

Politically, the Association may be congratulated on the great influence which it has successfully exerted through the Parliamentary Bills Committee in ameliorating the position and improving the conditions of the Army Medical Department. We indicate, in another column, what we consider to be the rock ahead in the prospects of that now once more flourishing department. That obstacle is the over-cautiousness and too cunning wisdom of the department in smuggling into the warrant permission for a back-door entrance by nomination, should any future scarcity occur in candidates for entrance by examination. We ventured to predict, contrary to the sinister advice of a contemporary, and contrary to the report of the head of the department and of the War Office Committee, that there would not be any scarcity of candidates if the requirements laid down by the Parliamentary Bills Committee were satisfied and the service subsequently fairly treated. Our prediction has thus far proved true. The warrant has fairly satisfied all that was asked on behalf of the department by Mr. Hart in the document in which he communicated to the Secretary of State the desiderata for the Army Medical Department; and the immediate consequence of the publication of the warrant which granted these desiderata has been the supply at once of an ample number of candidates, who have passed with great brilliancy. To retain a power of nomination by way of holding the whip over the medical profession, and to retain the standing menace at any moment to "smash the index" which shows how far the service is popular and the candidates proficient, is to show that the War Office is not assured of its own honesty of intention, that it is not prepared always to meet the profession openly and on equal ground, but desires to keep in the background a weapon with which it can at any moment destroy the system of entrance by competitive examination. We trust that this weapon may never be used, and we feel assured that it never need be, so long as the War Office deals fairly and generously with this department of the public service.

The subject of Medical Reform will once more engage the attention of Parliament and of the profession at an early period of the session. Elaborate returns are now being prepared, showing for the first time how far the various examining bodies have conformed with the recommendations of the General Medical Council; and, with this information, and that already before it in the evidence of the witnesses it has examined, the Select Committee of the House of Commons, which will be renominated at the commencement of the session, will once more apply itself to its task. We have great confidence that the constitution of the Council will be popularised, and we have little doubt that a considerable advance will be made towards an uniform minimum, even if the whole of the United Kingdom be not included at once in such a measure. We hope, moreover, that no timid counsels will prevail, and no half measures be taken. It is time that a complete and satisfactory settlement should be made, and that all who are interested in medical education should be able to turn their attention from purely administrative questions to the more urgent and important subject of the improvement of medical teaching and medical examination.

On the subject of Animal Vaccination, we shall expect this year to see definite progress made. The continued agitation against compulsory vaccination will probably always have a certain basis of popular and Parliamentary support, until the Local Government Board can assert that they are in a position to supply public vaccinators with vaccine lymph of known origin, and undoubted purity and excellence. Under existing arrangements, they cannot venture to assert so much. By the adoption of a central station from which calf-lymph could be issued, they would place themselves in that desirable position. We have already published a report which shows how largely and successfully vaccination from the calf is now carried on in every country throughout the world, except England. That exception ought no longer to exist. It is not creditable to the country of Jenner, and it is not just in a state in which vaccination is compulsory. The statement of Dr. Ballard, on behalf of the Local Government Board, leaves little reason to doubt that steps will be forthwith taken to ascertain by what machinery and under what safeguards calf-lymph can be officially supplied from headquarters, for the purpose, especially, of renewing the stock of public vaccinators, and of supplying ample material for revaccination.

Other subjects of importance lie before us. The Coroners' Bill has yet to be discussed. The system of stamping with the Government mark so-called patent medicines, which are compounds of which the ingredients, often dangerous, by no means correspond with the statements on the labels, is a system dangerous to public health, and incompatible with public morality. This also waits to be discussed and placed before the Government authorities in such form as to afford the material for a practical solution.

To turn from public questions to those which more immediately concern the organisation of the Association, it affords matter for congratulation to see that the growth of this great Society promises to be not less remarkable during the coming than it has been during the past years. We have before us, at the present moment of writing, new propositions for the formation of a Branch in an English county in which the Association is said to be as yet imperfectly organised, and applications from abroad to favour the formation of a Branch in Paris, where many English physicians are located, who are desirous of uniting in a Branch connected with the British Medical Association. It is said, also, that many eminent French physicians would be happy to join as associates, and thus bring themselves into more intimate professional union with the English profession, which has always valued highly the scientific work and the high professional feeling of their colleagues in France. Our Cambridge meeting can hardly fail to be a brilliant one. The magnificent school which is now growing up at that university gives every day a fresh evidence of its vitality, and the university shows more and more a disposition to favour the growth of biological teaching, and to bring medicine into a direct and fruitful connection with the colleges. Here lies one of the most hopeful signs of the future progress and elevation of medical education in this country; and it cannot be doubted that this example will act reflexly upon Oxford, and that that University will at no distant time once more welcome the profession which it now treats so scurvily, and which it has so long deprived of valuable resources intended by munificent founders for the service of medicine.

We have sketched only cursorily and desultorily a few of the prominent features of what rises up before us as the as yet unshaped outline of the *annus medicus* which commences to-day. May it be prosperous for all the members of the Association, so that at the end of the year now opening, every man may feel that he has done his best for the honour of his profession, for the credit of the Association, and for the benefit of the country in which he exercises his art.

THE RECENT ROYAL WARRANT FOR THE ARMY MEDICAL SERVICE.

SEVENTY-TWO candidates for appointments as surgeons in the Army Medical Service have passed successfully through the competitive examination which was opened in London on December 8th. The fact of so large a number of successful competitors having come forward (we are not informed if there were others who did not obtain the qualifying number of marks), at this the first competitive examination held under the terms of the new Army Medical Warrant, sufficiently shows, on the one hand, the powerful influence which the so-called "ten years' system", now abrogated, exerted in causing the dearth of candidates which has prevailed ever since that ill-considered measure was introduced, and, on the other hand, affords strong evidence that the new rates of pay and retiring allowances are regarded as a fair remuneration, not only for the ordinary duties and obligations which are demanded from army surgeons, but also for the special risks to which they are occasionally exposed in unhealthy climates, or in such military undertakings as are now progressing in South Africa and Afghanistan. It proves, moreover, that confidence has been restored as to the terms of service announced in the new Warrant being held to in their integrity. It is for the authorities to maintain this confidence. To grant an allowance by one Warrant (as was done in the case of the forage allowance to medical officers), then to restrict the application of this grant by subsequent regulations, and, thirdly, to remove this restriction and to restore the allowance as originally granted (as is done by the present Warrant), is a kind of proceeding which neither conduces to the dignity of those in whom the ordering of such matters is vested, nor promotes the good of the public service. A greater amount of power is placed in the hands of the administrative heads of the Army Medical Department by the articles of the new Warrant than has ever been conferred by any previous document of the same description. Not only are the medical officers of the ranks of Deputy Surgeon-General and Surgeon-General to receive their promotion to those grades by selection, but the officers of the new grade of Brigade-Surgeon are to get their elevation from the Surgeons-Major by the same means. The step of advancement in the latter instance carries with it a considerable increase in emoluments and in retiring allowances, together with other advantages. It is rumoured that a large number of brigade-surgeons are to be appointed at once, and we are aware that considerable anxiety is felt by some surgeons-major as to the mode in which the appointments will be made. Will the claims of seniority have their proper weight assigned to them, and, where others below the senior surgeons-major are selected for the new grade of Brigade-Surgeon, will the selection be made for proved ability and merit, which it is stated in the Warrant is to be the guiding principle of selection? We trust that it will be on these grounds alone that the new brigade-surgeons will be appointed, so that the professional character and reputation of the department may be enhanced, and its officers proportionably raised in estimation among all in other branches of the public service who have to look to them for medical advice and treatment. There is another point of view from which it seems to be of the utmost importance that all such selections should be conducted on acknowledged principles of right and the strictest justice. It is that the army medical officers, as a body, may be satisfied with the manner in which their concerns are administered; that contentment, which has been so long absent, may be restored within the ranks of the department itself; for, if only this most desirable consummation be achieved, we feel assured there will be no lack of young surgeons, of good education and high professional capacity, always ready to compete for appointments in a branch of the profession which ought to be one of the most honoured, as it is from its essential nature one of the most honourable, callings in the public service.

We have already written so much on the power of giving appointments, in the medical part of the army, by nomination, which is conferred by the new Warrant, side by side with admission by open competition, that we do not care to enlarge on the topic now. It is part of a large question that must be considered elsewhere. It is not one that concerns the Army Medical Department alone; for no reasonable ground can exist for believing that those who have introduced nomination again into one branch of the public service—and that, too, a scientific branch—would hesitate, if the opportunity occurred, to resort to it in others. It carries with it the apparent advantage of giving to the Director-General of the Medical Service and the War Department the power to overrule the voice of the medical profession at large, and to fill up vacancies in the medical branch of the army in spite of any dissatisfaction with the service, however legitimate, that circumstances may give rise to; for there can be little doubt that, where appointments exist which can be given away by private interest and nomination, it will not be difficult to find some who will always be willing to accept them. But such a system is not calculated to promote the public interests in the long run, any more than it is to conduce to the advantage or usefulness of the particular part of the medical profession to which sanction is now given for its application. It is a subject on which more is likely to be heard in the future.

INHALATION OF BENZOATE OF SODA IN PHTHISIS.

GREAT interest has been excited in Germany by alleged cures of phthisis by the inhalation of pulverised solutions of benzoate of soda. So great, indeed, was the excitement produced by the first published account of the cures effected in quite desperate cases, by Professor Rokitansky of Innsbruck and his assistant, that the political journals rang with the reports of this marvellous discovery, society was greatly stirred by it, and the echoes of it have been noticed in paragraphs current in our English newspapers; various queries have also been addressed to us on the subject. We have thought it well to wait until the test of further clinical experience has been applied. This has now been done with, unfortunately, decisive negative results, especially by Dr. Guttmann of Berlin.

The history of the matter begins with a communication, made by Professor Klebs, at a scientific meeting in Munich, in June 1877, when he announced the opinion, founded on experimental and microscopical observations, that tuberculosis was an infectious disease of parasitic nature; that it was induced by certain micro-organisms which invaded the body and multiplied in it; and that the expectation might be entertained of curing it by the employment of means which are calculated to annihilate these organisms. The experimental proof of the parasitic character of tuberculosis was conducted by Klebs in this wise. If the smallest piece of tubercular matter—for example, a fragment so minute that it can hardly be seen by the naked eye—be put into a vessel with a suitable nutritive fluid, such as a solution of white of egg, the solution, after a short time, becomes turbid, from the development in the fluid of a great number of micro-organisms, which show lively movements. In a control experiment, in which the same solution of white of egg is put into a similar vessel, but without the addition of tuberculous substance, the solution remains quite clear. Cultivation of successive solutions of white of egg, to which only a drop of the first tested solution is added, leads to the infection of each in turn, if a drop of the first be added to a second, a drop of the second to a third, and so on. Further interest attaches to this theory on the origin of tubercle, in consequence of the recently published researches of Dr. Schüller of Griefswald. These researches show that animals, into which tuberculous masses have been inoculated by tracheotomy, or who have been injected with micro-organisms obtained by fractional culture, according to the method of Klebs, died without exception with very marked phenomena of emaciation, loss of heat, and, after a little time, general miliary tuberculosis. When, however, the same animals, after infection with an equal quantity of tuberculous substances, and the bacteria obtained from them, and after the appearance of the characteristic phenomena of disease, as in the previously mentioned animals, were subjected to the inhalation of a pulverised solution of benzoate of soda for some weeks, they all survived. Their body-weight rapidly recovered itself; growth of hair became stronger; and, after a short time, the animals showed again their normal conditions. In passing, it may be mentioned also that Dr. Graham Brown had found, in the course of researches in the laboratory of Klebs, that when the fungi of diphtheritic membranes were treated with a solution of benzoate of soda, or when animals were injected with these fungi which had been saturated with a solution of benzoate of soda to the extent of a thousandth part of their body-weight, the diphtheritic fungi did not grow, and became inactive.

On the basis of these results of research, a five per cent. watery solution of benzoate of soda was employed, in the hospital at Innsbruck, by pulverisation, as an inhalation in cases of phthisis. In a communication of Dr. Kroczak, assistant to Dr. Rokitansky, to the *Wiener Medizinische Presse*, September 14th, 1879, favourable results were announced which had been obtained in fifteen patients so treated, "the results exceeding all expectations". The three most severe of these cases were described in detail. Two showed "generally diffused local phthisis, with the formation of caverns". The third, also a case of extensive phthisical disease, was complicated with well-marked pleural exudations. These three were only put forward as examples of cases treated, and were, as was stated in so many words, "persons so to say, moribund upon entrance to the hospital and who were sent out cured". All these patients were already free from fever at the end of a week; the third after ten days; and the weight of the body also very quickly increased. It is not stated how long the treatment by inhalation was carried on; but it could scarcely have been longer than three weeks, according to the dates given at which the patients entered the hospital and left it cured.

Dr. Guttmann, in a communication which he made to the Berlin Medical Society in November, and which was recently published in the *Berliner Klinische Wochenschrift*, in recalling these preliminary facts, observes also that Professor Schnitzler of Vienna had arrived lately, from a series of experiments (*Wiener Medizinische Presse*, 1879, No. 42), at the conclusion that no medicament enters the bronchi by the inhalation of pulverised medicated solutions. Guttmann, however, points out that these conclusions are a little too absolute, inasmuch as well-known pathological observations show that, after continuous exposure to an atmosphere loaded with particles of coal or iron, or other coloured substances, the lungs are found after death to be impregnated with such materials. While it seems clear that the greater part of the substances pulverised in medicated solutions are deposited on the tongue, pharynx, soft palate, and epiglottis, it seems nevertheless, beyond doubt, that small particles pass the rima of the glottis, and to a small extent enter the trachea, and possibly pass into the bronchi. Of course, such results are obtained much more completely when the patient can be retained permanently in the inhalation-chamber. Dr. Guttmann's treatment extended over thirty-one phthisical patients, of whom twenty-four were men and seven were women, from seventeen to fifty-six years of age. The phthisis was in the majority of the cases very extensive, often having proceeded to the formation of considerable cavities; in a smaller number of cases, the disease was relatively lighter—cases which were at times either altogether free from fever, or which were running their course with only slight fever. Those patients were purposely chosen for this observation whose temperature showed a well-marked hectic type, that is to say, low morning temperatures, high evening temperatures, and moreover who, during the latest part of their stay in the hospital, had shown a certain steadiness in their temperature-curves. Any influence of the treatment by inhalation could, therefore, be very easily observed in the temperature-curves of such patients. The temperature was taken three time a day at the same periods—morning, midday, and evening. The inhalations took place twice daily—morning and evening. The solution of benzoate of soda was a five per cent. solution in water. At first, Dr. Guttmann prescribed only five *grammes* of benzoate of soda daily, that is to say, the inhalation of one hundred *grammes* of solution; later, he rose, in the case of five patients, to ten *grammes* of the substance, that is to say, two hundred *grammes* of the inhaled solution a day. When Rokitansky's communication appeared, in which he intimated that his patients had daily inhaled the one-thousandth part of their body-weight of benzoate of soda in substance, that is to say, fifty *grammes* of benzoate of soda in substance per fifty *kilogrammes* of body-weight, and therefore a thousand *grammes* of the solution, then Dr. Guttmann also raised the prescriptions of the patients to these large quantities. Of the thirty-one patients, fifteen inhaled during three weeks; one for two days (the latter had during this time consumed seven hundred and ten *grammes* of benzoate of soda in substance); six patients inhaled during from fourteen to nineteen days. Of these, one took six hundred and fifty *grammes* of benzoate of soda in substance. The remaining nine patients inhaled during from three to twelve days. In four of these who did not tolerate inhalation, the benzoate of soda was given internally, in the quantity of from twenty *grammes* of benzoate of soda to two hundred of water (one tablespoonful every two hours). Of these thirty-one patients, nine died—seven men and two women; two were allowed at their own wish to leave the hospital; and the rest were still there. The result obtained was as follows. In not one case—not even, therefore, in the patients who inhaled daily a thousand *grammes* of the solution—was the temperature in any observable manner lowered by the benzoate of soda, or was any influence exercised on the temperature-curves. Dr. Guttmann adds that the internal use of the benzoate of soda, during a considerable time in which a daily quantity of about eight *grammes* in substance was taken, was equally without influence on the febrile temperature. On the second notable factor in the progress of phthisical patients, improvement or falling off in weight, the treatment with benzoate of soda was equally without influence. In most cases, the weight of the body fell off progressively, in proportion to the amount of pyrexia and exactly in the same manner as though the patients had not been undergoing treatment during this time. Only in one or two patients, in whom the fever was throughout and from the first slight, did the body-weight remain stationary or slightly increased. Neither did the local symptoms of the phthisis undergo any change during the course of the treatment, in the sense of improvement. Dr. Guttmann observed, indeed, that the catarrh and bleeding diminished shortly after the inhalations; that is to say, that the patients coughed and expectorated less for about an hour after the inhalations were over. This, however, he attributes to the fact that the inhalation, and the continuous deep inspiration required while it was going on, excited during the time a much more considerable amount of coughing by irritation; and thus, during the period of inhalation, a much more considerable amount of expectoration was induced—thus clearing the cavities and tubes, and giving rise to less expectoration for a short time after the inhalations had ceased. There was no permanent improvement either of cough or of expectoration after the inhalations, nor were the nocturnal sweats, when these were present, at all lessened by the benzoate of soda. While in not one case was any symptom of phthisis observed to be improved by inhalation; on the other hand, an occasionally unpleasant incidental action of the benzoate of soda was observed. A good many patients complained of nausea and some of vomiting; symptoms which, partly at least, were excited by the continuous stretching forward of the tongue during the inhalation, on which Rokitansky lays considerable stress, in order that the inhaled substance might reach the air-passages. It appeared to be partly due to the fact that the benzoate of soda acts as an excitant on the mucous membrane of the stomach, in so far as it reaches it by the inhalations through the œsophagus, and so onwards. Guttmann has observed in one case, on *post mortem* examination of a phthisical patient who had inhaled benzoate of soda quite up to the end of his life, a recent and general capillary congestion of the mucous membrane of the stomach. In the *post mortem* examination of nine phthisical patients, who had inhaled benzoate of soda, nothing was found in the pathological condition of the lungs which in any way indicated the commencement of a healing process. There was generally an extensive phthisical change, with cavities filled with fluid pus. In one case of left-sided pneumothorax, there was a perforated cavern. Two phthisical patients, who had for several years shown no symptoms of hæmoptysis, were attacked freely with hæmoptysis after inhalations. These researches, therefore, carried on during the same period, in the same manner as those which were published from Rokitansky's clinique, are in absolute and complete opposition to them.

Dr. Wenzel reports also ten cases of phthisis, treated at the Charité Wards at Berlin, under Professor Waldenburg, with benzoate of soda inhalations, under similar conditions to those of Dr. Guttmann. He also reports, as the result of treatment, that neither in the more severe nor in the lighter cases was any direct effect produced on the phthisical process. There was not once even any symptomatic or palliative improvement. Four of them ended fatally during the three or four weeks in which the treatment was being carried on. There was no effect upon the febrile process, nor was the appetite improved. The inhalations for the most part were well tolerated, except that in two cases they produced slight nausea and vomiting; and many of the patients complained of the inconveniently long inhalations. On the whole, the results of the experiments in Dr. Waldenburg's wards were not at all more favourable than that of the other cases.

In the last number of the *Wiener Medizinische Wochenschrift*, Professor Drasche reports, from the General Hospital at Vienna, the results of his employment of benzoate of soda in twenty cases, and these results are equally disappointing. The effect of the benzoated inhalations appears to have been quite without palpable influence upon the well-being of the patients. Six out of the twenty died; three of them were on the point of death; six were neither better nor worse; and, altogether, the results were entirely hostile to those announced by Rokitansky and Kroczak. Moreover, Drasche observed one very significant case, in which, at the beginning of the benzoate treatment, the larynx was quite intact, but, under the continuous inhalations, reddening and swelling of the vocal cords commenced under his eyes, went on to hoarseness, infiltration, and, finally, ulceration on both sides, notwithstanding the continuous moistening of the larynx by this pulverised solution of the benzoate of soda. This fact is, he observes, a very significant comment on the theory, that physical ulcerations are due to the excessive development of the infective bacteria, which benzoate of soda is supposed to destroy. The whole question of the application of disinfectant inhalations to the lung is treated, in its historical relation, in Waldenburg's book, *Die locale Behandlung der Krankheiten der Athmungsorgane;* and it is, of course, one of the oldest and most obvious methods of treating lung-disease. As to the physiological action of benzoate of soda, apart from its antimycotic power, for which it was recommended by Klebs and employed by Schüller and Rokitansky, in this instance it may be observed that Salkowski, who, in 1875, first called attention to the antiseptic action of benzoate of soda, points out now, in Virchow's *Archiv* (vol. 78, part 3), that the elimination of nitrogen appears to be considerably increased by it, and that an increase of the destruction of the albuminoids of the body is caused. The increased excretion of nitrogen extended to five *grammes* daily; and, in the course of a week, by a continuous use of high doses of benzoate of soda, a loss of one *kilogramme* of muscle would be caused. These exact researches put Rokitansky's observations of an increase of body-weight, in certain of his phthisical patients, in a special light; since it is clear that, if such increase occur, it must be rather as the consequence of the improved nutrition of the patients after being taken into hospital from poor homes, than of any arrest of the tubercular disease, which does not seem to be affected by the benzoate of soda, or of any direct action of benzoate on the body; for such action would evidently be in an opposite direction.

ABSORPTION BY GRANULATIONS.

THE idea that granulations are good absorbing surfaces is one which few at the present day would be disposed to entertain. For it has been generally supposed that, as soon as a wound had granulated, the patient was free from any further danger of absorption of noxious materials; and those cases in which symptoms of blood-poisoning supervened after this period were supposed to have received the poison before granulation was complete. And yet, several facts have been for some time known which demonstrate that some substances at least may be introduced into the circulation in this way. Thus Bonnet, in 1852 (*Gazette Médicale de Paris*) confirmed the observations previously made as to the absorption of strychnine by granulating wounds; and he further pointed out that the same was the case with iodine, more especially when applied in the form of an ointment.

The paper just published on this subject by Dr. Hack (*Deutsche Zeitschrift für Chirurgie*) furnishes many new facts of the greatest interest and importance. He was led to his investigation by the following circumstance. A patient was admitted, under the care of Professor Maas of Freiburg, with a very large prostatic abscess, which had burst into the rectum. This was followed by pyæmic abscesses in various parts of the body; the patient soon became extremely weak, and it was found impossible to administer food or stimulants by the mouth. Under these circumstances, Professor Maas determined to introduce stimulants into the abscess cavities, in the hope that they might be absorbed. Camphor-wine was accordingly, from time to time, injected into several of the abscesses; and, a few minutes after each injection, the marked improvement in the pulse showed that absorption had to some extent taken place. In a few days, the patient regained his appetite, and was ultimately completely restored.

The chief questions which Dr. Hack has attempted to answer are: What is the absorptive power of granulating wounds at different periods, as compared with that of freshly cut surfaces? Does the form in which the substance is applied, or the manner in which the wound has been treated, affect the result? A large piece of skin having been removed from the back of a dog, a suitable dressing was applied; and in four days, granulation being then complete, this wound was tested as to its absorbing power. Two classes of substances were used, viz., such as could be found in the urine—as ferrocyanide of potassium, salicylic acid, sulph-indigotate of soda; and such as showed their presence by the production of constitutional effects—as pilocarpin and apomorphia. Applied in the form of solution to a sore four days old, treated with water-dressing, the ferrocyanide appeared in the urine in seventeen to twenty minutes; while the same substance, applied in solution to a freshly cut surface, was detected in fifteen minutes. When used, however, in the form of ointment, it was absorbed much more rapidly; and this was still more marked when the salt was sprinkled over the wound in the form of a powder. A similar result was obtained when pilocarpin was employed, the ointment and powder producing constitutional effects more quickly than when applied in the same quantity to a freshly-cut surface of the same size. Apomorphia was absorbed from wounds thus treated only during the twelve hours immediately after their infliction. As the wounds became older, it was found that, though the first traces of absorption of the ferrocyanide could still be detected about the same period as in those four days old, yet no marked precipitate could be obtained in the urine till some minutes later. That this diminution in the quantity absorbed in a given time depended on the smaller extent of absorbing surface, and not on any alteration in the granulations, was shown by comparing old wounds with portions of more recent wounds of the same size. Chloride of zinc, applied in an 8 per cent. solution, at once arrested absorption by the granulations. This was also very much diminished by the use of alcohol. Sloughs, caused by the application of strong carbolic acid, absorbed with extreme readiness. Glycerine also aided absorption. Where the wounds were treated antiseptically, very remarkable results were obtained. Granulating wounds thus treated absorbed both more rapidly and in larger amount than even freshly cut surfaces; and substances such as apomorphia, which could not be taken up by wounds treated by water-dressing, produced their physiological effects with great rapidity in this instance. Even after the removal of these dressings, about two days elapsed before the granulations assumed the characters of those treated from the first with water-dressing.

The importance of these facts cannot well be overrated; and it is to be hoped that, attention being thus directed to this subject, more exhaustive investigations will soon be forthcoming. More especially is it necessary to repeat these experiments with putrid substances; for, if it be the fact that granulating wounds, treated antiseptically, can absorb putrid materials more readily than freshly cut surfaces, the practice which some adopt of only treating such cases as compound fracture antiseptically till granulation is established, and of then applying septic dressings, must be dangerous. Dr. Hack, indeed, states that he has observed that erysipelas is especially apt to attack granulating wounds which have been treated antiseptically, if the antiseptic dressings be left off while these wounds are still of large size.

Mr. Spencer Wells has received the Diploma of Honorary Fellow of the Physico-Medical Society of the University of Moscow.

Dr. Freeman J. Bumstead, the eminent syphilographer of New York, died in that city on November 28th, of ascites.

The next meeting of the Obstetrical Society will be held not on the first but on the second Wednesday (14th) in January.

The President and Council of the Harveian Society of London have issued cards for a *conversazione* on the evening of January 8th, at the Stafford Rooms.

We have been asked to state that it has not, at any period during the present vacancy, been Mr. Johnson Smith's intention to become a candidate for the post of Port Medical Officer; and that he is not likely, under any circumstances, to compete with the many eligible and experienced applicants already in the field.

Dr. Lionville, professor *agrégé* of the Faculty of Medicine of Paris, and one of the most distinguished of the medical members of the French Parliament, is at the present moment, we learn, engaged in the study of the administrative regulation of vaccination and its compulsory enforcement.

The resignation by Dr. Percy, F.R.S., of his appointment at the School of Mines is announced. This eminent physician and chemist is one of the pillars of the institution, as perhaps the most distinguished metallurgist of this country. We regret to hear it reported that this resignation is due to official interference with his duties.

At a quarterly court of Addenbrooke's Hospital, Cambridge, the Lord-Lieutenant (Mr. Townley) presiding, Mr. W. M. Shann of St. George's Hospital was elected house-physician, in room of Mr. J. K. Fowler, resigned. The question of increasing the number of physicians was ordered to remain in abeyance pending certain changes in the University. The subject of requiring the medical students to pay fees to the hospital was considered; but, on a motion for referring the matter to a committee, an amendment was carried, by twenty-two votes to twelve, to proceed to the next business.

We have heard with regret that Dr. Otis, the surgical historian of the War of the Rebellion in the United States, has been seriously ill. It is satisfactory to know that, by the latest accounts, his health has somewhat improved. It would be an immense scientific loss if Dr. Otis were prevented from adding to the first and second parts of the history, which have been so admirably executed, the third part, on which he has long been engaged, and thus of accomplishing the great task he has undertaken of gathering together all the records of the surgical experience gained during the severe and protracted struggle of the great American civil war.

The County-Court Judge at Exeter (Mr. M. Fortescue) has decided that a set of artificial teeth were not "necessaries" for a farmer's wife, and nonsuited a dentist who had supplied them in the absence of any expressed authority from the husband.

SPLENDID MUNIFICENCE.

The London Hospital has, we are informed, received a splendid Christmas-box in the shape of an anonymous contribution of £5,000 to the funds of that charity. The enclosure was left by a lady at the porter's gate in an envelope, addressed to the secretary, and without any further information.

THE EMPRESS OF RUSSIA.

Our correspondent at Cannes writes:—I learn to-day from a mos authentic source the good news that the Empress is daily gaining strength, and may now be considered to be in a fair way of improvement The Empress had in the first instance been suffering from an attack o pneumonia, with the characteristic consolidation of the lung. Upon this supervened an attack of pleuritic inflammation but happily withou effusion. The fever has now subsided, and the Empress is gaining strength.

THE LAMBETH M.D. DEGREE.

The Archbishop of Canterbury has conferred the degree of M.D. upon Mr. James Rogers, M.R.C.S., and L.S.A., of Swansea. Mr. Roger is, we believe, a respectable practitioner, and was formerly mayor of th town; and his friends, we see, are now raising a subscription to defra the stamp-duties and office-fees, amounting to about eighty guineas, an also to present him with the hood and gown of a Doctor of Medicine o Oxford; for it appears that the recipients of a Lambeth degree ar entitled to wear the robes of the corresponding degree at that universit at which the Archbishop has himself graduated. In these days, whe so much is being done to raise the standard of medical examinations when diplomas and degrees are so carefully sifted, and when so man are anxious to obtain the right to style themselves "Doctor", this reli of mediævalism might, we think, be abolished. In the present instance it is difficult to discover what professional grounds were urged for s special and outlandish a proceeding. The degree is hardly one to b proud of; and we cannot imagine how a practitioner who possesses th respectable diplomas of examining bodies, which test the proficiency o those who apply to them, should care to wear the peacock feathers o Lambeth, which have no meaning, but which represent rather burlesque than the reality of a professional honour. A Doctor of Medicine nominated by a bishop is an anachronism, and serves rather t point an ancient and monkish moral than to adorn any nineteenth cen tury tale.

LES FEMMES QUI FUMENT.

Dr. Decaisne has made a communication to the French annals o public medicine on this subject. In 1864, he studied the intermittenc of the beating of the heart and pulse as a sequel to the abuse of tobacco smoking. He observed, in the memoir read to the Académie d Sciences, that if one consider, first, that none of the subjects submitte to examination were attacked by any organic lesion of the hear second, that the majority of them were not in the conditions of heal which favour the production of intermittence of the beating of th heart; third, that it sufficed, in nine of these individuals, to suppre the use of tobacco to see the heart return to its normal rhythm; that th following conclusions will not be considered premature. The abuse tobacco produces, in certain subjects, a state which may be call nicotism of the heart, and which is translated by intermittence in th beating of the heart and in the pulsations of the radial artery. It enough, in certain cases, to suspend, or at least to reduce, the use tobacco in smoking to see the irregularity in the functions of the hea disappear entirely or diminish. In 1864, Dr. Decaisne related cases thirty-eight young people, in twenty-seven of whom the effects tobacco on the economy were observable, especially in cardiac affection palpitations, and intermittences. He terminated his work by sayi that, whatever conditions may be perceived in ascertaining in adult subjects the pernicious effects of tobacco-smoking, they are incontestable in children. Even the restricted use of tobacco in children leads often to a change in the blood, and sometimes to chlorotic anæmia, paleness of the face, emaciation, morbid sounds in the carotid arteries, palpitation and intermittence of the heart, diminution of the normal quantity of the blood-corpuscles, difficulty of digestion, etc. The ordinary treatment of anæmia and of chlorotic anæmia produced no effect in general whilst the habit is continued. Young people who smoke show generally a certain sluggishness of intelligence, and a more or less pronounced taste for strong drinks. In children who cease to smoke, and who are not affected by any organic lesion, the disorders of the economy which have just been mentioned disappear, often very quickly, and almost always without leaving any trace. Since 1865, Dr. Decaisne has commenced to xamine the effects of tobacco on women. He has observed forty-three women, who present symptoms arising from this source, including intermittence of the pulse, disorders in the menstruation and digestion; and he has arrived at the same conclusions as he arrived at in 1864. He adds that the effects of tobacco-smoking in women appear to him o resemble very closely those which he observed in children; that in a ertain number of them, as among children, even in a relatively small lose, tobacco leads promptly to the symptoms of anæmia, as well s intermittent pulse, and develops for the most part a pronounced taste or strong drinks.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

HE Library of the College will be closed on Monday, the 5th instant, n account of the number of candidates for the primary membership xamination, to be held that day, being greater than can be accomodated in the theatre. This will be the first time the examination will e conducted according to the new regulations, under which anatomy nd physiology are to be considered separate subjects. Judging from he number of candidates entered for this examination, which we undertand is considerably above the average for a January examination, the hange seems to have found favour with the schools, notwithstanding e loud protestations made against it last summer, when the scheme as carried, by some eminent members of the Council. There will be wo written papers—one on physiology, the other on anatomy—for each f which there will be allowed two hours, with an interval between. ach paper will contain six questions, of which any four, but not more, e to be answered. At the *vivâ voce* examination, each candidate will examined for a quarter of an hour on anatomy, and for the same me on physiology; so that he will have only two tables to be examined instead of three, as was the case formerly.

MEDICAL SOCIETY OF LONDON.

HE Lettsomian Lectures will be delivered by Mr. W. F. Teevan, B.A., R.C.S., on Mondays, January 5th and 19th, and February 2nd, at 30 P.M. The subject will be "The Treatment of Stricture of the rethra, Enlarged Prostate, and Stone in the Bladder, with special ference to recent progress".

PATHOLOGICAL SOCIETY OF LONDON.

HE following is the list of officers and council proposed for election r the year 1880. The gentlemen whose names are marked with an terisk (*) were not on the Council or did not hold the same office ring the preceding year. *President:* Jonathan Hutchinson. *Vice-residents:* *G. Buchanan, M.D.; G. Harley, M.D., F.R.S.; J. E. llock, M.D.; H. Weber, M.D.; C. Heath; T. W. Nunn; *J. A. lter; S. W. Sibley. *Treasurer:* J. W. Hulke, F.R.S. *Honorary cretaries:* *J. F. Payne, M.B.; W. M. Baker. *Council:* T. Barlow, D.; *E. B. Baxter, M.D.; S. Coupland, M.D.; *Sir J. Fayrer, C.S.I., M.D.; W. S. Greenfield, M.D.; J. P. Irvine, M.D.; V. M. Ord, M.D.; F. Taylor, M.D.; *T. T. Whipham, M.B.; n Williams, M.D.; *J. N. Davies-Colley; R. J. Godlee; J. W. ward; H. G. Howse; *Joseph Lister, F.R.S.; J. McCarthy; W. c Cormac; W. B. Kesteven, M.D.; W. J. Smith; W. W. Wagffe.

BADER V. GORDON.

MR. BADER writes further on this matter:

> On December 27th, page 1033 of the JOURNAL, you state: "Where binocular vision still exists, the patient should be amply warned", etc. My case-book clearly shows that Mr. Gordon had all the attributes of binocular vision *except* the power of reading, and that this was the very reason why the treatment of the cataract was advised. Mr. Gordon did not go home alone; what are your motives for stating that he undertook a journey the next day? Did you wish to assist a member of the Association?

Our "motives" are, of course, to further the discussion, on public and professional grounds, of questions of no small therapeutic importance raised by an action at law reported in the public papers. The question of "membership of the Association" is foreign to the subject.

PRISON EPIDEMICS.

ACCORDING to the *Louisville Medical News*, two hundred and eighty-nine prisoners in the penitentiary at Frankfort are ill of diarrhœa. A communication between the drains and the water-supply is supposed to have been the cause.

HEREDITARINESS.

A PRIZE of £200 has been offered by the Rev. E. Wyatt Edgell, through the Sanitary Institute of Great Britain, for the best essay that may be sent in by August 1st next, on "The cause of Hereditary Tendencies in Health and Disease". Dr. B. W. Richardson and Dr. W. Farr are appointed adjudicators of the prize.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

THE annual general meeting of this Association for the election of officers and council for the ensuing year, and for transacting the usual business, will be held on Wednesday, January 28th, at 4.30 P.M. The following is a list of the names of gentlemen recommended by the Council to be appointed to the offices named below. *President:* W. A. N. Cattlin, Esq. *Vice-Presidents:* J. A. Baker, Esq.; Samuel Cartwright, Esq.; Alfred Coleman, Esq.; John Smith, M.D., F.R.S.; *S. J. A. Salter, Esq., F.R.S. *Treasurer:* T. Edgelow, Esq. *Honorary Secretary:* J. Hamilton Craigie, Esq. *Council:* *Edward Bartlett, Esq.; S. Hamilton Cartwright, Esq.; J. Fairbank, Esq.; F. Fox, Esq.; W. Donald Napier, Esq.; George Parkinson, Esq.; W. G. Ranger, Esq.; *Augustus Winterbottom, Esq. An asterisk is prefixed to the names of those not holding the same office the preceding year. The Fellows of the Society and their friends will dine together in the evening at the Langham Hotel, at seven o'clock, on which occasion Mr. Samuel Cartwright will preside.

THE SEASON IN ITALY AND THE SOUTH OF FRANCE.

MR. J. A. GOODCHILD writes to us from Bordighera on December 21st:—Thinking that you may be glad of some information regarding the health-resorts of Italy and the South of France at this season of the year, I venture to send the following particulars. Weather has been very severe over the whole extent of central and southern Italy, snow falling as far south as Palermo as early as the 19th of November. During the present month, Florence has been thrice visited by the same infliction—on one occasion to the extent of a fall six inches in depth. At Milan, the inhabitants say that they have to go as far back in their records as the year 1832 to parallel a fall which I have heard variously estimated at from two to five feet in thickness. At Lyons, which, although upon the north side of the Alps, is yet a long way upon the road from England to summer climes, they have had 26° Fahr. of frost. The Riviera has not escaped; for, after an exceptionally sunny and warm November, the present month commenced with a fall of snow upon the 1st, which was heavier at Mentone and its neighbourhood than at other points upon the coast. This was followed the same night by a frost of 2°, but which was sufficient, in conjunction with the snow, to destroy the masses of heliotrope, salvia, and geranium which were in bloom in the gardens, and also to seriously damage the lemon-crop in exposed situations. The snow melted on the 3rd, and since that date the weather has been sunny and warmer than usual at this season of the year, the temperature having reached 60° Fahr. in the shade more than once during the last week at Bordighera. From Hyères come reports of violent winds, as also from Marseilles; but we have not felt them here. Villas are hard to let this season all along the coast; but at Cannes the hotels are doing well. The Empress of Russia, who has taken a great dislike to the place, is still too unwell to leave, though special trains have more than once been prepared for her departure. Mentone and San Remo are both doing fairly well; whilst Bordighera, owing to the presence of the Queen of Italy, is unusually full. The Queen, who arrived in a very feeble state and had to be lifted into her bath chair, is much better, and both drives and walks out daily. She was to have left upon the 18th, but now states that, unless positively obliged, she shall not move until the end of January.

FACTORY BILL FOR INDIA.

THE text of the Indian Factory Bill, and the official statement of its objects and the reasons which have induced the Governor-General in Council to cause such a Bill to be proposed, are now published in India. We find that an important step is at last proposed to be taken, in the direction of conferring upon our Indian artisans some of those benefits which the sagacious benevolence of Lord Shaftesbury has procured for our own operatives. We see with some anxiety that the application of the Act will be at the option of the local governments, and think that a certain number of the more important industrial centres should be scheduled to come at once under its working, power being retained to extend its operations to such other places as may hereafter seem to require them. It is, we learn, intended to ask the Parliamentary Bills Committee to urge upon the authorities the necessity of such a Bill becoming law without further delay. The following is the official statement of objects and reasons for the Bill.

"The subject of the regulation of labour in factories has been for a long time under discussion, and there has been much difference of opinion regarding it. The Governor-General in Council, having now considered the different views that have been put forward and the various suggestions that have been made, has come to the conclusion that the legislation to be undertaken at present should be restricted to the following points; namely: 1. The determination of the age at which children may be employed; 2. The limitation of the hours of labour for children and young persons; 3. The prohibition of the employment of children and young persons on certain dangerous work; 4. The fencing of dangerous machinery; 5. The reporting of accidents; and 6. The appointment of Government inspectors. The present Bill has been prepared on these lines, and will apply only to those parts of British India to which it may be extended by the local Governments with the previous sanction of the Governor-General in Council."

DR. FARR.

THE announcement which we made last week of the appointment of Mr. Sclater-Booth's private secretary as Registrar-General over the head of Dr. William Farr, whose thirty years of service as Deputy Registrar-General presents so splendid a record of service to the nation, and of Dr. Farr's consequent resignation, has been confirmed by the publication of Dr. Farr's letter to the Treasury, in which he announces his resignation and states the ground of it. No doubt a pension of the full value of the very moderate salary attached to the post will be accorded. We feel authorised to say, however, that the general medical profession will regard with great pain and regret the loss which the country suffers in the retirement of Dr. Farr under such unpleasant circumstances. More than any other man, perhaps, in Europe, Dr. Farr has contributed to the creation of definite, well-shaped, and instructive vital statistics. He has not only done work for the State of the highest quality and productiveness—work which has been the basis of health-legislation and of progressive sanitation throughout Great Britain—but he has been the cause of similar work in others both in this country and abroad. All Europe has adopted his methods, his formulæ, and his system of tabulation and periodic report, and America is now closely following the same type. Dr. Farr's services have been so exceptional, and his merits as a public servant so far transcend the routine services of even the ablest men, that it may be hoped that some signal mark of favour will be shown on the occasion of his retirement from office. On the other hand, his rare combination of administrative capacity, mathematical attainment, medical training, logical deduction, and picturesque statement, remain ripened and unimpaired by years; and his loss to the active service of the country is one which it is difficult to overestimate and impossible not to deplore.

CHOLERA IN JAPAN.

THE following note is sent to the United States National Board of Health from Hon. W. M. Evarts, Secretary of State, and published in their *Bulletin* of December 6th.

"Referring to previous correspondence on the subject, I have to inform you that it appears from recent despatches received from Mr. Bingham, the Minister of the United States to Japan, that official reports of Asiatic cholera in that empire show that the total number of cases, from the commencement of the epidemic in April last up to the 11th of October, was 153,486, of which number 86,644 proved fatal; and that subsequent official returns of the whole number of cases show that, up to the 21st of October, 156,204 persons were attacked during the prevalent epidemic, of whom 89,702 have died of the disease, being a mortality of 57.43 per cent. of the whole number of cases; and that it is also reported that the epidemic had virtually ceased throughout the empire. Mr. Bingham expresses the opinion that the number of deaths by the disease would have been much less if the Government of Japan had been aided, instead of being resisted, by certain foreign powers, in its endeavour to prevent the spread of the contagion by land and maritime regulations; and says that it affords him gratification to know that the efforts of the Government of Japan to save the people of tha empire from the pestilence were seconded by this Government."

A SAD STORY, IF TRUE.

THE followiug story has recently reached the *Statesman.*

"Dr. Dumbleton, a young surgeon from St. Bartholomew's Hospital, who only arrived in India to join the Indian Medical Service last March, was recently ordered to proceed to Peshawur. From Peshawur, Dr. Dumbleton proceeded in medical charge of a draught *en route* to join the Kuram Valley force. Being but an indifferent horseman, he was much galled by his long ride. In addition, he suffered from a severe attack of fever, and, when on the march, his detachment met the 13th Bengal Lancers. The medical officer in charge of that regiment told Dr. Dumbleton that he was in an utterly unfit state of health to proceed; he also provided him with a pair of drawers. Thus relieved, poor Dr. Dumbleton managed to push on to Ali Kheyl. Here he went to a staff officer, who saw from his miserable appearance that he was quite unfit to go further, and he said that he would make arrangements for some other surgeon to go on with the detachment. The poor lad went to his tent, threw himself down in his clothes, and fell asleep. Early next morning, an officer of his detachment went to his tent and said, 'Come, Dumbleton, it is time to get up; we must be off'. Dr. Dumbleton replied that he was utterly unfit to go on, as he was so ill, and that arrangements had been made for another surgeon to take his place; and the officer left him. Dr. Dumbleton appears to have been a very sensitive young fellow, and he feared he should be accused of pretending to be worse than he really was. After a short time, the officer of his detachment returned, saying that no arrangement had been made for another surgeon to go with them, that they could not march without one, and that go he must. Dr. Dumbleton replied that he could go no further, adding, 'By God, I am not shamming'; and the officer again left Dr. Dumbleton in his tent. He had only gone a few yards when he heard the report of a pistol, and, rushing back to Dr. Dumbleton's tent, he found the poor young fellow dead, with a revolver beside him."

IMPROVING THE RACE.

À PROPOS of the Smithfield Cattle Show, and in a rather antastic leader, the *Times* broaches this delicate though important subject by observing that, with a suitable dignity and even magnificence, there was last week exhibited in this metropolis the splendid and convincing illustration of a fact which has a high part in the course of this world. The virtue of breed, whether in man or in the creatures by which he is immediately surrounded, is maintained as the basis of our Constitution at Westminster, but appeals to our senses at Islington. It is found possible not only to produce cows and sheep and pigs that are models of perfection in their respective ways, but to reproduce them to almost any number with an approach to certainty. It is a trite comment, but continually enforced by fresh experience, that what we do with these poor beasts we can do with mankind. The moral of the Smithfield Club Show is invaluable in its application to the meritorious and necessary classes that do the work of this country, whether in country or in town, whether in the field or in the workshop and factory. If we can make beeves, sheep, and pigs yield the greatest possible quantity of the best possible meat, surely we can do something to make our labourers and artisans yield the most possible work with the least possible pain and injury to themselves. We all have our ideal of a British labourer or working man. But we are all painfully aware how few of the class fulfil the ideal. The present show demonstrates the possibility of improving a living breed up to a required perfection. Of course, there are special difficulties in the application of this process to reasonable beings with wills of their own and rights of their own. Yet much can be done, and much has to be done. Our population may be increasing, but it does not keep pace with the numerous drains upon it and our national requirements.

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SCOTLAND.

The governors of Anderson's College, Glasgow, having given their consent, a provincial matriculation examination of the University of London will be held there this month.

REGISTRAR-GENERAL'S RETURNS.

According to the report of the Registrar-General lately issued for the week ending December 13th, 1879, it appears that the death-rate in the eight principal towns of Scotland was 28.0 per thousand of the estimated population. This rate is 1.9 above that for the corresponding week of last year. The lowest mortality was recorded in Greenock—viz., 16.9; and the highest in Paisley—viz., 46.8. The mortality from the seven most familiar zymotic diseases was at the rate of 3.6 per thousand, being slightly above the rate recorded for last week. The increase can only be attributed to the deaths from whooping-cough, which was rather prevalent in Glasgow. Acute diseases of the chest caused two hundred and forty-three deaths, being an increase of sixty-six on the number recorded during the previous week. The mean temperature was 32.7, being 5.6 above that of the week immediately preceding.

THE WEST OF SCOTLAND BRANCH.

A meeting of the members of this Branch of the Association was held in the Faculty Hall, on the afternoon of December 19th, 1879, and there was a large attendance of both town and country members. The chief subject discussed at the meeting was the Relation of Croup and Diphtheria. The discussion was opened by a paper from Dr. Russell, Medical Officer of Health for Glasgow, in which the matter was presented from the point of view of statistics; and he was followed by several members, some upholding strongly the unity of the two diseases, while others were equally emphatic as to their being distinct and separate affections.

THE HEALTH OF GLASGOW.

From the report of the Medical Officer for the fortnight ending December 13th, it appears that the death-rate was 28 in place of 19 per 1000 living. The chief point of interest in connection with the report is the large increase in the number of deaths from pulmonary diseases, these amounting to 270 in place of 136, representing a death-rate of 12 in place of 6 per 1000 living, and constituting 44 per cent. in place of 33 per cent. of the total deaths. In his remarks, Dr. Russell points out that there probably never has been an increase, which, on very little investigation, proved so obviously and so purely to be climatic in its origin. The fortnight was preceded by a week of low temperature, and itself showed an average temperature of only 32°, while almost without intermission there prevailed a dense fog. In no former period is there any record of such a rapid rise in the pulmonary mortality as this, from a rate of 6 per 1000 to one of 12 per 1000. From the mortality tables of the city of Glasgow for the quarter ending September 30th, it appears that of the twenty-four statistical sub-divisions into which the city is divided, those which show the five lowest death-rates are—Kelvinhaugh and Saundyford, 11; Woodside, 13; Blythswood, 15; Exchange, 15; and St. Enoch Square, 15. Those which show the five highest death-rates are—St. Andrew's Square, 31; Bridge Square and Wynds, 29; High Street and Closes (West), 27; Calton proper, 24; and Gorbals, 24.

FEMALE INFIRMARY MANAGERS.

A petition is being signed in Edinburgh to two ladies, asking them to allow themselves to be nominated as managers of the Royal Infirmary, Edinburgh, at the approaching election in January, by the Court of contributors. The petition states that, as nearly one-half of the patients are female and the nursing-staff entirely so, the petitioners think it right there should be some female managers.

DESTITUTE SICK SOCIETY, EDINBURGH.

The annual meeting of the Destitute Sick Society was held in the Saloon of the Royal Hotel, Edinburgh, on December 19th. There was a good attendance. From the report, it appears that, owing to the increase of destitution, the funds spent exceeded the income by £674, the expenditure having been £2,880 and the income £2,205. The deficiency had been met by the sale of some stock, a proceeding which the managers thought justified by the exceptional circumstances of the year. There had been a satisfactory increase of subscriptions, donations, and legacies during the year. Incidentally it was mentioned, by one of the speakers at the meeting, that the Society has spent on the destitute sick since it was inaugurated £116,313 11s. 6d. This, distributed in the judicious way adopted by the Society, must have done incalculable good.

CURIOUS CASE OF SUDDEN DEATH.

Last week, a case of sudden death, which is curious from its surroundings rather than its cause, occurred in Edinburgh. On Tuesday, a man was found kneeling (dead), and with his back against the wall of the gallery staircase of the Theatre-Royal, Edinburgh (just after the severest part of the crush of the opening pantomime week). No injury was apparent externally. When found, his pockets had been rifled. The body was removed to the Royal Infirmary, and, on *post mortem* examination, death was found to have been due to rupture of an aortic aneurism.

UNIVERSITY OF ST. ANDREW'S.

After a contest, which has been signalised by its keen character, Dr. B. W. Richardson has been re-elected Assessor of the University Council of St. Andrew's by a majority of 61 votes; the numbers being for Dr. W. B. Carpenter 481, for Dr. Richardson 542. This will be Dr. Richardson's third term of office as Assessor.

MONTROSE LUNATIC ASYLUM.

In the annual report of the Royal Lunatic Asylum, Montrose, for 1879, it is stated that, during the year, there have been 573 patients under treatment, of whom 254 were men and 319 women. The average numbers resident daily were 207 men and 248 women, being 14 higher than in the previous year. There were 48 recoveries and 42 deaths, while 14 were relieved and 14 were not improved of those removed from the register. Of new admissions, two-thirds were considered as possibly curable, the remaining third being considered incurable; while one-third were in good health, one-third in indifferent health, and one-third in bad health. Nine were epileptic, four had general paralysis, and eight had cardiac disease. Seven of them were between seventy and eighty years of age and two between eighty and ninety. A much larger proportion of cases had been sent from Shetland and a much smaller proportion from the county of Kincardine than previously. The percentage of recoveries on the admissions during the year was 38.4. This percentage, of course, varies much, according to the nature of the cases admitted: thus, in 1874-75, it was as low as 23; while in 1875-76, it rose to 57. Of 4,471 admitted since the opening of the asylum, 35 per cent. have been discharged recovered. Owing to the inclement weather, diseases of the respiratory organs were common, as many as 13 cases of pneumonia having occurred. Important changes in the sanitary system of the institution have been carried out at considerable expense. The reports of the Commissioners in Lunacy, Drs. Sibbald and Arthur Mitchell, who visited the asylum, are satisfactory. The revenue for the year was £18,359 15s. 9d., and the expenditure £16,351 0s. 5d.

KIRKWALL MEDICAL OFFICER.

IT may be remembered that, in the JOURNAL some weeks ago, we referred to the action of the local authorities, in appointing the Rev. Daniel McNeill Medical Officer of Health for Holm, when, among other qualifications for the office, it was stated that he would do the work for half of the pay given to the previous medical officer, Dr. Bruce. The Board of Supervision has since then, in a letter, pointed out "that it was illegal to supersede the old medical officer without six weeks' notice". At a meeting of the Parochial Board, one of Mr. McNeill's supporters denied having ever stated that Mr. McNeill would do the work for half the pay. There was a lively discussion, which is said to have also been bitter, but the result was the reappointment of Dr. Bruce, of Kirkwall, as medical officer.

DRAINAGE OF MUTHILL.

MUTHILL, in Perthshire, which has recently had introduced into it a supply of pure water, is to be further improved by the introduction of a thorough drainage system. The sewage will be disposed of in the Wood of Muthill. Towards the expenses of the scheme, the Baroness Willoughby d'Eresby has subscribed £100.

ROYAL INFIRMARY, EDINBURGH.

THE excellent system of giving entertainments to the inmates of the Edinburgh Infirmary, during the Christmas season, is growing yearly. During the past week, there have been in various wards special "dinners" and "teas" provided for the patients by various of the physicians, surgeons, and kindly outsiders; while there have been several ward concerts, one of these (held in Dr. Brakenridge's ward) was of a high class, the "Messiah" being creditably rendered.. In other wards, again, suitable articles of clothing are distributed.

HEALTH OF EDINBURGH, GLASGOW, AND LEITH.

THE mortality in Edinburgh last week fell to 21 per 1,000. Of 91 deaths, 35 were due to diseases of the respiratory organs; there were 8 deaths from zymotic diseases, of which 6 occurred in the Old Town. In Glasgow, the death-rate was 27 per 1,000, compared with 31 the preceding week and 36 during the same week last year. In Leith, the mortality was 21 per 1,000.

A KITCHEN CONCERT.

WHAT may now be looked upon as a time-honoured institution is the Kitchen Concert, given by the resident physicians and surgeons in the Edinburgh Royal Infirmary to their clerks, dressers, students, and friends, usually on the night preceding the Christmas holidays. One of the most successful of these (known, for brevity's sake, as a "K. C.") was held on Friday, December 19th, in the spacious kitchen of the new buildings, which was comfortably seated and a platform raised in it for the performers. Many of the lecturers were present, and about three hundred students. The concert consisted of solos, duets, and quartettes by various singers; solos on the violin, violoncello, and zitther. The *pièce de resistance*, however, at the "K. C". is the "Kinder Sinfonie", in which all the students take part with mimic instruments, and this was most successfully rendered. Professor Rutherford and Dr. Gillespie (consulting-surgeon to the hospital) were among the singers; the other performers being residents and students. A feature of previous "K.C.s" is now more honoured in the breach than in the observance; and that was the providing beer for the audience. The abolition of this custom is, we think, advantageous. Smoking, however, is freely indulged in, and the Kitchen Concert forms one of the pleasantest features of the winter session.

IRELAND.

HEALTH OF IRISH TOWNS.

FOR the week ending December 20th, the annual rate of mortality was unusually high in several of the larger towns in Ireland. For example, in Belfast, it was 40; in Cork and Galway, 45 each; and in Londonderry, 34 per 1,000 inhabitants respectively.

THE THRONE CONVALESCENT HOME AND CHILDREN'S HOSPITAL, BELFAST.

THE Children's Hospital and Convalescent Home, at the Throne (Antrim Road), Belfast, and which are in connection with the Belfast Royal Hospital, have proved very efficient helps to the working of the hospital since they became the property of the Board of Management. In the Convalescent Home, accommodation is provided for sixty patients, while the Children's Hospital is capable of receiving thirty-two patients. A Christmas-tree was presented to the latter institution by the ladies' committee last Monday, the gifts which it contained being distributed among the inmates.

DR. EVORY KENNEDY, D.L.

HIS Grace the Lord-Lieutenant of Ireland has been pleased to appoint Dr. Evory Kennedy, ex-master of the Rotunda Lying-in Hospital, a Deputy-Lieutenant for the county of Dublin. Dr. Kennedy retired from practice some years ago, and now resides in the neighbourhood of Dublin. He is an ex-President of the King and Queen's College of Physicians, and the founder of the Dublin Obstetrical Society.

HEALTH OF DUBLIN.

THE deaths registered in Dublin during the week ending December 20th, 1879, represented an annual mortality of 48.9 in every 1,000 of the population. This alarmingly high death-rate was mainly due to the number of deaths (98) resulting from diseases of the respiratory organs, which were more than double the average number for the fifty-first week of the ten years 1869-1878. The mean temperature was 2.4° under the average for the corresponding week of the same period of time. The number of deaths from zymotic diseases were also much over the average number for the fifty-first week of the last ten years; the deaths from measles (16) being more numerous than in any other week of the current year. The number of deaths (7) from whooping-cough was the highest weekly number from that disease registered this year.

HEALTH OF CORK.

DR. JOHN WALL, Medical Superintendent Officer of Health for Cork, in his report for the four weeks ending December 6th, states that the total number of registered deaths in that town amounted to 199; of which 51 were due to infectious diseases, whilst 181 births took place. The annual death-rate per 1000 inhabitants was equal to a ratio of 30.28 from diseases from every source; 8.48 from infectious maladies; 2.43 infant mortality; and a birth-rate of 29.92. Dr. Wall refers to the decided increase in the rates of the urban mortality; but he believes this to be entirely attributable to the prevalence of measles and scarlatina, which, as may naturally be expected, have materially added to the number of deaths due to infectious diseases. If, therefore, this item be set aside, the death-rate in the city from general diseases for the period referred to will amount only to 19.17 per 1000 of the population. He considers that the epidemic seems somewhat on the decline, and that there is every reason for hoping it may not be of much longer duration.

PRESENTATION.—Surgeon-Major Richard Allen, of the 3rd Royal Lancashire Militia, has been presented with a silver goblet by the members of the staff, inscribed "Surgeon-Major R. Allen, 3rd L.R.M., from the staff, in recognition of attention and kindness bestowed. Preston, December 1879".

UGGESTIONS CONCERNING THE SCIENTIFIC WORK OF THE ASSOCIATION.

NDER this head, Dr. Mahomed has forwarded to us a somewhat ng but very interesting communication, for which we bespeak ention. The project is not novel, as it has been tried more than ce by the Association and by some Branches with very little success; t we are induced to think that the growth of scientific habit, d the great extension of the number of medical men now addressed the JOURNAL, afford at once a basis of larger expectation of success, d a more ready means of bringing his plans under notice by schedules the JOURNAL, which would now reach pretty nearly the whole work- profession in Great Britain, as there are very few active members of profession in any corner of Great Britain or its colonies who are not w readers of the BRITISH MEDICAL JOURNAL.

After a short historical introduction, and exhortation to utilise the sociation for combined professional work, which we venture to pass er, Dr. Mahomed continues:—What, then, are the proposals which y be offered as means whereby to utilise this great organisation for advancement of the very best ends of the profession? They are, oadly speaking, designs to utilise the great bulk of the profession in thering investigations which can only be made by their aid.

There are certain questions which individual workers can never swer by their own unassisted efforts, simply because the experience any one man is not of itself sufficient upon which to found an answer; ile the recorded observations by others are of no avail to him, cause they have not been made with the purpose in view for which may require them; they do not, therefore, contain the necessary terial. Again, "general observations" made by any individual not usually accepted as correct, because they may depend on special idiosyncrasies of him who makes them; they often are not olly impartial, but receive a certain colour from the mind of the server.

There is still another circumstance which militates against the com- teness of our present system of investigations in medicine; they are de almost entirely by those connected with our large hospitals, who working as consultants and not as general practitioners. The previous tory of our cases, and frequently their subsequent history, is but too le known; while such circumstances—involving the personal element the history of disease—as the mode of life, home-surroundings, a owledge of the family of the patient, and its medical history, are too le studied. The facts connected with these matters can only be plied by the general practitioner; he could write for us, if he would, ny chapters in medicine which have never yet been written, and of ich the bulk of us must remain ignorant till, in the decline of life, er long watching, each begins to have shadowy and uncertain notions, ich he forms for himself out of his own limited experience, but never ntures to put together or record as facts.

There are questions which come before us every day, apparently of simplest nature, yet which no man appears able, from his own ividual experience, to answer to anybody's satisfaction; but which uld apparently readily be solved if a single year's experience of the mbers of the Association, or of a large proportion of them, could be ained. Any number of such questions as these could readily be gested, such as—Is a common cold contagious? Given that it may se from causes other than contagion, has such a catarrh the power propagating its like to others by means of contagion? If so, what is period of incubation? what wide issues in pathology are in- ved in such apparently simple questions as these! Can whooping- ugh, measles, chicken-pox, and scarlatina, be conveyed by a third rson? How long is a person who has suffered from either liable to ivey contagion to others? What are the mildest forms in which scarla- a, diphtheria, enteric and typhus fever, may manifest themselves in a son, and yet be able to produce their like or the more severe disease others? Do the specific fevers always breed true, or have we any orids? What, if any, are the connections between diphtheria, erysi- as, puerperal fever, and perhaps scarlatina and pelvic cellulitis? hat is the connection between chorea and rheumatism; are they eparable? What are the connections, if any, between gonorrhœa, latina, and rheumatism? Is there such a disease as rheumatic ritis, and what is its connection with rheumatism and with gout pectively? What constitutional conditions are found associated with ain forms of skin-disease?

ll these, and many other such, are constantly occurring to the mind he practitioner, and upon all of them extensive general experience alone can throw light. The Council or a Committee of the Association might take in hand such questions as these; draw up a carefully guarded set of queries with regard to any one of them, asking only for facts and not for opinions; such queries might be placed by the Council of each Branch before its members, who should be encouraged in various ways to take interest in them at their meetings, and each one to contribute some few facts and cases from his own personal knowledge; these facts and observations would first be subject to local criticism, and then to that of the Committee directing the investigations. The result would be of the greatest value, and we should speedily obtain answers to various much disputed questions. Not only this, but a deeper scientific interest would be diffused throughout the profession in their work; small and apparently trivial facts would now become worthy of their observation, and many acute and thoughtful observers, whose observations are now wasted from want of time to collect and publish them, would thus be stimulated to preserve and record them. It would by such means be brought home to each man that he owed a duty to medicine as a science, which he was bound in honour to render in return for the privilege of using her as a trade.

That these remarks may have a practical result, one may venture to suggest what would appear to be a most profitable inquiry. The subject of temperaments and their relation to diatheses is one of the most warmly debated, the most commonly talked about, and the least scientifically established, of any with which we have to do, while at the same time it is perhaps the most important. The fact that such influences as race, hereditary taints, climate, mode of life, nature of food, and some other considerations, affect the mental and physical development of individuals, few surely can be found to deny. But, on the other hand, physical and mental development have much to say as to the class of diseases to which the individual is liable. If it so happen that several generations are subject to similar conditions, the modifications thus induced will be still more strongly marked, and so it comes that we have certain types formed, which are then called temperaments, and these again are thought to be associated with certain forms of disease, and persons are then said to be subjects of certain diatheses. Such views as these are consonant with all the most advanced teachings of science as to the origin of species, the differentiation of cells, and the transmission of hereditary tendencies. It is, nevertheless, true that many of our most distinguished physicians deny entirely the truth of the doctrine of temperaments, and stigmatise it as a gross superstition transmitted from the darkest ages. The facts, however, which were then affirmed, appear now to be none the less true, though the theories which sought to account for the facts observed have been long since exploded. Human beings cannot be regarded as masses of undifferentiated protoplasm, which, when subjected to certain conditions, will yield always the same phenomena; if they will do so, why will exposure to the same exciting cause produce in any group of persons such various results; in one, rheumatism; in another, lung-affection; in another, kidney-disease; in others, catarrh of the Schneiderian or of the gastro-intestinal mucous membrane? This question is too well known to need further remark here, more especially when far weightier evidence can be adduced from the highest authorities in its favour. The chief writer on the subject in modern times has been the late Professor Laycock ("The Physiognomical Diagnosis of Disease", *Medical Times and Gazette*, 1862), and his valuable teachings have perhaps never received the attention they merited; he quotes, in support of his doctrine, Dr. Rutherford, the first clinical teacher in the University of Edinburgh, who, in his opening lecture in 1748, speaks thus:—"'Tis evident the same diseases in different persons will produce different effects and symptoms, and require different modes of cure. From this reasoning and practice, he may be called a rational practitioner and physician." But he adds, "An empiric undertakes the cure of diseases in a much easier manner. He despises all learning, and practises by rote, and does not adapt the remedies to the nature of the disorder. He takes all his intelligence from their names, barely asking whether 'tis a fever, colic, etc., and, without considering the constitution of the patient and other circumstances, he gives medicine which he only imagines to be good in such and such disorders."

Of all that has been written on this subject, nothing perhaps is so philosophical and convincing as a paper on "Temperaments" by Dr. Wilks, in the *Guy's Hospital Reports* for 1868. He strongly confirms the observations of Professor Laycock, and insists upon the great practical value of this doctrine. Dr. Wilks indicates the future of medicine in the following prophetic words. "I do not pretend in these few pages to do more than insist upon the importance of the recognition of the temperaments, with the practical object of being able to arrest the peculiar tendencies to disease which each may present; for at the present time, when the medical man is tending to become the custodian of the public health, he has some other duty to perform than to recognise the existence of disease; he is obliged to seek for its causes, and study the means of counteracting it. As the adviser of a family, and acquainted with all the peculiarities of its members, his profession has become one which is rather a study of mankind; he should be a physiologist in the largest and profoundest sense, including in the term physiognomist and phrenologist or psychologist."

If further evidence be required, it may be taken from the physiologists; such men will hardly be thought to be carried away by mere fancies, which have no scientific basis. Dr. Burdon Sanderson speaks as follows: "The doctrine of temperaments will, I confidently believe, be revived as soon as our newly born physiological pathology has developed to something like maturity; for it has been lost sight of, not because the ancients were wrong in imagining that different individuals had different temperaments, but because we are so in the habit of insisting on exactness of definition that we cannot content ourselves with the old generalities." (*Handbook of the Sphygmograph*, 1867.) Whether this time has yet fully come may perhaps be open to question; but, without waiting longer for further refinements, we still have the broad lines of our fathers to travel on, and we certainly have a better knowledge of the pathological conditions which they were supposed to indicate.

It is not necessary to quote more to support an appeal to the Association to devote its attention to the matter. Evidence may then be accumulated which will either place it on a firm foundation of well ascertained fact, or will once and for all destroy it. The plan which would appear likely to afford reliable results would be to appoint a committee, who would formulate and issue a set of queries, which might be answered by members at their leisure. They should request observations to be made, either on families who have a distinct hereditary tendency to disease or else on persons taken indiscriminately among their patients, whose family history is well known and can be accurately recorded. The observations should be confined entirely to matters of fact, and should in no case record opinions; they should chiefly consist in a careful description of the individual, which might be framed on some such model as the following, which is intended to suggest the points to be observed in an accurate description of a person, apart from the symptoms of disease. No doubt this might be much modified or improved upon; it is only intended as a temporary suggestion, indicating the lines by which we appear likely to arrive at the desired result.

Name; age; height; weight.

Cranium.—General conformation of head, long, round, square, broad, narrow, high, or low. If possible, 1. Greatest circumference measurements, such as: 2. Distance from one external auditory meatus to the other across the bridge of the nose; 3. Ditto, across occipital protuberance; 4. Ditto, across vertex.

Forehead.—Prominent, retreating, broad, narrow, high, low, or square.

Face.—General conformation—oval, round, square, long, or broad; Malar bones prominent. Lower jaw small or large; angle square or obtuse. Chin square, pointed, or rounded. Surface shrivelled, thin or fat, wrinkled or smooth, growth of hair upon it.

Eyes.—Colour. Prominent or deep set, widely apart or close. Pupils large or small, active or sluggish. Sclerotic pearly, blue, white, or tinged. Conjunctivæ vascular, œdematous, subconjunctival fat. Arcus senilis. Lower eyelid œdematous or discoloured.

Nose.—Aquiline, Grecian, straight, hooked, snubbed, thick or thin; alæ nasi compressed or dilated.

Mouth.—Lips thick, thin, straight, or curved; short or long upper lip; angle straight, or curved up or down.

Ear.—Large or small. Lobule large, small, thick, absent, or confluent. Pinna large, small, flattened, or expanded.

Neck.—Thick, thin, long or short.

Chest.—Shape—long, deep or broad. Rickety. Shoulders high, square, or sloping. Curvature of spine.

Limbs.—Small or large; long and delicate or short and strong. Rickety. Muscles firm or relaxed.

Fingers.—Short or long, broad or narrow. Nails oval, long, short, thick, or clubbed.

Skin.—Thick or thin; smooth, velvety, rough, or harsh; dry, moist, or greasy; fair or dark; hairy or hairless; vascular or bloodless; enlarged sebaceous glands; acne; dilated capillaries on cheeks or nose; Subcutaneous fat.

Hair.—Colour (by test-types). Thick or thin; coarse or fine; stubborn, straight, curly, or lank.

Teeth.—Thick and large or small and delicate; irregular, deformed, carious, or ground-down. Horse, rabbit, or buck teeth.

Signs of rickets or congenital syphilis.

To these observations might be added, if possible, sphygmographic tracings, vital capacity estimated by the spirometer, muscular strength tested by the dynamometer, and length of sight by test-types. It might be found possible to preserve such records as these permanently, and subsequently to add some notes of the medical life of the individual. A system of permanent medical supervision might in this way be established and encouraged, which would prove of the greatest possible value to scientific medicine, while it would also be of very great importance to the patient. An individual who has once been recorded might be furnished with a card bearing a number, by means of which a reference could be made to the record of his past medical history; or he might be a carefully filled up "medical sheet". In this way, a scientific "registration of disease" might be set on foot, which would ultimately prove a most obvious benefit to the community. Such a scheme as this would, of course, require many years to elaborate; the suggestion is only thrown out to indicate the direction in which such a movement as that now proposed for the acceptance of the Association, may ultimately lead; surely it is well worth the consideration of its members, and it may be hoped that those who go thus far will also be persuaded to lend their assistance.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE LEICESTER UNITED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.

An advertisement in the *Leicester Daily Mercury* informs us that Mr. A. Grandison, M.B., of Dover, has been appointed Resident Medical Officer to the above Association, having consented to sign the agreement which Mr. Cope refused to accept. The same advertisement goes on to give an account of a "pleasing testimonial" which Mr. Grandison has received, in the shape of a valuable gold clock, as a parting gift from the officers of the Dover Union Workhouse. We trust he will have no reason to regret changing his masters.

SELF-SUPPORTING HOSPITALS AND DISPENSARIES.

Sir,—The scheme proposed by Mr. Burdett for self-supporting hospitals and dispensaries would secure the two main points that we have to aim at, namely, (1) good medical advice and treatment for the working classes on terms which they can afford; and (2) the reasonable remuneration of the medical men. So far it is excellent. But I doubt whether it is wise to start by assuming that there must always be an honorary fund made up of donations and annual subscriptions. We ought to try to devise a system which shall be wholly self-supporting. With this view, I would be inclined to make an alteration in the charges proposed by Mr. Burdett. Supposing that each in-patient costs twenty shillings a-week, I would charge the provident members fifteen shillings a-week for in-patient treatment, in addition, of course, to their regular provident payments; and I would charge those who were not members of the provident dispensary twenty-five shillings a-week. Provident members would, while they were in-patients, be under the care of the medical officer of the institution; other patients would, while they were in the wards, be visited by their own medical men and be charged ordinary fees. Thus the current expenses of the in-patient department would be met without an honorary fund, the profit upon the one class balancing the loss upon the other.

In our efforts to establish provident hospitals, with their affiliated provident dispensaries, we must look to the public for assistance in defraying the preliminary expenses. But, when these are met, we ought, I think, as far as possible, to raise the institutions above the need of voluntary contributions.

It is, I believe, upon some such principles as I have indicated, that the Battersea Provident and Self-supporting Hospital at Bolingbroke House, Wandsworth Common, is shortly to be opened.—Yours faithfully,

W. Fairlie Clarke.

Southborough, December 1st, 1879.

M. B. A. A.—It is quite customary for medical men, who have private medical clubs or provident dispensaries, to have a code of rules printed for the information of members, or of those who are thinking of becoming members. These rules may be printed either on a separate sheet or on the card of membership. They should set forth the object of the club, the class of persons for whom it is intended, the scale of charges, the extras not included under the terms for ordinary attendance, the hours when the medical man receives such patients at his own house, the limits with regard to distance, and so forth. There is nothing unbecoming in having such a set of rules printed, or in circulating them wherever they are likely to be beneficial to the industrial class.

SPECIAL CORRESPONDENCE.

ROME.

[FROM OUR OWN CORRESPONDENT.]

The Cold in Italy.—Pellagra.

THE cold of the early part of December, which was so severe all over Northern Europe, did not spare Italy. There has been skating on the Arno at Florence; many of the canals, and even parts of the lagunes at Venice, have been frozen over, and the Po, too, was covered with ice. Between Naples and Foggia, the railway was blocked with snow to the depth of a *mètre* and a half, and even here the fountains were covered for days with heavy pendent icicles. Several deaths from the cold even are reported; a sentry having been frozen to death at Florence, and a cabman at Genoa. Probably, most of the inhabitants of our islands have very little idea how severe the cold can sometimes be in Italy. The wards of the hospitals are filled with cases of acute pulmonary complaints, cold weather here having quite as much, if not more, effect than in England in raising the death-rate from inflammatory affections of the lungs. The poorer classes have no protection in their houses against cold, no fires to warm themselves at, and not enough warm clothing or good food to prevent loss of vital heat. Hence every winter about this time the returns of deaths from pneumonia, pleurisy, and bronchitis are very heavy. The lowest readings of the thermometer have been reported from Rovigo and Modena, where they were 15.5° and 15° respectively below zero centigrade. The only important places where it did not freeze were Reggio in Calabria, Palermo, and Syracuse. The highest readings at Palermo and Reggio were 22° and 23° above zero centigrade. In the first ten days of the month, the lowest reading at Rome was -3°, the highest +16° (C.); at Naples, -2.2° and +15.8° (C.); at Florence, -6.3° and +14° (C.); at Pisa, -8° and +16° (C.); at Turin, -13.8° and +6.2° (C.); at Milan, -12° and +2.4° (C.); and at Genoa, -4.8° and +13° (C.). Such figures are an eloquent proof of the severity of the cold.

The results of an inquiry into pellagra in Italy, instituted by the Ministry of Trade and Agriculture, are at present in the hands of the printers. The report will be a very important one, as it is almost exhaustive of the subject. As a preliminary, it is stated that there are 97,179 persons affected with this very fatal disease in Italy, thus distributed: Piedmont, 1,692; Lombardy, 40,716; Venetia, 29,296; Liguria, 148; Æmilia, 18,741; The Marches and Umbria, 2,127; Tuscany, 4,383; Latium, 76. South of Rome, there are no cases.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 14th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, December 19th, 1879.

DUBLIN BRANCH.

THE third annual general meeting of this Branch will be held in the Hall of the King and Queen's College of Physicians in Ireland, Kildare Street, on Thursday, January 29th, 1880, at 4 P.M.: Dr. GORDON, President of the Branch, will deliver an address; and the Officers and Council for the ensuing year be elected.

By the kind permission also of the President and Fellows, the annual dinner will be at the College of Physicians at 7 P.M. on the day of the meeting; the incoming President of the Branch, Dr. ROBERT MCDONNELL, F.R.S., in the Chair.

GEORGE F. DUFFEY, M.D., *Honorary Secretary.*

30, Fitzwilliam Place, Dublin, January 2nd, 1880.

BATH AND BRISTOL BRANCH.

THE third ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, January 22nd, at 7.15 P.M.; J. BEDDOE, M.D., President, in the Chair.

R. S. FOWLER,
E. C. BOARD, } *Honorary Secretaries.*

Bath, January 1st, 1880.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE fourth meeting of the Session will be held in the Examination Hall of the Queen's College on Thursday, the 8th instant. The Chair will be taken by the President, Dr. JOHNSTON, at three o'clock P.M.

The following papers are promised.

1. Mr. Lawson Tait: A second series of Fifty Cases of Ovariotomy. A series of Fifty Cases of Abdominal Section for various purposes.
2. Dr. Warden: Case of Contraction of Hands and Fingers: operation and after-treatment by a new apparatus.

Members are invited to exhibit Patients, Pathological Specimens, New Drugs, Instruments or Appliances, at the commencement of the meeting.

E. MALINS, M.D.,
E. RICKARDS, M.B., } *Honorary Secretaries.*

January 1st, 1879.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE second meeting of the present session was held on November 13th at Owens College. The chair was taken by the President, Dr. JAMES JOHNSTON; and there were present forty-three members.

New Members.—The following were elected members of the Branch: Mr. S. B. Fairley, Dr. B. C. Powell, Dr. R. M. Simon.

Council of Branch.—Mr. H. R. Ker and Dr. J. Holmes Joy were nominated to fill the vacancy in the county list of members of the council.

Papers.—The following papers were read.

1. Mr. GAMGEE presented a woman aged 61, from the left side of whose Neck he had removed a large Lipoma last September. The apex of the lung, the brachial plexus, the subclavian and carotid arteries, were exposed during the operation. Under unfrequent and absorbent dressings, perfect rest, and equable pressure, recovery had been unchecked by a single unkind symptom. At the end of a week, the patient left her bed, with a normal temperature. The solid cicatrix measured seven and a half inches in length.

2. Mr. TAIT showed a specimen of Hydatids taken from the Peritoneal Cavity, upon which Dr. SAUNDBY made some remarks.

3. Dr. J. W. HUNT read a paper on the Causes of Sudden Death. He described them as occurring either from asthenia or from anæmia. Under asthenia, came the different forms of degeneration of the cardiac walls, dilatation, valvular disease, etc.; while under anæmia were cases of death from loss of blood in its various forms. Sudden death might commence at the lungs—apnœa—when the air was prevented from entering the air-cells, as in certain cases of hæmoptysis, entrance of foreign bodies into the trachea, or spasm of the glottis; or, on the other hand, when the supply of blood to the lungs was cut off by thrombosis or embolism of the pulmonary artery. Diseases of the brain which caused sudden death did so by producing one of the preceding conditions, by interfering either with the circulation or with the respiration. Hæmorrhage was almost the only cause of really sudden death coming under this division, and even that was rare.

4. Mr. BARTLEET read a paper on a case of Femoral Aneurism, in which the common femoral was ligatured, and subsequently the external iliac for secondary hæmorrhage.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEETINGS.

A MEETING of the above District was held at the Bear Hotel, Lewes, on Friday, November 19th, 1879; R. TURNER, Esq., in the Chair. Seventeen members and visitors were present.

Communications.—1. Dr. ROBERTS of Eastbourne related a case of Consolidation of the Lung, which quite cleared up after eight or nine years' duration.

2. Dr. TREUTLER of Fletching gave the history of a recent outbreak of Scarlatina in that village, many cases of which presented very anomalous symptoms and more nearly resembled German measles. One case was followed by acute jaundice.

3. Dr. MACKEY related a case of Rodent Cancer of the Os Uteri. Amputation of the cervix and injection of bromine failed to arrest the disease. Much benefit was gained by the application of liquor ferri perchloridi in glycerine, and by iron injections and the use of ergotin hypodermically.

The Next Meeting will be held at Brighton, in March; Mr. J. Jardine Murray to be invited to take the chair.

The Dinner took place at the hotel, nineteen being present. Mr. R. Turner presided.

CORRESPONDENCE.

ANTISEPTIC SURGERY AND ITS STATISTICS.

SIR,—I should be glad to make my own position in regard to the question of antiseptic surgery a little plainer than I was able to do in the few hurried remarks, which were all that the rules of the debate at St. Thomas's Hospital the other night permitted, and which were in the report unintelligible; not because my individual opinion is a matter of any consequence, but because it seems to me to be that of many of my colleagues in London and elsewhere; and because, if the theoretical difficulties which prevent us from accepting the germ-theory were cleared away, our practice would no doubt gain in definiteness, and very probably in success. I said in the debate that I should be most willing to believe in the germ-theory, if anything which deserved to be called proof were available; and Mr. Lister, in reply, referred me (as far as I understood, for I only imperfectly caught his words, and they seem not to have formed part of his speech as reported) to some experiments on the putrefaction of animal fluids, and the prevention of such putrefaction by filtration, or by mixing the air with carbolic vapour. But such experiments do not appear to be convincing. Allowing all the force which can be claimed for them, they only show that, in dead matter, putrefaction can be thus prevented. They do not show that it can be so in living tissues, still less that putrefaction can only be caused by atmospheric germs. Now, it appears to me that we already know the reverse of the latter proposition. We see, not very uncommonly, unhealthy actions leading to pyæmia and to fatal destructive changes in internal organs in cases where the atmosphere has had no access in the commencement of the affection—as, for instance, in acute periosteal abscess. Mr. Macnamara, in the course of the debate, classed such cases as septicæmia, and asserted that pyæmia was only met with in cases where the air had had access; but I confess that I could not follow his reasoning, nor do I see how the distinction, if real, would affect the argument. I hold it, therefore, as admitted that active degenerative dangers leading to the total disorganisation of a part, and perhaps to death, may take place without any access of the air and its germs; and, in some of these cases, gangrene follows, and putrefaction has reached its highest limit before the mischief is exposed to the air.

Then, again, the results of simpler treatment, and especially of what is called the "open method", render it very difficult to accept the germ-theory. If it were true that the atmosphere is laden with these deadly germs, ought not the results of exposing a wound to the air to be not only somewhat worse, but absolutely different in kind from those of the antiseptic method? And are they so? Mr. T. Smith said that, in order to judge of the effects of antiseptic surgery, you should go, not to the well-ordered and healthy hospitals of this city, but to the neglected and foul places which disgrace the medical arrangements of the continent. It was against such a doctrine as this that I tried to raise my feeble and apparently quite ineffectual protest. Hospitals, as we know from ample experience here, can be made perfectly healthy and fit places for the treatment of all kinds of ailments, not by any special system of dressing wounds, for that can necessarily only affect the wounded, who are a minority of the population of an ordinary hospital, nor by any system of fumigation in order to neutralise the foulness of the hospital air, but by strict cleanliness and ventilation, by preventing the air from becoming foul. This can be done as easily in Germany as in England; and, if we wish to judge of the results of the antiseptic method, we must compare them with the best, not with the worst, results of what, for the sake of a name, I will call the simple method of treatment. That this method will involve the use of antiseptics to a greater or less extent, according to the surgeon's judgment, I never denied; nor have I ever failed to confess the great services which Mr. Lister has rendered as the chief teacher of antiseptic surgery. I went to Edinburgh, many years ago, for the sole purpose of studying Mr. Lister's practice, and have ever since used antiseptics in some form or other, though not in all cases. And I may say that, on looking over the results of my hospital practice, they appear to me to be as good as those claimed for Mr. Lister's method; and for this success I am always glad to own myself in a large measure indebted to Mr. Lister's teaching. But no one ever disputed the value of antiseptics as such; the only question is as to the relative value of Mr. Lister's method of using them, founded on the germ-theory. Surgeons like Mr. Spence, who contest Mr. Lister's principles, yet also contend with him for priority in the use of carbolic acid and other antiseptics. The method of Lister has its inconveniences and drawbacks, as the speakers in the adjourned debate (Mr. Wood, Mr. Hutchinson, Mr. Baker, and others) pointed out. The question for us to solve is, whether these drawbacks are compensated by any proud superiority in principle. A physical proof of the germ-theory as applied to living tissues would settle the question. Failing this, the results of experience, if really striking, might be accepted. But such results cannot be inferred from the mere death-rates with which we are constantly presented, and which are miscalled "statistics". I observe that Mr. Mac Cormac said that I spoke with contempt of his statistics. If I did so, I must crave pardon. I had to speak very hastily, under the constant dread of the President's sand-glass. But I really do think such death-rates quite useless. Mr. Mac Cormac's statistics presented, I think, the death-rates of a number of gunshot fractures of the thigh treated antiseptically, as compared with another number not so treated; but no word was said as to the circumstances of the patients in the two classes. To attempt to found any logical inference on data so vague as these is like building on the sand. We have had similar "statistics" produced in support of all sorts of doctrines which no one now believes; and notably to show the great difference supposed to exist between the results of hospital and private practice—a difference which we are told by Sir J. Paget (unquestionably the highest living authority on the subject) is imperceptible—let me instance, as an example of the extreme untrustworthiness of deductions made from death-rates, the statistics produced by Mr. Spencer Wells from his own practice. In November (speaking at the Royal Medical and Chirurgical Society), Mr. Wells told us that the death-rate of his latest cases before adopting antiseptic precautions, hospital and private (as I understood him), was about ten per cent. On December 3rd, he told us that he had re-examined his case-book, and selected only the cases in private practice; and that the mortality was twenty-one in eighty-four—twenty-five per cent. What would be the inference if we adopted this miscalled "statistical" method of reasoning? Clearly that hospital practice is so much safer than private practice, that Mr. Wells is bound to set up a hospital for his private patients. Such a conclusion is, I know, absurd, but not more so than the opposite inference which Sir J. Y. Simpson wanted to deduce from somewhat similar data. We have had such figures *usque ad nauseam.* What we now want is facts—*i.e.*, the comparison of a number of cases as nearly similar as possible, arranged under their leading details. Death or recovery is, of course, the most important of these details; but it has been shown to demonstration that a mere comparison of the number of deaths, if unaccompanied by a full explanation of their causes, is most misleading. And we want to know many other things besides; *e.g.*, as to the immunity claimed for the Listerian (as opposed to simple methods) from traumatic fever, from secondary complications, from prolonged suppuration; as to the relative quickness of the process of union, as to the relative necessity for frequent disturbance of the wound, as to any specific difference observed in the process of union, and so on. It was for some comparison of this sort, not for mere death-rates, that I had looked with interest to King's College Hospital, where (as I believed) Mr. Wood practised what he calls in his speech, reported in your issue for December 20th, "the simpler antiseptic method", while Mr. H. Smith was still following the treatment used by Sir W. Fergusson. I thought that, under these circumstances, with the ample resources for note-taking which a large hospital can always command, we might have hoped for a really valuable clinical comparison of the various methods. But I might have been wrong in my assumed facts. Anyhow, I am sorry to hear that my expectations will be disappointed, though I still fail to see why they are so.

The sum of the whole matter is this. There are, I believe, a very large number of practical surgeons who, like myself, are thoroughly convinced of the value of drainage and antiseptic dressings; and who, like myself, are glad to confess their obligations to Mr. Lister's teaching; but who are not convinced by the evidence which he has up to the present time produced of the relative superiority of his own method of applying them. Far, indeed, from being prejudiced against either the method or its author, we are warm friends and admirers of both, and only anxious to do the best we can for our patients. We believe that the Listerian treatment rests upon, and is inseparable from, the germ-theory. We see no proof of that theory in the reasoning hitherto adduced by Mr. Lister or by Professor Tyndall. Nor do we see any proof of it in the novel phenomena on which Mr. Lister rested his chief argument at the late discussion, since, whatever reception we give to such facts—if we allow them to be as absolutely unheard of, as Mr. Lister claims, yet they are only previously unobserved phenomena in the healthy process of union—they do not touch the question of the germ-theory. Still less can we allow that a question so difficult and so purely physical can be settled by a bare enumeration of death-rates. But real statistics, showing the normal progress of cases treated by the Listerian, by the simpler antiseptic, by the open method with drainage, and on other plans, if they showed a specific difference in the cases treated by the first method, would be of great importance towards a settlement of the question. If it be too much to hope that the surgeons of King's College Hospital will (as they certainly could) collect such data, may we not look for it from some other quarter?—Yours, etc., T. HOLMES.

18, Great Cumberland Place, December 26th, 1879.

STATISTICS OF THE GLASGOW INFIRMARY.

SIR,—My attention has been directed to a letter by Dr. Morton in your JOURNAL last week; and, as "the layman whose ignorance has already been exposed", and now charged with "using figures based on a false statement, and which I knew not to be correct", I must ask the favour of your allowing me to remark on a production couched in such unusual terms.

I repeat the statement originally made, and now quoted, by Dr. Morton, that "each surgeon has one day in succession, and receives every patient in that day as long as there is an empty bed in the wards under his charge". This has been our invariable practice during the sixteen years I have been connected with the hospital as Chairman of the House Committee.

The statistics referred to were made up by Dr. Thomas, the Superintendent, by order of the directors, as showing the results in wards where antiseptic treatment was practised, and where it was not. A copy was furnished each surgeon, and no objection was made, nor has any error been pointed out by Dr. Morton or any other surgeon up to the present time.

Burns are not included in these figures; and Dr. Morton knows quite well we have separate and distinct wards for all such cases. The Superintendent writes to me regarding this: "Burns were carefully excluded, for the very reason which Dr. Morton gives; besides, they are treated in separate wards, and the 'statistics' only refer to the cases treated in the ordinary wards of each surgeon." These statistics show that, while Dr. Morton treated in the four years 1,884 cases, and, excluding those which died within forty-eight hours, he had 110 deaths, a larger mortality every year than any other surgeon in the hospital. A colleague, in the same time, acting on antiseptic principles, treated 1,706 cases, and had only 50 deaths. The former, no doubt, puts through more cases than any other surgeon, but does not send them away cured in proportion.

I did not presume to separate cases where antiseptic treatment had been employed and where it had not; that is a professional question entirely; but Dr. Morton has the journals of the house at his command, and I have no fear of a different result. My information is that they are still more favourable to the antiseptic treatment.

As to the demand referred to by Dr. Morton, as made to the managers for inquiry, and to deal with me for using the figures at Amsterdam, the managers gave the following deliverance. "The meeting was of opinion that the chairman, in making the statement he did to the Congress at Amsterdam, only made use of the information afforded by the statistics of the house compiled by the officials, as contained in the records, and which had been communicated to the surgeons at the time of compilation, and that, in doing so, they did not consider that any injury had been done. The meeting also considered it desirable to afford Dr. Morton an opportunity of offering any explanation of the different results exhibited by these statistics." And I have now only to state that the "explanation" asked from Dr. Morton has not yet been given.

It was my intention to abstain from giving names; but, Dr. Morton having adopted the opposite course, he must now take the responsibility.—I am, your most obedient servant, WILLIAM MCEWEN.

St. Vincent Lane, Glasgow, December 29th, 1879.

SIR,—There are two statements made by my friend Dr. Morton in your last issue, on the subject of the statistics of surgical treatment in our infirmary, to which I desire to refer.

1. He states that "the numbers given refer to cases, nine-tenths of which had no antiseptic used in their treatment, as they did not admit of the use of such—a fact which will be at once admitted even by those who aver that they adopt the antiseptic system". This is a most extraordinary statement. It means that, in the fifty-six beds under my care, I never have more than five or six cases under antiseptic treatment at any given time, since no more "admit of the use of such". Those who know the character of the cases admitted to the wards of our infirmary will judge of the correctness of Dr. Morton's estimate. I may say, however, that to-day I find I have fifty-four patients under my care, of whom thirty (or nearly two-thirds of the whole) are treated with antiseptic dressings; while the remainder "do not admit of such", and include cases of simple fracture, lithotomy, hip-joint disease (without abscess), spinal curvature, fistula *in ano*, urethral stricture, hæmorrhoids, and cystitis.

2. Dr. Morton mentions as another fact which vitiates the statistics given, that "nearly all the burns under all the surgeons are treated by carbolic acid and oil". He surely knows that no burns whatever are treated either in his three wards or in those of any of his colleagues. They are placed, on admission, in two wards (male and female) specially set apart for the purpose. No case of burn can, therefore, have been included in the returns given and quoted in your pages. I am sure he must have made both of these statements without reflection.

In conclusion, I wish to make a request of Dr. Morton. He is anxious to make "a fair comparison, case against case of a similar kind". Will he permit the publication of his amputations (or his compound fractures, if he prefer it) during the last five years (1875-6-7-8-9), with details of sex, age, nature of disease or injury, complications, etc., and allow me to do the same for mine? In not one of his cases has the antiseptic system of treatment been employed, while it has been used in all of mine. In other respects, we are equally situated. The regulations affecting the admission of patients (Dr. Morton's statement apparently to the contrary notwithstanding) are precisely the same in both cases; our beds must be of nearly equal number, while the characters of the cases we are called upon to treat are in all respects similar. Dr. Morton will by this means have an opportunity of demonstrating, instead of merely asserting, that the antiseptic system of treatment "rests on a very frail foundation".—I am, sir, your obedient servant,

HECTOR C. CAMERON.

27, Elmbank Crescent, Glasgow, December 28th, 1879.

GUY'S HOSPITAL.

SIR,—The letter headed thus in your last issue shows how little a gentleman in the position of the writer is capable of understanding the wants of the nursing department of an institution like Guy's Hospital. Dr. Marriott would appear to object to the application of the term "matron" as applied to the office now filled by Miss Burt. It need only be said, in reply, that this is the title employed in the printed rules for the regulation of Guy's Hospital, a term (than which the staff desire no better) sanctioned by immemorial usage at this institution. We have already a superintendent (who is a medical man), in the well-known person of Dr. Steele; and the alteration of the term "matron" to that of "lady-superintendent" seems, therefore, inadvisable, as suggesting a clashing of her duties with his.

Whatever may have been the necessity for reformation in the nursing system at Leicester before Miss Burt's appointment, it does not follow that the same exists at Guy's Hospital. And the simple fact which Dr. Marriott's letter brings out, that in the former place the changes were effected "with the approval and co-operation of the staff", while in the latter institution they are being effected quite without the approval and co-operation of the staff, marks a difference not without significance. The "plan of having a lady in each large ward" is no new thing at Guy's Hospital; and the changes being introduced by Miss Burt are, in the unanimous opinion of the acting medical staff, certainly not likely to improve upon the previously existing system in this direction.

While it is true that improvements might have been grafted upon the old system in use at Guy's Hospital (principally in the direction of the better training of the night-nurses, and in the larger available supply of extra-trained nurses for attendance on important operations, such as tracheotomies or ovariotomies, or for any cases requiring special attention), it would appear self-evident that such improvements might have been effected without (within the first month of Miss Burt's appointment) causing the dismissal of five of the ward sisters (some of them the best sisters in the hospital), creating dissatisfaction amongst all the rest, causing the resignation of forty of the nurses (the services of many of the best of whom, though attempts were afterwards made to retain them, being, of course, lost to the institution, from their being instantly secured at other places)—in a word, exciting universal disaffection everywhere. Such changes, effected without a word of consultation with, or advice from, the acting medical staff of the hospital, more eloquently proclaim the character of the recent appointment, and the reason for the action of the staff in protesting, than anything I can say. They would appear to savour too much of the American fashion of universal change of officials after a contested presidential election.

The medical staff are of opinion that the main principles upon which the nursing system of Guy's Hospital is founded are correct, and best suited to the genius of the place; and they deprecate the forcible introduction of other systems, however efficiently they may have worked at King's College Hospital, Leicester Infirmary, or elsewhere, as being certainly inferior for their own institution to the one which has been elaborated by long usage and working experience. Under these circumstances, it would appear a pity that Miss Burt, whose services were so highly appreciated at Leicester, did not remain in that place.—I am, yours faithfully, A Member of the Staff.

Sir,—Dr. Marriott writes to you in a tone of surprise that the medical staff of Guy's Hospital is dissatisfied with so excellent a superintendent as Miss Burt. I have no reason to dispute the accuracy of the account which he gives of Miss Burt and her attendant ladies; nor do I for a moment doubt her "energy, skill, and administrative power in establishing a system of nursing"; but I should like to inform him that Guy's Hospital was not formed for the training of nurses, and therefore we do not want Miss Burt. Guy's Hospital is a very large charity, possessing not only medical and surgical wards, but special departments, over all of which no fewer than twenty medical officers have charge. Each ward stands, as it were, on its own merits or needs, so that peculiar qualifications are required amongst the sisters and nurses for their management; and, as regards the surgical wards, each surgeon has his own mode of dressing, requiring long-trained and skilled hands to assist him. All was working well, in harmony with these principles, when suddenly Miss Burt alights amongst us, and, without any premonitory symptoms, we find our nurses scattered about and our sisters leaving; for "how", said this skilled administrator, "could a nurse fully know her business if she were not changed every three months?" Numerous other derangements of a like kind have been startling us day by day, and soon, no doubt, the system will be complete. So perfect will it be, that I can compare it to nothing better than the toys of soldiers which children have, where one stroke of the hand puts them all in motion. Indeed, Miss Burt has, without doubt, a commanding mind, so that, now her merits are known through Dr. Marriott's letter, she will be sought for to rule a barrack or to become governor of a gaol. None of us dispute her merits; but uniformity is not applicable to an institution having so many interests as Guy's Hospital, for a round stick cannot be fitted into a square hole.

I am not sorry, however, that Dr. Marriott has addressed you, for he may assist us out of our present difficulty. It is clear that Miss Burt is much beloved at Leicester, as the testimonial to her signifies. Now, if her admiring friends will raise her salary to the amount which she is to receive at Guy's, the whole town will be ready to welcome her back with open arms, we shall wish her God-speed, and the governors will at last see their way out of the muddle.—Yours faithfully,

Another Member of the Staff.

Sir,—Dr. Marriott is, no doubt, unacquainted with the nursing arrangements at Guy's previously to Miss Burt's advent there; but I can inform him that, for many years, each ward has had the benefit of a lady's care and influence. Whatever the new superintendent has done elsewhere in reforming abuses, at Guy's her treatment of the efficient and valued sisters has not been marked by the tact, courtesy, or appreciation of long and faithful work which might have been expected. It is a matter of deep regret to all Guy's men that the hospital is, in consequence, about to lose the services of such a sister as "Cornelius", after fourteen years of devotion to her duties, which the testimonial about to be presented to her will prove.—I am, yours faithfully, G. A.

Tunbridge Wells.

DISTINCTION BETWEEN TYPHUS AND TYPHOID FEVERS.

Sir,—Having already admitted it to be unfortunate that the late Dr. Perry did not give more publicity to the results of his experience subsequently to 1836, I see no reason to withdraw the claim advanced in my last letter. I have the undisputed testimony of medical practitioners who studied in Glasgow Royal Infirmary prior to 1840, that they were quite familiar, from Dr. Perry's clinical instructions, with the specific distinctions between typhus and typhoid fevers, so that the alleged discovery as published by Dr. A. P. Stewart some years afterwards was not new to them.

I beg to tender my thanks to Dr. J. C. L. Carson, of Coleraine, Ireland, for his letter in the Journal of December 20th. It is quite an independent corroboration of the facts as stated by myself, and expresses concisely the opinion held by the medical men who were engaged in their studies before Dr. A. P. Stewart's publication, as well as that of the practitioners who at the time were conversant with those facts.—I am, sir, yours faithfully, Robert Perry.

Glasgow, December 22nd, 1879.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL APPOINTMENTS.

Adrien, Edward W., L.K.Q.C.P., appointed Medical Officer to the Workhouse of the Balrothery Union, *vice* W. E. Adrien, M.R.C.S.Eng., resigned.

Batchelor, G. A., M.B., appointed Medical Officer to No. 5 Hackney District.

*Hollis, Alfred, M.D., appointed Medical Officer of Health and Medical Officer and Public Vaccinator for the Yarmouth District of the Isle of Wight Union, *vice* William Phelps, M.R.C.S., resigned.

*Rice, George, M.R.C.S., appointed Medical Officer to the North District of the Derby Union, *vice* W. G. Copestake, M.R.C.S., resigned.

OBITUARY.

CROSBY LEONARD, M.R.C.S., F.R.C.S.Ed.

About a year ago, it was our painful duty to record the early and untimely death of the then senior surgeon of the Bristol Royal Infirmary, Mr. R. W. Tibbits. Mr. Tibbits had only a few months before his death succeeded to the senior surgeoncy through the retirement, owing to failing health, of Mr. Crosby Leonard; and now the profession at Bristol are mourning the loss, at the comparatively early age of fifty-one, of Mr. Tibbits's immediate predecessor. Mr. Leonard was one of the best known and most valued of the Bristol surgeons. As the genial colleague, the wise counsellor, and the skilful surgeon, he will be greatly missed at the Infirmary; as the staunch and tender friend and the trusted practitioner, his loss will be deeply felt in many a family circle. Mr. Leonard had been in failing health for some time before his somewhat sudden death. About seven years ago, he sustained a severe jerking twist of the neck. Three years afterwards, he began to experience pain in the shoulder and arm, which he put down to rheumatism. Soon afterwards, he fell whilst walking, and, being a large and heavy man, broke his leg. The leg never recovered its power, and at last he became convinced that there was something more the matter than the results of the fracture. From this time, paralytic symptoms gradually developed; at first in the left leg, the leg that was fractured; then in the left arm; and eventually the right side was slightly affected. For some months preceding his death, he had become almost helpless, and was unable to come downstairs. Those who visited him in his room during these later months will long remember the same cheerfulness and heartiness, the same quick intelligence and interest in all that pertained to the Infirmary, the School, and work, that had always characterised him. They, too, will cherish the recollection of the uncomplaining Christian fortitude with which he endured and spoke of his cruel malady, which laid him aside all too soon. The disease was diagnosed as chronic inflammatory mischief in the cervical part of the spinal cord, possibly resulting from hæmorrhage, and doubtless set up at the time of the accident seven years ago. This opinion was verified by finding localised patchy meningitis, with myxomatous degeneration, just above the cervical enlargement and on the left anterior aspect. Five days before death, he had complained to a medical friend of symptoms suggestive of glycosuria; the heart's action had begun to be affected, the pulse was very weak, and the legs were œdematous. Sugar was then found in the urine. Finally, probably from implication of the medulla, a sudden attack of syncope after some fatigue ended this most useful life.

Crosby Leonard was born in Bristol, where his family occupied a considerable position, in 1828. He received his early professional education at the Bristol Medical School and Royal Infirmary, subsequently visiting London and Paris. On returning to Bristol after the completion of his studies, he became Lecturer on Anatomy at the Medical School, a post he held for ten years. In 1864, he was appointed Lecturer on Surgery, and continued to lecture on this subject until 1871. In 1860, he became Surgeon to the Infirmary, only retiring from active service in 1878, when he was appointed Consulting-Surgeon. Besides holding these appointments, Mr. Leonard was for many years Surgeon to the City Bridewell, Surgeon to the Rifles, and Surgeon to one of the local Eye Hospitals. He was also for some years honorary secretary of the Bristol division of the Bath and Bristol Branch of the British Medical Association. The amount of labour entailed upon him by these numerous responsible appointments was in itself very considerable; the demands made upon him at the same time by a large family practice were very great; yet no duty and no work was ever set aside, and what he did was always done cheerfully, faithfully, and well.

His reputation as a teacher and a surgeon was deservedly high; but he was respected, admired, and beloved for his character and personal qualities—these stand out pre-eminent in all his life. All who came to know him learned early to recognise his sterling worth of character, his hearty good-nature and wide sympathy. He was the very type of the true and large-hearted English gentleman. Mr. Leonard lived and died a bachelor. He has left to the Infirmary a sum of £300, the interest of which is to be awarded annually as a prize in surgery to advanced students.

ERNEST CARR JACKSON, M.R.C.S.

We have to record with great pain the sudden and premature death of this promising young surgeon, at the age of twenty-six. Mr. Carr Jackson, whose father was well known in the profession for many years as the able surgeon of the Great Northern Hospital, was educated at University College School, and at the Lyceum, Hanover. On his return from Hanover, he was apprenticed to Mr. Le Gros Clark, then Senior Surgeon to St. Thomas's Hospital. He pursued his medical studies at St. Thomas's Hospital and in Paris, and was subsequently appointed Resident Assistant at the Great Northern Hospital, and later filled the office of House-Surgeon at St. Mark's Hospital. Shortly after entering practice, he became Surgeon to the 40th Middlesex Rifle Volunteers, and Medical Officer to the British Equitable Insurance Company. Like his father, Mr. Ernest Carr Jackson had studied carefully the subject of orthopædic surgery, and early received an appointment to the National Orthopædic Hospital. He was a young surgeon for whom his friends, who were many and influential, had every reason to hope a career of success in scientific work. Handsome in person, agreeable in manner, and surrounded by friends of his own age who thought well of him and would have been glad to aid his future success, as well as guided by seniors well capable of advising him and advancing his professional interests, Mr. Carr Jackson was just entering on a career in which everything promised fairly. His recent reports on the literature of orthopædic surgery in the *London Medical Record* had attracted attention to his studies in that direction, and there is little doubt that, had he survived, he would have taken a prominent position in that department of surgery. He had been for some months flagging in health. About two months ago, he consulted Dr. Ord for anæmia, and had been strongly urged to take a long holiday to recruit; but he stuck to his work, taking only a week with some friends near Manchester, coming home only a few days before the end. He, however, performed an operation on December 23rd. A severe attack of diarrhœa with hæmorrhage from the bowel came on, and he died on the 26th. Mr. Carr Jackson was buried at Highgate Cemetery, on Wednesday, December 31st.

FREDERICK COLLINS, M.D., Wanstead.

It is with much regret that we announce the death of Dr. Collins of Wanstead, at the comparatively early age of fifty-three, which took place at his residence on November 9th. He prosecuted his professional studies at Guy's Hospital; took the membership of the Royal College of Surgeons in 1845, and afterwards became House-Surgeon. He passed the Apothecaries' Hall in 1846, and finally took his degree of M.D., King's College, Aberdeen, in 1851, and F.R.C.P.Edin., in 1856. He was a Fellow of the Royal Medical and Chirurgical Society and a zealous supporter of the British Medical Association.

RICHARD FRANCIS GEORGE, M.R.C.S.Eng.

Mr. R. F. George died at Weston-super-Mare, on December 4th, at the age of 81. He was the son of Mr. Thomas George, a former resident of Bath. In that city he lived for many years and practised as a surgeon, but during the latter years of his life he resided at Weston-super-Mare. During his residence in Bath, Mr. George was identified with, and took an active interest in, various local institutions. He was elected one of the surgeons to the Bath General or Mineral Water Hospital in May 1827, in succession to Mr. W. Terry, resigned; and in the following year he was made a governor of that institution. He resigned the office of surgeon in 1860, being succeeded by Mr. T. G. Stockwell. Mr. George was chosen a member of the old Common Council of the city in 1833, and in April of the same year he served the office of chief constable. In November 1852, he was appointed a trustee of King Edward's Grammar School, of which he was a former pupil; and in the same year he took part in the tercentenary commemoration of the foundation of the school. He resigned his seat on the Board of Trustees on leaving Bath. Mr. George joined the Board of Directors of the late West of England Bank in its early days, and for many years was a regular attendant at the weekly meetings, till obliged to retire from failing health.

Mr. George for many years had a select and remunerative practice in Bath, where he was most highly respected. He was one of the founders of the Bath Branch of the British Medical Association, and was on the Council from its commencement in 1836 till his retirement from Bath in 1866. He held the office of President of the Branch in 1844.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—Up to and including December 12th, 1879, the following Licentiates in Medicine of the College have been admitted to membership, in accordance with the provisions of the Supplemental Charter.

John Claude Cormack, Liverpool; William James Eames, Devonport; Balthazar Walter Foster, Birmingham; Thomas Partridge, Stroud; George P. M. Woodward, London; Conolly Norman, Monaghan; Daniel McClure Ross, Monaghan; Robert Lynn Heard, Bray, co. Wicklow; Thomas More Madden, Dublin; William Scott, Augmacloy; Edward Peele, Dublin; Alexander Patton, Finglas, co. Dublin; Isaac Ashe, Dundrum, co. Dublin; Abraham Kidd, Ballymena; John Francis McVeagh, Dublin; Henry Peter Browne, Delgany, co. Wicklow; John H. Chapman, Dublin; Sidney Murdoch, Dublin; Joseph Henry Hatchell, Maryborough; Frank Thorp Porter, Dublin; Frederick William Warren, Dublin; Joseph Fuller, Bristol; Alfred Crespi, Lundy Island; Jukes de Styrap, Shrewsbury; Ralph R. Scott, A.M.D., Southampton; James Thompson, Leamington; Henry T. Cox, Portland; John Walsh, Blackburn; Richard M. Craig, A.M.D., Cyprus; Frederick H. Worswick, Manchester; Andrew Charles Johnston, Aberlady, N.B.; William Thomas, Sheffield; Thomas Williams, R.N., Dartmouth; Martin Gay Black Oxley, Liverpool; John Thomas Jones, London; William Keays, A.M.D., Cyprus; and James Nicholas Dick, R.N., London.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

The following vacancies are announced:—

BEDFORD GENERAL INFIRMARY—Resident Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before the 8th instant.

*BRISTOL ROYAL INFIRMARY—House-Physician. Salary, £100 per annum, with furnished apartments, board, and washing. Applications on or before February 2nd.

*BROMPTON PROVIDENT DISPENSARY—Medical Officer. Applications, with testimonials, to the Secretary, on or before the 3rd instant.

*CHARING CROSS HOSPITAL—Surgical Registrar. Applications on or before the 3rd instant.

DROGHEDA UNION—Medical Officer for Stamullen Dispensary District, at a salary of £110 per annum, with £20 per annum as Medical Officer of Health, and the usual Registration and Vaccination Fees. Election on the 12th instant.

MIDDLESEX HOSPITAL—Assistant to the Ophthalmic Surgeon. Applications, with testimonials, on or before the 3rd instant.

*ST. BARTHOLOMEW'S HOSPITAL—Assistant-Surgeon. Applications not later than the 8th instant.

SEAMEN'S HOSPITAL SOCIETY—Visiting Physician. Applications on or before the 7th instant.

THURLES UNION—Medical Officer for Templemore Dispensary District, at a salary of £100 per annum, with £10 per annum as Medical Officer of Health, Registration and Vaccination Fees. Election on the 14th instant.

*UNIVERSITY COLLEGE, London—Professorship of Medical Jurisprudence. Applications on or before the 7th instant.

*WORCESTER GENERAL INFIRMARY—Third Physician. Applications, with testimonials, not later than the 14th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*Cranny, John J., A.B., M.D., appointed Surgeon to Jervis Street Hospital Dublin, *vice* E. W. Collins, M.D., resigned.

*Sloan, Samuel, M.D., elected Physician to the Glasgow Maternity Hospital, *vice* R. Tannahill, M.D., resigned.

*Spurgin, H. B., M.R.C.S., Surgeon-Major Militia Medical Department, appointed to the Medical Charge of the 29th Brigade Depôt at Northampton, under the provisions of Articles 49 and 51 of the recent Army Medical Warrant.

Spurway, Charles, M.R.C.S.Eng., appointed Surgeon to the Cheltenham Dispensary.

*Tunstall, A. C., M.B., C.M., appointed Medical Officer to the French Protestant Hospital, Victoria Park Road, and to the Children's Home, Bonner Road, E., *vice* John Dixon, M.B., C.M., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

DEATHS.

Jackson, Ernest Carr, M.R.C.S., at 15, Harley Street, aged 26, on December 26th, 1879.

Kehoe.—At Arcachon, France, on December 23rd, 1879, Charlotte, wife of Thomas Bennett Kehoe, L.R.C.P.&S.E., Kilcumney House, Kildare.

Norton.—On December 25th, 1879, at 8, Redcliffe Hill, Bristol, "Alick" R. A. J. Norton, eldest son of *John A. Norton, M.D.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.— Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W. 9; Dental, Tu , 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Lettsomian Lectures, by W. F. Teevan, B.A., F.R.C.S. Lecture I: "The Treatment of Stricture of the Urethra".

TUESDAY.—Pathological Society of London, 8.30 P.M. Annual Meeting for Election of Officers. Dr. Ord: 1. Large Gallstone passed *per anum*, with remarks on the structure and formation of Biliary Calculi; 2. Some Urinary and Intestinal Calculi. Mr. F. Eve: Syphilitic Disease of Bone in a Fœtus of six months. Dr. Coupland: Specimens of late Hereditary Syphilis. Dr. Lees: Malformation of the Heart, with transposition of Aorta and Pulmonary Artery. Mr. Godlee: Dislocation of the External Semilunar Cartilage.—Card Specimens. Dr. Coupland: Organs affected by Visceral Syphilis. Mr. Eve: Dislocation and Fracture of Clavicle; Dislocation forwards of first Phalanx of Thumb. Dr. R. Smith: Œsophagus and Stomach from a case of Carbolic Acid Poisoning. And other Specimens.

WEDNESDAY.—Epidemiological Society of London, 8 P.M. Dr. Norman Chevers, "Notes on the Relapsing Fever of India"; Surgeon-General Ross, C.I.E., "Remarks on Epidemic Diseases, Men and Animals, in the Colony of Natal".

THURSDAY.—Harveian Society of London, 8.30 P.M. Election of Officers; President's Address; and Conversazione.

FRIDAY.—Clinical Society of London, 8.30 P.M.—Annual Meeting. Election of Officers. Report of the Committee appointed to inquire into the deleterious effects which follow the prolonged and continuous use of chloral in ordinary doses. Dr. Goodhart, "On a Case of Rheumatic Fever treated with Salicylate of Soda, and terminating fatally"; Mr. Pick, "A Case of Subastragaloid Dislocation"; Dr. Stewart (for Mr. Adam), "A Case of Bullet-Wound of the Lung. Mr. Brodhurst will show a Case of Genu Valgum (shown also last session). Mr. T. Smith will show (1) a Case of Spontaneous Gangrene, (2) two Cases of Cystic Hygroma, (3) and a large Nævus.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE Index to the second volume of the JOURNAL for 1879 will be published with next week's number.

CHANGE OF VISION IN OLD AGE.

SIR,—Allow me to cap "Optic's" case by recording a similar one of six years' standing. I cannot say for how many years my patient (an old woman of eighty-six years) used spectacles previously to the return of her sight, but certainly more than ten years. For six years past, she has taken in charge the mending of all the household linen, knitting of socks, and the like, threading her needles without artificial or friendly help. I have heard of other cases; and I should think that at least one similar case might be found in any large town as large as this of 100,000 inhabitants.—Yours, etc.,

OCULUS.

SIR,—The patient of your correspondent "Optic" (see JOURNAL, December 6th, page 921) has doubtless lost his distant vision at the same time that he has acquired the power of reading his newspaper: thus he has not acquired any accommodative power, but has simply become myopic. This myopia may be due either to a sclerochoroiditis posterior, which would be indicated by the ophthalmoscopic appearances in the fundus, and probably also by subjective symptoms, such as flashes of light, etc. But there have been cases which could not be accounted for in this way; and to explain these it has been assumed that senile changes in the lens, resulting in an increase of its density, have begun in its nucleus instead of, as is usual, at its cortical part, thus increasing its refractive power. The subject has been ably discussed by my friend Dr. Swan M. Burnett in the *American Journal of Medical Sciences* of April 1877.—I am, sir, your obedient servant,

W. A. BRAILEY.

Royal London Ophthalmic Hospital Museum, Bloomfield Street,
Moorfields, E.C., December 8th, 1879.

CONDENSED MILK.

SIR,—The analysis by your correspondent Mr. Hehner, however reliable, cannot outweigh the evidence which could be brought to confirm what I have stated with regard to the value of condensed milk. My views may be considered of such a character as may entitle them to be classed with those entertained by an "ignorant public", yet I adhere to them. Having had under my observation cases—and not a few in number—in which no other milk diet could possibly have been procured but the Anglo-Swiss for the uninterrupted period of six months, upon which infants have been most successfully reared, and under adverse circumstances, and having also witnessed its results in general practice since its introduction without disappointment, I confidently recommend its use as the best representative of human milk in a condensed form that can be procured.

Although I cannot give myself credit for the possession of any special intelligence, I cannot say that I have ever found myself in any "dilemma" when ordering the use of condensed milk. I use it as it is prescribed; and as concerns its intense sweetness being raised as an objection to it, I can simply reply that when children, I presume, we liked childish things, and I have yet to learn that sweets are obnoxious either to the tastes or to the digestions of childhood and infancy. As regards its indigestibility, your correspondent will be surprised to learn that in its undiluted form I have found it a valuable agent in arresting the persistent vomiting of infancy upon occasions when no liquid food has been able to be retained. A teaspoonful sucked slowly by the infant at stated periods, depriving it of all other food for four and twenty hours, has in my hands proved most successful. I admit to having seen infants fairly starved upon it, and others surfeited, by reason of its being mixed in improper proportions; but that can be no reason for its condemnation. "An ignorant public", thanks to the advancement of education, can at least read a plain label, as issued by the Anglo-Swiss Company on their tins; and if those instructions are adhered to, in the ordinary way, neither dilemma, rickets, skin-affections, nor any other evils ought, in my humble opinion, to threaten the existence of infants fed upon the Anglo-Swiss milk made abroad.—I remain, yours faithfully,

GEO. WORTHINGTON.

December 1879.

DISEASE OF THE NOSTRIL.

SIR,—Referring to "Ozæna's" communication in your issue of December 6th, I would recommend the daily application to the affected nostril of an ointment composed of iodoform, ʒi; balsam of Peru, ʒii; vaseline to ℥i. This should be applied with a soft brush. It is a mistake to suppose that the balsam destroys the disagreeable odour of the iodoform, but this may be effected by the addition of about fifteen to twenty drops of an essential oil. I have found the oil of verbena most suited for this purpose, as, in addition to its other qualities, it does not irritate.—I am, sir, yours obediently,

G. HUNTER MACKENZIE, M.D.

Edinburgh, December 8th, 1879.

FEES FOR MEDICAL WITNESSES.

SIR,—My registered assistant is subpœnaed to attend and give professional evidence in a divorce case at Westminster. He receives with the subpœna one guinea; he is detained two days. To what fee is he by law entitled? An answer in your next issue will oblige.—Yours,

THOS. WHEELER.

⁂ We much fear that our correspondent's assistant will find that he can only now get that which the parties who subpœnaed him choose to pay. At the time he was subpœnaed, he should have told the solicitor "I will attend the trial, but I shall not give any evidence unless you pay me £2 2s. or £3 3s. daily, with travelling expenses." He could refuse to be sworn unless a reasonable and just remuneration had been offered him, and the judge would support such refusal.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Unqualified Medical Practitioners and their Nominees.

SIR,—I would be much obliged for an expression of opinion as to whether I am justified in protesting against an appointment that was lately made by the Lichfield Board of Guardians in this district on the following grounds. 1. The gentleman appointed is the nominee of an unqualified practitioner and principal in this neighbourhood; 2, he was not a resident in this district when appointed; 3, he is not yet a resident in this district, although appointed the medical officer on November 28th, and I am informed will not be a resident for some time longer. I think the sale of practices to unqualified medical practitioners, or the purchase of practices from such men is very undesirable, and not calculated to uphold the dignity of our profession in the eyes of the public.—I am, yours, DAVID EDGAR FLINN,

Medical Officer of Health, Brownhills Urban Authority.

Brownhills, December 16th, 1879.

*** Every appointment made by a board of guardians, except subordinate offices, must be reported by the clerk to the Local Government Board, and that official is required to send all particulars as to qualifications, etc., and whether resident or non-resident in the district. If the medical officer be non-resident, the reason why he has been selected is always inquired into; and such officer, if his appointment be sanctioned, can only be elected for a year. There can be no doubt as to the impropriety, if not something worse, of countenancing or having any business relations with unqualified practitioners.

M.B., M.A.—It is scarcely necessary to repeat our strong disapproval, both on public and professional grounds, of the employment, by registered practitioners, of unqualified assistants in branch establishments miles away from the residence of their principals. Unqualified assistants have clearly no right to use the official form of medical certificate, nor can a registered practitioner legally depute such assistant to sign medical certificates on his behalf. Registrars, acting in accordance with their official instructions, would invariably register such a case as that noted by "M.B., M.A." as uncertified.

The Morning Bath.

SIR,—Having seen several letters on this subject in the columns of your valuable JOURNAL, permit a humble layman to narrate his experience. Some time ago, I tried the cold bath, but, finding it brought on congestion of the liver, shivers, and vomiting, an eminent physician gave me this prescription. Into a hip-bath pour a pailful of hot water at 117 deg.; stand in it and lather all over with yellow soap; then sit down, wash off the soap and well sponge all over with the hot water, and then pour over the body the contents of a large canful of cold water, half on chest and half on back, and rub up with a cotton bath-blanket. I have adopted this plan every morning for the past fifteen years; and if any one will only try it, and also wear a flannel bandage, twelve feet by six inches, round the waist, and totally abstain from alcohol of every description, an Arctic winter would have no terrors for him, and colds, coughs, and chilblains would be for ever unknown.—I am, sir, your obedient servant, C. E. GREENWOOD.

Pelham Villa, Shooter's Hill Road, Blackheath, December 1879.

Etching by Hydrofluoric Acid.

SIR,—Can any of your readers inform me if glass-etching by hydrofluoric acid is injurious to health? I have a patient who is foreman at some works who suffers from epilepsy, headache, and various nervous symptoms, but I do not think that they are traceable to his employment, as his workpeople seem very healthy. I also want to know what is "Coster's paint" for ringworm. Dr. Tilbury Fox says it is iodine and colourless oil of tar; but what colourless oil of tar is he does not say.—Yours, etc.,

December 1879. M.B.Lond.

University Degrees.

SIR,—In a recent number of your JOURNAL is a letter from a correspondent, which is equivalent to saying that the registrar of Edinburgh University admits that the rejections there were only three or four per cent. up to two years ago, and that since that time they were suddenly increased to more than tenfold the number previously. It is somewhat odd that, when I was a student there, the examinations were understood to have become far more difficult recently; and, from what I can learn, the same idea prevailed there forty years ago: indeed, I have known the rejections in my time set down at about fifty per cent, and I have heard others try to explain this by saying that all who had taken out the University curriculum and had not presented themselves for examination were included. It would put an end to all further controversy on the subject, if the examiners would henceforth publish the exact numbers who present themselves at the different professional examinations, and the percentage of the candidates rejected.—I remain, sir, yours obediently, M.D.EDIN.

*** Official statements of the numbers of candidates examined, approved, and rejected, are furnished every year by all the universities and licensing bodies in the United Kingdom to the General Medical Council, and are published in the Minutes of that body.

The Treatment of Angular Curvature.

SIR,—In answer to your correspondent M.D.'s query as to the best method of applying a plaster-of-Paris cuirass in these cases (not Sayre's treatment, in which suspension is essential), I would suggest the principle graphically described by Dr. J. W. Miller in the BRITISH MEDICAL JOURNAL for November 8th, 1879, which is a modification of Dr. Walker's plan of treatment, and one which, from its simplicity, is well suited for private practice, as it does not necessitate the admixture of gum with the plaster, or any apparatus for winding the bandages. The American pins can usually be purchased of any ironmonger or stationer for a trifling sum. I have at present only had the opportunity of seeing one patient treated in this manner, but it was eminently satisfactory. Though I do not think that the treatment by application of a cuirass in the recumbent position is so generally useful as Dr. Sayre's method, still there are cases of angular curvature where the patient is heavy, or where the friends object to suspension, in which this plan may be of great service: it is also very applicable in private practice, as it does away with the cost of pulleys, tripod, etc.—I am, sir, yours faithfully,

ED. L. FREER, M.R.C.S.Eng., Hon. Assistant-Surgeon to the Birmingham and Midland Orthopædic Hospital.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

Whooping-Cough.

IN answer to F.R.C.S. (JOURNAL, November 29th, page 881), Dr. Sigismund Sutro writes that quinine, with a solution of hydrobromic acid, acts like a specific. He prescribed the following for a child two years of age. ℞ Quiniæ sulphat. ℈j; solut. acidi bromo-hydr. (Fothergill) ʒiss; syrupi althææ ℥iss; aquam q.s. ad ℥vj. A dessert spoonful four times a day: the dose to be increased according to age. If there were no complication of bronchitis or pneumonia, he invariably found the disease arrested within eight or ten days.

DR. A. CORDES (Geneva) says that the treatment proposed by Dr. R. Bell in the *Obstetrical Journal* of October 3rd, p. 589-591—"one-eighth of a grain thrice a day"—succeeded in a good many cases of whooping-cough in which he tried it.

MR. EBEN. EVANS, M.B. C.M. (Beaumaris) advises a fair trial of atropia. Twelve months ago, he had a considerable number of children suffering from whooping-cough under his care, and for some time was puzzled what to do. He found that Trousseau recommended the use of belladonna, or its alkaloid atropia (*Clinical Medicine*, vol. i, p. 675). He gave atropia a fair trial, with very great satisfaction. Dr. Arthur Wiglesworth of Liverpool has made trial of the same treatment, with like results. Mr. Evans gave one two hundredth of a grain each morning fasting, and asked the parents to keep a daily register of the case, as recommended by Trousseau, thus enabling him to make a more accurate observation of the effect of the drug. He endorses Dr. Wiglesworth's conclusions:—1. There is a steady diminution in the number of paroxysms; 2. There is a diminution in the duration of the paroxysms.

MR. E. GARRAWAY (Faversham) says that there are countless "specifics", and, by consequence, no cures. The treatment by belladonna, however, has met with the most marked success. He is accustomed to administer it in combination with sulphate of zinc: one-sixth of a grain of the extract with one-half of a grain of the sulphate to a child under three years of age; a quarter of a grain and a whole grain to an older child, four times daily. The dose must be increased every other day, till, by the eighth day, the dose has been quadrupled. When the pupils become persistently dilated, it is as well to diminish the dose. Termination of the disorder in from ten to thirty days is the usual and expected result. Dr. Fuller has used this combination largely; and some years ago he stated before the Harveian Society that the whoop rarely lasted beyond twenty-one days, and sometimes not more than ten. Dr. Whitehead treated seventy-six cases with belladonna only, the average duration being twenty-two days.

Medical Coroners.

SIR,—A letter from "Country Doctor" in your impression of the 13th Dec. reminds me of a somewhat similar case. I was called one Sunday afternoon to see a man who was taken suddenly ill, but who expired just before I reached the house. I was never called in afterwards, though the coroner (a medical man) sent two doctors to make a *post mortem* examination.—I am, dear sir, yours, etc., FELIX.

SIR,—Can you suggest to me any book containing information as to the formation of a provident dispensary in an agricultural neighbourhood? Also, would any of your readers who happen to be surgeons or assistant-surgeons in the militia inform me whether it is necessary to be in constant attendance on the troops during the time they are out training, for the whole of the time, or only a portion of it, the rates of pay, and the duties?—I enclose my card, and am, sir, yours faithfully,

December 16th, 1879. INQUIRER.

Wanted a Diagnosis.

IN reply to the letter of "A. D. L. W.", in the JOURNAL of December 6th, page 921, the following answers have been received.

DR. MCCALL ANDERSON (Glasgow) writes:—It may be interesting to state that I have met with cases presenting similar features to the one alluded to by your correspondent, as far as one can judge from his description, in which the difficulty of swallowing was dependent upon spinal irritation (one of these is published in my volume of *Lectures on Clinical Medicine*). I would therefore advise him to make a careful examination of the spine, even if the patient make no complaint of that region, and if tenderness be elicited on pressure, to apply two or three fly-blisters in succession to that part, and we shall be glad to know the result.

DR. A. H. NEWTH (Hayward's Heath) says:—The case that A. W. L. describes is evidently paralysis of the muscular fibres of the œsophagus, with catarrh of the lining membrane. The treatment should be rest from mental strain; cold douches to the back of the neck; galvanism, one pole to the nape of the neck, the other to the pit of the stomach; avoiding anything that draws attention to the complaint (the use of the bougie will probably do more harm than good); and some such mixture as this: Liquoris strychniæ ♏v; acidi phosphorici diluti ♏x; acidi carbolici gr. i; aquæ ℥i; or pills containing phosphide of zinc and strychnia, if they can be swallowed.

D. O. F. thinks that the patient of A. D. L. W., in the absence of objective symptoms or of malignant disease, is suffering from paralysis of the muscular coat of the œsophagus, due to some affection of the pneumogastric nerve, so that that normal wave-like contraction of the tube upon the food from above downwards does not take place. As regards treatment, he suggests five grains of the trisnitrate of bismuth and five minims of the liquor strychniæ three or four times a day; and galvanism in the course of the pneumogastric—one pole applied over the nerve on the neck, the other over the stomach.

DR. RALPH RICHARDSON (Southgate, Whatley, Frome) writes that, if A. D. L. W. will write to him he can describe a case exactly similar, and its cure.

MEM. B.M.A. writes:—The diagnosis and appropriate treatment of the case reported by A. D. L. W. will be found in the *Medical Times and Gazette* of November 18th, 1876.

P. H. M. says that the case appears to be one of "hysteroid dysphagia", not uncommon in nervous men, particularly those who are engaged in harassing mental work. For treatment, he recommends the daily application of a weak constant current to the upper part of the spine and the œsophagus, with friction to the spine, and a shower-bath every morning as cold as can be borne. The bougie should not again be used. For drugs, the antispasmodics—such as assafœtida, valerian, etc.—might be used with advantage.

DR. J. DUNDAS, M.A., M.D., Surgical Registrar and Pathologist to the Central London Throat and Ear Hospital, writes:—The above heading to the description of A. D. L. W.'s case in the JOURNAL of the 6th instant induces me to send a brief account of an almost identical one under my own care. About a year and a half ago, a gentleman came to me complaining of inability to swallow solid food, and of the throwing up of enormous quantities of fluid, "like soap-bubbles". This patient, about forty years of age, was of an intensely nervous temperament. The dysphagia varied in degree from time to time. He had no pain, no sign of organic disease in the chest; and, on auscultation of the œsophagus during the process of drinking, no sound indicative of obstruction was detected. I therefore treated the case as one of spasm of the œsophagus. Under the administration of ten grains of bromide of ammonium, with the same amount of hypophosphite of soda (as his condition of nervous depression indicated), three times a day, his swallowing was decidedly improved; and, on the passage of a probang by an eminent Scotch surgeon, the œsophagus was found to be quite free. My patient applied for treatment only at considerable intervals, when his difficulty of swallowing approached absolute aphagia. On each of several occasions, a repetition of my previous plan of treatment gave relief. In the beginning of last August, during one of the exacerbations, a bougie was passed, and an obstruction discovered close to the cardiac orifice. The operation, however, gave him a period of relief. Since then, I have from time to time passed a soft India-rubber stomach-tube for a distance of about nineteen inches, measured from the teeth, but no further. This, combined with the bromide treatment (to which has been added the tincture of belladonna in moderate doses), has alleviated the troublesome symptoms. So far, my case runs parallel with that described by the querist; but there has been a continuous loss of weight, and within the last two months my patient has had, in addition to the foregoing symptoms, an acute pain at the level of the ensiform cartilage. He has been out of town for a month, and writes to say he can swallow a little better; but there can be little doubt that my case is one of malignant stricture of the œsophagus. My diagnosis in the case recorded by A. D. L. W. would be one of spasm of the œsophagus. At the same time, I should anxiously look for any loss of weight out of proportion to the decrease due to the want of food occasioned by the dysphagia. The special treatment I should suggest would be internally a combination of bromide of ammonium and belladonna, the latter diminishing the buccal and pharyngeal secretion, as well as relaxing the spasm. The condition of the pharynx should also be attended to. A chronic pharyngitis would call for astringent gargles or pigments; and, in case of hyperæsthesia of that part, my experience would suggest a gargle containing ʒss to ʒj of bromide of potassium to the ounce of water, slightly thickened with glycerine or mucilage. An elongated uvula might have to be ablated; a larynx, irritated by faulty elocution, might require rest from loud speaking. I have recently seen in the hospital and in private such conditions produce symptoms nearly approaching those described; and, as relief was afforded by the treatment recommended, I have the less hesitation in encroaching on your space.

A Distressing Case.

The following is a list of the donations received up to date on behalf of Mr. Dalton.

December 13th.	—T. C., Chester Square	£2	2	0
	Frances Hoggan, M.D.	1	1	0
,, 15th.	—Dr. Mulligan, Monmouth	0	10	0
	William H. Platt, Esq.	1	1	0
	Dr. Image	1	0	0
	Dr. Lionel S. Beale	2	2	0
	S. Welch, Esq.	1	1	0
,, 16th.	—Dr. Parsons, Hastings	1	1	0
	R. T. Cobbold, Esq., Dedham	1	0	0
	B. Kendall, Esq., Clifton	1	0	0
,, 17th.	—T., Southampton	0	5	0
	J. H. Wraith, Esq., Over Darwen	0	10	6
	Arthur Stedman, Esq.	1	1	0
	Surgeon-Major F. S. Stedman	1	1	0
	Mrs. Stedman	1	1	0
	Dr. Webber	0	10	0
	A. Cooper Key, Esq.	1	1	0
	Dr. T. Elliott, Mansfield	1	0	0
,, 18th.	—Theo. Byrne, Esq.	1	1	0
	Selwyn Cowley, Esq.	0	10	6
,, 19th.	—Dr. A. Pett	2	0	0
	R. B. Ruddock, Esq., Bristol	1	1	0
	Dr. H. Tomkins	0	5	0
	F. G. Evans, Esq., Cardiff	0	10	0
,, 22nd.	—W. M. B.	2	2	0
	Dr. H. Sylvester	2	2	0
,, 23rd.	—N. T. J. Haydon, Newton Abbot	5	0	0
,, 24th.	—Geo. W. Graham, Esq., Wimborne	0	10	6
,, 26th.	—Dr. Ogle, Derby	0	10	0
	Dr. W. A. Satchell, Tunbridge Wells	1	1	0
,, 27th.	—Dr. V. Lush, Weymouth	1	1	0
	H. Kinglake, Esq., Taunton	1	0	0
	Dr. Godwin Timms	1	1	0
	W. B. Dolton, Esq., Blackheath	1	0	0
,, 29th.	—Dr. Bull, Hereford	1	1	0
	Dr. Frank, Cannes	2	0	0
	Lawson Tait, Esq.	2	2	0
	Surgeon-Major J. Adsetts, Wilton	1	1	0
	Geo. R. Ord, Esq., Streatham	3	3	0
	J. Sloan, Esq., Bramley	0	10	0
	Dr. A. Brown, Barnsbury	0	10	6
	T. J. K.	2	2	0
	Dr. Bruce	1	1	0
,, 30th.	—Henry Smith, Esq.	5	0	0
	Dr. H. F. Williams, Malta	1	1	0
,, 31st.	—Charles Williams, Esq., Llanbedr	1	0	0

December 29th, 1879. Yours faithfully, HEYWOOD SMITH.

*** Any further subscriptions forwarded to the editor or to the JOURNAL office will be acknowledged in these columns and applied for Mr. Dalton's benefit.

Metropolitan and National Nursing Association.

SIR,—Will you permit me to make, through your columns, an appeal to the profession as well as to the public to support liberally this Association? While principally established with a view to train skilled nurses for the sick poor in their own homes, and to establish schools for the thorough training of a high class of nurses, the Association has been otherwise instrumental in improving the position of the poor of London. The point to which I would now venture to call your attention is, that the nurses of this Association are enabled to give great and valuable aid in the preservation of health in the metropolis, both by enforcing themselves the observance of the laws of sanitation among their patients, and by communicating to the sanitary authorities (who now almost invariably pay attention to such communications) any cases requiring their interference. The following extract from the report of one of the district superintendents for last month may serve as an example.

"We have also been instrumental in more than one instance in bringing to the notice of the sanitary inspector the gross neglect of sanitary rules. One instance I feel I ought to mention. In a house in E—— Street we were nursing a case of typhoid fever, and, on inquiring about the water used by the family, we found the cistern, which supplied the whole household, was placed over the water-closet, and the pipe from which the water was drawn ran down the wall at the back of the closet to within two feet of the ground. On entering the closet, we found the pan to be completely blocked and overflowing with excreta; the seat, and also the floor, covered with it. 'The waste-pipe was blocked up, and liquid soil, therefore, came up into the 'cellar-kitchen, where we found it about an inch deep'. Temporary measures for disinfection were adopted, and the sanitary inspector was at once communicated with, and wrote promising immediate attention. 'The tenants had again and again complained, they told us, and were very grateful on hearing that we should endeavour to get this state of things remedied.' The authorities have now taken the necessary steps, and the landlord is consequently perforce putting the house in proper repair under their superintendence."

This is only one example among many, and I quote it, as being the last reported to the committee.

I have already trespassed too much on your space, and will not now dwell on the work done in the more direct matters of nursing and training nurses; but the Report for 1878 entering fully into these, as well as reports of more recent typical cases, may be had on application, and I shall be happy at any time to furnish every information to those interested.—I am, sir, yours faithfully,

LOUIS GREG, Secretary, 23, Bloomsbury Square, W.C.

Obstinate Constipation in an Infant.

SIR,—In answer to L.R.C.P., I beg to inform him that the scybalous masses probably depend on an inactive liver. If these masses be light-coloured, there can be no doubt of it. I have found one-twentieth of a grain of podophyllin, with half a grain of hydrargyrum cum cretâ, and half a grain of colocynth and henbane pill, given every other night, the best remedy I know of for acting on the liver. The diet might be broth, with a small quantity of cream with oatmeal-porridge. Supposing the colon should at any time become filled with these scybalous masses, the plan I have adopted has been to inject the third part of a pint of oil into the bowel, and keep it there by passing up a soft sponge about three inches, a piece of tape being tied round the sponge to remove it in twelve or fourteen hours, when the bowel will be emptied.—I am, etc., S. N.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald: The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

***** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.**

COMMUNICATIONS, LETTERS, etc., have been received from:—

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SUBSTANCE OF A CLINICAL LECTURE

ON A

CASE OF FEMORO-POPLITEAL ANEURISM,

WHICH HAD BEEN LAID OPEN BY MISTAKE, AND IN WHICH THE OLD OPERATION (THAT OF ANTYLLUS) WAS PERFORMED.

Delivered at St. George's Hospital.

By T. HOLMES, F.R.C.S.,
Surgeon to the Hospital.

YOU lately had the opportunity of seeing a case which is so rare in its occurrence, and which conveyed so many important surgical lessons, that I must recall your attention to it.

The notes of the case may be thus summarised. The patient was a young man aged 29, a labourer, in fairly good health. He had had syphilis about six years ago, but no secondary symptoms. His habits were, as far as is known, moderately temperate. A year ago, he fell from a wall about eight feet, and soon afterwards noticed a tumour in the calf of the right leg. No pulsation was ever noticed in this swelling. He was treated as an out-patient at St. Mary's Hospital for three weeks, after which he says that the swelling had quite gone. Five or six weeks ago, after a good deal of walking, he was loading a cart with coals, when he suddenly felt a sharp shooting pain down the right thigh, with a sensation as if something had given way about its middle; and half an hour afterwards, he noticed in this situation a swelling as large as a hen's egg. He went to bed, and remained in bed for a fortnight, after which he went to a neighbouring infirmary. During this time, the tumour steadily increased in size, but did not pulsate as far as he noticed. On his admission into the infirmary, careful examination was made in order to detect pulsation or *bruit*, but neither could be found. The tumour was twice explored with a grooved needle, and only dark-coloured blood was evacuated. On the day of his admission into this Hospital (March 6th, 1879), the tumour was punctured with a knife by the assistant of the surgeon to the infirmary. A jet of arterial blood issued from the puncture. The assistant plugged the wound with his finger, and sent for the surgeon, who enlarged the incision to the extent of about two inches. This was followed by a very formidable gush of blood. The wound was plugged with lint steeped in perchloride of iron, a tourniquet was applied, and the man sent to the hospital. When he arrived, the limb was much swollen, cold, and blue, and the patient much exhausted by hæmorrhage.

With this history before me, my impression was that the tumour would probably be found to be of a cancerous nature, with a large blood-cyst. It was clearly either this or an aneurism. In any case, the first thing to be done was to freely lay open the cavity. Accordingly, Esmarch's bandage was applied, and an incision about eight inches long was made, when the cavity was seen to be filled with the laminated clots externally and soft clots in the centre, which are characteristic of aneurism; and when all these had been removed, it was seen that there was no solid tumour, nor was it very clear whether the membrane which lined the cavity was a perfect sac or not. I determined to tie the vessel in the sac, and attempt to save the limb. It was by no means easy to find the opening of the artery; but at length what appeared to be the lower part of the sac was reached, situated quite in the popliteal space, and on tracing this round to its cæcal extremity, it was found to overlap a somewhat indistinct orifice about the size of a No. 10 catheter; and through this opening a probe passed for an unlimited extent downwards. This was accordingly taken to be the lower or distal opening of the vessel, and a silk ligature was tied round it. No proximal opening could be found, however, in this situation; but on trying to trace the continuity of the vessel upwards, the great sciatic nerve was seen exposed for about three inches. Afterwards, the artery was looked for at the upper part of the tumour, and here an opening was found, from which the probe passed easily in both directions—upwards and downwards—and it was quite easy to dissect the vessel out from the neighbouring tissues. A ligature was passed round the artery both above and below the orifice, and then the bandage was taken off. No bleeding followed, except from a few insignificant vessels in the sac. These were tied, and the cavity was filled with carbolised lint, the wound being left open. When the bandage was removed, warmth began to return to the limb, which was then enveloped in cotton-wool, and the patient put to bed. The operation was a protracted one, lasting about an hour. His circulation was occasionally so low that it was necessary to suspend the anæsthetic.

I have been thus particular in describing the operation, because it is one rarely seen; but I need not detain you very long with the future progress of the case, especially as you have access to the copious notes and accurate drawings which my clinical clerk, Mr. Dale, made of it. The warmth and sensation of the foot at first seemed to return, but soon the whole dorsum of the foot began to slough, and the walls of the large incision also sloughed to a very great extent. When this latter slough cleared away, all the ligatures dropped off except the one tied on the proximal end of the artery, and the pulsation in the vessel could be seen down to this ligature on the eighth day after the operation. This ligature held on till the eighteenth day, when it came away without any hæmorrhage. Meanwhile, the sloughing on the leg and foot extended and deepened; but the man remained free from any alarming general symptoms, and his complexion gradually regained a more natural hue. Amputation was delayed till April 3rd, at which time all the soft parts on the dorsum of the foot had come away, exposing the tarsal bones, the joints between which were widely open, but the skin remained on the end of the toes. The gangrene of the skin had not spread beyond the level of the middle of the leg, so that it was hoped that a stump could be formed below the knee; but on cutting into the parts there to form the anterior flap, the muscles were found so rotten and so infiltrated with foul matter, that this idea was given up, and I amputated through the knee-joint, leaving the patella, as I believed that the parts forming the stump (which appeared perfectly healthy) would derive sufficient nourishment from the branches of the superficial femoral and profunda arteries; but in this I was disappointed. All the parts forming the anterior flap sloughed *en masse;* the end of the femur was freely exposed, with its cartilages; and so the unfortunate patient was condemned to a third operation. After the amputation, he suffered for a time from considerable shock; but this gradually subsided, and he seemed doing well; when, on May 15th, he was seized with a sharp attack of hæmaturia, for which there was no apparent cause. No antiseptic dressings were used during the whole case, and only occasionally a little weak carbolic lotion to syringe the sloughy cavity. The hæmaturia, however, passed off as it had come, though occasional sickness seemed for some days to testify to some kidney-irritation. At length, on June 6th, he seemed well enough to bear the removal of the exposed bone. Accordingly, I removed the patella and about four inches of the lower part of the femur, by simply pushing them through the remains of the great incision at the inner part of the thigh. The parts consolidated slowly round the end of the femur; and he left the hospital on July 16th. He was seen again on August 9th, with the stump nearly healed.

Besides several minor points of interest, this case presents these two questions of primary importance: first, How far was the original error of diagnosis avoidable, or, in other words, how far was the treatment pursued prior to the man's admission censurable? and second, Was the course which I followed the right one?

As to the first point, the history is no doubt a remarkable one. In the seventh volume of the *St. George's Hospital Reports*, I wrote a paper on the Diagnosis of Aneurism, in which I collected and commented on most of the recorded cases of failure of diagnosis, in which I showed that almost all of them proceeded from negligence in examination, for that there was clear evidence that in the great majority the tumour had never been auscultated. At the same time, I adduced proof—and amongst others a striking case under my own care—to show that there have been cases of aneurism in which the most careful palpation and auscultation have revealed neither pulsation nor *bruit*. The practical caution which I deduced from these histories is the following. "Fluctuating tumours in the neighbourhood of large arteries should never be opened (unless they are visibly and unmistakably abscesses) without a previous careful examination of their history, their pulsation, their *bruit*, the effect on them of compression of the main trunk if possible; and finally, in case the doubt remains, an exploratory puncture. If this very common-sense precaution were observed, we should hear less of mistaken diagnosis in aneurism." You will possibly say that this is no novelty. I can only reply that the observance of this precaution would have saved many a life and many a surgical reputation. But in the case before us, all this had been done, except perhaps the experiment on the effect of pressure on the femoral above the tumour, which, however, ought never to be omitted in a doubtful case. The paper in question contains distinct proof of its high diagnostic value.* With this reservation, I do not see what more could have been done to establish the diagnosis. As to the treatment pursued at the infirmary, it might be perfectly correct up to a certain point. I am unable to estimate the indications for laying open the tumour, as I did not see the patient; but can easily understand that they might have been, and very probably were, quite sufficient. It was evidently increasing, and seems to have been producing considerable obstruction to the venous circulation. But I cannot help thinking—and this I wish strongly to impress on you as a practical caution—that when it was judged necessary to make an incision into a tumour of doubtful nature situated on the course of the main artery, and which had been previously twice explored with the result of showing that it contained blood, and, as far as we know, blood only, no incision should have been made without ample preparation for the ulterior proceedings, which are so likely to prove necessary; *i.e.*, amputation or the ligature of the artery. You saw the dangerous condition to which this man had been reduced, even after the short journey to this hospital, and you could easily imagine what would have been the consequence of a similar accident in a remote part of the country.

Next, as to the treatment which I pursued. To a certain extent, it was successful, as the man escaped with his life. But it is clear that if the thigh had been amputated at once, he would have been exposed to far less danger, and would in all probability have recovered some months sooner. Yet I am not on that account inclined to admit that I was wrong in performing the old operation, and so giving the patient a chance of preserving his leg. True it is, that the previous loss of blood and the œdema and coldness of the limb resulting from the prolonged compression rendered success improbable; but I think the attempt was a justifiable one. I am, however, free to admit that, when I was forced to amputate, it would have been better to do so at the level of the upper ligature on the femoral artery. This would have saved the man some weeks of suffering, and given him probably a better stump.

I was hardly prepared for the difficulty which I experienced in finding the orifice of the artery in the sac. Even now, I must confess that I could not describe the state of parts with any confidence in the accuracy of my description, nor explain by what I found at the operation the singularities of the previous history of the case. That the upper ligatures were tied on the femoral artery was plain, both from the fact that it was really dissected out of the tissue of the sac at the time of the operation with something approaching distinctness, and also from the fact that after the separation of the sloughy walls of the cavity, the artery could be seen pulsating down to the ligature in this situation. But I confess to entertaining very great doubt whether the ligature which was first tied was really placed on the artery at all. I regard it as more probable that there was a rent in the sac through which the probe passed, and that what I tied around the probe was really a portion of the sac itself. If you consult the history of a case in which Mr. Syme laid open an aneurism in the iliac fossa, and believed himself to have tied the common, external, and internal iliac arteries (*Med.-Chir. Trans.*, vol. xlv), you will find that only the external iliac was really tied, one of the ligatures having probably been placed on a portion of the sac, and the other two on the external iliac above and below the opening. Nor is such an error at all surprising. It is not always an easy matter, even on the dead subject, to dissect out the artery from the interior of the aneurismal sac; and on the living, besides the necessity of some reasonable speed, even when the circulation is completely commanded, there are many sources of fallacy from which the dissection of the parts after removal from the body is free. As far as I could judge, however, I should conjecture that the femoral artery had given way, either completely or nearly so, somewhere near the opening in the adductor magnus, and the blood had poured into the cellular tissue of the limb (both in the thigh and popliteal space), making for itself an imperfect sac. At the upper part, this sac seemed more firm and membranous; at the lower, it was less distinct and very probably wholly deficient at the part where the sciatic nerve was seen. If we adopt this view, it would get rid of one of the most difficult questions in the case, viz., why was there no pulsation? I have already, I think, insisted sufficiently (both in my paper above alluded to in the *St. George's Hospital Reports* and in other writings on Aneurism) on the indubitable fact that in almost all cases of mere rupture of an artery without the formation of a sac, pulsation is absent. *Bruit*, too, appears sometimes to be absent, or at least not to be heard; for it is possible that in some of these cases at least the *bruit* has been low and only audible over a limited part of the tumour, and so has been missed (see Pirogoff's cases quoted in my paper). The former appearance of a non-pulsating tumour in the same situation which disappeared without any further symptoms is strange, and I cannot offer any probable explanation of it, unless it may be that a small rent then formed in the artery which closed spontaneously.

The rupture of an artery at a comparatively early age and without proof of general disease of the arterial system is, I dare say, rare; but I do not think it is so rare as is often believed. I have seen several cases which hardly admitted of any other explanation, and there is a preparation in our museum which bears so great an analogy to what I believe occurred in our patient, that I have thought it right to bring it into the lecture-room.* It shows the common carotid artery, in which, just below the bifurcation, there is a small opening leading into an enormous sac in the cellular tissue. The patient's age was the same as that of the subject of the present lecture—twenty-nine. The rupture occurred from no known cause, as he was at his ordinary work—that of kneading bread. The first symptom of it was a diffused swelling, which gradually became circumscribed and pulsated with a whirring sound, then became again diffused, and lost its pulsation. No operation was undertaken, and the patient died of suffocation. The history is rather incomplete, as the case occurred thirty-five years ago, before the present system of recording the histories of all cases along with their *post mortem* examinations was commenced. In this preparation, there are one or two small patches of atheroma near the orifice of the sac, but the chief part of the artery is healthy. You will at once see in how many respects the history of this case resembles that of our present patient. An artery gives way without known cause; a diffused swelling is the result, which pulsates when the sac is entire, but loses pulsation when the sac bursts. In the case which furnished the preparation, the old operation would have been, to say the least, very difficult and might have proved impossible. But if it could have been completed without fatal hæmorrhage, it would doubtless have saved the patient's life.

The lessons which the present case teaches may be summed up as follows. 1. It affords another example of the occasional existence of aneurisms (so-called) which do not present the ordinary symptoms of pulsation and easily recognised *bruit*. On this subject I have said as much as I usefully can in the paper to which I have already referred you. 2. It shows the difficulties and ambiguities which surround the old operation when performed in such cases. The cases usually present a large ill-defined and probably imperfect sac and a relatively very small arterial opening. 3. It shows the danger of meddling with tumours of this sort, unless the surgeon is prepared with all the appliances and assistance which he will require in order to undertake the formidable operation which may become necessary. 4. It shows how probable gangrene is in such cases, in spite of the evacuation of the contents of the tumour, and although only a small part of the artery may have been included between the ligatures. 5. It is an interesting example of the fact, so often noticed in gangrene occurring after ligature of a main trunk, that the visible destruction of skin and superficial parts does not always give a just idea of the extent to which the deep parts may be implicated, if not in absolute gangrene, at least in a low unhealthy degeneration; and therefore how much better it is in such cases to amputate through or near the level of the highest ligature.

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* The passage to which I chiefly referred is the following (*St. George's Hospital Reports*, vol. vii, page 181). The case is reported in Pirogoff's *Klinische Chirurgie.* "A man who had before suffered from a phlegmonous abscess in the thigh, and who was rheumatic, presented himself with a large inflamed swelling, indistinctly fluctuating, below the pectoral muscles and in the axilla. Not doubting that it was an abscess, Pirogoff had the scalpel in his hand to open it, when it occurred to him to auscultate the swelling. A low *bruit* revealed the true nature of the case. The symptoms are not very fully given; but the subclavian was ultimately tied. The patient died, and, on dissection, it was found that there was a small opening in the axillary artery, and the swelling consisted of blood extravasated under the pectoralis minor. From these cases, Pirogoff deduces the practical rule, never to open a deep-seated swelling, however plainly it may fluctuate, without previous auscultation, though he points out that *bruit* may exist in swellings which are not aneurismal (such as medullary cancer), and that in swellings which are in all probability aneurismal, the *bruit* may only be audible in parts. He thus sums up the whole subject: 'If I were asked what signs I hold most decisive of the existence of an aneurism which does not pulsate, I must confess that, if there be no *bruit* to be heard at any part of the tumour, I know of no other than these two—(1) collapse of the swelling, sometimes only to a slight extent, when the main artery is compressed between the heart and the tumour; and (2) if the pulsation of the artery can be felt upon the surface of the tumour, an unnatural extension of its impulse; for example, over twice the usual breadth of the vessel. But, in order to satisfy oneself of these two phenomena, it is, of course, necessary to examine the case repeatedly, and with the greatest attention. The diagnosis must not be founded on a single examination.'" Reference may also be made to a paper on aneurisms which do not pulsate, by Mr. Morrant Baker in the new (15th) volume of *St. Bartholomew's Hospital Reports.*

* Series vi, No. 112, in the hospital museum.

UNLICENSED LUNATIC ASYLUM.—At the Brackley Petty Sessions, Mrs. Rhoda Bishop of Culworth House, the widow of a surgeon, was charged with receiving into her house two lunatics, such house not being a house or asylum registered under the Lunacy Regulations Act. Mr. Harris, barrister, instructed by the solicitors for the Lunacy Commissioners, prosecuted, and Mr. Underhill, barrister, of Birmingham, appeared for the defence. After hearing the evidence of Mr. Jacobs, a surgeon, and other witnesses, the Bench committed the defendant for trial at the Northampton Assizes. She was liberated on bail.

CLINICAL LECTURE

ON

IDIOPATHIC ANÆMIA.

Delivered in the City of Dublin Hospital.

By J. MAGEE FINNY, M.D.Univ. Dubl.,
Fellow of the King and Queen's College of Physicians in Ireland; Visiting Physician to, and Lecturer on Clinical Medicine in the Hospital.*

CASE III. *Profound Anæmia following upon Uterine Hæmorrhage: Irregular Febrile Action: Absence of Dyspepsia: Constipation: Abnormal Characters of Blood: Treatment by Arsenic: Death.* [Reported by EDMUND SHACKLETON, L.K.Q.C.P.I.]—Sarah G., aged 54, was admitted to hospital under my care on March 2nd, 1879. She is a mother of five children.

History.—She had enjoyed good health, and had led an active life as general in-door servant up to five years ago, when her health became impaired. This ill-health she attributed to the effects of a mental shock produced by the sudden and unexpected news of a rupture of a close family tie. Hæmorrhage from the womb was brought on at the time, though as to whether it was profuse was not noted. The menses had quietly and regularly ceased full twelve years before this bleeding. Since 1874, she had never been strong, and, year by year, her weakness and pallor had gradually increased.

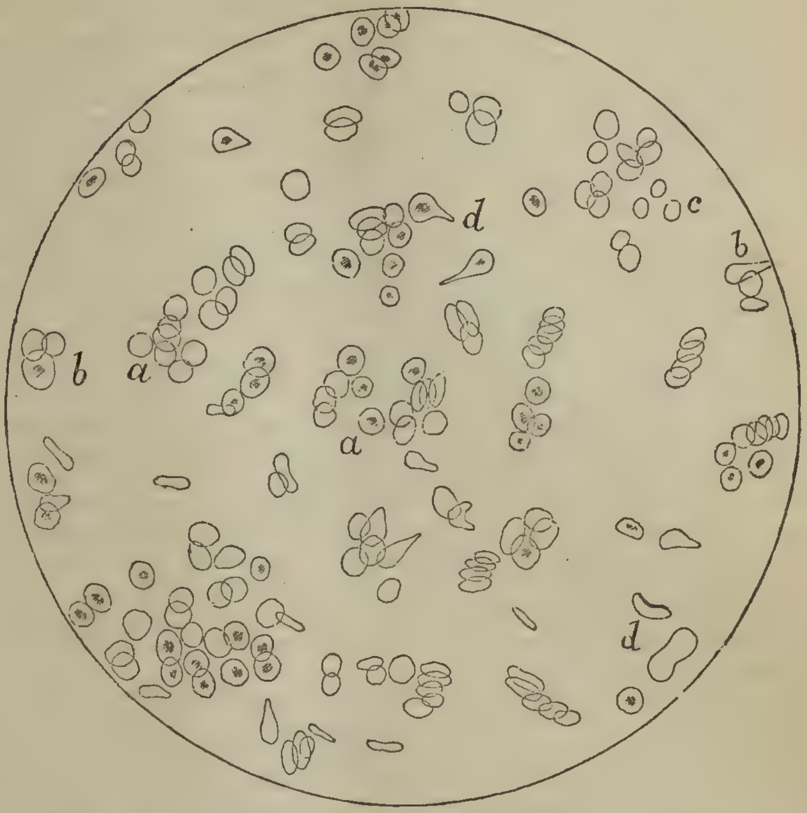
On admission, her appearance was remarkably anæmic, differing from that of simple anæmia on the one hand, and chlorosis on the other, in being not so much white or green, as of a pale lemon colour. The bloodless look of the hands and fingers was very evident when examined against the light, not a shade of red being visible along the line of contact of the fingers. You are aware, doubtless, that, in a healthy hand, such line of contact similarly examined exhibits a blood-red colour, and that the absence of any colour in these situations is looked upon by some authorities as a sure evidence of the cadaveric state. She was not aware of any loss of blood by the bowels or kidneys; she had had no epistaxis nor sponginess of the gums; and she had never been exposed to malarious influences.

There was no emaciation, but quite the contrary; as the thorax, mammæ, and abdomen were thickly covered with fat. The face was also full, but this was in part due to œdema. The legs were swollen up to the knees, but, after a few days' rest in bed, this swelling became less. The patient complained of a sensation of fulness and sometimes of pain in the epigastrium, accompanied by pain on pressure over this place, as well as over the right hypochondrium. For some months, she had had occasional pains in her shoulders, hips, and knees, and recently, for nearly six weeks, she experienced excruciating pain in one knee. There was, however, no evidence of thickening of the joints. There was nothing abnormal to be made out by examination of the abdominal viscera, and the kidneys seemed healthy, the urine being of natural colour, specific gravity 1017, and free from albumen and bile. There was no evidence of valvular cardiac disease, nor of arterial degeneration; the first sound was weak and short, the impulse feeble, and the pulse compressible, 80 in the minute. In the neck, venous murmurs were present, being very intense, and audible even in the recumbent posture. Over the pulmonary valves and in the direction of the pulmonary artery, there existed a soft systolic hæmic murmur. The temperature was above normal, though subfebrile, averaging in the morning 99.7°, and in the evening 100.6°.

The blood, when examined under the microscope, was characteristically similar to that of Cases I and II. There were, however, fewer microcytes than in Case I. There was no increase of white corpuscles (*vide* diagram). Unfortunately, I omitted to examine the eyes.

Recognising the case to be one of idiopathic anæmia, with most probably fatty disease of the heart, I put her upon arsenic and iron, thus: Liquoris ferri perchloridi ♏xv; liquoris arsenici hydrochlorici ♏iii; infusi calumbæ ℥i: to be taken three times daily. The bowels, which were habitually constipated, the patient going for nine days at a time without a motion, I kept regular with pills of iron and aloes.

This treatment was steadily pursued till March 12th, when, owing to a slight rise of temperature, and to sickness of stomach, it was stopped. During the next night, her bowels were moved several times, and her condition, at best but low, because now alarmingly prostrate. Were it not for the great promptitude exhibited by Mr. Line in giving her two hypodermic doses of ether at short intervals, I doubt not she would have died before morning. At my visit at 9 A.M. on the 13th, her state was one of the gravest anxiety. She was a little restless; if possible, she was further blanched; her pulse was small, compressible, 110; and the temperature had run up to 103°. The first sound of the heart was short. Digitalis, sulphuric ether, and aromatic spirit of ammonia were directed to be taken every second or third hour, and an astringent mixture of chalk, opium, and catechu after each motion The temperature rose in the evening to 104° (*vide* table).



a. Normal red Corpuscles in clusters, not rouleaux. *b.* Large. *c.* Small. *d.* Irregular Corpuscles.

	Temperature.		Pulse.	
	M.	E.	M.	E.
March 7th, 1879	99.5	—	82	—
,, 8th, ,,	99.1	—	78	—
,, 9th, ,,	100.2	99.8	84	80
,, 10th, ,,	100.0	100.7	86	86
,, 11th, ,,	100.2	100.8	80	88
,, 12th, ,,	100.2	100.8	82	—
,, 13th, ,,	100.9	101.5	84	96
,, 14th, ,,	103.0	104.0	110	116
,, 15th, ,,	100.9	103.7	100	—

The following morning (March 14th), she expressed herself as better; the pulse and temperature had both fallen, to 100.8° and 100 beats respectively, and the diarrhœa was checked. In the evening, the temperature again rose to 103°. Unfortunately, through the night, the diarrhœa recurred, the bowels were moved three times within a short interval, and her strength ran down rapidly; the pulse became small, quick, and compressible, and she sank the following evening.

There was no blood in any of the discharges. In spite of all our efforts to obtain a *post mortem* examination of the viscera and bones, we were unfortunately frustrated, and thus lost a rare opportunity of confirming, or otherwise, the morbid anatomy of this disease.

REMARKS.—The foregoing cases have, I trust, made you familiar with the general outline and course of this interesting and rare disease. I shall now direct your attention, as shortly as I can, to the most prominent features, and afterwards we shall discuss what is known as the pathology, causation, prognosis, and treatment of idiopathic anæmia.

Before proceeding directly to this task, I wish to explain why it is that all through these lectures I have preferred to call the disease "idiopathic" to "progressive pernicious anæmia". My reasons are threefold: 1. The term "idiopathic" does not commit us to any name derived from pathological conceptions, when, as yet, its pathology is not accurately defined; 2. Although vague, it directs our mind at once back to Addison, to whom is due the credit of being really the first to establish it as a special and distinct form of anæmia; and 3. Because it does not, like that given it by Biermer, deal with the question of prognosis, nor presuppose a termination which, it is pleasant to think, does not always obtain.

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* Concluded from page 7.

The first and most prominent feature of the disease under consideration is naturally that from which it gets its name—the bloodless *pallor* of the patient. This pallor is not always of the same hue; in some, like Cases I and III, it is yellowish, and approaches that of jaundice, and so closely, that some of you actually did confound it with icterus. The diagnosis is, however, easy, as the tinge of skin is more of a lemon colour, like that of cancer and Bright's disease; and the conjunctivæ, as well as the secretions, are entirely void of any staining by bile-pigment. With reference to the eye, however, it should be borne in mind that, if subconjunctival fat exist in any quantity, it will probably be of a yellow colour in anæmia. Moreover, the mucous surfaces of the eyelids, lips, gums, and tongue share in the want of the normal blood-colour.

Physical examination of the heart and large arteries and veins reveal various murmurs, but they all are due to the feeble action of the heart and to the altered condition of the blood, common to all forms of great anæmia. In Cases I and II, the cardiac basic murmur seemed to be in the aorta. In Case III, its situation and direction was over the pulmonary artery. Occasionally, but very rarely, mitral murmurs are heard in this as in other forms of anæmia.

With this marked anæmia, it was surprising how little proportionate was the emaciation in any of the cases; and this persistence of *fat*, gentlemen, constitutes another of the prominent symptoms of idiopathic anæmia. Case III exhibited a marked increase of adipose tissue on the chest and abdomen; and, in Cases I and II, in spite of general muscular flabbiness and emaciation of the face and extremities, there was, nevertheless, a decided layer of fat under the skin of the abdomen. This symptom at once contrasts strongly with the anæmia of cancer or phthisis, and rather resembles the condition found in the chlorosis of young women.

Again, in very few instances is there any marked *dropsy*, such as occurs in the anæmia of heart or renal diseases. In the majority, there may be but œdema of the ankles and feet. As a rule, dropsy appears late in the disease, and is confined to the lower extremities. In connection with this symptom, it is interesting to notice how long the œdema persisted in Case I, remaining for several months after the disappearance of the anæmia.

In all my cases, and in particular in Case II, there were *pain* and *tenderness over the tibia*. I do not lay very much stress on this symptom, as, in delicate and frail people, any pressure, however slight, over the flat and exposed parts of the tibia, is attended by uneasiness and pain. It is, however, a symptom not lacking in significance, when you consider that certain changes to which I shall shortly advert have been found by Cohnheim and some other observers in the marrow of the long bones.

Dyspeptic symptoms are commonly present in cases of the disease we are considering, and may be so from the beginning to the end. Thus, in Cases I and II, they were prominent features; while, on the other hand, they were almost wanting in Case III. The patients also, as a rule, complain of pain either in the epigastrium, or extending across from one hypochondrium to the other. There are exceptions to this, since in some cases, like Case III, and a case recorded by Dr. Pepper (*American Journal of Medical Sciences*, October 1875, p. 323), pain was completely absent. This pain, with nausea and vomiting, when connected with anæmia, is in some patients so marked as to suggest the existence of gastric ulcer, simple or cancerous; and this view, you may remember, I was inclined to take of Case II, in the beginning in 1877, when first he was under my care; and it was on the same supposition entertained by other medical men under whose care he had afterwards been, that admission into the Hospital for Incurables was sought for him.

Diarrhœa or constipation, more usually the former, is another very common symptom. When attacks of diarrhœa occur, the patient's strength is rapidly and even fatally exhausted. Case III was thus brought to a rapid close, and Case I was on several occasions so prostrated by it as to be in a most precarious condition. Diarrhœa in so many instances seems to precede the development of the other prominent symptoms of idiopathic anæmia, that M. Lepine (*London Medical Record*, vol. v, p. 316), looking upon it as a cause of the disease, designates such cases as *anémie gastro-intestinale*.

On this point of diarrhœa, it is worth noting that, as Dr. Pepper remarks (*American Journal of Medical Sciences*, 1875, p. 313), while chronic diarrhœa and vomiting are by no means uncommon, hæmorrhage from the bowels has as yet not been noticed.

The *urine*, in the majority of cases, seems but little altered. It is free from albumen, bile, or sugar, and presents a normal reaction and colour. The amount of urea eliminated is usually diminished (Dr. Mackenzie, *Lancet*, vol. ii, 1878, p. 835); but the deficiency is not more than may be explained by the small amount of nitrogenous food consumed, its frequent rejection by vomiting, and by the absence of all muscular exercise. In some cases, the urine was of a high colour. In connection therewith, Dr. Purser (*op. cit.*) suggests the idea that, the high colour being due to an increased pigment giving a distinct iron reaction, the *iron of the blood was eliminated by the kidneys among the products of the destruction of the corpuscles*. In order to test the accuracy of Dr. Purser's hypothesis (as he had himself made no analysis of the urine in this disease), I determined to have the urine of Case I examined for an excess of this metal. I should mention that Dr. Harley has demonstrated the existence of iron as a normal ingredient in healthy urine and in the extractive colouring matter (*The Urine and its Derangements*, p. 342). On the other hand, Vogel and others deny its presence, except as the slightest trace. A sensible quantity, therefore, was necessary to justify Dr. Purser's supposition. I think that there can be no doubt that, in the urine of Case I, such a hypothesis was thoroughly confirmed by facts. My friend Dr. J. Emerson Reynolds, Professor of Chemistry in the University of Dublin, not only gave me every facility in carrying out my investigations on this point, but most kindly undertook himself the laborious process of making a quantitative analysis of specimens of the urine of Case I. In order to avoid possible error, as well as for the sake of comparison, two analyses were made. The first was on February 20th, 1878, while the patient was taking large doses of iron (Blaud's pills, five three times a day). The urine on this occasion showed a very considerable quantity of iron, nearly three-quarters of a grain, viz.: total urine of 24 hours, = 55 fluid ounces; excretion of metallic iron in 24 hours, = .7485 grain metallic iron. The second analysis was made sixteen days later, and the iron treatment had been discontinued from the 22nd February previous. This analysis gave .308 grain of metallic iron in 72 ounces. This discovery of the excretion of iron in such a quantity in the urine of idiopathic anæmia seems to supply a missing link between the pathological condition of the liver and kidneys, described by Quincke and Purser, and the state of the urine. In five *grammes* of undried kidney, in which there was granular pigmentation of the cortex, Dr. Purser found 0.0176 *gramme* of metallic iron (*Dublin Journal of Medical Science*, No. lxxi, p. 420). Quincke has also demonstrated a considerable quantity of iron in the liver, pancreas, and kidneys. In one liver 2.1, in another 0.6, per cent. of the dried organ was found to consist of metallic iron, and, from the dried kidneys, 0.32 per cent of iron. In Quincke's cases, there was the possibility that part at least of the iron was derived from medicine.

Another symptom, and that a remarkable one, was the occurrence of *pyrexia* at irregular intervals, without any assignable cause, and of very unequal severity. In general, the temperature is subnormal (see Case II); but, as in Case I, suddenly the thermometer may register 103°, 104°, or even 106°. In Case I, the latter temperature was reached—a degree higher than any hitherto recorded in a non-fatal case of anæmia (for Dr. Pepper gives one other instance of 106° being reached, but it was immediately before death); and in Case III, a like fever existed, reaching to 104° a day or two before death. The Case II contrasts well with the others, as, during the patient's stay in hospital, he was free from all fever. This fever seems to follow no regular type, the morning temperature being often higher than the evening, and the pulse is not commensurately accelerated. A satisfactory explanation of these sudden pyrexial outbursts is not forthcoming. Since like febrile conditions occur in leukæmia, in which the red corpuscles are few, we might be justified in connecting its occurrence with this oligocythæmia were it not that, throughout the whole course of some fatal cases of idiopathic anæmia, no such attacks of fever were met with.

The next, and perhaps the most remarkable and characteristic feature of the disease to which I direct your attention, is *the altered character of the blood*. The abnormal conditions are threefold: 1. Diminution of the number of the red corpuscles (oligocythæmia); 2. Want of colour (achroiocythæmia); and, 3. Alterations of shape and size of the corpuscles (micro- or macro-cythæmia).

Dr. Mackenzie (*Lancet*, vol. ii, 1878, p. 834), to whose paper I am much indebted, has made some very valuable observations on the diminution of the coloured corpuscles in various anæmic states, but in none did he find so few corpuscles as in cases of this disease. In one of his cases it was so low as 13 per cent., or 0.650 million per cubic *millimètre*, while the average in eleven cases of phthisis given by Sorensen reached 4.35 millions per cubic *millimètre*, and in cancer (six cases) 3.66 millions. The want of colour is readily noticed as the blood is drawn, and under the microscope, with transmitted light, the red corpuscles are of a much paler tint than normal.

However remarkable the relative paucity of coloured corpuscles, and their want of hæmoglobin may be, the alteration of the corpuscles as to size and shape is still more striking, and may be considered one of the pathognomonic features of this form of anæmia. The natural size of the red corpuscle is about 1-3500th of an inch; in this disease it may, on the one hand, not reach a quarter that size, some corpuscles being as small as a sixth; and on the other hand, many of the corpuscles may attain a size larger than that of the white cells. In health, the largest corpuscles have a diameter of 8.8 *micro-millimètres*, and in some cases of idiopathic anæmia, corpuscles of 10 and 14 *micro-millimètres* have been met (Mackenzie, *op. cit.*) The diagrams of the above cases exhibit these alterations of size, and in the microscopical examination of the blood, the combination of large and small cells at once caught the eye. Nucleation of some of the large cells has been noted by some observers, the nucleus being often at the side of the corpuscle, and of a deeper colour. Such a condition has been depicted by Dr. Byrom Bramwell (*Edinburgh Medical Journal*, November 1877) and Messrs. Mackern and Davy, of Guy's Hospital (*Lancet*, 1877, vol. i, p. 642).

I failed, in the many examinations I made, to find a single nucleated cell, and others (including Dr. Purser) likewise met with none. Cohnheim (*Medical Times and Gazette*, vol. i, 1877) found them, after death, in specimens of blood from different parts of the body, although during the last week they were not visible. A peculiar interest, in a pathological aspect, attaches to such nucleated red cells, inasmuch as similar corpuscles have been found in the marrow of the bones by Cohnheim, Gardner, Osler, and Purser. It must, however, be borne in mind that the existence of such nucleated corpuscles is not confined to idiopathic anæmia.

An apparent nucleation occurred in several specimens of the blood of Case I, but this appearance was caused by the overlying of a small yellow corpuscle by a larger pale-coloured one (*vide* diagram I). The small corpuscles were generally of a deeper colour, and their number varied in my cases, being fewer in the fatal case than in Cases I and II. Quincke and Eichhorst have drawn attention to these microcytes, the latter observer looking upon them as pathognomonic of idiopathic anæmia. On the other hand, several other observers have failed to record them, and their presence is expressly denied by Professor Rosenstein, Dr. Grainger Stewart, Dr. Bradbury, and Dr. Bradford (see Dr. Pye-Smith's review, *London Medical Record*, p. 438, 1877), while Lepine has noted that, in some cases, the chief feature is the increased size of the corpuscles. Moreover, Dr. Litten (*London Medical Record*, 1877, p. 120) has found mycrocytes in the blood in a case of phthisis, and similar small cells occur in splenic leukæmia and in cases attended with subcutaneous extravasations, such as scurvy.

The shapes assumed by the coloured corpuscles are very remarkable, and vary as much as their size. It is only the large cells which are thus altered. Case I exhibited most of these peculiarities, in which we found corpuscles, oval, egg-shaped, bowl-shaped, bifid, tailed, and crenated. The tailing of the corpuscles (and, presumably, the other shapes) can hardly be looked upon as a vital phenomenon; for, as Dr. Harvey and I were examining the freshly drawn blood, we saw some of these large corpuscles, as they slowly moved across the field, change their circular shape and become tailed. It seemed as though they were of an adhesive material, part of which became adherent to the glass, while the rest was drawn onward in the feeble current, and then, after momentarily clinging, the part was set free, and the corpuscle recovered its original circular or oval shape.

It must have occurred to you, while listening to the above description of the clinical characters and microscopical appearances exhibited in the interesting disease, to ask what can be its cause, and how far do *post mortem* revelations explain its nature? In reply, I may very shortly say that our knowledge of both the pathology and causation is as yet too immature and conflicting to enable us to lay down any very decided data, or to supply positive information.

Idiopathic anæmia seems (at least it is so in this country) to attack those placed in easy circumstances, equally with those suffering from privations; and males and females in about equal numbers. It is, however, more common at and after middle life, and, as was pointed out by Addison, it occurs somewhat more frequently in persons predisposed to be fat.

Post mortem examination of the viscera has not thrown much light upon its cause. In the majority of cases, though not in all (as Biermer would insist), the heart is the organ in which pathological changes have been most frequently observed. Its muscle is pale, and zig-zag striæ of fat (tabby-cat mottling) are found on the walls or musculi papillares. The spleen, liver, and kidneys are healthy, except for the excess of iron found in them, already referred to; retinal ecchymoses, either punctiform or striated, have been very frequently noticed, (in eight out of ten cases, by Quincke), and the walls of the stomach have been found (by Dr. Fenwick) thinned and pale. Yet I am of opinion all these pathological changes are to be considered but the result of the profound anæmia and its consequence, malnutrition.

Of late years, however, very remarkable changes, to which I have already alluded, have been found in the marrow of the bones. The following is abstracted from Cohnheim's description, with which, in most points, the majority of subsequent observers agree.

"The marrow of all the bones, the flat as well as the long, was of an intensely red colour. Under the miscroscope, there was an absence of the usually abundant fat cells, but in its place were seen (1) colourless corpuscles, like lymph corpuscles, but of a large size, with one or two bladder-like nuclei and a few multinucleated giant cells; also (2) an equal number of coloured cells, consisting of a few blood-corpuscles, spherical red corpuscles without nuclei, the size of, or twice the size of, a colourless corpuscle, and nucleated spherical or oval cells of variable size, with one or more nuclei."

Much as we might be inclined to look upon these changes in the medulla of the bones as a direct contributory cause of idiopathic anæmia, seeing they are presumably an imperfect formation, and, as Cohnheim, Osler, and Purser would have us believe, cause increased destruction of the blood-corpuscle. It is but right that we should accept such a theory with caution, since Dr. Bradbury failed to discover any medullary change in a case of idiopathic anæmia, while Newman, Litton, and Orth have found similar changes in wasting diseases, such as cancer and phthisis, and are of opinion, such marrow-changes are to be considered not a cause of idiopathic anæmia, but a consequence of anæmia, however produced (Mackenzie, *op. cit.*)

It is evident to you from what I have told you, that as yet the pathology of this disease is by no means a settled question; and, for the present, we must rest contented with the feeble ray of light let in upon so obscure a subject, with the earnest hope that ere long, research in a daily widening field of observation may result in a sound scientific etiology and pathology.

I shall not detain you with any dissertation on the question of *diagnosis*. From what we have observed together, you cannot but recognise that it is beset with difficulties, and yet that the difficulties are not such as cannot be overcome by careful analysis, aided by microscopical examination of the blood.

What shall I say as to *prognosis*? It cannot be other than most guarded, seeing that the majority of cases have ended fatally. Yet, while thus the title of Biermer seems fairly justifiable, we cannot but hope that in time therapeutics will sanction the withdrawal of not only the epithet "progressive", but also that of "pernicious". Already instances of, not arrest only but, recovery, are on record, and to that list, though a short one, we are able to add two more.

The *treatment* which has been found to answer best in this disease is not that to which the indications most strongly point. This indication is plainly iron, and yet iron fails altogether to produce any curative effect, to improve the colour or to increase the number of the blood-corpuscles. This was well exemplified by Case I, for in it I employed the metal in every form, in every dose, and in every combination. The only effect of the tincture of perchloride of iron was to induce diarrhœa. Dr. Pepper's (*loc. cit.*, p. 344) remarks on this point are so pertinent, that I shall quote them: "Iron would naturally suggest itself as the most appropriate remedy in view of the intense and progressive anæmia. It is found, however, that in some cases it is not well borne, and that, even when given in larger doses, it exercises no curative effect. The entire failure of the preparations of iron must be regarded as one of the marked features of difference between this form of anæmia and chlorosis."

I shall not tax you with the list of medicines which have been employed by various writers, but simply give my opinion that it is to arsenic we can look with most confidence for good results. This medicine you have seen me use with benefit in cardiac anæmia and in glandular sluggishness. It is also well recognised as possessed of influence for good in leukæmia. It was this which led me to employ arsenic in Case I, although at the time I was not aware how successful it had proved in the practice of Dr. Byrom Bramwell (*op. cit.*). It was administered by him in three out of eight cases of idiopathic anæmia, and in all of these convalescence took place; one other case, not treated by arsenic also recovering. Although it has failed in some cases, I cannot but look upon it as one of our surest tonics to the blood-making organs. How remarkable were its effects in Case I I need not remind you. It was also successful in Case II. In Case III, I cannot but regret that the patient was not sooner subjected to its influence, as, had her strength been better able to have battled with the attack of diarrhœa and fever, to which she unfortunately succumbed, I had hopes that this medicine might have produced in her like good results to those obtained in others.

CLINICAL LECTURES
ON
NERVOUS DISEASES.

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Lecture III.

Electricity as a Method of Physical Diagnosis in Diseases of the Nervous System.

The uses of electricity as a method of physical diagnosis in diseases of the nervous system has not yet occupied that place in the ordinary systematic course of practice of physic to which it is perhaps entitled. In electricity, we possess a powerful force which can be demonstrated to produce definite and characteristic phenomena on healthy tissues, which conditions are suspended or altered when those structures are injured or diseased. The study of such varied modifications must, if properly applied, give us assistance in the detection of abnormal states; and any exact method of research which will enable us to investigate with greater accuracy so difficult and so obscure a class of diseases as those of the nervous system will constitute a great advance in scientific medical diagnosis.

Like every other science applied in a new direction, the virtues of electricity have, on the one hand, been grossly overrated and abused; and, on the other, decried as absolutely useless or positively injurious. With neither of these extremes have we to do; but we venture to join the ranks of those who, neither dazzled by the promises of the former, nor discouraged by the scepticism of the latter, endeavour, with judicious impartiality, to weigh the evidence before them, to throw aside vague assertions and hypotheses, and to elicit what definite facts they actually possess on the subject, and how these truths may be applied to the practical uses of their profession.

For a long time, various forms of electricity have been employed as therapeutic agents, but on such empirical and unscientific principles as to have failed to convince the profession generally of their utility; indeed, owing to the somewhat attractive nature of the supposed remedy, and the opportunity it affords to unscrupulous persons of benefiting themselves at the expense of the patient, its employment has often been looked upon with distrust and suspicion.

It is only comparatively recently that electricity has been employed as an agent for physical diagnosis, owing chiefly to the researches of Du Bois Reymond, Pflüger, Matteucci, and others, whose discoveries have indicated a more rational and scientific application of this powerful force; and their labours on its physiological actions on the healthy tissues have greatly revolutionised our knowledge of the subject, and assisted us in applying that agent for the detection of disease.

In the limits of a lecture, it would be impossible to enter upon a consideration of the physics of electricity, the different forms of batteries employed for clinical purposes, the various methods of employing them, and the many uses to which they are applied. At present, an attempt will be made to lay before you the general principles on which electricity is employed in the diagnosis of diseases of the nervous system; and such elementary discussions will only be introduced as will enable you to follow the general argument.

For practical purposes, two forms of electricity are employed; namely, the induced or faradic, and the continuous or galvanic currents. The sources from which these are derived, as well as their physical and chemical properties, entirely differ from one another; but with these and other general considerations it must at present be assumed that you are acquainted, and we must devote our attention to their physiological and pathological actions.

In order that electrical reactions in disease may be thoroughly appreciated, a preliminary knowledge of their behaviour in health is essential. We shall therefore discuss the subject under the following heads: 1. The actions of the faradic and galvanic currents upon healthy living tissues; 2. Their actions on injured or diseased living tissues; and 3. The utilisation of our knowledge on these questions for the purposes of diagnosis.

1. *The Actions of Faradism and Galvanism upon Healthy Living Tissues.*—In all the tissues of a living animal where active nutrition is being carried on, there are natural currents of electricity constantly flowing, the character and direction of which can be determined by a delicate galvanometer. In nerve and muscle, this electro-motive force is the greatest; and in them, in common with the other tissues, their interior and exterior aspects are inversely electrified, the current flowing from the latter to the former, from longitudinal to transverse surfaces, and, in the human subject, from the feet to the head. This is a matter of some importance; for, when a current of electricity from a battery is sent in the same direction as the natural animal current, the functional irritability of the tissues is augmented, but if in an opposite direction it is diminished.

The physiological effects of electricity depend upon the form, intensity, mode and length of application, and to the organ and vitality of tissue which come under its influence. The *faradic* current is a powerful nerve-stimulant, and, like all other stimulants if used in excess, it paralyses in large, what it stimulates in small, doses. Consisting, as it does, of a series of rapidly repeated shocks, it has little or no chemical or other effects. The *galvanic* current, on the other hand, has much more extensive properties. In addition to being a nerve-stimulant, it causes contraction of muscular fibre. In small doses, it dilates the blood-vessels, increases the circulation, and raises the temperature. In large doses, it paralyses the vessels, arrests the circulation, and causes destruction of the tissues. It profoundly modifies nutrition, and thereby stimulates into action all the organs. It chemically decomposes all the fluids and solids of the body, and may thus be used as a caustic, and it physically produces such heat as to be efficacious as a cauterising agent.

We shall now consider in detail the effects of each current as applied individually to the different organs and tissues, confining ourselves to those which bear on the present subject of inquiry, namely, the diagnosis of diseases of the nervous system.

The Brain.—The experiments of Hitzig, Ferrier, and others upon animals have shown that faradism, when applied to the surface of the cerebral hemispheres, stimulates the various centres into action which are supposed to originate special functions. Irritation at definite points on the surface of the convolutions, especially round the fissure of Rolando, gives rise to definite movements on the opposite side of the body; whereas in other situations, which have been ascertained not to be motor, the stimulus is not followed by any result. These centres of voluntary motion can, in fact, be stimulated by a weak faradic current into activity, and each thereby performs its own function in the form of special muscular contractions. Faradic irritation of all the motor basal ganglia and motor tracts in the brain cause unilateral movements of all the muscles on the opposite side of the body. Galvanic excitation of similar parts also causes the same muscular contractions, but only at the opening and closing of the current. Although by analogy we may fairly assume that similar phenomena would ensue in the human subject, I am not aware of this having actually been demonstrated. There is no evidence to show that faradism applied to the exterior of the scalp produces any physiological effects on the brain; but, if a strong current of galvanism be made to pass through the head of an animal, Matteucci found that contractions of all the muscles of the body could be produced; and in man, if a weak current be employed in the same way, definite cerebral symptoms will ensue, such as vertigo, sickness, fainting, convulsions, etc., which, although most marked at the opening and closing of the current, continue all the time it is passing. If the galvanic giddiness be produced by the cathode, or negative pole, being placed on the right side of the head, and the anode, or positive pole, on the left, surrounding objects seem to go from right to left. On opening the current, the body has a tendency to fall towards the anode, and, on closing, towards the cathode. It has been shown by experiment that, when the electrodes are placed on each side of the head, the current of electricity actually passes through the brain. The channel through which this takes place is, according to Erb, directly through the medium of the tissues. Dr. Althaus believes it to occur by reflex action through the fifth pair of nerves, and adduces a case to show that, when those nerves are paralysed, no physiological effects could be produced on the brain by application of electricity to the scalp.

The Spinal Cord.—In animals, a faradic current of sufficient strength applied directly to any part of the cord induces tetanic spasms of all the muscles of the trunk and limbs. This continues during its whole course, which, if continued long enough, will cause gradual diminution of these movements, and ultimate paralysis. If a weak current, sufficiently limited, be applied to the motor tract on one side of the cord, it would produce unilateral contractions; on the opposite side of the body if applied above the medulla, and on the same side if below that centre.

Galvanism, in the same way, if applied to any portion of the cord, results in general muscular contractions, but only on opening and closing the current. While the current is passing, there are no apparent movements, but a so-called inhibitory effect is produced, in so far that the cord is rendered insensible to ordinary stimuli; and, while in this condition, if faradism be applied, it will not induce movements of the muscles. This phenomenon is confined to the spinal cord, and does not extend to the nerves; for if, while the current is passing through the former, the latter be stimulated, the muscles readily contract. According to Onimus, a descending current diminishes, and an ascending one augments, the reflex irritation. Faradisation of the cilio-spinal region, or that portion of the cord between the seventh cervical and the sixth dorsal vertebræ, induces dilatation of the pupil through the influence of the sympathetic nerve, which here takes its origin. Irritation of the genito-spinal ganglion at the level of the fourth and fifth lumbar vertebræ causes contraction of the vasa deferentia, the bladder, and the lower portion of the rectum. There is no evidence that faradism has any influence on the cord of man; but both experiment and observation have demonstrated that distinct physiological effects are induced on that centre by the galvanic current; and this is proved, as pointed out by Erb, by the muscular contractions of the parts supplied from the region of the cord irritated.

Motor Nerves.—On irritating a motor nerve with electricity, the only visible phenomenon which follows is contraction of all the muscles which it supplies. Each shock of the faradic current produces a contraction. This also increases the excitability of the nerve, so that a second shock succeeding the first produces more marked muscular movements. This irritability continues to increase with each shock, and at last reaches a maximum which remains stationary for a time, and then gradually diminishes. If these shocks follow one another in rapid succession, there are no apparent intermissions, one contraction not having relaxed before another has taken place; hence there is tetanus, and this continues all the time the interrupted current is passing. If the application be protracted sufficiently long, the tetanus gradually becomes less marked, and ultimately disappears, the nerve having then lost its power of irritability and excitability. Thus the faradic current in moderate and limited doses stimulates the natural function of nerve, in large or long-continued doses it paralyses it.

The action of the galvanic current on nerve is very different, and much more complicated. When this is applied with moderate power to a nerve, muscular contractions ensue; but these take place only at the moment of making and breaking the current. These are not of a tetanic nature, but short and sudden; and, while the current is passing continuously along the nerve, there are no muscular contractions. These phenomena are influenced by the intensity of the current; the stronger it is, the more energetic the contractions; and, if it be very powerful, there may be tetanic spasms not only on making and breaking, but during its passage along the nerve. The muscular movements vary according to the direction of the current, so that there are four different contractions: (1) the descending closure contraction, (2) the descending opening contraction, (3) the ascending closure contraction, and (4) the ascending opening contraction. These are further modified in strength by the intensity of the current; and the systematic arrangement of which has given rise to what is termed Pflüger's law of contraction, which is as follows.

	Descending.		Ascending.	
	Make.	Break.	Make.	Break.
Very weak	c	—	—	—
Weak	c	—	c	—
Moderate	c	c	c	c
Strong	c	—	—	c

It must, however, be observed that this law has been compiled from observation on the lower animals from direct experiment on the dissected-out nerves, to which were applied both poles of the current in different situations. It will subsequently be seen how this table is explained by what has been termed electrotonus, and also that the phenomena are modified when only one pole of the battery is applied to the nerve. Electricity does not cause muscular contractions merely by the power the nerve possesses of carrying its influence to the muscles, but by its specific action in stimulating the nervous elements into functional energy. This is evidenced by the fact that, if a nerve be injured or diseased, no contractions are produced on irritation, although its power of conduction is in no way interfered with. It is also shown by the fact that, the further from the muscle the nerve is irritated, the greater the effect produced; and this is still more increased if a portion of the nerve-centre be included in the circuit.

In man, although there are not the same facilities for applying galvanism directly to the nerves, the same general law of contraction holds good. Here, however, instead of both poles of the battery being placed on any individual nerve, as in the experiments above cited, which give the united effects of the two, a different system is adopted, termed the polar method of investigation. This consists of eliminating the effects of one electrode by placing it on a distant or indifferent part of the body, such as the back or sternum, and applying the other pole to the nerve, and observing its uncomplicated effects. In this way, also, four contractions are produced, namely, (1) C. C. C., or cathodal closure contraction; (2) C. O. C., or cathodal opening contraction; (3) A. C. C., or anodal closure contraction; and (4) A. O. C., or anodal opening contraction. Following this method, it will be found that different degrees of muscular contraction result according to the pole applied to the nerve, as well as to the intensity of the galvanism employed. The cathode always predominates over the anode in its power of inducing functional activity. If a very weak current be used, and both poles in succession be placed upon a nerve, and alternately opened and closed, as the current is gradually increased, the first contraction to appear is the C. C. C. As the intensity is gradually increased, the C. C. C. augments in force, and, in addition, the A. O. C. is developed. Further increase more fully demonstrates the C. C. C. and A. O. C., and next appears the A. C. C. Finally, a powerful current induces not only C. C. C., A. O. C., and A. C. C., each more powerful than the other according to its order, but ultimately C. O. C. The normal polar reactions of nerve, therefore, occur in the following order: (1) C. C. C., (2) A. O. C., (3) A. C. C., and (4) C. O. C. It must be, however, noted that, in the living human subject, the A. O. C. and A. C. C. are frequently of the same strength, and occur about the same time; and in some cases, even in perfect health, the A. C. C. is more marked than the A. O. C. Under all circumstances, both the A. O. C. and A. C. C. are much inferior in vigour to the C. C. C.

All the phenomena just described take place only when the galvanic current applied to the nerve is closed or opened; that is, when there is any sudden variation in its density. So long as the current is uniform, it may be increased to considerable strength without causing contractions. When galvanism is continuously passing through a nerve, although no muscular movements take place, the condition of the nerve itself is thrown into a peculiar state, termed electrotonus. This electrotonic condition is evidenced by a change in the physiological state of that portion of nerve through which the current passes; and, if this be in the natural direction—that is, upwards—electrotonus is augmented; but if in a contrary direction—namely, downwards—it is diminished. Under these circumstances, the nerve is altered in its power of evolving electricity, in its conductivity, and in its excitability. If a constant current be passing through a portion of nerve, there is a neutral point between the poles which divides it into two areas—namely, one in the neighbourhood of the anode, which is the anelectrotonic area; and the other near the cathode, or the catelectrotonic area. The extent of these two divisions depends on the strength of the current. With one of moderate power, the neutral point is midway between the two poles; with a weak current, it is near the anode, in which case the greater part of the nerve is in a catelectrotonic condition; and, with a strong one, the position is reversed, the neutral point being near the cathode, thus throwing the larger portion of the nerve into anelectrotonus. Now, the excitability and conductivity of a nerve is diminished in the neighbourhood of the anode, and augmented at the cathode; hence, when it is in a catelectrotonic condition, muscular contractions are more readily induced than when it is in a state of anelectrotonus. These changes are most marked at the poles, but extend for some distance on either side. The nerve is excited, and consequently there are muscular contractions when it passes from a lower to a higher state of irritability, as by the appearance of catelectrotonus, and by the disappearance of anelectrotonus. When the reverse takes place, there are no results. A large catelectrotonic area has the power of overcoming the effects of a small anelectrotonic condition; but, on the other hand, a small amount of the former may have no effect in the presence of a large area of the latter. A careful consideration of all these facts on the dissected-out living nerves of animals, and where the poles were directly applied, has given rise to Pflüger's law of contraction already cited.

In man, the same general rules apply, so far as they can be practically demonstrated. Following the polar method, it may be stated generally that the cathode placed over the nerve excites its irritability in the neighbourhood, and that the anode has exactly the opposite effect; while, after what has been already stated, it will be understood that a feeble galvanic current is more stimulating than a powerful one, as the former induces a larger area of catelectrotonus.

It has been already seen that, when faradism is applied to a motor nerve, tetanic contractions take place in the muscles, and remain so long as the current passes. On the other hand, when moderate galvanism is employed, contractions only ensue on opening and closing. This is due to the fact that motor nerves are excited, not so much by the amount of density of the current, as by the suddenness of its variations. With the induced current, these take place rapidly; hence a series of quickly succeeding contractions, resulting in tetanic spasm; while, with the continuous, these changes only occur at opening and closing. If the galvanic current be rapidly interrupted, it has the same effect on the faradic battery in causing tetanus. Galvanism resembles faradism in this respect, that in moderate and limited doses it stimulates, and in large and prolonged doses it paralyses, nerve-function.

Voluntary Muscle.—The faradic and galvanic currents directly applied to a healthy muscle produce precisely the same phenomena as when its nerve is similarly treated. This is due to their effect as the terminal intramuscular branches of the nerves. When these are destroyed by poison or otherwise, leaving the muscular structure healthy, the reactions are very different. The faradic current then applied to the fibres alone produces no contraction, neither does rapidly interrupted galvanism. But, if a continuous current slowly opened and closed be employed, there are muscular movements, and, while the current is passing, there is usually slight tetanic spasm. This demonstrates that the fibre is contractile without nervous influence, although in a different manner. There is another distinction; for, as we have already seen, when the nerves are intact, the muscular contractions under galvanic irritation are short, sudden, and complete. When nerve-influence is removed, they are more prolonged, more tardy in appearance, and less vigorous in degree. For this reason, if the variations of the electrical current be quickly recurring, the muscles do not contract at all, and this explains the failure in acting to the faradic and rapidly interrupted galanic influences. To induce contractions, a longer duration of current is necessary, hence their response to the slowly performed opening and closing. Again, a stronger stimulus is necessary to produce the same effect when muscle is directly irritated as compared with nerve. The order of polar reactions is, however, precisely the same as in healthy nerve. To sum up, muscle, when deprived of nerve-influence, differs from the normal condition: 1. In the contractions being slower in appearing, longer in duration, and less vigorous in degree; 2. In requiring a prolonged application of electricity to produce contraction, hence the failure of action under faradism; 3. In requiring a stronger current to produce the same effect; and 4. With galvanism, there are contractions; with faradism, there are none; whereas in a muscle with the nerve intact, there are stronger contractions with the latter than with the former.

Sensory Nerves.—The effects of the faradic current on sensory nerves depend on its strength, the rapidity of the interruptions, and the nature of the electrodes. If of weak intensity, a slight pricking sensation is felt; if powerful, there is intense pain. A rapidly interrupted current has much more effect than a slowly interrupted one, the feeling from a single faradic shock being trifling; but, if rapidly succeeding one another, each is more powerful than its predecessor, from increasing irritation of the nerve, and hence there is greater pain. After a time, a maximum is reached, which remains stationary, after which sensibility diminishes. Gradually a feeling of numbness is produced; and then, although the current is augmented in strength, there is no increase of pain, and ultimately complete anæsthesia may be induced. A moist conductor, by enabling the current to pass through the skin, causes much less pain than a dry one, which encounters great resistance at the more sensitive part of the integument.

The galvanic current causes a sensation of stinging and heat, which continues while the current is passing, If the current be feeble, this is not unpleasant, but, if strong, there is intense burning pain. This is most marked with the cathode, and with a dry electrode. The effects increase the longer the current is applied, because not only does the nerve become more irritable, but the skin becomes a better conductor, owing to its increasing vascularity. If the current be sufficiently prolonged, the pain diminishes, and numbness, or even anæsthesia, supervenes.

At different parts of the body, the sensibility to the electric stimulus varies greatly; a current, for example, which is unbearable on the face, might not be felt on the sole of the foot. MM. de Watteville and Tschiriew have recently ascertained that "the electrical excitability of the skin, or, rather, of the nerves of the skin, is the same at every part of the body". Hence the actual differences of sensibility in various localities must be due to the variety of conducting media which surround the terminal peripheral nerves of the skin, such as thickness and dryness of epidermis, etc.

Both currents produce a peculiar sensation when applied to muscle called electro-muscular sensibility. This is due to contraction, and is proportionate to the strength of the electricity.

To sensory as to motor nerves, both faradism and galvanism act in small and limited doses as stimulants, and in strong and protracted doses as paralysing agents.

[*To be continued.*]

THE MEDICINE AND SURGERY OF HOMER.

By HENRY DUNBAR, M.D.

It cannot but be remarked by those interested in the subject, and conversant with the poems of Homer, how that, in the *Iliad* more particularly, which is altogether taken up with the exploits of heroes, combats, wounds given and received, and death, very little allusion is made by the poet to the medical and surgical treatment of his disabled warriors.

That Homer, however, must have had a very considerable knowledge of the internal economy of the human frame, is abundantly made clear by his nomenclature of the different parts of the body, wounded, met with in various places throughout the *Iliad*, a nomenclature still, in many respects, in vogue with us at the present day; but how the great epic poet acquired his knowledge we have no means of determining. Did he acquire his knowledge of the internal structure of man's frame by ever having seen a dead body examined? To this there must be but one answer; the strongest impossibility that he ever did, for the touch, or examination, of the dead body was interdicted as a profanation by both Jew and Greek, and it was only after the death of Alexander the Great, when learning centred at Alexandria, under the fostering care of Ptolemy Soter, who made Alexandria the capital of his kingdom in 313 B.C., when literature was encouraged, and four schools of science founded—viz., criticism, mathematics, astronomy, and physic—that the examination of dead bodies was permitted. (This period was called the golden age of the Ptolemies.)

The most probable period of time in which Homer lived is considered by most men of learning to have been about 850 B.C. Troy was taken by the Greeks, according to our chronology, in the year 1184 before the Christian era; so that, by computation, Homer flourished about three hundred years after the fall of Troy, and about five hundred years before the reign of Ptolemy Soter; therefore, it was five hundred years after Homer's time that the examination or dissection of dead bodies was sanctioned. Although Homer may never have even seen the body of a deceased person opened for the purpose of being embalmed, yet he must have been aware of such a custom prevailing among the Egyptians; for, in *Iliad*, Book xix, 38, 39, he makes Thetis "instil into Patroclos (dead), through the nostrils, ambrosia and ruby nectar, that his body might be uncorrupted".

> "Whole years untouched, uninjured shall remain,
> Fresh as in life, the carcase of the slain."

Nectar was supposed to preserve from decay, and to confer immortality; while ambrosia is mentioned by Virgil, *Æneid*, Book xii, line 616, as possessing the power of healing wounds.

I would ask again, Did Homer ever see a human skeleton? That is possible. Did Æsculapius? Did his two sons Podalirius and Machaon? Were they acquainted with the anatomy and surgery of the human frame? History is silent on this subject; but that they all must have had some knowledge of the internal economy of man's material substance cannot but be conceded by every one. That the knowledge of medicine and surgery in Homer's time must have been in a very infantile and rude state does not admit of doubt. No mention is made of amputation (ἀπόκοψις); no setting of fractures, though broken bones were plentiful; no tying of arteries, which vessels were not known to exist in Homer's time, though φλέψ (phlebs), a vein, occurs in *Iliad*, Book xiii, 546; more probably, however, according to the scholiast's interpretation, who calls it a "hollow or empty vein", κοίλην φλέβα (koilên phleba), it is either the trachea or the thoracic duct of our nomenclature that is meant by Homer; no mention of gout, ποδάγρα (podagra), or headache, κεφαλαλγία (cephalalgia), brought on by a disordered liver, or from being *Bacchi plenus*, occurs in Homer's poems, though his heroes, and the immortal gods themselves, "who inhabit wide Olympus", quaffed the wine-cup without stint, as we read of in the last lines of the first book of the *Iliad*, where Ἥφαιστος (Vulcan) is pouring out, from left to right (of the seated gods), nectar from a goblet, and when inextinguishable laughter arose among his immortal *confrères*, when they saw him, the lame (ἀμφιγυήεις) Hephaistos, hohbling about, wine-cup in hand. These Dii Majores feasted and drank the entire day till the sun set, when the Olympian Thunderer Jove arose, went to his couch and lay down to sleep, and

—"παρὰ δὲ χρυσόθρονος Ἥρη."

None of the ills to which flesh is heir troubled Homer's heroes; they came to the Troad, and sat down before Troy, sound in wind and limb; no asking to go home "on sick leave" or "on private affairs" ever came into their heads, though Agamemnon himself (ἄναξ ἀνδρῶν), when matters were looking black for the Greeks, once or twice counselled a going home to Argos.

Medicine and surgery, such as they were in Homer's time, were conjoined; the earliest traditions of these arts were derived from the ancient Greeks, and by these again from the Egyptians. Apollo was the original god of physic among the early Greeks; but he appears to have resigned in favour of his son Æsculapius, in whose temples, especially in the one at Epidauros, was deposited all that was known of medicine and surgery.

Podalirius and Machaon, the two sons of Æsculapius, are the first physicians and surgeons of whom we read as being "in practice" (always, with reverence, excepting "Luke, the beloved physician"); and they have been immortalised by Homer, who held members of the healing art in due regard, and they were justly looked upon as a superior body of men. But Podalirius and Machaon, *ἰητῆρ' ἀγαθὼ*, able physicians both, besides acting as physicians and surgeons-general to the Greeks and their allies at the siege of Troy, themselves conjointly commanded a division conveyed in thirty ships to the Troad, as we read in *Iliad*, Book ii, 731. Machaon, according to Virgil, *Æneid*, Book ii, 343, was one of the Greek chiefs shut up in the wooden horse in Troy.

Of the two *ἰητῆρες*, Machaon seems to have been the most distinguished as a surgeon; but Podalirius was reputed to have been the first of phlebotomists, having opened a vein in both arms of the King of Caria's daughter, who had been severely injured by a fall from a housetop. The hand of this princess, and the Chersonese as her dowry, were the rewards of his skill. Would any humble Æsculapius in our day be thus rewarded? Are any of us ever ennobled by saving the life of, say, a Lord's anointed; alas! no. It was no great marriage after all for Podalirius; for, although a physician, he could boast of having a god (Apollo) for his grandfather; but, like many members of the healing art in ancient and modern times, he might have been afflicted with the *res angustæ domi*, a state of affairs that obtains much more as the rule than the exception among that august body of men. Be it hoped, however, that Podalirius' prospects and practice were improved by having received such a dowry, and that the princess was to him a *placens uxor* as well as, mayhap, in body and mind, the belle and beauty of the Chersonese.

At the very commencement of the *Iliad*, Homer passes over his physicians and surgeons general entirely; for, when the plague or pestilence broke out in the Grecian camp, brought about by Apollo, at the entreaty of Chryses, whom Agamemnon had grievously ill-used and insulted, Homer applies at once to Apollo. After the pestilence had run havoc for nine days throughout the camp, Chryses, being appeased and his daughter restored to him, prays to Apollo with uplifted hands (*χεῖρας ἀνασχών*) that he would avert the woful pestilence; him Apollo heard, and stayed the plague. Homer evidently was of opinion that the skill of his medical officers could not attain to the grappling with such a pestilence as was then raging in their midst; so, without "consulting them", as is the etiquette of modern times, he "calls in" the aid of the god of physic himself, knowing full well that, to stay the ravages of the *ἰὸν* and *βέλος* (sudden death) discharged by Apollo, nothing would avail but prayers and supplications to the god himself, imploring him to allay his wrath and withdraw his destroying hand.

The surgical attainments of our two *ἰητῆρες* seem to have extended no farther than to the simple extraction of arrow-heads, spear-heads, and other offensive weapons; the checking of hæmorrhage by pressure or styptics; and the application of soothing remedies or unguents (*ἤπια φάρμακα*). In extreme cases, such as fracture of the bones, Homer had recourse to the same expedient as he followed during the pestilence, to wit, invoking the aid of the gods.

We do not read of any of Homer's heroes, when wounded, dying of secondary hæmorrhage, gangrene, or the like. After a time, they recover and come up again to the fight, being met with in subsequent combats, still to the front, fighting on during, and to the end of, the siege, or falling, like Patroclus, before Troy itself fell.

When Machaon was himself wounded (*Iliad*, Book xi, 507) in the right shoulder by a three-barbed arrow discharged by Paris, and carried by Nestor in his chariot (no ambulances in those days) to his tent, did he call in his brother practitioner and brother Podalirius to dress his wound, or did he do it himself? What dressing, what *ἤπια φάρμακα* did he apply? Cold water, perhaps. Machaon's wound and recovery interest the whole army: Idiomeneus exhorts Nestor, the *μέγα κῦδος Ἀχαιῶν*, to whose care Machaon is entrusted, to strenuous exertions in his behalf, "for a leech who, like him, knows how to cut out darts, and relieve the smarting of wounds by soothing unguents, is to armies more in value than many other heroes"; and Achilles, seeing Nestor and his charge approach, sends Patroclus to inquire after "the wounded offspring of the healing god". Would that, in this our day, Her Majesty's powers that be would take Idomeneus' words to heart, and promote the deserving and heroic Podalirii and Machaons of the British naval, military, and civil services to positions to which some of them most truly and emphatically are entitled!

Patroclus speeds to the tent of Nestor; arrived there, he stands at the door, "a godlike hero", and sees for himself that it is indeed Machaon that is wounded, sitting on a couch, whilst a maiden, the beautifully curled Hecamedè (*εὐπλόκαμος Ἑκαμήδη*) is mixing for the two heroes a cup of Pramnian wine. Here I would remark, that all Homer's heroes, at least all of any note, carried with them on their campaigns a fair maiden, generally a captive, as a part of their Lares and Penates. What was the occupation of these damsels in these stirring times? Besides making up their lords' and masters' couches, and "redding up" their tent or tents, did they wash their linen, O Homer, for thou sayest nothing about it? No, for thou wouldst not descend from the sublime to the ridiculous; and this brings me to remark again, that the washing of linen or clothes occurs only once in the *Iliad* (Book xxii, 155):

—"*θι εἵματα εἵγαλόεντα*
πλύνεσκον Τρώων ἄλοχοι καλαί τε θύγατρες—"

"where the wives and handsome daughters of the Trojans were wont to wash their splendid garments"; and once in the *Odyssey* (Book vi, 31), where Minerva appears to Nausicaa in a dream, and desires her to go with her attendants to the river to wash her clothes preparatory to her marriage, she (Minerva) following as her assistant: "Let us go," says Minerva, to wash them together with the morning's dawn."

"*ἀλλ' ἴομεν πλυνέουσαι ἅμ' ἠοῖ φαινομένηφιν.*"

Πλύνω, to wash clean (clothes), is the opposite of *λούω*, to wash the body, mid. *λούομαι*, to wash one's self; which verb occurs repeatedly both in the *Iliad* and *Odyssey*, and to *νίζω*, to wash the hands, which is found three times in the *Iliad* and four times in the *Odyssey*. But, Nestor, what was a man at thy time of life doing with a fair maiden in thy tent? Fie on 't! O Pylian sage! Was thine old lady, the once fair Eurydicè, then far away in Pylos, aware of the fact? Possibly so, for it seems to have been an universal custom among the Greek chiefs to take a captive maiden in their train. Horace sings that

"Serva Briseïs niveo colore
Movit Achillem:
Movit Ajacem Telamone natum
Forma captivæ dominum Tecmessæ."

All these damsels were of attractive beauty; and Homer himself had a keen eye for female and manly comeliness, for all the men and women, more especially in the *Iliad*, mentioned by him, were fair to see, except Thersites, the "inordinate babbler" (*ἀκριτόμυθος*), who "was the ugliest man who came to Ilion".

But Patroclus is standing at the door of Nestor's tent all this time. He is invited by Nestor to come in and sit down. "No seat for me," replies Patroclus. Whereupon, possibly to punish him, Nestor, with the garrulity of old age, gives him a long description of valiant deeds done by him in his earlier years, keeping him standing all the while, and no doubt chafing, yet afraid to interrupt the old man, who winds up with a message of exhortation to be carried by him to Achilles.

Patroclus hies him away to the ship of Achilles; but, on his way, he falls in with his friend Eurypylus, wounded by an arrow in the thigh, limping to the rear; Patroclus, like a true-hearted comrade, at his friend's entreaty, carries him tenderly to his (Eurypylus') tent, and does a little surgery on his own account. He cuts out the arrow from his friend's thigh with some haphazard bistoury; he washes away the black blood with warm water; then he applies a bitter pain-assuaging root, rubbing it in his hands, which eases all Eurypylus' pangs; the wound is dried up, and the hæmorrhage ceases. Having completed this little bit of surgery, no doubt to his own and his wounded friend's satisfaction, Patroclus hurries away, eager to deliver his message to his heaven-born chief Achilles.

With regard to the pestilence which was committing such havoc in the Grecian camp, as mentioned in *Iliad*, Book i, 51, we have no means of knowing what kind of disease it was. The *ἰὸν* and *βέλος* discharged by Apollo meant, metaphorically translated, sudden death; if so, it might be likened, though in a far less degree as to the ravages committed, to the wholesale destruction of Sennacherib's host so beautifully described by Lord Byron; partial extermination in the one, complete in the other.

"The Angel of Death spread his wings on the blast,
And breathed on the face of the foe as he past,
And the eyes of the sleepers waxed deadly and chill,
And their bosoms once heaved, and for ever grew still."

So it might have been in the camp of the Greeks. They were encamped in a position in no way detrimental to health, on the seashore, a shelving beach, exposed to the healthy influence of the sea-breeze; they had, or could have had, abundant supplies; for they had command of the sea, and there was no stint of water, at least nothing that would lead us to suppose so is mentioned by Homer, as the rivers Simois and Scamander were in the vicinity; malarial influences, therefore, were not there to predispose to any deviation from health; but who or what could withstand, with impunity, the anger of the gods?

In the first and second books of the *Iliad*, there was no fighting, no slain, no wounds to dress. In the third book, we come to the duel between Menelaus and Paris, where no blood is drawn, but where Paris is wellnigh choked by the strap of his helmet, which is held in the firm grip of Menelaus, but which gives way, and Paris is removed, concealed in a thick mist, by Venus.

In the fourth book, the first blood is drawn from the person of Menelaus, who is hit somewhere in the upper part of the abdomen, superficially, by an arrow discharged by Pandarus. Menelaus' wound, however, is not in a vital spot (ἐν καιρίῳ); and here Machaon, as a surgeon, first comes to the front, his first patient being Menelaus. Agamemnon, much concerned about his brother's wound, resolves to send for the "physician, who shall probe the wound and apply remedies, which may ease thee of thy acute pains", and forthwith he orders Talthybius to call in Machaon. The son of immaculate Æsculapius straightway appears, extracts the arrow, breaking the sharp barbs while doing so (there is no mention of his enlarging the wound); then he lays bare the wound, sucks the blood, and skilfully applies soothing remedies, "which benevolent Chiron had formerly given to his father". In this close-waged fight, many were slain outright, Menelaus being the only chief mentioned as having had his wound attended to.

In the fifth book, the exploits of dashing, daring Diomed, the Murat of the Greeks, come into play. Pandarus, seeing the onslaught of Diomed, who was driving all before him, tries to check his career by wounding him on the right shoulder by an arrow; but Diomed, nothing daunted, requests his charioteer Sthenelus to come down from the chariot and draw out the keen shaft; Sthenelus does so, the blood spurting up through the twisted mail as the arrow is withdrawn. Diomed, notwithstanding, presses on, irritated by his wound to reckless daring. After first killing Pandarus, and all but slaying Æneas, he rushes on Venus and wounds her on the hand; the goddess, distracted with pain, is conveyed by Iris, in the chariot of Mars, to Olympus, to the feet of her mother Dionè, who wipes off the ichor from her daughter's hand, soothing her the while, and forthwith the pain is mitigated and the hand is healed.

Diomed, in his impetuous career, next, aided by Minerva, encounters Mars, and wounds him in the lowest flank (νείατον ἐς κενεῶνα). The god of war, bellowing like ten thousand men, ascends to Olympus, as did Venus, and complains to Jove, "showing him the immaculate ichor flowing down from the wound". The son of Saturn, sternly regarding him, tells him that he has been rightly served; but, being his offspring, he orders Pæon to heal him. Pæon does so, applying to his wound pain-assuaging remedies (ὀδυνήφατα φάρμακα πάσσων). Pæon was a celebrated physician of Egyptian origin, who was considered in fable to have cured the wounds and diseases of the gods. Pope, in his translation, makes Pæon Apollo.

In the eleventh book, Agamemnon and Diomed are both wounded; but there is no mention of their being attended to by either Machaon or Podalirius. Machaon was unable to look after any one, for in this book, as mentioned above, he is himself wounded, and is attended to by Nestor. But I come to the treatment of Eurypylus' wound by Patroclus, and would inquire what the "bitter pain-assuaging root" (ῥίζαν—ὀδυνήφατον) could be which Patroclus, after rubbing (to express the juice, no doubt), applied to the wound. Ῥίζα, according to lexicographers, is simply a root; most probably it was either the ῥίζα ῥοδία of Dioscorides and Galen, or the *Rhodiola rosea*, *Anglicé*, the rose-root of Sprengel or a species of geranium, a strong bitter astringent. Query, Was the root, whatever it was, at hand in Eurypylus' tent? Did Patroclus carry it about with him? or was it to be found growing plentifully in the immediate neighbourhood?

Nestor was left, at the close of the eleventh book, undertaking the cure and care of Machaon, the surgeon-in-chief; at the commencement of the fourteenth, he leaves his patient under the care of the fair Hecamedè, who is instructed to warm tepid baths (θερμὰ λοετρὰ), to wash away the blood oozing from the wound, and to give her charge a tonic occasionally in the shape of wine, while he (Nestor) was going to gain information as to how the day was going.

There is no more mention of Machaon in the *Iliad*, except in Book xiii, 213, where Idomeneus, after having given directions to the surgeons (ἰητροῖς ἐπιτείλας) to look after a comrade who was borne to his tent wounded in the ham (κατ' ἰγνύην), goes to the front to participate in the fight.

Machaon seems to have held a more conspicuous place among the Greeks and their allies than his brother Podalirius, for he is mentioned eleven times in the *Iliad*, while Podalirius appears only twice, he being evidently the physician, and Machaon the surgeon, to the forces. Neither is to be found in the *Odyssey*. After the fall of Troy, they are said to have established themselves in the island of Cos, where, let us hope, they had an extensive and lucrative practice. Cos was sacred to Venus and Æsculapius, and became, in after years, famous as the birthplace of Hippocrates, the great father of physic as he was called, and the founder of the Coan medical school.

That Homer must have had some knowledge, to a greater or less extent, of the parts of the body on which wounds inflicted might prove mortal, is evident from one or two passages in the *Iliad*. In Book iv, 183, Menelaus, when wounded, reassures his brother Agamemnon by stating that the arrow "has not stuck in a vital part" (ἐν καιρίῳ); again, in Book viii, 326, where Teucer is struck by a stone thrown by Hector "near the shoulder, where the collar-bone separates the neck and breast, and it is a particularly fatal spot" (μάλιστα δὲ καιρίον ἐστι); and again, in Book xi, 381, where Paris, after having wounded Diomed on the upper surface of the right foot, exclaims, "Would that, striking thee in the lower part of the groin, I had deprived thee of life!" and once more, in the same book, v. 435, where Odysseus, having been wounded by Socus, perceives that the weapon has not touched him mortally (κατακαίριον).

To Homer also may be ascribed, without any cavil, a knowledge of some drugs and medicinal plants. In the first book of the *Odyssey*, Minerva tells Telemachus that his father, δῖος Ὀδυσσεύς, went to Ephyrè at one time in a swift ship to seek for a man-destroying drug (φάρμακον ἀνδροφόνον), that he might anoint his brazen-tipped arrows; and here I may remark, that in the *Iliad*, φάρμακον is invariably translated as a remedy, an unguent, ἤπια φάρμακα, soothing applications; while in the *Odyssey* it signifies a drug or medicinal plant, poisonous and non-poisonous, or an antidote or countercharm.

In *Odyssey*, Book iv, 220, Helen casts a drug into the wine of Pisistratus and Telemachus, the guests of her husband Menelaus, a drug "which frees men from grief and from anger, and causes oblivion of all ills". This φάρμακον νεπενθές is supposed to have been opium, or the juice of the *Papaver somniferum;* some have conjectured that it was *brandy*, as the ancient Egyptians were acquainted with that liquor, for the whole process of distillation is or was to be seen figured at Thebes. Homer tells us that Helen possessed cunning and excellent drugs, "which Polydamna, the wife of Thonè, an Egyptian, gave her, where the bounteous land (Egypt) produces very many drugs, many excellent when mingled, and many fatal (poisonous); and each physician, *i. e.*, the physicians of Egypt, is skilled above all men, for truly they are of the race of Pæon". We also read in *Iliad*, Book xi, 740, of Agamedè, daughter of Augeas, "who well understood (the virtues of) as many drugs as the wide earth nourishes".

In the tenth book of the *Odyssey*, we have mention of a drug and its antidote or countercharm; we have the poisonous drug of Circe, which Mercury tells Odysseus she will put into his food, to counteract which, Mercury gives him another drug or herb (v. 286) as an antidote. "The Argos-slayer", says Odysseus (v. 302), "gave me an antidote, pulling it out of the earth, and he showed me its essential quality (φύσιν). It was black in the root, and its blossom was like unto milk, and the gods call it moly." Μῶλυ was believed to have been a species of garlic, to which Linnæus, Stackhouse, and Sprengel give the name of *Allium moly;* others believed it to be the wild rue, which was supposed to be an antidote against drunkenness; Dierbach maintains that the magic plant must have been the mandrake (*Atropa mandragora*), a herb that was much used in incantations.

The poet must also have been acquainted with the custom of making a lustration in, or the purification of, a house in which slaughter or murder had been committed; for in *Odyssey*, Book xxii, 481, 482, we find Odysseus, after killing the suitors, calling upon his old nurse Eurycleia to bring him sulphur and fire, that he might fumigate the palace.

οἶσε θέειον, γρῆυ, κακῶν ἄκος, οἶσε δέ μοι πῦρ
ὄφρα θέειωσω μέγαρον,—

"Bring me, O old woman, sulphur the remedy for impurities, and bring me fire, that I may fumigate the palace."

To sum up, I will give a *résumé*, in alphabetical order, of the names of some of the more prominent parts of the human body mentioned by Homer on which wounds were inflicted, and the mortality resulting.

αἰδοίων (aidoion), the pudenda; once in *Iliad*, xiii, 568; mortal.

ἀνθερέων (anthereon), the chin; four times in *Iliad;* twice mortally.

ἀστράγαλος (astragalos), a vertebra; once in *Iliad*, twice in *Odyssey;* dislocation of the neck; mortal.

γαστὴρ (gaster), the belly; twelve times in *Iliad*, eighteen times in *Odyssey;* mortal in *Iliad*. In *Odyssey* the word relates to hunger or greed.

γλήνη (glenë), the pupil of the eye; once in *Iliad*, mortal; once in *Odyssey*.

γλουτὸς (glutos), the hip; twice in *Iliad*, mortal; once in *Odyssey*.

γναθμὸς (gnathmos), the jaw-bone; four times in *Iliad*, mortal; once in *Odyssey*.

ἐγκέφαλος (enkephalos), the brain; seven times in *Iliad*, three times in *Odyssey;* seven times mortal.

ἧπαρ (hepar), the liver; six times in *Iliad*, three times in *Odyssey;* five times mortal.

ἰγνύη (ignuë), the ham (Lat. *popli*); once in *Iliad*.

κραδίη (cradie) (Lat. *cor*), the heart; many times in *Iliad* and *Odyssey;* once mortal in *Iliad*, Book xiii, 442; the only instance in which the heart was pierced.

κύστις (cystis), the bladder; twice in *Iliad*, mortal.

λαιμὸς (laimos), the throat; three times in *Iliad*, once in *Odyssey;* mortal.

μαζὸς (mazos), the mamma; fourteen times in *Iliad*, three times in *Odyssey;* thirteen times mortal.

μέτωπον (metōpon), the space between the eyes; twelve times in *Iliad*, four times in *Odyssey;* seven times mortal.

μυελὸς (myelos), marrow (Lat. *medulla spinalis*); twice in *Iliad*, twice in *Odyssey;* once mortal.

ὀμφαλὸς (omphalos) (Lat. *umbilicus*), the navel; three times in *Iliad*, not in *Odyssey;* three times mortal.

οὖας (ouas) (Lat. *auris*), the ear; twelve times in *Iliad*, eight times in *Odyssey;* seven times mortal.

ὀφθαλμὸς (ophthalmos), the eye; occurs repeatedly both in *Iliad* and in *Odyssey;* but as wounded five times; all mortal.

πνεύμων (pneumōn), the lung; once in *Iliad;* mortal.

πραπίδες (prapides), the diaphragm; four times in *Iliad;* twice mortal.

στέρνον (sternum), the breast; sixteen times in *Iliad*, three times in *Odyssey;* three times mortal.

τένων (tenōn), a tendon; seven times in *Iliad*, once in *Odyssey;* four times mortal.

φλέψ (phlebs), a vein; once in *Iliad* (Book xiii, 546); mortal.

χολάδες (cholades), the intestines; twice in *Iliad;* mortal.

To these are added—

σφενδόνη (sphendonë), a sling bandage; once in *Iliad* (Book xiii, 600).

φάρμακον (pharmakon), a remedy or application, unguent, in *Iliad* nine times; a drug or medicinal herb in *Odyssey* twenty times.

It will be remarked that, in mentioning the blood that flows from the wounds of mortal men, Homer applies the word *αἷμα* (hæma); blood from the immortal gods has the word *ἰχώρ* applied to it; this last is translated by some lexicographers as "the fluid that flows in the veins of the gods"; by others, as "the fluid which distilled from the wounds of the gods, ichor".

I cannot do better, in bringing these remarks to a close, than give a quotation from the *Observations on Homer's Battles*, by the Rev. T. S. Watson, which will be found at the end of the fourth book of his edition of Pope's *Iliad*.

"Another cause of this *variety* is the difference of wounds that are given in the *Iliad;* they are by no means like the wounds described by most other poets which are commonly made in the self-same obvious places; the heart and head serve for all those in general who understand no anatomy; and sometimes, for variety, they kill even by wounds which are nowhere mortal but in their poems. As the whole human body is the subject of these, so nothing is more necessary to him who would describe them well than a thorough knowledge of its structure, even though the poet is not professedly to write of them as an anatomist; in the same manner as an exact skill in anatomy is necessary to those painters who would excel in drawing the naked body, though they are not to make every muscle as visible as in a book of chirurgery. It appears from so many passages in Homer that he was perfectly master of this science, that it would be needless to cite any in particular."

CASE OF DILATATION OF STOMACH, SUCCESSFULLY TREATED BY THE SYPHON STOMACH-TUBE.

By W. SNEDDON, M.D., Beith.

W. M., aged 48, was not troubled with his stomach till immediately after a severe attack of scarlatina in 1854. He complained of pain with general dyspeptic symptoms, which were eased by taking a little alcohol. The pain was confined to a small spot which could be covered by the point of one's finger. About a year after this, he commenced to vomit, which he did several times a day for months in succession. He was unable to work every year from eight weeks to eight months, with one exception, in 1876. He came under my observation about seven years ago, from which time till now I think I used all the usually prescribed remedies in the *Pharmacopœia*. Amongst these were iron and strychnine, sulphurous acid, carbolic acid, creasote, sulphite of soda, charcoal, bismuth in fluid and solid form in combination with bitter tonics, and with morphia, pepsine, lactopeptine, effervescing citrate of iron, strychnine and quinine, salicylic acid. All these were used for some time and got a fair trial, none being used fitfully. Of all these, I think he was most benefited by the effervescing citrate of iron, etc. None of them gave him temporary relief equal to bicarbonate of soda or citrate of magnesia. Bismuth invariably increased the pain. Attention to regimen only was tried for some time, with blisters over the stomach.

When seen at end of April this year, there was distinct evidence of dilatation of the stomach. He was thin and anæmic. He had been off work four months, during which time he vomited several times every other day. The vomited matter was so sour, that it felt as if "it would take the skin off his mouth", as he termed it. It had a sour disagreeable fermenting smell. When allowed to stand for a short time, it commenced to ferment, and, if a little bicarbonate of soda were added, active effervescence took place. He often vomited a basinful at a time. The tongue was clean, but white. The bowels were constipated, which necessitated the frequent use of enemata. He was so much pained, that he cried out with it. The pain was not confined to the stomach; it was worse in the hypochondriac and umbilical regions, and was sometimes worst of all over the lower dorsal vertebræ.

April 30th. I used the syphon stomach-tube for the first time. It was simply the gum-elastic tube with the flexible India-rubber tube detached from the ordinary bivalve stomach-pump. I ordered him to hold back his head, as recommended in some text-books, but found this was objectionable, for it caused the tube to point forwards. When the gum-elastic tube was nearly bent at right angles, it could be hooked over the tongue as it were, and, when kept in mid-line, and pushed upwards and backwards, there was no difficulty in using it. On the tube entering the stomach, it produced retching, which filled the tube, and the fluid ran out of the syphon. There was a pint of sour turbid fluid evacuated, which felt very hot when flowing through the brass part of the tube.

May 1st. He had a better night than he had had for some time. On using the syphon-tube to-day, there was not the same immediate tendency to retch, but, by slightly withdrawing and then pushing the tube back, vomiting was induced. I introduced, by raising the external end of the syphon, a pint of lukewarm water, to which had been added a drachm of bicarbonate of soda, and then evacuated it.

May 16th. I used the syphon-tube daily till to-day; from the 6th, he took a small teaspoonful of Gregory's mixture every morning, and the vomited matter was often greenish in colour from this date. He was quite free from pain since the 8th, and felt better than he had done for months. From the 10th to the 16th, nothing was ejected.

May 31st. I used the syphon-tube every third or fourth day since the 16th. On two occasions a few ounces were ejected. He had a little pain last night.

June 2nd. He vomited last night for the first time since commencing the syphon. In using the syphon to-day, it entered the larynx, when there was a whistling rushing sound with suffusion of the face and violent retching.

June 3rd. He vomited half a pint of fluid last night. About a pint was evacuated with the tube.

June 4th. He vomited a little last night. Fully a pint of slightly greenish fluid was evacuated to-day with the syphon.

June 11th. I used the syphon daily from the 4th, though on several occasions nothing was discharged. He had remained better since the 6th, and felt very well.

June 27th. I used the tube every third day since last date, when about six ounces were ejected daily. I invariably used the soda solution after seeing whether there was anything in the stomach or not.

July 11th. I had not used the syphon for a fortnight, but, as he complained of a little pain last night, I used it to-day. Only one ounce of glairy clear fluid came up. I ordered him to take a teaspoonful of Carlsbad-Sprudel salts daily.

On August 30th he had been working for six weeks, and had gradually increased in weight and strength. His colour was better, and he felt quite well.

I think the success of the treatment adopted cannot be questioned, for the benefit was manifested immediately after the syphon was used. The intractable nature of the case, after the failure of all the other means used, and the long duration of the illness, render it all the more convincing. This method of treatment was introduced by Kussmaul; and, according to Dr. Schliep (British Medical Journal, March 27th, 1875, page 416), is more and more used in Germany since praised by him. Dr. Schliep (*loco cit.*) "uses the stomach *pump* daily in dilatation, and, if the liquids be very acid, adds bicarbonate of soda to the water; or permanganate of potash, if these liquids show signs of fermentation; carbolic acid, when they contain vegetable parasites; boracic acid, as a disinfectant; and tincture of myrrh, in atonic dyspepsia with abundant secretion of mucus". Drs. Clifford Allbutt and E. H. Jacob of Leeds have obtained good results, which are amongst the earliest reported in this country. A few cases have been successfully treated in King's College Hospital, by Dr. Duffin; in the Birmingham General Hospital, by Dr. Russell; in the Western and Royal Infirmaries, Glasgow, by Drs. Gairdner and Wood Smith respectively.

The stomach syphon-tube is that which was brought before the Edinburgh meeting of the Association by Dr. Harvey of Aberdeen.

P.S.—December 31st. He has continued well since these notes were written.

STRANGULATED INGUINAL HERNIA SIMULATED BY BLOOD IN THE SCROTUM.

By JOHN C. UHTHOFF, M.D.Lond.,
House-Surgeon to the Sussex County Hospital, Brighton; etc.

THE following case is one of great interest, chiefly from a practical point of view, though its exceptional nature would also make it worthy of record. E. M., aged about 60, a bath-chair man, was apparently in good health on the evening of November 21st, 1879. His previous history I had been unable to obtain; but it scarcely has much influence on the immediate interest of the case. During the night, he was seized with severe pain in the abdomen and down the left leg. Mr. E. J. Furner was called to see him, and found him suffering intense pain. His agony was so great that he was writhing about in bed and could not be kept quiet. Mr. Furner found, on examination, what appeared to be a strangulated scrotal hernia on the left side; that is to say, there was a sausage-shaped tumour in the scrotum, coming through the external abdominal ring, which was tense and gave no impulse on coughing, and which had appeared suddenly, the man having before been accustomed to have a reducible scrotal hernia on this side. He also had a reducible hernia on the right side. The abdominal pain, too, corresponded with a sudden and severe strangulation of the gut, although that down the leg could hardly be explained in the same way. Mr. Furner advised that the patient should be at once removed to the Sussex County Hospital, in view of an operation being performed as soon as possible. This was not done until the morning, when, in the cab on his way to the hospital, he died. Shortly before his death, the patient expressed himself as feeling better, and he had less pain.

POST MORTEM EXAMINATION.—He was a strongly developed and well-nourished man. There was extreme pallor of all parts of the surface of the body. In the left scrotum was a sausage-shaped tumour exactly resembling a hernia, and irreducible. On dividing the structures superficial to this tumour, it was found to be a cylindrical clot of blood lying behind what appeared to be the sac of the reducible hernia from which he had suffered. On following up this clot through the abdominal ring, it was found to be a portion of an immense collection of blood, which, lying behind the peritoneum, occupied almost the whole of the back of the abdominal cavity, enveloped both kidneys, extended into the meso-rectum, meso-colon, and mesentery, and could not have consisted of less than two or three quarts. The psoas magnus muscle of the left side was quite destroyed; and running through the clot, so as to cause great difficulty in removing it, were the cords of the lumbar nerves. The source of this extensive hæmorrhage was the rupture of a fusiform aneurism of the left common iliac artery. In consequence of the presence of an old-standing inguinal hernia, the left inguinal canal had nearly disappeared, leaving an almost direct passage through the abdominal wall opposite the external ring; through this the blood had passed into the scrotum, but beneath the peritoneum, instead of within its cavity, as the hernia would have been. The left ventricle of the heart was contracted; the aorta was atheromatous; and the kidneys were granular and cystic.

THE TREATMENT OF VARICOCELE BY ACUPRESSURE OF SPERMATIC VEINS.

By S. OSBORN, F.R.C.S.

CASE I.—J. B., aged 17, a greengrocer, was kicked about a year ago in the scrotum. The left testicle began at once to decrease in size, whereas the right was in consequence swollen. On examination, the right testicle was found to hang the lower, which he believed had been always the case; and the veins above were considerably varicosed. The left testicle was atrophied.

On September 10th, the veins having been separated from the spermatic artery, a hare-lip pin was passed through the scrotum behind the veins, and brought out again through the scrotum as near as possible to the point of entry; the veins being thereby compressed between the pin and the scrotum, as in the first form of acupressure. The scrotum was supported by a band of strapping passed across the thighs, and an ice-bag applied.

September 14th. He was going on well. He suffered but slight pain from the effects of the operation. The pin was removed, after being in about eighty-four hours.

September 20th. Having been supplied with a suspensory bandage, the patient left the hospital cured.

CASE II.—A. E., aged 15, of no occupation, came first under my notice on account of suffering from infantile paralysis of the left leg, and requiring a high boot. The left side of the scrotum was pendulous, and the veins in a varicose condition, the testicle itself being slightly smaller than that of the right side.

June 9th. The spermatic veins were compressed by a hare-lip pin, and an ice-bag applied. On the 13th, the pin was removed, there being some slight suppuration at its points of entry and exit. On the 17th, he was allowed to leave his bed, the scrotum being still supported by a bandage.

CASE III.—G. W., aged 19, a stud-groom, had suffered from varicocele on the left side for two years, and which of late had tended to increase in size and occasion him some pain, extending upwards to the loin. The left testicle had always hung lower than the right. On January 7th, the spermatic veins were compressed by a hare-lip pin, which was removed on the morning of the 10th. After one week's confinement to his bed, he was allowed to get up, wearing a suspensory bandage.

REMARKS.—From the above, it will be seen that the left side was affected in two instances, and the right in one. In Cases I and III, the testicle which hung the lower was the one to receive the injury; whereas in Case II the fact of the left side being diseased is attributable solely to that having been the side affected by the paralysis. The origin of the varicocele in Cases I and III was probably due to injury: in the one case, from a kick, and in the other as the result of his occupation; whilst the cause of the pendulous scrotum and consequent varicocele in the remaining case was due to the same paralysis which occasioned the palsied condition of the left leg. The operation performed in the three cases was identical. No anæsthetic was administered, and the pin was removed from the third to the fourth day. The patients have since presented themselves, and the operation has been found to have been successful. The simplicity of this mode of treatment, and at the same time its efficiency, are points in favour of its more frequent adoption; for that operation is, in my opinion, the best, which is successful, and is at the same time attended with the least amount of suffering.

OPHTHALMIC MEMORANDA.

PRESERVATION OF OPHTHALMIC SPECIMENS.

SEVERAL friends and correspondents have asked me to refer them to a description of the method which I employ for the preservation of ophthalmic specimens, examples of which were exhibited in the annual museum of the Association in Cork last summer. I published an account of it in the *Birmingham Medical Review* for July 1878; but, as several improvements have been effected since that time, I shall be greatly obliged by being allowed space in this JOURNAL for a brief description of my present method.

The following are the solutions, etc., employed; 1. Müller's fluid—viz., bichromate of potash 1 part, sulphate of soda 1 part, water 100 parts; 2. Hydrate of chloral and water, 1 in 20; 3. Glycerine and water, 1 in 4; 4. Glycerine and water, 1 in 2—*i.e.*, equal parts; 5. Glycerine-jelly—viz., best French gelatine 1 part, glycerine 6 parts, water 6 part: soak the gelatine in the water until swollen; then beat and add the glycerine; add a few drops of a saturated solution of carbolic acid; and filter hot through white blotting-paper; 6. A thick white varnish made by mixing oxide of zinc with copal varnish in a mortar.

The eyeball is placed, immediately after excision, unopened, in Müller's fluid for about three weeks, light being carefully excluded. It is then frozen solid by immersion for a few minutes in a mixture of finely powdered ice and snow, and immediately divided into lateral halves by means of a sharp-edged table-knife. The portion to be mounted is then placed in chloral solution for some weeks, in order to remove the yellow colour; light being still excluded, and the fluid being changed until it is no longer discoloured by the bichromate. The specimen next lies for twenty-four hours or longer in the weaker glycerine-solution, and is then transferred for a similar period to the stronger glycerine-solution, after which it may be mounted in the jelly without danger of shrinking. A specimen being two-thirds filled with melted jelly, the half-eye is placed in it, the concavity upwards. When every interstice is filled, it is turned over (care being taken to avoid the inclusion of an air-bubble), and held in a central position in contact with the bottom of the jar. When cold and firmly coagulated, the jelly is coated over with white varnish. A few days later, when the surface of the varnish is firm, this again is thinly coated with a film of jelly, and thereby preserved from the ultimate danger of cracking. The jar is fixed with glue into a suitable wooden stand. The gelatine which yields the strongest and most colourless jelly is that manufactured by Coignet and Co. of Paris, obtainable in packets, and known as the "gold-label" variety. The specimen-jars, admirable both as to material and workmanship, have been made expressly for me by Messrs. F. and C. Osler, of Broad Street, Birmingham, from whom they may be obtained in any number. PRIESTLEY SMITH, Birmingham.

CLINICAL MEMORANDA.

DEATH DURING A PROFUSE HÆMOPTYSIS, A COMMON OCCURRENCE IN THE TROPICS.

As pulmonary hæmorrhage is rarely so profuse in Europe as to produce death by suffocation or syncope, a brief note of the frequency of its occurrence in Trinidad may not be altogether uninteresting.

It being a popular idea in this island that very little, if anything, can be done for pulmonary diseases, hospital relief is scarcely ever applied for until one or both lungs are excavated with cavities, or until the friends become afraid that the sick person may die on their hands. Malarial fevers being very common, any illness accompanied by a rise in temperature is looked upon and described as "fever"; or, if ushered in by rigors or chilliness, as "fever and ague"; and, as every creole considers himself competent to treat a fever, skilled advice is deferred until rapid emaciation, profuse expectoration, night-sweats, hæmoptysis, diarrhœa, etc., occur, and apprise the relatives of the severity of the case.

Those who are altogether without shelter, or who live in the crowded huts in the towns, where every chink and cranny is closed at night, resulting in the habitual breathing of deoxidised or impure air; who have not had, or, if they have the means to procure it, will not allow themselves, a sufficiency of nutritious food; who are exposed to the vicissitudes of our climate, which is damp and subject to considerable variations of temperature—in a word, those who are the subjects of privation or overcrowding, or both combined, are especially prone to attacks of pneumonia, particularly of the catarrhal variety.

At least 80 per cent. of the cases of "phthisis" treated in the hospitals of this island originate in catarrhal pneumonia, and assume the form to which the term "galloping" is applicable; the average duration of illness ranging from six weeks to three months. At the lowest estimate, 10 per cent. of the cases which die in hospital terminate in a profuse hæmoptysis, the patient expiring in the very act of bringing up blood. The quantity varies from about fifteen to sixty or even eighty ounces; and the duration of life from the commencement of the hæmoptysis until the patient is absolutely dead, from five to fifteen minutes.

The coolies imported from the East Indies suffer much from phthisis originating in catarrhal pneumonia; and I should be glad to know if that form of the disease is common in the East, and if as large a percentage as I name die during a profuse hæmoptysis.

C. BURGOYNE PASLEY, L.R.C.P.L.,
Surgeon in Charge, Colonial Hospital, Trinidad.

SURGICAL MEMORANDA.

PISTOL-SHOT IN THE ABDOMEN.

THIS case, notes of which were published in the JOURNAL of December 6th, has terminated fatally. Very shortly after the child had been discharged practically well, with the exception of some weakness which only required good fare to overcome, she refused food, cod-liver oil, etc., and died from exhaustion on December 17th, two months after the accident. At the *post mortem* examination, the bullet was found in the liver, but not at the spot where it pierced the skin. It had glided over the smooth surface of the liver to the right side; there it appeared to have struck a rib, rebounded, and entered the liver to the depth of about three-quarters of an inch. There were about three ounces of old blood-clot, probably effused at the time of the injury, and a fair amount of partially organised lymph around the wound. The small cavity where the ball lay was lined with very well organised lymph. Nowhere was there any sign of abscess. The functions of the liver were well performed to the last. All the other organs were healthy. The child certainly did not die from the presence of the ball in the liver, but simply from exhaustion from not taking sufficient nourishment. HERBERT L. BERNAYS, Old Charlton.

OBSTETRIC MEMORANDA.

SCARLET FEVER INDUCING LABOUR IN AN INFECTED HOUSE WITHOUT PUERPERAL FEVER.

MRS. H., who was between the eight and ninth month of her tenth utero-gestation, persisted, in spite of warning to the contrary, in nursing seven of her children who were attacked with a virulent form of scarlet fever, epidemic in the neighbourhood, and which carried off three of the younger ones in the first thirty-six hours. As she had never had scarlet fever before, she now became the subject of that malady in a well-marked form, and this had the effect of inducing her labour on the third day after the development of the rash. As it occurred in an isolated farmhouse, and a number of patients had been affected with fever, she was compelled to be confined in a room from which two of the children had been hurriedly moved; but the strictest regard was paid to ventilation, disinfection, and other precautionary measures. The labour was got over without any untoward symptom, and the patient made a very satisfactory recovery, which in no way deviated from that of an ordinary case of labour. From the commencement of her illness, she took a saline mixture which contained one-and-a-half-minim doses of carbolic acid, every three or four hours. The child presented an undoubted scarlatinal rash at birth, and is now three months old and well. Four other children and a servant girl were also ill with the same fever, and occupied adjacent rooms during Mrs. H.'s puerperal state.

The patient was the subject of scarlet fever at the time of her accouchement (the fact of the child being born with a rash shows how thoroughly the poison had pervaded her system), and moreover she was exposed to the same infection during the whole of her lying-in state. Hence it is a case in which, whether from treatment or otherwise, none of the much dreaded conditions included under the name puerperal fever resulted from the scarlatinal contagion. It appears also interesting as bearing upon a discussion which took place a few years ago before the Obstetrical Society; and then, according to Leishman (page 777), "the balance of opinion was in favour of the opinion to which we adhere: that, although the poison of scarlatina may produce in puerperal women scarlatina and nothing more, this is not the rule, but a rare exception". This, therefore, according to the above opinion, is one of the "rare exceptions". But, with prophylaxis and the internal administration of antiseptics, may we not hope the converse will prove the exception?

CHARLES E. WALKER, M.B.Edin., Aldborough, Darlington.

THERAPEUTIC MEMORANDA.

ADMINISTRATION OF GUAIACUM.

MUCH attention has lately been paid to the best mode of administering guaiacum. I find that if the alcoholic tincture of the United States *Pharmacopœia* be combined with an equal quantity of liquor potassæ, a perfectly clear solution is obtained, miscible with water in all proportions. The presence of liquor potassæ in the mixture will be advantageous rather than otherwise in most cases in which it is desirable to administer guaiacum. The following formula may prove useful: ℞ Tinct. guaiaci (Ph.U.S.A.), liquoris potassæ, āā ♏xv; glycerini vel syrupi ʒj; aquam cinnamomi ad ℥j. Of course, the dose may be varied at pleasure, but care must be taken to disguise the burning flavour which renders guaiacum somewhat difficult to manage.

A. H. F. CAMERON, L.R.C.P.Edin., Liverpool.

ARMY MEDICAL SERVICE.—Surgeon-Major F. Collins, M.D., retires upon half-pay, with the honorary rank of Brigade-Surgeon. Surgeon-Major T. R. Mould, M.D., retires upon half-pay, with the honorary rank of Brigade-Surgeon. Surgeon-Major W. Hillman retires upon half-pay, with the honorary rank of Brigade-Surgeon.

REVIEWS AND NOTICES.

THE SURGEON'S HANDBOOK ON THE TREATMENT OF WOUNDS IN WAR. A Prize Essay. By FRIEDRICH ESMARCH, Professor of Surgery in the University of Kiel. Translated by H. H. CLUTTON, B.A.Cantab., F.R.C.S., Assistant-Surgeon to St. Thomas's Hospital. London: Sampson Low and Co.

ON the occasion of the Vienna Exhibition in 1873, the Empress of Germany offered two prizes for the best handbooks on surgical appliances and operations in the battle-field. The first prize was awarded to Professor Esmarch for the present work. With such a recommendation, and from the wide-spread reputation of the author, it might be expected that this work would be one of considerable merit. The object of the author is, as he states in the preface, to place in the hands of military surgeons a work that will be of practical assistance in recalling to memory facts previously learned, but which, from the pressure of a military campaign, have been forgotten. This, he believes, can be better accomplished by means of illustrations than by descriptions, as frequently the eye can take in at a glance what would require a long time to read. Much of the space, therefore, usually taken up in text-books with descriptions is in this one occupied by illustrations, and the former was curtailed to a minimum.

In the first part of the work, the principles of the general treatment of wounds and injuries are very clearly and curtly stated; all the different varieties of bandages and splints generally used, and some very ingeniously devised out of bayonets, rifles, etc., are illustrated, and short but sufficient instructions for their application are given; all the necessary hospital requirements are also enumerated, and when required, illustrated. A chapter is devoted to the antiseptic treatment of wounds. The author is not by any means, however, dogmatic as to the method of dressing or the mode of treating injuries to be adopted, but simply states them, with directions how each should be used, leaving the surgeon free to choose whichever he may prefer. This part of the work will be found useful both to military and to civil surgeons, as many excellent hints may be learned from it. The numerous woodcuts contained in this part, and indeed those of the whole work, are excellently executed, and convey to the mind very clearly what they are intended to illustrate.

The first chapter of the second part is devoted to the mode of administering chloroform, and excellent directions are given for the treatment of asphyxia and other complications, that unfortunately sometimes happen from anæsthetics. The arrest of hæmorrhage is treated of in the next chapter. In his directions for arresting hæmorrhage from the lower extremity of patients in bed, we cannot agree with the author in believing that a pole in the form of a broom or crutch, one end of which is padded and placed upon the femoral artery, and the other wedged up against the ceiling or cross-beam, is by any means a good way of compressing the vessel or a comfortable apparatus for the patient. Very full directions are given for rendering parts bloodless before operating. In ligature of arteries, the author recommends that the limb should not be made absolutely bloodless, and that elastic bands should be applied above and below the incision or wound, the upper one of which should be removed when the time comes for the surgeon to feel for the pulsation of the artery. We regret to find that he recommends a bad practice, which most German surgeons adopt, namely that of tearing the cellular tissue and clearing the artery with two pairs of dissecting forceps, instead of using the knife, of passing first a hook below the artery and raising it out of its bed before passing the aneurism needle, and, in the larger arteries, of tying a double ligature and dividing the vessel between them. If one thing more than another has been established as a principle in surgery it is, that in the ligature of arteries the less the vessel is disturbed the better. This mode of procedure practised in Germany disturbs the artery very much more than is necessary, and cannot be too strongly condemned. We would recommend Professor Esmarch to read the chapter on Ligature of the Arteries in Professor Spence's *Lectures on Surgery*, which contains a complete history of the ligature, and some very practical lessons that may be learned therefrom. The plate showing the ligature of the subclavian artery is very incorrect and misleading, as the tubercle of the first rib is figured as being on a higher level than the clavicle, and the artery still higher. Again, in ligature of the artery below the clavicle, the vessel is placed too far down. In the upper part of the forearm, the ulnar nerve is figured as lying *close* to the artery, and in ligature of the iliac artery the genito-crural nerve is made to cross the external iliac shortly after its bifurcation from the common iliac. The coloured plates generally in this part of the work are difficult to understand and frequently incorrect; the one illustrating blood-letting shows a novel plan of performing that operation. In amputations, great preponderance is given to the old circular method, both in upper and lower extremities, the most approved methods according to English surgery occupying a secondary place. This is quite in keeping with the style of German surgery, which has great room for improvement in this respect. The amputation at the shoulder-joint "by circular incision" can only be characterised as a most clumsy and awkward mode of performing the excellent and thoroughly anatomical operation proposed by Professor Spence and described in his *Lectures on Surgery;* the same remark applies to that at the hip-joint. Four pages are occupied with Günther's, Le Fort's, and Brun's modifications of Pirogoff's amputation at the ankle-joint, which would have been better omitted altogether, as they possess no advantages over the original or Syme's methods, but the reverse, as the vessels are very much endangered during the performance of either of the three operations. To place the patient in a convenient position for changing the dressing after amputations of the thigh, the author recommends that a plain block of wood be placed under the buttocks! We decidedly object to patients being handled like subjects in a dissecting-room. In amputation at the hip-joint by anterior and posterior flaps, the anterior one is figured too long, and the posterior is recommended to be cut from without inwards. Upon the mode of performing this operation by the circular method described, we have already remarked. It is generally accepted that the more rapidly amputation in this position can be done, the less is the shock, and the better is the chance for the patient's recovery; but by the method recommended by Professor Esmarch, the operation is done most slowly, and consequently with the greatest amount of shock. In excision of the head of the humerus, we do not see that any advantage is gained by preserving the tendon of the biceps muscle as Professor Esmarch recommends; this, however, is a matter of opinion only. By doing so the operation is rendered much more difficult, and the parts are more disturbed. The method of raising the patient for change of the dressings recommended after excision of the head of the femur, must cause him great pain; surely this is severe enough after any major operation, without being unnecessarily increased. Gouging out the point of a bayonet in the manner represented would, we believe, only add to the injury already existing. We observe that many instruments which were invented and have been used for numbers of years by English surgeons are figured and named after German surgeons, as if they had been recently invented by the latter.

The book is too bulky to be useful for the purpose it is intended. A book of the sort should be as portable as possible, and, if possible, one that can be carried in the pocket. This fault might easily be remedied in the next edition by more economy in printing, as there are several pages where only from one-third to a half of the page is occupied, the rest being blank. Our sincere wish is that the work may not fall into the hands of surgeons in the British army in its present form. The second part is in our opinion so defective, that it would require to be entirely rewritten. The work illustrates what we have found to be the failing of German surgery generally, namely, that in the operative part it is very deficient, although passable in the theoretical.

We cannot conclude without an observation on the translation. Mr. Clutton deserves great praise for the way he has performed his part of the work. He has rendered admirably idiomatic German expressions that are very difficult to translate into English. We only regret that we have been unable to give a more favourable review of the work.

NOTES ON BOOKS.

A SELECTION of *Letts's Diaries* has reached us again this year, and we are enabled to speak in terms of continued praise of their usefulness. Their *Registered Tablet Diary and Blotting-Pad* is extremely convenient for the writing-table of medical men, as it enables the more important appointments of coming weeks to be briefly registered in a tablet which is always at hand; while the blotting-pad is, of course, an indispensable companion of the writing-table. Their other diaries include every variety, from the pocket-book to the largest and most amply furnished volume for the table. The *Medical Diary* contains a good deal of information, compiled expressly for the use of the medical profession. The letter-files are very convenient for keeping in order letters and papers.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 10TH, 1880.

THE CONFERENCE ON ANIMAL VACCINATION.

IN respect to the objects for which it was called together by the Parliamentary Bills Committee of the British Medical Association, the conference on animal vaccination, which finally closed after two adjournments on the 31st ultimo, has proved to be singularly successful. The Chairman of the Parliamentary Bills Committee, feeling that the time had come when a large census of medical opinion should be taken as to the propriety of introducing and encouraging in this country the use of vaccine lymph direct from the calf, suggested to the Committee to invite a public expression of the views of those who were best qualified to judge of this important subject; and the result has been to elicit numerous and weighty utterances from the most representative men. With but one or two minor exceptions, the whole of the speakers at the conference expressed themselves favourable to the use of animal lymph, almost the only objection urged to it being its alleged expense of application, the fallacy of which the Chairman of the Parliamentary Bills Committee has already exposed in his report. Even the officials representing the Local Government Board had no objection to bovine vaccination; and it is certain from what Dr. Ballard said, that the Local Government Board views it with no disfavour. In these circumstances, the Parliamentary Bills Committee may fairly be congratulated in having taken the practical initiation in a reform which is coming to be more and more desired by the great mass of the profession and community.

It was, perhaps, unavoidable that the main subject for discussion should have been more than once obscured by the side issues introduced into the debate. Dr. Cameron's letters to the *Times* were in reality quite foreign to the subject for which the conference was convened; and we cannot help thinking that Dr. Ballard, in devoting so much time in his reply to an unnecessary criticism of those letters, helped materially to guide the discussion into a wrong direction. There was very much that required thoughtful and complete discussion, in the important explanation given by Dr. Ballard of the attitude assumed by the Local Government Board with regard to this matter; but this, the crucial part of his speech, was frequently lost sight of in the subsequent debate on the albeit interesting collateral subject of the relation of human variola to cow-pox. The "antivaccinators" and their friends of course made vigorous efforts to find a place to disturb the course of debate, and they partially succeeded at the third meeting. The attention of the Government has, however, at last been really and seriously obtained on the question; and it may be anticipated with some certainty that steps will now be taken for a fresh and exhaustive inquiry into the present state of animal vaccination in other countries than our own.

It would be impossible for us to deal effectually in this place with all the points debated at the conference; and we therefore confine ourselves to an examination of the questions specifically laid before the meeting, viz., the most desirable course to pursue with regard to Dr. Cameron's Bill, and the general subject of the official recognition in this country of animal lymph.

It has been erroneously assumed by one or two speakers, that the Parliamentary Bills Committee has adopted Dr. Cameron's Bill as the expression of their opinion on the subject. This, however, is by no means the case. The report of the Chairman of the Committee, laid before the conference as the basis of discussion, whilst cordially approving of the principles of the Bill, pointed out certain rocks ahead which it would be necessary to avoid. Mr. Hart showed plainly that the enactment that a person may demand animal lymph, if he or she choose to prefer it, might be used by antivaccinators as a powerful weapon to harass the public vaccinators, and to upset our present stational arrangements, unless it be hedged about by certain conditions, such as that a week's notice shall be given that animal lymph will be required for the vaccination of a certain child. The speakers who objected to Dr. Cameron's Bill were Dr. Stevens and Dr. Ballard, both of the Local Government Board, the former speaking his own opinions, while the latter spoke those of the Government. Dr. Stevens objected to any choice at all being given to the parent of the kind of lymph to be employed, supporting his argument with several amusing illustrations. This view Dr. Warlomont, in his published reply, has already sufficiently answered; and we need only repeat that, where an operation such as vaccination has to be compulsorily performed, it is only right to allow a certain latitude in the means by which it is performed. Dr. Stevens, in his last speech, objected to Dr. Cameron's Bill as illogical and mischievous, saying that, if it passed into law, the Government would be face to face with a great difficulty, and with an expenditure for vaccination at least a hundred times greater than at present. We entirely fail to see how anything like so enormous an increase of expenditure, or, indeed, any increase at all, would have to be incurred, in case the suggestion put forward by Mr. Ernest Hart, that the National Vaccine Establishment should supply calf-lymph, were carried into effect, and that reasonable restrictions were put upon the demand by parents for animal vaccination. Doubtless when the Bill comes before Parliament, we shall hear again of the enormous expense and the herds of heifers required for the Bill to become operative. We have already seen how untenable is this line of argument, and it can hardly be seriously persisted in.

We can come, then, to but one conclusion. The result of the conference has been to show unmistakably how strongly the feeling of the leading authorities of the profession at large is in favour of some means of recourse to animal vaccination; and it will be for the Parliamentary Bills Committee to consider in what way this evident feeling of the profession can best be furthered. It is not improbable that that body will attend as a deputation before Mr. Sclater-Booth, for the purpose of drawing his attention to the improvements which have been made in the method since Dr. Seaton's adverse report of 1869, and of requesting him to take steps towards the supply of animal lymph by the National Vaccine Establishment. We venture to say that the supply of such lymph from a central source would be hailed with immense satisfaction by almost the whole of the profession throughout the country, and no less so by the public. Moreover, it would relieve the legislature and the department. It is not desired to supersede arm-to-arm vaccination, or to upset our present arrangements, but only to provide for the renewal of stocks when a vaccinator finds them from any cause to be failing or giving less efficient results, and to furnish the material wherewith to vaccinate children whose parents have conscientious objections to humanised lymph. These latter will hardly expect to get what they desire without some little trouble; and it would be quite possible to make regulations which should prevent abuse being made of the discretion which Dr. Cameron would allow. Again, it must not be forgotten that complaints are frequently made of the ill-effects arising from vaccination; and although these complaints are always, as Dr. Stevens tells us, most carefully inquired into by him or his colleagues, it is evidently not so easy to acquit the Government lymph of a share in the ill effects, as it would be if the lymph sent from the central depôt were invariably that obtained direct from the calf. It seems to us that, if the Government could definitely say that no harm could possibly come from the lymph as sent out by them (as they could well do, if their supply were from the calf), it would be an important additional guarantee to those persons who now have their doubts and fears as to the effect of vaccine lymph upon their children's health. And since it is on every ground to be desired that every child should be vaccinated, and almost as much so that every adolescent be revaccinated, it would appear important to afford all possible facilities for satisfactorily accomplishing this double desideratum.

That animal lymph is now at least as good in its results as humanised lymph, and can be propagated without undue trouble, was amply shown in the report which we have printed and was presented to the conference. Dr. Warlomont's long and valuable paper is alone sufficient to prove this; and it is significant that no speaker ventured to dispute the justice of his conclusions. Mr. Greene of Birmingham, who has for some years cultivated calf-lymph in this country, followed in the same direction; and other speakers of experience concurred in the praises of animal lymph. Dr. Ballard himself proved as great a partisan of animal lymph as his official position at the conference would allow him; and the few points in the statistics adduced as to the success of animal lymph which he found himself able to attack, certainly do not help out his argument. As to the relative percentages of complete success of *all* insertions of the two lymphs, for which he claimed the palm for humanised lymph, it must be borne in mind that, whilst Dr. Cory, whom he quoted, makes his four insertions carefully, with the deliberate intention of getting a vesicle at each puncture, the vaccinators in Holland and at Berlin, whose results in this respect were compared by Dr. Ballard with Dr. Cory's, by no means aim at getting all the punctures to rise. They think it sufficient to get the lymph well absorbed, and only make rapid scarifications of the arm in a considerably larger number of places than those which they expect will rise. It is to be regretted that Dr. Seaton's later investigations, from which Dr. Ballard took his figures, have not been made public; for we confess we have been unable to understand how the statistics quoted have been arrived at. They do not agree with the figures in the reports of the operators themselves, and can only relate to cases which Dr. Seaton saw himself, or to some period which we have been unable to isolate. The amount of absolute success claimed at these stations is greater than that for which credit is given by Dr. Seaton; and we have already shown the fallacy of the argument of the insertion-success on which Dr. Ballard chiefly relied.

Into the questions of the identity of cow-pox and human small-pox, of the occasional deterioration of humanised lymph, and of the inoculation of other diseases through vaccination, we regret that it is beyond our power to go; Mr. Ceely and Dr. Ballard sufficiently proved such deterioration to be actual and not chimerical; but they were only side issues of the conference, and did not affect the main contention. This was, that animal vaccination now deserves, by its success and the facilities which it offers, to be officially recognised as an alternative system in this country, and to be the source whence our central supply should be drawn. The favourable opinions of calf-lymph expressed by men like Sir Thomas Watson, Dr. Warlomont, Mr. Ceely, Dr. Braidwood, Dr. Alfred Carpenter, Dr. Bristowe, Dr. E. T. Wilson, Mr. Greene, Dr. Drysdale, Dr. Wyld, and the other gentlemen who addressed the conference, cannot but have their effect in pressing forward a reform which the Local Government Board seems to be now disposed reluctantly to take up. Even the Government inspectors of vaccination have nothing to urge against animal lymph. Dr. Stevens admitted that he knew bovine lymph to be very valuable, and was careful to explain at the last meeting that he "had not said a word against animal vaccination". Dr. Ballard had to shelter himself behind the alleged administrative difficulties (which are invariably found to lie in the path of every reform) in officially encouraging animal vaccination.

It is, however, quite apparent from the tone of the discussion that the Government must take some more active steps in the matter than that of passively tolerating animal vaccination. After what has transpired, it will hardly be possible to oppose to Dr. Cameron's Bill in the House of Commons the very effete arguments brought forward at the conference; and fresh Government inquiry on the subject will inevitably have to be made. We think that, when this is done, evidence so irresistible of the value of animal lymph will be forthcoming, that Government can no longer oppose the salutary reforms indicated in the report of the Chairman of the Parliamentary Bills Committee and in Dr. Cameron's Bill. We await, then, the issue with confidence and patience, feeling assured that the expression of professional feeling which the Parliamentary Bills Committee has been the means of evoking cannot fail of its effect.

THE INFLUENCE OF CLIMATE ON DISEASE.

In order to understand how small is as yet the advance of climatic treatment, it will be sufficient to call attention to the extreme variety of climates recommended for phthisical patients. Some medical men advise humid sea-air; others, the damp cold air of sub-Alpine climates; others, again, the warm and dry air of the interior; and some the cold and dry atmosphere of the Alps. If all these climates, of which the meteorological characteristics are so opposed, really have good effects on the health of tuberculous patients, we can only come to the conclusion that this happy influence is due only to the one factor which is common to them, that is to say, to the purity of the atmosphere.

Herr Peters, in an interesting article,* has set himself to elucidate the special part played by each of those meteorological factors of which the sum constitutes climate, with the full conviction, however, that repeated and prolonged observations are necessary before definite laws on the subject can be established. Herr Peters' researches were made at the baths of Ottenstein in Saxony, 1,350 feet above the level of the sea, and concerned fifty-six patients suffering from chronic affections of the respiratory passages; thirty-five of these were chronic tuberculous patients, of whom one was in the last stage of phthisis; fourteen were cases of chronic bronchial catarrh; and seven of catarrh of the larynx; fifty patients were suffering from chronic muscular or articular rheumatism. The meteorological observations were taken thrice a day—at six o'clock in the morning, at two o'clock in the afternoon, and at ten o'clock in the evening. The direction of the wind was noted only twice in the day. At the same time, Herr Peters entered in a second register the state of the daily health of his patients during a period of seventy-six days—from May 17th to July 31st—with reference to respiratory affections; and during one hundred and five days—from May 9th to August 21st—for rheumatic affections.

Amongst the various disturbances of their health to which patients suffering from diseases of the air-passages are liable, Herr Peters has considered, from their being dependent on meteorological conditions, neuralgia, exacerbations of cough, hæmoptysis, and dyspnœa. He has intentionally passed over digestive troubles, fevers, and sweats, of which it is more rational to attribute the aggravation to other causes. He has studied the five principal climatic factors: 1. heat; 2. humidity, with August's psychrometer; 3. atmospheric pressure; 4. the direction of the winds; and 5. ozone, with the help of Schönbein's ozonometer exposed daily at stated times. One of the earliest general facts which resulted from these researches was that, whilst all the rheumatic patients, on several occasions, experienced a simultaneous recrudescence of their pains, the largest proportion of simultaneous increase in patients suffering from respiratory diseases did not exceed 34 per cent. Another interesting fact is, that meteorological influences had much less power over simple catarrhal affections of the air-passages than over diseases of the pulmonary parenchyma.

Herr Peters has arrived at quite opposite conclusions with regard to the action of atmospheric ozone on respiratory affections, to those generally received as correct. According to him, all that can be said with regard to barometric pressure is that, in patients suffering from diseases of the air-passages, the majority of the aggravations and the largest number of notable aggravations occurred only when the atmospheric pressure was increased.

With regard to rheumatic patients, contrary to the received opinion, it is less the diurnal oscillations of the temperature than the depressions it undergoes from one day to the other which augment the pains. Hence, it results that when choice of sanitary stations is made, those should be preferred which, with as high a degree as possible of mean temperature, show, in the course of the month, the fewest and the least important falls in the mean heat from one day to the other. Aggravations of rheumatic pains have been most often observed on those days which were distinguished both by considerable dampness and by depression of the mean temperature. The barometric level has no influence whatsoever on patients suffering from chronic rheumatism.

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* "Ueber den Einfluss der hauptsächlichen klimatischen Factoren auf chronische Krankheiten der Respirationsorgane und chronische Rheumatismen der Muskeln und Gelenke". (*Berliner Klinische Wochenschrift*, Nos. 2 and 3, 14th Dec., 1879, and 1st Jan., 1880, and *Revue des Sciences Médicales*, October 15th.)

Herr Peters thus summarises the action of the different meteorological factors. Aggravations in chronic phthisis and in chronic catarrh of the respiratory organs were coincident with the richness of the air in ozone, with cold days and considerable falls in the mean diurnal temperature, with a very humid atmosphere and the predominance of cold northerly and damp west winds. In chronic rheumatism, the aggravations were coincident with considerable depressions of the mean temperature from one day to the other; also with a very damp atmosphere, the prevalence of westerly winds, and a large proportion of atmospheric ozone.

THE HABITUAL DRUNKARDS' ACT.

On the 1st of January, the Habitual Drunkards' Act came into operation. We think it right, therefore, to again draw attention to this Act and its principles, as it is in no small measure the outcome of a committee appointed and reappointed at the annual meetings of the British Medical Association. If we wished "to point a moral" and "adorn a tale", it would be very easy to do so from the fate which has attended upon the Habitual Drunkards' Bill—from the date of its first introduction by the late Mr. Dalrymple to the production of the measure which is now embalmed in the statute-book. As at first framed, it met very fully all the desiderata of philanthropy, as well as the requirements of scientific medicine; and it provided ample security against fraud or conspiracy. It was constructed in such a manner, that others could put its provisions in force as well as the habitual drunkard himself. The permission of the drunkard to provide for his care and safe custody was not necessary. This is not the case with the present Act (42 and 43 Vic., cap. 19). There is no power given in this Act for anybody but the drunkard to make the first move. We fear that it will be found to be but an inefficacious effort of legislation.

The Society which was formed for promoting legislation for the control and cure of habitual drunkards state, in their report, that the Act does not come up to the expectations of their committee; they point out, however, that the principle that cure should be allowed has been affirmed by Parliament, and this they accept as a subject for congratulation. It could hardly have been expected that the Act would come up to the expectations of the Society. The present Parliament has been too much taken up with foreign affairs, Irish impediments, and unprofitable debates, to find time for careful consideration of such a subject as the cure of disease and the arrest of a domestic evil, however serious. The affirmation of the principle of cure, therefore, was a great gain under such circumstances. Many of the members of the House object to power to control being placed in the hands of any one except the patient. The Bill, too, was entirely a doctors' Bill, and, as such, was looked upon with suspicion, for the powers that be have a great fear of being "doctor-ridden". Every office which must not of necessity be filled by a medical man is bestowed upon some political adherent or private friend, and the claims of the medical profession are regarded by the Government on almost all occasions as of a subordinate character. We have recent evidence of this in the way in which Dr. William Farr has been treated. It is only another proof of the necessity which exists for the medical profession so to organise themselves as to increase their political power. If the Habitual Drunkards' Bill as first framed had become law, it would have led to the appointment of medical men, and not laymen, to certain offices; and this was distasteful to politicians.

The Act is to remain in force for ten years. It is to be limited to voluntary effort, and to the voluntary act of the patient placing himself under its provisions. Habitual drunkards are the most vacillating of persons; and if a drunkard say he will do a thing to-day, he will most probably decline to do the same thing to-morrow; and, as time must be required in order to obtain the services of the two justices of the peace who are to explain to the patient the result of his own act in placing himself under its provisions, it may be anticipated that the persons who will avail themselves of it will be few only, instead of the large number who are believed to require it. The limitation to ten years will prevent any large investment of capital in providing houses. Retreats will, however, we hope, be established under the Act, under the direction of committees, and with the attributes of the Scottish Royal Hospitals for the Insane; and it is, we understand, proposed to style them neuropathic establishments. We shall be much interested to hear of the early formation of some such institutions, and regret that a licence for only one has yet, so far as our knowledge goes, been applied for. Private enterprise is probably discouraged by the conditions of the Act, and the House of Commons would not allow the formation of retreats at the public cost, or permit rating bodies to be made parties to the Act. It will, indeed, be mainly by the aid of an association who will take up the matter upon purely philanthropic grounds, that any effectual result is likely to be obtained. Such a society will have the advantage of being free from suspicion: it will not be in any way a pecuniary gainer by the measure, and will have no personal interest in the detention of any single patient within their establishment.

The Act contains germs of good, but they are small and tender, and it will require great judgment on the part of its promoters to develop them. The definition of an habitual drunkard is good; but the power to put the Act into force ought to be placed in other hands than those of the person whom the Act declares to be dangerous to himself and incapable of managing himself or his affairs.

The nineteenth section, which permits a drunkard to live with any trustworthy and respectable person willing to receive him and to take charge of him, such person being named in the licence and approved by a justice of the peace, is one of the most important provisions in the Act; and we would advise our readers to look well into the provision of that section, and to use it freely when urging upon a patient the advisability of placing himself under the provisions of the Act.

Meantime, we may remind the Society for Promoting Legislation for Habitual Drunkards that, having obtained an Act from Parliament, they must now give it a fair trial, and do their utmost to extract from it a practical result. This can best be done, we think, first, by favouring and promoting the establishment of a properly regulated retreat, in which the public can have confidence; secondly, by conferring with existing proprietors of retreats of the kind, as to the registration of their houses under the Act; and thirdly, by arranging registers or other means of communication between practitioners who desire to recommend patients to avail themselves of private care in individual hands, and trustworthy individuals who are willing to accept and devote themselves to the cure of such inmates.

DISABILITIES OF THE NAVAL MEDICAL SERVICE.

The natural and almost necessary consequence of the recent warrant improving the conditions of service in the Army Medical Department, the framing of a warrant which shall in some degree bring the Naval Medical Service up to the present level of the sister department. Such a warrant is now understood to be in course of preparation at the Admiralty; but medical students will do well not to rely too much upon any vague hints which may be dropped, until the warrant does appear. We feel no doubt that Sir Alexander Armstrong will do his best for the Service. He has always, we fully believe, meant well for the Service; and, although his rule has been subject to complaint as to personal matters and as to dealings with individual officers, it has never been charged against him that he is deficient in public spirit, or that he has failed to maintain the dignity and interests of the Service over which he presides. No doubt also on this occasion he would do his best; but it would be *à propos* at the present moment to consider what are the real desiderata for the Naval Medical Service. We will therefore briefly note here what are put before us as a few of the more striking disabilities of the Naval Medical Service, which will be brought under the notice of the Parliamentary Bills Committee at a very early date; and we will ask medical officers of the Navy who may think this statement either redundant or deficient in any of its particulars, to favour us forthwith with a statement of their views of the subject, in order that they may be carefully digested, and laid before the next meeting of the Parliamentary Bills Committee by the chairman of that committee, with the view to suitable representations being made without any delay to the First Lord of the Admiralty.

Pay.—Even at the outset, the naval candidate finds himself at a serious disadvantage—he having, while at Netley, only five shillings a day pay, whereas the army candidate has eight; any one who has passed the Netley course will testify that the pay of naval candidates will not cover their expenses there.

During the next twenty years of service, there is *apparently* no great difference in daily pay in favour of the army medical officer; but that presupposes continuous service, and ignores the fact that the naval service is heavily weighted by compulsory half-pay time, which delays promotion and increase of pay; rarely less than two years, and generally more, are lost by medical officers ere completing twenty years' service, and securing the pay to which such service entitles them.

After twenty years' service, the naval medical officer is still subject to loss of time and pay, owing to compulsory half-pay. The pay of brigade-surgeon is unknown in the navy; there is neither equivalent rank nor pay; while the pay of deputy-inspectors and inspector-generals, depending greatly as they do on full-pay service, are seriously affected by previous compulsory half-pay, and even at their best do not compare favourably with the pay of the equivalent rank in the Army Medical Service.

Half-pay in the army is almost unknown. Naval medical officers obtain no special pay or allowances in consequence of service in the tropics or colonies; to them Indian or colonial allowances are unknown; and their pay, in the Persian Gulf or West Coast of Africa, is the same as in Portsmouth harbour.

It cannot be too well known that no naval medical officer can obtain full-pay sick leave; and, should he return from foreign service shattered in health, and not entitled to full-pay leave owing to length of foreign service, he is placed on half-pay—which involves loss of pay and service—and there allowed to recruit his health; whereas the army medical officer may obtain six or even twelve months' sick leave on full-pay.

Promotion.—While army surgeons are promoted after twelve years' service, naval surgeons often serve longer for promotion, and are still subjected to a qualifying professional examination not called for in the army. The promotion to fleet-surgeon—corresponding to surgeon-major over twenty years' service—follows twenty years' full-pay service, and is usually delayed some two or more years in consequence of compulsory half-pay; this step is rarely reached until the officer has attained his forty-fifth year, and in future this will be an early age to attain this rank, unless the present regulations are modified. Attaining the rank of fleet-surgeon at forty-four years of age, but sixteen years remain for him to serve—a period, under existing regulations, quite insufficient to enable him even to reach the rank of inspector-general, much less to serve as such; and, if the present fleet-surgeons' and deputy-inspectors' list be examined, it will be seen that only those officers who have been fortunate to obtain special promotion, owing to war or arctic services, can now attain the rank of inspector-general, or serve as such.

Equivalent promotion to that of brigade-surgeon, for ability or merit, with its high rate of pay and claim to further promotion in the inspectorial ranks, is not as yet established in the Naval Medical Service; but, on the contrary, obsolete—or what should be so—regulations, framed when medical officers could serve until seventy years of age, are rigidly enforced, with retirement compulsory at sixty; and services claimed, as has already been proved, cannot be rendered in the time available; consequently, as officers cannot qualify, the promotions are denied to them, and not only to them but their juniors, whose promotion would follow on theirs.

The promotion of surgeon to the rank of staff-surgeon is regulated by the vacancies occurring in the number of fleet and staff surgeons, and may or may not occur before twelve years' service.

The number of the senior ranks has been established by Order in Council as in the other naval departments. In the medical department, however, in contradistinction to the others, these promotions are not made immediately cotemporaneously with the occurrence of the vacancies, but, as in the recent promotions, are frequently delayed, in some cases for six months after the vacancies have occurred. The same uncalled for delay occurs also in the promotions to and in the inspectorial rank.

Retirement.—While the army medical officer may retire on twenty shillings a-day after twenty years' service, but fifteen are offered to the naval medical officer; and he must serve twenty-five years—in addition to compulsory half-pay time—ere he can obtain twenty-one shillings a-day retirement.

The navy offers no equivalent to the retired pay of the brigade-surgeon, while the deputy surgeon-general obtains a much higher retirement than the deputy-inspector of the navy.

PRINCE LEOPOLD has consented to preside at the annual festival of University College Hospital, which will take place early in March next.

THE death of Professor Boll of Rome is announced. He was well known as the first investigator of the phenomenon known as the visual purple.

WE understand that at the new Grosvenor Library, which is to be started at the Grosvenor Gallery, considerable attention will be given to professional literature, and that the best professional periodicals and magazines, home and foreign, will be provided at the reading-room.

DR. SYMES THOMPSON will deliver the next course of Gresham Lectures on Tuesday, January 13th, and following three days. The subject will be "the Organs of Locomotion". The lectures will be illustrated by diagrams exhibited by means of the oxyhydrogen lantern, will be free to the public, and will commence each day at 6 P.M.

WE have received from Mr. M. Burroughs, of 8, Snow Hill, specimens of Graydon's audiphone and of another form of audi-telephone, corresponding in some respects to that described by Dr. Urban Pritchard. The results of both these instruments are extremely interesting in the application; and we understand that Mr. Burroughs will be happy to show them, by appointment, to any members of the profession who may be interested in them.

AT a meeting of the Académie des Sciences, on December 15th, M. Pasteur announced that he had ascertained by recent experiments, that the characteristic infective organism which is the bacteridium of splenic disease, and the infective organism which produces the affection known as cholera of fowls, are both capable of supporting a temperature of 40 degrees Centigrade below zero (—40 Fahr.), without losing their faculty of multiplying in culture-fluids or their peculiar virulence as agents of infection.

GOVERNMENT, we read, has sanctioned the temporary establishment at Peshawur, in connection with the base hospitals, of a "small but efficient medical depôt for the supply of medical and surgical equipment to the Cabul field force". The senior subordinate will be a first-class apothecary on his full pay and allowances of 230 rupees *per mensem.* Of course, this temporary depôt has been provided in consequence of the wearisome delay which has too often occurred between submitting a regimental indent, and receiving the medical stores from so distant a depôt as Meean Meer.

MR. CHARLES HEATH has been appointed Surgeon-Dentist in ordinary to H.R.H. the Duke of Edinburgh.

THE OUTBREAK OF SMALL-POX AT BATH.

WE are indebted to Dr. Brabazon, the medical officer of health, for the following particulars of this rather severe outbreak. The total number of cases reported since July 23rd, 1879, has been 80. Of these, 53 were removed to the Union Hospital, 21 to the Statutory Hospital, and 6 were not removed. The deaths up to December 31st have been 18; viz., in the Union Hospital, 14; in the Statutory Hospital, 1; at private houses, 3. The first case occurred on July 23rd, 1879; it was imported from London. The real outbreak commenced on September 18th. The disease has been, with the exception of about six cases, confined to one district, comprising the worst houses and the poorest part of the population, who cannot be induced to take the most ordinary preventive measures. The mortality at the workhouse was high, in proportion to the number admitted; but the cases sent there were absolutely paupers, and ill prepared to meet the disease or its consequences. The cases sent to the Statutory Hospital, or hospital provided by the sanitary authority for infectious diseases, came from a better class, not supposed to be paupers. The mortality was principally among children. Of the eighteen fatal cases, eleven were unvaccinated; in the other four, the marks were imperfect.

RUSSIAN CALCULI.

ACCORDING to Betetow, surgeon to the Kasan hospitals (*St. Petersburg Med. Woch.*), urinary calculi are frequent in Central and Eastern Russia. In thirty years, he has treated two hundred and seventy-five cases. Almost all the calculi are formed of oxalate of lime, with a nucleus of uric acid. This frequency of oxalate of lime calculi is due, he considers, to the large use which the population make of an acidulous drink, called *kwas*, and to the dietary, which is principally vegetable. If the patients be young, Betetow generally does lateral lithotomy. If the calculus be very large, he commences by crushing, and does lithotomy the same day. He has had only a small mortality —4.36 per cent.

THE NEW MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

THE appointment, in succession to Dr. Seaton, of Dr. Buchanan, who has now for a considerable time fulfilled the active duties of the post, will be hailed with much satisfaction by the profession, especially by those, and they are very many, who have had the good fortune to have relations with him, and to appreciate his charm of character and excellent abilities. An earnest is afforded by this appointment that the old traditions of the medical department of the Government for thorough and honest work will in no way suffer. Dr. Buchanan has carried out some of the very best investigations undertaken by the medical department; and he has a well-known reputation for skill in laying the bases and planning the outlines of new investigation. His antecedents have been such as to fit him admirably for the office. Since he entered the profession, he has been engaged in various forms of public health work. He was for some time physician to the London Fever Hospital, in which he still takes a warm interest; and, for a period of twelve years (1857 to 1869), held the appointment of medical officer of health for the district of St. Giles, where he did much good work, and, on resigning, was greatly missed. He first became connected with the Privy Council Office in 1861, when he made some inquiries into vaccination in various parts of the kingdom, in the capacity of a temporary inspector. Between this time and 1869, he made several useful investigations on behalf of Mr. Simon's department, notably the inquiries into the influence of sanitary works on the public health, and on the relation of phthisis to moisture of the soil. In April 1869, he was permanently attached to the medical department of the Privy Council as a sanitary inspector, Mr. Netten Radcliffe being appointed at the same time. On the remodelling of the health-arrangements and constitution of the Local Government Board, Dr. Buchanan was made one of their assistant medical officers, which position he has up to the present retained. In addition to his official appointment, he holds honorary posts in connection with the Society of Medical Officers of Health and the Epidemiological Society. He is besides one of the examiners for the Cambridge degree of sanitary science, and a Fellow and Member of the Council of University College, of which he is one of the most distinguished *alumni*. This promotion will of course create a vacancy in the ranks of the department; and it is to be hoped that the same principle of selection which prevailed when Dr. Franklin Parsons was appointed last year may be followed in the present instance.

MR. HENRY HANCOCK.

THE death of this well-known surgeon took place on January 1st, at his country residence in Wiltshire. Mr. Hancock was in the seventy-first year of his age; the cause of his death was cancer of the pylorus. His funeral, which took place on Tuesday last, was very numerously attended by all classes, including many members of the medical profession from London and elsewhere. Mr. Luther Holden, President of the Royal College of Surgeons, and Mr. Trimmer, Secretary of the College, were among those present. Mr. Hancock was for many years surgeon to the Charing Cross Hospital and a member of the Council of the Royal College of Surgeons, of which he was President some years ago. He was the author of several treatises on surgical subjects, and contributed various articles in surgery to the medical periodicals.

INFECTIOUS DISEASES IN LONDON.

THE fatal cases of whooping-cough, which had been 57, 82, 111, and 129 in the four preceding weeks, further rose last week to 165, a higher number than has been recorded in London in any previous week on record, the nearest approach to this number was 158 in the last week of March 1878. The 165 deaths from whooping-cough included 67 in the south group of districts; 12 occurred in Fulham, 8 in St. Pancras, 12 in Islington, 11 in Clerkenwell, 7 in Shoreditch, 7 in Bethnal Green, 11 in Newington, 6 in Bermondsey, 17 in Lambeth, and 16 in Camberwell. The deaths from both measles and scarlet fever showed a further decline from recent weekly numbers; those from measles were considerably below, while those from scarlet fever but slightly exceeded, the corrected averages.

A MARTYR TO DUTY.

M. GEORGES HERBELIN, a medical student at the Hôpital St. Eugénie in Paris, was buried on Tuesday last with well-deserved honours. The young man, whose courageous devotion to the sick had won the admiration of the hospital authorities, caught diphtheria while tending a little girl suffering from that terrible malady. Before dying, the brave student had the satisfaction of receiving the Cross of the Legion of Honour, which was taken to him on his deathbed, and which he clasped to his breast as he expired. M. Lepère, Minister of the Interior, M. Herold, the Prefect of the Seine, several municipal councillors, and a number of leading physicians and medical students, attended the funeral. A detachment of infantry rendered him military honours. Several speeches by Professors of the Faculty were made over his grave. It is remarkable that the father of the deceased, who was a medical man, lost his life in the same way.

DEATH OF DR. THOMAS CUTLER.

THE news of the death of Dr. Thomas Cutler will be received with much regret by the English and American families who visit Spa. After studying in London, Paris, and Louvain, Dr. Cutler commenced his medical career in the Belgian army, and was present at the siege of Antwerp. Subsequently, he practised in London and Brussels, and then settled at Spa, where for more than thirty years he was the only resident English physician. One of his first cares after his arrival was to establish a dispensary for the benefit of the poor. The results of his study of the properties of the mineral waters soon won him a bright reputation, and through his agency two of the most frequented springs at Spa—the Barisart and the Prince de Condé—were brought into notice. A book, of which he was the author, entitled *Notes on Spa, or Observations on its Chalybeate Springs,* is now in its tenth edition. To his exertions are due many of the attractions which render the town a pleasant resort. The erection of the English church, for example, was mainly owing to the energy with which he advocated the proposal to build it and the trouble which he took in connection with the work. His funeral was attended by all the chief local authorities, and more than two-thirds of the adult male population of Spa followed his remains to the cemetery.

PLAIN ENGLISH.

THE *Indian Daily News* is responsible for the following. Sir Ashley Eden and his Hospital Committee on the Campbell Medical School deliberately concluded that the teaching was too high, and reduced it accordingly. Yet Nemesis, in the shape of Dr. Irving's report on the Charitable Dispensaries in Bengal, has overtaken the Lieutenant-Governor and the Committee. The ignorance of native doctors is simply lamentable. We quote the following gem. It is the commencement of the report of a hospital assistant. "At or about 9 A.M., of the 21st October, 1877, I held a *post mortem* examination on the carcass of Mussamut Sooknea, a female, aged about 30 years, and found her body damnably swollen, and entirely decomposed."

EXTRAORDINARY INJURY BY A MIDWIFE.

M. SCHWARTZ speaks in the *Archiv für Gynäkologie* of an extraordinary and shocking case, in which a midwife by inconceivable violence seems to have torn away during the act of labour what she described as "the rest of the afterbirth"; but which, when examined by the physician, proved to be the whole of the uterus. The ovaries and Fallopian tubes remained in the abdomen. The uterus is preserved at Halle. The woman recovered in fifteen days, and has since enjoyed good health. Venereal desires still existed, although less pronounced, and coitus was accompanied by less obvious sensations.

THE KURAM AND HARIAB VALLEYS.

SCIENCE is marching hand in hand with arms in the Afghanistan expedition; and the following extracts from the report of Surgeon-Major Aitchison, botanist to the expedition, will be read with interest.

"In a practical point of view, the great value to be attached to a botanical examination of the Kuram and Hariab valleys is its vegetable products and the value they may possess for any export trade. The first of these is timber. The Deodar, our finest Indian Himalayan timber-tree, forms dense forests, many of which, it will be found, can be easily worked. There is at present no limit to the amount and quality of this timber that can be obtained: means of exportation and forest conservancy are the subjects that now require to be studied. Deodar timber used to be exported from near the Kuram river in Mongul territory by floating down the Kuram *viâ* Thull to near Banu; but this has for some years been given up. In grain, these valleys have heretofore had no export trade, producing no more grain than was absolutely required for local consumption. I may say the same of their fruits, except perhaps walnuts and amlok (*Diospyros*). The cause of this is simply *oppression*. There is land enough to double or treble the produce. With a very little more than ordinary care of the water as it is expended, one-third more ground could be brought into cultivation; by appliances of a cheap nature, as wooden troughs, one-third more; and more expensive plant would enable it to be doubled. The very first effect of our rule in this valley will show itself even this season in there being grain enough for our troops locally produced; and next year exportation will begin to take place towards the Punjab for exchange for cotton goods, which are at present expensive. I cannot come to any opinion as to whether the nuts of Gerard's pine were exported as a real trade article from the Hariab. I know that it is so from Khost. The natives use no oil; splinters of the roots of Gerard's pine, or of the stems of *Pinus excelsa*, being used in place of lights. A crude tar is made from the roots of the above pines for local use. This is their nearest approach to oil. It is employed for local application to wounds and sores. A little silk is produced at Shaluzan and some other villages; but in this there is no trade. Probably the substance in which most trade is done, both on a large scale and barter, is honey. This is extensively exported by through-carriers to Kabul and the Khost country. Nearly every house in a village has its bees, from Kuram to Ali Khel. In a scientific point of view, the great value of a thorough and careful research in the vegetation of this altogether new-to-science district is the material assistance it will give to the better knowledge of the geographical distribution of plants, and the meeting of the several floras of Europe, Persia, Afghanistan, Tibetan, Himalayan, and Punjab tropical, which I already see radiate round the Safed Koh range as a focus; besides enabling one to obtain a more detailed and extensive knowledge of the peculiarities in the distribution of plants dependent on climatic zones, more or less influenced by a moist or dry atmosphere. From the six hundred species I have already collected, I can see the immense value likely to accrue to scientific botanists by the collections I am now making, and consider that the Government should permit of the subject being thoroughly worked out."

MEMPHIS TO BE TRANSFORMED.

THE commissioners of the "taxing district" called Memphis have, it is announced, accepted the recommendations contained in the report of the Committee appointed by the National Board of Health to make a sanitary survey, including a house-to-house inspection, of that place; and the Governor of the State has called a special meeting of the legislature to vote a tax, we believe of two per cent., that funds may be on hand to carry these recommendations into effect. In the report of the Committee, it was specifically proved that Memphis is sanitarily filthy, badly watered, and badly drained beyond the suspicions even of the most outrageous and disagreeable sanitarian; that many houses and buildings are hopelessly infected with yellow fever poison; and that there still exists in various parts of the city, in junk-shops, etc., much presumably infected material. The Committee—consisting of Drs. Billings (chairman), Mitchell, and Folsom; Messrs. Waring and Benyauzo—recommended that a large number of houses should be condemned, torn down, and the material destroyed by fire (this includes not only foul shanties and cabins, but some large buildings in the heart of the city); the destruction of suspicious bedding and junk; the ventilation in detail and chilling of every house; a system of sewerage, devised by Colonel Waring, to cost only two hundred and twenty-five thousand dollars; a better water-supply; a new street pavement; the transformation of the banks of the stinking and unwholesome Bayou Gayosa into a park; the adoption of stringent building licenses and inspection, and the common sanitary policing of a well-ordered city. The report closes with the expression of the opinion that few places possess greater natural advantages for the attainment of that healthfulness so necessary to commercial prosperity; and that, by carrying into effect simple sanitary laws, Memphis may soon become one of the healthiest cities in the valley of the Mississippi.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

WE are glad to hear of the improvement which has been effected during the last two years in the nursing and other arrangements of this hospital, as it affords additional evidence of the activity now prevailing in all departments of the Cambridge Medical School. The hospital, which was considerably enlarged in 1862, now has accommodation for one hundred and forty-four patients; two wards for children, containing eighteen cots; a ward for the contagious diseases of women; and a ward for special operation cases, such as ovariotomies—having been recently added. Under the energetic direction of the present matron, Miss Fisher, a Training School for Nurses, on a somewhat similar system to that in operation at St. Thomas's and King's College Hospitals, has been established, fortunately without giving rise to the dissensions from which Guy's Hospital is now suffering, and most satisfactory results have already been obtained. From the proceeds of a bazaar, held in November 1878, which was most liberally patronised by all classes at Cambridge, and by which the hospital profited to the extent of over £1000, the governors were able, besides completely furnishing the new children's wards and effecting much required alteration, to provide sleeping and other necessary accommodation for twenty-two probationer nurses. Probationers are now trained for nursing institutions at Edinburgh, Newcastle-upon-Tyne, Worcester, Torquay, and at several other towns in the more immediate neighbourhood of Cambridge. The permanent staff consists of the matron, night superintendent, and eight head nurses, all of whom have received a hospital training. All recent vacancies have been filled by the appointment of ladies. The probationers are classified as lady and nurse probationers. The former are received for training for periods varying from six months to a year, the payments in such cases ranging from 21s. to 12s. per week; and those who shew aptitude for responsible positions, are allowed to remain for a further period, and receive instruction in hospital management. The receipts from this source are now at the rate of £300 *per annum*, and numerous applications are received at every vacancy. Every effort is made to obtain permanent posts for them at the end of their course; and during the last year matroncies at the Brighton, Salisbury, National Orthopædic, Wisbech, and Montgomeryshire Hospitals, have been filled by those who have held posts at Addenbrooke's. Nurse probationers are received for a year's training, the hospital supplying board and lodging in return for their services. For six months of this period, they are employed as night nurses, under the supervision of a trained night superintendent. Since the school has been established, nearly eighty probationers have been admitted; but some of these attended for six months only, a course which is considered far too short for efficient training. Weekly lectures on subjects connected with nursing have been given by the House-Physician, Mr. J. K. Fowler; and frequent classes held for instruction in bandaging and the application of splints by the House-Surgeon, Mr. Ground. When it is considered that all this has been done without appreciably increasing the hospital expenses, it is not surprising that it is claimed to be the cheapest system of hospital nursing yet devised; and one which, if generally adopted, would effect a great improvement in the status and efficiency of nurses throughout the country. The visiting staff have given the movement their earnest support, and have expressed great approval of the improved nursing of the hospital.

ARSENICAL CONTAMINATION BY VAPOUR.

AT a recent meeting of the Medical Society of London, Mr. Foster gave a detailed account of certain experiments made with a view to determine the contamination of atmospheric air by arsenical vapour or gas. Experiments to determine this question have nearly always been conducted under conditions very different from those met with in ordinary every-day life. It is, then, by no means surprising to find that in nearly all cases the results are of a negative character. A few glass bottles containing a quantity of Scheele's green, maintained at a temperature of 100° F. or more for a few days, can scarcely be expected to solve an unusually difficult problem in chemistry. Dr. Hamberg, a Swedish chemist of some eminence, set up his experimental apparatus in an ordinary room, the walls of which had been undisturbed for many years, and he obtained results which enabled him, beyond all doubt, to say that the gaseous matter evolved and collected is a very important factor in the poisoning. So far as is known, however, it has not been suggested that the symptoms observed in cases of arsenical wall-paper poisoning are due to the volatilisation of the poison, and whether it is so or not does not in the least disturb the clinical fact, now quite firmly established in the minds of medical men. There is doubtless considerable difficulty in suggesting a perfectly satisfactory theory that shall account for the poisonous action of arsenical wall-papers; but is there not equal difficulty in explaining how persons become affected by lead—how, by reason of having slept for a single night in a room the walls of which have been freshly painted, lead-paralysis ensues? As yet, chemistry has been unable to detect a carbonate or oxide of lead in the air of such a room; nevertheless, the fact remains of rapid lead-poisoning in such instances.

A MICROTOME FOR LARGE SECTIONS.

DR. CARL SEILER is reported, in the *Boston Medical Journal*, to have exhibited at a recent meeting of the Philadelphia County Medical Society, a new immersion microtome, consisting of a metal tank about six by twenty inches, and one inch deep. In the centre of the floor of this tank, projecting about half an inch, is placed an ordinary screw microtome chamber, about two inches in diameter, over the surface of which plays a guillotine section-cutter. The extremities of the knife are attached to two brass arms, which, by a double bend (or elbow), are carried up and over the side, and there attached by two thumb-screws moving in slots in horizontal brass supports, extending about five inches from the side of the trough. In this way, a guillotine-motion is communicated to the knife, which carries it with a lateral sweep through the structures. The specimens are hardened, as usual; then, being fastened in the well, the trough is filled with dilute alcohol, and the sections are cut under the surface of the liquid, and floated off on glass. Sections of the human larynx, a fœtal foot, a cat's kidney, and others, all beautifully double-stained and mounted, were shown by Dr. Seiler on the screen by the aid of the lantern. He has in preparation a large immersion section-cutter, which will enable him to make sections of the entire brain.

A HOSPITAL DISPUTE IN VIENNA.

THE bequest by Mrs. Kenyon of a quarter of a million florins to the district of Vienna in which she lived, for the foundation of a hospital, has given rise to a lively dispute. Seven years ago, on the death of the Archduchess Sophia, a committee was formed, under the auspices of Dr. Ritter von Vivenot, for the purpose of erecting a hospital, to be called the Sophien-Spital, to the permanent memory of the mother of the Emperor, and a Society was formed for the purpose, called after the Archduchess Sophia, for the collection of funds, and a few thousand gulden were collected. When, lately, Mrs. Kenyon's bequest became known, the Vivenot Committee managed, by electing representatives of the quarter benefited by the Kenyon bequest, to induce the latter to amalgamate the large bequest of Mrs. Kenyon with the small collection belonging to the Archduchess Sophia Fund, and to erect the hospital under the auspices of the Archduchess Sophia Memorial Committee. All went well until lately. The Governor of Lower Austria has entered, and has forbidden the placing of a tablet on the hospital, on which was to be inscribed the names of Dr. Vivenot and his committee, on the ground that they would thus raise claim to the private management of the hospital virtually founded by the funds of Mrs. Kenyon as a public institution. Under the Kenyon foundation, the hospital would be governed as all other public hospitals, and the posts of physician and surgeon would be open to public competition. Under the Archduchess Sophia Committee, which had ingeniously acquired possession of the bequest, the hospital would be a private one and under private management, and this the Governor declines to allow. A very pretty quarrel has ensued, and litigation is threatened.

DIPHTHERIA AND SEWER-GAS.

AN epidemic of diphtheria of the most formidable dimensions has lately occurred at Pittsburgh, in the United States. During the two years ended the 31st July, 1879, no fewer than 984 deaths have occurred from that disease, amongst a population now estimated at 145,000. The infected district is ninety acres in extent, and lies at the foot of an abrupt hill, 450 feet high. In this district, diphtheria began to prevail in August 1877, causing forty-three deaths in that month. An invasion so sudden and destructive, restricted mainly to a particular locality, could not, it was thought, have possibly been propagated exclusively by contagion with sufficient rapidity to produce such results; while the evidence was strongly presumptive that in the sewers, particularly one through a street called Washington Street, in which a mass of filth from one foot to three feet in depth had accumulated, the specific poison which causes diphtheria had found a lodgment and a favourable soil for its development and multiplication. To the local sewers, undoubtedly, was due the fact that the disease selected this district as its habitat, and radiated from this locality as a centre in every direction. The sewer had not been cleaned for twenty-eight years, and in 1877 was "choked" for two thousand feet of its length. Another infected sewer passing up the hill apparently served to ventilate the low-ground sewer, and also to carry off the filth from several slaughter-houses. A violent rain-storm, on July 27th, filled up the sewers, forcing the gases into the houses, which were unprotected by adequate street-ventilation or suitable internal drainage, and the outbreak of diphtheria occurred a few days later. On August 12th and 15th, sharp rains were followed by sudden increase in the disease. The low sewer had been diverted from its original purpose of draining the soil, and was never smooth and of proper gradient to be self-flushing.

A RARE CASE OF VERTEBRAL FRACTURE.

A VERY singular and interesting case of fracture of the third cervical vertebra is reported by Dr. H. F. Eberman of Lancaster, Pennsylvania, in the *American Journal of Medical Sciences*. The patient, William Barracks, aged about 70, was making his home in a stable adjoining a hotel, and was in the habit of sleeping in the hayloft. One morning, on arising and while descending the steps, he slipped and fell, striking his occiput violently on the ground; his head was thus forcibly thrown forward on his chest, and he was rendered insensible for a considerable time. After recovering from the shock, he arose, and placing both hands to his neck, walked to the bar-room of the hotel (which is half a square from the place of accident), where he remarked that *he thought his neck was hurt*, and at the same time called for a glass of whiskey, which he immediately drank. He then returned to the stable, lay down on the hay, and expired in about half an hour. On the following day, a *post mortem* examination was made, with the following result. The third cervical vertebra was found to be fractured transversely through the body; the arch on the right side was broken entirely through; the articulating surfaces on both sides were fractured through the middle; the transverse process on the right side of the atlas was broken off; and the interspinous and posterior vertebral ligaments were ruptured; but the spinal cord remained intact.

THE ONTARIO MEDICAL COUNCIL.

THE *Canadian Journal of Medical Science* says: "We are informed that, notwithstanding the fact that the Executive Committee of the Council last year felt themselves compelled to register a British graduate without examination, it is the intention hereafter to refuse to recognise this case as a precedent, and to compel all seeking registration to show that they have complied with the requirements of the Ontario Medical Act." It adds: "Now that the Local and Dominion Governments begin to recognise the fact that if British legislation in medical matters is to control Colonial legislation, the same rule may be applied to our legislative enactments as to admission to the legal and other professions, active measures will probably be taken to finally confirm us in the right we claim to compel everyone seeking registration to conform to the provisions of the Ontario Medical Act. We congratulate the Executive Committee on the stand they have taken, and trust that they will maintain their rights. It is high time that the Ontario Medical Council should show that its function is to act and not to merely exist, not only in this matter but in many others."

SCOTLAND.

THE QUESTION OF LADY MANAGERS IN THE EDINBURGH ROYAL INFIRMARY.

THE General Court of Contributors to the Royal Infirmary, which meets annually, and elects six managers as well as receives the annual report, met on Monday, January 5th. From the report, it appears that, during the year, there were treated in the Infirmary 5,189 patients. Of these, 2,621 were dismissed cured or recovered; 1,355 dismissed relieved or improved; dismissed on other grounds, 464; while 447 died, and 302 remained in the hospital at October, when the year closes—this small number being accounted for by the number being reduced, as far as possible, in order to facilitate removal to the new Infirmary. There were 277 cases of fever, of which 48 were scarlet fever; 2,457 were ordinary medical, and 2,153 were surgical cases. The average number of patients resident had been 453; the greatest number at any time having been 507, the lowest 303. The average duration of each patient's stay was 31.8 days, this being slightly larger than in the preceding year. While Edinburgh furnished 2,683 and Leith 325 of the admissions, there were 1,879 from the country generally. The percentage of deaths of patients who had been in longer than forty-eight hours was 6.8. As to the Convalescent House, there had been 743 patients sent there, an increase of 83 on the preceding year; the average period of residence there had been 22.3 days. During the year, 12,000 outdoor cases had been treated. After the report had been remitted to a committee for examination, the meeting proceeded to elect six managers. Four of the old ones were proposed for re-election, and two other gentlemen, in place of the two retiring, who were not eligible for re-election. In opposition to this, two ladies—Mrs. Russel and Miss Wigham—were proposed for two of the vacancies. The various speakers spoke for and against this innovation; and, altogether, the discussion and meeting resembled somewhat the crowded and noisy meetings of the same body that were in fashion seven or eight years ago, when the vexed question of admission to the hospital of female students was sought to be solved by the election as managers of gentlemen known to be favourable to such admission. The result of the voting, which was by papers, would seem to have been adverse to the ladies; but this will not be authoritatively known till the adjourned meeting to be held next Monday.

POISONING BY CARBOLIC ACID.

A SAD case of accidental poisoning is reported from Turriff. Diphtheria had prevailed in the family of a surfaceman named William Donald. Mrs. Donald had been advised to try tincture of iron as a preventive for herself. On Sunday, supposing herself to be taking the iron drops, she swallowed a quantity of carbolic acid from a phial. Her sufferings commenced almost immediately, and she died in two hours after severe agony, notwithstanding all medical assistance.

IRELAND.

SIR DOMINIC CORRIGAN, BART., M.D.

WE regret to state that Sir Dominic Corrigan is in a precarious condition. He was attacked with paralysis of the left side on the 30th ult., having been on the afternoon of the same day in the enjoyment of his usual good health, and in excellent spirits.

THE NORTH DUBLIN UNION.

IN consequence of the resignation of Dr. Kirkpatrick, which was announced in the JOURNAL some months ago, the Board of Guardians of this union have given notice that they will elect a qualified medical officer to fill the vacancy on the 28th instant. The salary is £150 *per annum*.

THE MEATH HOSPITAL.

ON New Year's Day, the Medical Board of this Hospital presented a handsome gold watch to their Resident House-Surgeon, Mr. William Crozier, in token of the esteem and regard in which that gentleman is held by the staff. The presentation was made by Mr. Porter, Senior Surgeon to the Hospital, in the Theatre of the Institution, in the presence of the entire medical staff and a large number of students. Mr. Porter spoke in extremely complimentary terms, and we believe most deservingly, of the manner in which Mr. Crozier had performed his responsible duties. The watch bore on its case the following inscription:—"Presented to William E. Crozier, L.R.C.S.I., by the Medical Board of the Meath Hospital, as a slight token of their esteem and regard. January 1st, 1880."

PUBLIC ABATTOIR FOR DUBLIN.

THE praiseworthy movement of the Public Health Committee of the Corporation, in endeavouring to establish a public abattoir for Dublin, in place of the numerous private slaughter-houses which now exist through the city, has met with considerable opposition from an interested section of the citizens. In view of this fact, the Executive Committee of the Dublin Sanitary Association have issued an important report, which will, it is to be hoped, have some effect in informing the public as to the necessity for such an establishment. The report declares, in the first place, that the traffic in diseased meat is admittedly an evil of very great magnitude in Dublin, and one which almost exclusively falls on the poor and the working-classes. The Committee are fully convinced that this traffic cannot be suppressed without the establishment of a public abattoir. The present multiplicity of private slaughter-houses in Dublin, hidden as many of them are in back slums, and surrounded by the crowded dwellings of the poor, renders adequate supervision for any purpose whatever practically impossible, and opens the way for many objectionable practices which could not occur in connection with a well-regulated public abattoir. The Committee point out, further, several other principles which should be kept in view in connection with the slaughtering of cattle for food, particularly the necessity for competent supervision and adequate sanitary arrangements, both in public abattoirs and in such private slaughtering-houses as are still, unfortunately, permitted to exist.

DEATH OF DR. BOOKEY.

WE regret to announce the death from phthisis, in his thirty-fourth year, of Dr. Bookey, one of the physicians to Dr. Steevens's Hospital, Dublin. He was known as a successful private teacher, and an able pathologist and microscopist. He had held his hospital appointment only twenty-two months.

THE MAINTENANCE OF LUNATICS.

THE Belfast Board of Guardians, at a meeting held last week, adopted a resolution, expressing their belief that the maintenance of large numbers of lunatics in workhouses where, without additional expenditure, suitable provision cannot be made for their treatment or classification, is contrary to the intention of the legislature in the establishment of workhouses: also that, on the grounds of equity and humanity, all such lunatics should be removed to proper lunatic asylums, or, failing such an arrangement, that the capitation grant should be extended to workhouses, which are practically auxiliary lunatic asylums, and in which, by the aid of such grants, more suitable provision could be made for the care, classification, and treatment of such lunatics.

BELFAST ROYAL HOSPITAL.

IT is gratifying to learn that the sum of £1,000, which was required to pay off the amounts due by the hospital, has been obtained, owing to the exertions of Mr. Wolfe Shaw, chairman of the Finance Committee; and that the institution commences the new year free of debt. Among contributions recently received, especial importance must be given to the sum of £14 1s. 9d., being the voluntary contributions in pennies of the *employés* of Messrs. McGee and Co. for 1879, this being the fifth year in which similar donations, amounting in all to £71 14s. 7d., have been obtained in a like manner. The workers in the Falls Flax Spinning Company also contributed a sum of £12 8s. 5d., subscribed weekly; and if a penny subscription per week were generally carried out among all the large Belfast firms, no doubt a very considerable amount would be obtained for the funds of the Belfast Royal Hospital. The hospital, as all are aware, exists for the benefit of the labouring classes; and it is only fair and just that they should evince some practical sympathy in an institution to which they are so much indebted.

REFUSAL TO VACCINATE.

MR. JOSHUA JACOB was fined twenty shillings and costs, last week, at the Limerick Petty Sessions, for refusing to have his child vaccinated, being the highest penalty the Act permits. This is, we believe, the fifth occasion upon which Mr. Jacob has been fined for the same offence, he having openly defied the law, and publicly declared his intention to go to prison before he would allow his child to be vaccinated; his objection being that diseases may be spread by the operation. As Mr. Jacob has shown an unconquerable aversion to vaccination, as ordinarily performed, the opportunity appears a desirable one for trying whether he would have the same objection to animal lymph being used. For, as Dr. Carpenter of Croydon has recently observed, fines are a mistake; and he suggests that an addition should be made to Dr. Cameron's Bill, so that, when a person was brought before a magistrate for refusing to have his child vaccinated, instead of being condemned in a fine and costs, the magistrate shall have the power to order the child to be taken out and vaccinated; and, if the individual sent to the public vaccinator persisted in having vaccine from the cow, he would have the power to insist on it, if the Bill became law.

ANIMAL VACCINATION.

REPORT OF CONFERENCE HELD ON WEDNESDAY, DECEMBER 31ST, BY THE PARLIAMENTARY BILLS COMMITTEE, TO CONSIDER DR. CAMERON'S BILL FOR ANIMAL VACCINATION.

Speeches of the Chairman, Dr. Crisp, Mr. Henry Lee, Mr. De Berdt Hovell, Dr. Collins, Dr. Robinson, Dr. Haughton, Mr. Stevens, and Mr. Greene.

THE concluding meeting of the conference on this subject was held on December 31st, at the rooms of the Medical Society of London, Chandos Street. Mr. ERNEST HART, Chairman of the Parliamentary Bills Committee of the British Medical Association, presided.

The CHAIRMAN, in opening the proceedings, said that this was the second adjourned meeting of the conference called by the Parliamentary Bills Committee for the purpose of hearing the opinions of members of the Association in regard to the Bill brought into Parliament in the last session, and proposed to be introduced next session, by Dr. Cameron, for the purpose of legalising the system of vaccination from the calf, and making that system part of the British official system of vaccination. The adjournment of the last meeting was moved by Dr. Crisp, and the present meeting would proceed from the point where it last broke off. Dr. Crisp would take up the discussion; but, before he resumed the debate, a few words of explanation as to the course of proceedings were necessary. It was to be borne in mind that this was primarily a meeting of members of the British Medical Association, convened by the Parliamentary Bills Committee of the Association; and if there were members of the profession present who were not members of the Association, and desired to speak, he had no doubt the meeting would be glad to hear them, if they spoke upon the subject directly before the meeting. But he had received communications from gentlemen, who were not members of the profession, asking if they could attend and speak; and, in reply, he had told them that they could not speak at that meeting, it being a special conference for the medical profession only—of members of the British Medical Association by right, and of other members of the medical profession by courtesy. If there were persons present who were not members of the profession, he had no wish that they should retire; but they must distinctly understand that they could take no active part in the proceedings.

Dr. CRISP, resuming the debate, said he wished to correct a part of the report of his remarks when he moved the adjournment. He was reported as saying that the "humble calf", as spoken of by Professor Warlomont, "was anything but humble, for he would give a man a kick, and laugh at him afterwards"; and the correction Dr. Crisp regarded as necessary was to add, if the calf could have laughed, he would have laughed. He had been misunderstood, too, to say that vaccinators were conceited; for, if he had said so, people would suppose he was in his dotage. [The reporters state that they could only report what Dr. Crisp said, and believe that they did so.] He had attended these meetings because he had paid a great deal of attention to vaccination generally, and to the diseases of animals. He had performed with vaccine matter, and with small-pox matter, more inoculations than any man living; he had performed more operations upon animals than anyone present, and he had paid a great deal of attention to the diseases of the lower animals, so that he could speak on the subject by the light of his own experience, and he did not speak from experience gained from books. The profession had been invited to discuss whether it was desirable to introduce animal vaccination—whether, in fact, it was well to upset the arrangements at present existing in favour of the system as in Belgium. He thought the meeting was a great mistake in the beginning. The Association should have been consulted before the step of holding the meeting was held; for he thought the meeting would tend to produce a great deal of discontent among the people, in leading to the idea that the doctors themselves were dissatisfied with the present system of vaccination. At the last meeting, it was said that the French Academy of Medicine had reported in favour of animal vaccination; but, as he read the report (of 1869 or 1870), there was no such expression of favour; but it upheld the efficacy of the protection afforded by humanised lymph, and attributed any lessened effects to the want of care on the part of operators. This was the experience in other countries; and, having performed many operations upon the cow during the cattle-plague, he must say that he should be sorry to take matter from the vesicles which appeared in the animals, for they did not appear to him to resemble the Jennerian vesicle. With regard to the nine inferences drawn in the report of the Parliamentary Bills Committee, and given in the JOURNAL, if those inferences had been debated upon more directly than they had by the conference, there would, in his judgment, have been a better practical outcome of the conference, and the results would have been better than would be the results of the speeches which had been given. For himself, he should take up these inferences. In the first place, it was said that humanised lymph had lost its efficacy in passing through so many generations of the human being. But what proof was there of this, and what example was given of this? He had been a vaccinator for fifty years, and he could see no difference now in the protective power of the lymph from what there was fifty years ago; and, indeed, he would go so far as to say, by the light of his own and others' experience, that a finer vesicle could not be produced than the Jennerian system now produced. Then, as to the efficacy, it must be remembered that it was never held that vaccination was wholly protective; and, in point of fact, he had it from a friend that, of two ladies who were vaccinated by Jenner himself, one had small-pox after vaccination, and this small-pox by which she was attacked was of a virulent character. But vaccination did lessen the mortality which resulted from small-pox.

Dr. WYLD asked how long after the vaccination the lady referred to had the small-pox.

Dr. CRISP said the medical gentleman who knew the particulars was present, and, if necessary, would answer the question. The instance had been merely mentioned to show that it must be seen that vaccination could not be held to be always a protection; and, therefore, the fact that it did not always protect the vaccinated was no proof that the humanised lymph had deteriorated. Another inference taken by the report of the Parliamentary Bills Committee was, that animal vaccination was necessary in order to provide a larger supply of lymph. Now, this larger supply of lymph he did not consider at all necessary, for he had always had a full supply.

Dr. WYLD asked Dr. Crisp if he had had no difficulty in obtaining a supply of lymph during periods in which there were epidemics of small-pox.

Dr. CRISP replied that he knew it was said that difficulties with regard to obtaining lymph had arisen in times of epidemics; but he did not think that the position would be improved by having recourse to animal lymph. With regard to the objection made as to the vesicles with humanised lymph—that some of the insertions did not take—the fact was the vaccinators tapped some, and left others untouched. It was declared that the vaccination by animal lymph had more lasting effects than the vaccination with humanised lymph; but of this there was no proof. He held, indeed, that it might just as reasonably be expected that the poison of scarlatina or measles would have lost some of its force as that the virus of the lymph should deteriorate. Then it was declared that it was not clear syphilis was not introduced from a syphilitic offspring into a non-syphilitic offspring. Now, he would not deny that this might occur; but then he would urge that calf-lymph was not altogether safe. He could declare that not one of the inferences of the report had been borne out, with the exception of that with regard to the vaccination of a non-syphilitic child from a child which had syphilitic taint; but even in this matter he would remark that the French authorities had vaccinated many children from syphilitic persons, and none so vaccinated had taken the poison with the vaccination. Then Dr. Warlomont had talked of coming to the "pure and simple calf", saying that there could be no deception with the animal. Mr. Greene remarked upon the insusceptibility of the calf; and Dr. Warlomont had acknowledged that, in consequence of bad health on the part of animals, they had not always produced the effects he had expected. It was necessary, therefore, that the profession, on being asked to adopt matter from the bovine race for the vaccination of humanity, should look into the nature of the diseases to which the bovine race was subject; and perhaps some members of the profession would hear with surprise that there were more diseases among the bovine animals than there were among even pigs; for, though pigs were dirty in their habits and feeding, yet the bovine race was subject to such diseases as the murrain, for instance, which would swiftly sweep away whole herds. Then there was the foot-and-mouth disease, the entozootic asthma, pleuropneumonia, the class of diseases called charbon, splenic apoplexy, and the hoose, or husk. He proceeded to speak of the action of these diseases in detail; and said that, though it was not pretended that they could be communicated to the human body, yet, as their presence in the animal betokened impoverished blood, it would be improper to take matter from the animal so diseased, and transmit it into the human frame. He dwelt upon the characters and qualities of other diseases to which the bovine species were subject, as the milk-fever, the garget, glanders, and occasional inflammation of various kinds, and held that the entozootic asthma might become communicable to mankind. In continuation, he criticised the work of animal vaccinators, and contended that they were most careless, inasmuch as they snipped off from the animal which had been inoculated the whole vesicle, blood and all. Under these circumstances, he thought it was wonderful that something dreadful had not resulted in the communication of bovine disease. He charged the animal vaccinators with being animated by a trading spirit—that their philanthropy was in connection with their pocket. He added that he was not opposed to animal vaccination as such; but he thought it would be ruinous to vaccination to introduce it in this country, for there was a feeling among the lower orders of this country that this was an endeavour to introduce matter from the brute creation into the human body. He knew that the people were ignorant, and that their idea on this subject was mere prejudice; but they had come to this conclusion; and, if it were attempted to bring about the legalising of animal vaccination, there would be muddle and confusion, which would be injurious to vaccination, and so injurious to the public at large, and to the science of medicine which had laboured to advance the health of the public.

Dr. WYLD remarked that Dr. Crisp had spoken at length upon the variety of diseases to which the bovine race was subject; but would Dr. Crisp have it inferred that the calf could come under the hands of the vaccinator at two periods, and be subject to diseases which would not be apparent to the vaccinator?

Dr. CRISP replied that he could believe that the calf might have some forms of disease which would not be apparent.

Dr. WYLD asked if Dr. Crisp really meant to say that a calf could have diseases which would not be patent to the eye of a veterinary surgeon?

Dr. CRISP said that the animals were supplied by the butchers, and were not seen by the veterinary surgeon.

Dr. WYLD denied that this was the case; and said that the objections urged by Dr. Crisp were of no value, inasmuch as if animals were affected with disease, it would be easily discoverable, and they would not be used by the vaccinator for his operations. Then, with regard to Dr. Crisp's allegation that it had not been difficult to obtain lymph in periods of epidemics, his own experience was the reverse; for, when he wrote to the *Times* saying that he could give supplies of lymph, he had four hundred letters at once begging for supplies. With regard to the action of animal vaccinators being due to the "philanthropy of the pocket", all he could say was that, so far as he was concerned, he was free from that aspersion, for he had lost at least £200 a year by his supplies of animal lymph.

Mr. BAKER, a barrister, then rose, and desired to address the meeting.

The CHAIRMAN informed the meeting that Mr. Baker was a gentleman, not connected with the profession, who held very strong views on the subject of vaccination—views which all there would respect. Mr. Baker had attended on what he termed an "invitation"; but what he had shown was an unaddressed card. Mr. Baker had been informed by letter that the meeting was a medical meeting; and that the subject to be discussed was the one which the programme set forth—whether the profession should urge upon the Government and the legislature the extension of the vaccination system by the adoption of means of animal vaccination. To this subject, the meeting must be confined; and Mr. Baker could not claim to be heard in a meeting of professed medical men on a medical subject.

Mr. BAKER still asked that he should be allowed to read a paper, saying that he had been allowed to second Dr. Crisp's motion at the last meeting for the adjournment of the debate.

The CHAIRMAN, supported by the meeting, declined to hear Mr. Baker, Dr. CRISP observing that no professional meeting of barristers would tolerate a doctor intruding on them in the discussion of a point of law.

Mr. HENRY LEE said that any resolution of the meeting would doubtless have great influence upon the Government Board, upon the profession, and upon the public. But, in order that it might have that influence and that weight, it was necessary that the question should be considered in all its bearings, and a sound and deliberate judgment given. There had been several statements made in the course of this debate which had not been calmly considered, and which, if they went forth to the public without that consideration, would tend very much to prejudice the object, namely, to ascertain and to satisfy the public as to the actual facts of the case. Professor Simonds, in a very able and interesting speech, had given his opinion that small-pox and the vaccine disease depended upon one and the same poison. If that opinion were endorsed by the meeting, it would have the effect of making many practitioners and a very large section of the public wish to have the lymph which they used removed, as far as possible, from its original source, namely, small-pox; and would be one very practical reason against the adoption of a resolution in favour of animal vaccination. Professor Simonds had asked why the disease did not appear in the bull? But the very same difficulty, if difficulty it were, presented itself whether the disease were called small-pox or cow-pox. If variola could be communicated to the cow, why not to the bull? It was stated at the last meeting that the vaccine-disease was of vegetable origin. If that were so, it appeared to afford a simple, and perhaps a satisfactory, answer to the supposed difficulty. No animal had so large a surface of bare skin habitually exposed, with the influence of warmth and heat, to vegetable action. The bare skin of no animal was left so long in undisturbed contact with the ground. Again, it had been said that the identity of the two diseases was shown by their having on some occasions appeared at the same time. But this surely was what was observed in all diseases of the same type. When erysipelas was rife in hospitals, it was not surprising if, at the same time, there should be a larger proportion of cases of puerperal fever, of peritoneal inflammation, of pyæmia, or of scarlet fever. But surely no one would conclude that, therefore, these were all essentially one and the same disease. It had been said that the question of animal vaccination should be discussed apart from any collateral questions. Vaccination in its various forms has been so discussed since the time of Jenner; and the public at large, or rather a section of the public, especially in some of the midland counties, were not satisfied. In Mr. Simon's report upon the subject, there were several medical men mentioned who had given it as their opinion that they had seen syphilis follow vaccination. Those, therefore, who had stated that they had never seen it, had proved that they had not had an opportunity of seeing any large number of patients at the time that syphilis after vaccination naturally developed itself. But there could not be a large proportion of medical men, engaged in extensive general practice, and who knew the disease, who had not seen a syphilitic eruption follow vaccination. The very great majority of these cases consisted of instances of hereditary syphilis, where the fresh action in the patient's system had developed and given fresh life to the latent disease. Such a contingency was not to be overlooked by medical men; for they were sure to have the credit of having introduced the poison into the child's system. It had also been assumed that Mr. Hutchinson's series of cases were the only ones in which syphilis had been introduced, for the first time, into a patient's system by vaccination. As a matter of fact, the possibility of such an occurrence was now universally acknowledged. In 1862, Mr. Lee published a series of facts connected with this subject; and these, as far as he knew, had never been disputed. He had seen only one case in which syphilis, as far as could possibly be ascertained, was introduced in this way. But, as Professor Simonds observed at the last meeting, one affirmative was worth more than a thousand negatives. In such circumstances, it was a clear duty to acknowledge the facts as they stood, and, if there were any dangers in vaccination, to explain to the profession and to the public how they might be avoided. The confidence of the public would never be gained by ignoring well-known dangers. But if these dangers were freely acknowledged and guarded against by medical men, the people would then trust their safety in their hands with regard to this, as they did in all ordinary medical affairs. If the lymph, and the lymph only, which had been elaborated in a vaccine vesicle, were inoculated upon a healthy person, the vaccine-disease only would be produced. But, if any elements of the blood (not the red corpuscles only) were introduced at the same time, then another disease might be communicated. Cases had been recorded in which a patient had been vaccinated from another, who in a few hours had developed symptoms of small-pox, and yet the patient vaccinated had had the cow-pox only. The milk of a syphilitic mother or nurse would not communicate syphilis unless there were some abrasion on the nipple, and the pure lymph from a syphilitic child would not communicate syphilis unless mixed with some element of the blood of the patient from whom it was taken. Cases had been recorded where, soon after vaccination, symptoms of small-pox had appeared. Each disease had run its course quite independently of the other, and exactly in the same way as if the other had not been present. If the product of the two had been inoculated upon different healthy patients, who had previously had neither disease, the result would have been quite different. The cases last referred to proved conclusively that the small-pox and the cow-pox were distinct diseases. Many years ago, the late Mr. Babington of St. George's Hospital told Mr. Lee that he recollected the vaccine vesicle as it was in his younger days. It was then, he said, usually much larger and much more fully developed than it was at the time at which he spoke. His observations would refer to about the beginning of the present century. Some change, therefore, had taken place since then. He had one other remark to make, namely, that, inasmuch as vaccination produced a blood-disease, it must extend to the whole of a patient's system, and that whether one inoculation were made or five. If one pock ran its course fully without being interfered with, the patient's system was as fully protected as if a dozen were made. The fact that practitioners often inoculated at five different points indicated an instinctive fear lest some should fail, which no doubt from various circumstances often happened. Taking all these circumstances into consideration, he was firmly of opinion that vaccination was the greatest blessing that medicine had conferred on man; that, like all other great remedial agents, it had its dangers; that if those dangers were acknowledged and guarded against, vaccination was quite safe; that there was a tendency in the vaccine lymph, after passing through a great many generations, to lose something of its power. He would, therefore, heartily support the proposal in favour of animal vaccination, with the single suggestion that the lymph should be passed through two or three calves before it was used on the human subject, because, should the lymph be mixed with any other poison when conveyed artificially to an animal, and should the products be directly reinoculated on man a few days afterwards, another disease might thus be communicated, as happened in the case of M. Diday, who inoculated himself from an artificial sore from the ear of a cat.

Mr. De Berdt Hovell said he could not agree with Dr. Crisp. To follow his argument, one would almost be led to think that inoculation was calculated to have the effect of producing a number of diseases from the cow in the human subject. Vaccination had been the greatest boon to mankind, and it had been either successful or unsuccessful. If it had been entirely successful, and continued to be so, it was quite true that there was no necessity to reintroduce animal vaccination. If it had been partially successful, there might be a reason why animal vaccination should be reintroduced; but to his (Mr. Hovell's) mind, the only reason for having recourse to it again was that vaccination was the law of the land, and that many people objected to vaccination from other people's children. To such persons, operators were to have the power to say, "Vaccinated you must be; and if you do not like to be vaccinated from your neighbour's child, you must be vaccinated from the calf." He had never heard anything about what was done with the milk from these cows by the dairy people. There were no officers of health in former days, and if the milk was sold, there was no report, as far as he knew, that any sort of disease had been communicated to persons who partook of it. He had had a good deal of experience for forty years in vaccination, and would say, with regard to the two ladies whom Dr. Crisp mentioned, that their case did not enter into his mind as an argument against vaccination. Those ladies clearly ought to have been revaccinated. Dr. Jenner had not lived long enough to be convinced of the importance of revaccination. He (Mr. Hovell) knew some persons who had been vaccinated by his father, and when they were adults they required revaccination. He believed that more care was required on the subject. Vaccination must be done by certain rules. He had respect for the feelings of those who objected to be vaccinated from other people, and he thought they ought to have the alternative of being vaccinated from the animal.

Dr. Collins thought that, considering the vested interests that were at stake, and the legal machinery in existence, no subject required more cautious or delicate handling than the present; but facts were stubborn things. The matter under discussion was, in his opinion, really a question of fact, and one that required fully entering into. It was not his wish or his interest to condemn a practice that had been in vogue for the last eighty years, but simply to give the meeting the results of his experience from actual observation, and to elicit a fair and impartial judgment on this so-called protection. As a public vaccinator of twenty years' experience in London, he had had every opportunity of watching the progress and effects of vaccination, and of putting to every possible test its so-called prophylactic properties. After careful consideration, he abandoned the practice for the following reasons; that there was no certainty of action in the vaccine powers; that it often imported or called into activity diseases that would otherwise have remained dormant.

The Chairman reminded the speaker that, if he persisted in making an antivaccination speech, he was out of order.

Dr. Collins said he should come to the calf presently. He knew as much about calf-lymph and vaccination generally as anybody. If the Chairman ruled that these introductory remarks were out of order, he would refer specially to what Dr. Crisp had been saying, when alluding in a very pointed and graphic way to the communication of syphilitic diseases. Dr. Warlomont and Dr. Cameron had published that vaccination as now carried on was only too often the means of conveying syphilitic disease. With a view in some measure to palliate the gravity of the charge, and remove the stigma from the lymph, and place it on the carelessness of the operator, many medical men and numerous text-books, in ignorance of the fact, and defiance of physiology, had stated that it was only when blood was conveyed through the vaccine virus that there was any danger of communicating syphilis. Now the veriest tyro in vaccination could tell that the lymph came from, and was part of, the blood; nothing separated the two but a thin capillary wall, through which passed the serum of the corpuscles with the greatest possible facility, and with them any virus, animal, vegetable, or mineral. Even supposing it was the admixture of blood that conveyed syphilis, he would ask this question: How were they to account for a syphilitic father infecting the mother, and the mother the offspring, for in neither of these cases was there an interchange of blood? The whole theory was untenable, and was as unsound as it was unscientific. With reference to small-pox statistics, they either proved that the prophylactic properties of vaccination were mythical, or that the lymph had become deteriorated. It had been abundantly proved by Drs. Ballard, Stevens, and Worlomont, and many others besides, that no deterioration had ever taken place. Such as it had been, such it was; and he claimed therefore to adopt the other alternative, and to say the prophylactic properties of vaccination were, and always had been, mythical.

The CHAIRMAN again called Dr. Collins to order, on the ground that he was wandering from the subject. Dr. Collins protested, but desisted.

Dr. ROBINSON said he was a general practitioner, and one of that large body of the profession who had to stand between the public on the one hand, and the repeal of an Act of Parliament on the other. He did not wish to say to people merely, "You must be vaccinated because it is the law of the land", but to give them a rational explanation. He had read in the *Times* the letters of Dr. Cameron on the subject; and, the subject having been introduced in that non-professional manner, the present discussion, although only in the presence of medical men, belonged to a wider circle than theirs. So long as the profession thought it fit or consistent to have one of its remedies enforced upon the population by penal enactments, it must submit to public criticism. Dr. Cameron charged the present system of vaccination with many serious faults, and said, in the first place, that it was not protecting the public against small-pox. He also said that the method was attended with the danger of transferring from child to child constitutional disorders. He likewise said—and it was a very serious charge to make if true; more serious still if untrue—that as a mere authority, apart from principle, the profession was not a safe guide to Parliament. He (Dr. Robinson) came to this conference anxious to see and hear that these three charges were met, first, by leading men of the profession, and secondly by the official medical men in connection with the Government department. He listened to Dr. Ballard, with respect to Dr. Cameron's charge that during the seven years since 1867 the small-pox mortality percentage had increased coincident with more vigorous vaccination as compared with the previous fourteen years, and he was sorry to say that Dr. Ballard, in attempting to answer it, answered it in what was somewhat of an imperfect way, for he said, "If you leave out the mortality of epidemic years and reckon only the mortality of the other years, then I shall show you that vaccination is diminishing small-pox." That would not satisfy the public. If they were to be protected, and if they were to undergo punishment and danger, surely they ought to be able to be told that small-pox was being actually diminished in the country; not that they must leave out the epidemic years and reckon only the non-epidemic and mild years. He was not satisfied with the way Dr. Ballard met the charge of Dr. Cameron's figures, which seemed to be untouched. With respect to the second point, which had been dwelt upon fully by Mr. Lee and others, that the present method was attended by constitutional defects transmitted from child to child, as he read Dr. Cameron's letter, it seemed that the Bill was to do away with the method; because, if they were to use the calf as a store, or means of replenishing from time to time the stocks of lymph, there were just the same means of transferring from child to child constitutional defects under the calf arrangement as under the old system. He could not see how Dr. Cameron found it consistent with his letter to the *Times* to sanction a sort of mongrel method. Dr. Cameron, to be consistent, must say that no child should be vaccinated from another child, because, the moment you return to the present method, you have the danger of transferring constitutional defects; and therefore he could not see the soundness of the scheme that the calf was to be simply the mode of supplying from time to time the diminished stocks of lymph. It had been admitted, with the exception of two or three cases of transferring constitutional diseases from child to child by means of the arm-to-arm method, there could be none. He must remind Dr. Ballard and Dr. Stevens that Mr. Hutchinson, in his classical work on this subject, stated that the utmost precaution which was to be taken by medical men to avoid these lamentable accidents in future was, that the medical profession should be informed of the fact that there was the danger, and he lamented that there were still, at the time he wrote, some members of the profession either uninformed or unconvinced. It seemed that Drs. Ballard and Stevens were still unconvinced; he could hardly suppose they were uninformed. He preferred the authority of Mr. Simon to that of the gentlemen who at present represented the Government on the Local Board. Quoting the BRITISH MEDICAL JOURNAL, the speaker went on to say that it seemed to be admitted by Dr. Ballard and Dr. Stevens that syphilis could be transmitted from child to child; and it seemed to be admitted by Dr. Cameron that, so long as there was this danger, the public had a right to be satisfied on this question. But, if they went to the calf, what authority was there to say there was no danger? There was the remark by the editor that it was said that by using vaccine derived from the calf the objections to vaccination would be got rid of; but, if it were true that syphilis was communicated by vaccination, why not foot-and-mouth disease? Of course, such an argument had weight with him and men like him; but, when he came to read the BRITISH MEDICAL JOURNAL, he found the same editor saying that the idea of vaccination communicating other diseases was an exploded bugbear. If he (Dr. Robinson) now said that he could not justify the enforcement of an opinion formed in such a way by penal enactment, surely he was not unreasonable; and it was an unfair thing, on the part of Dr. Cameron, to go to Parliament and say that the calf-lymph would be free from the danger of the present lymph. This brought him to the third point, the objection that the authority of the profession, apart from the definite principle, had been greatly at fault. There was no denying the fact that no other remedy had been so long before the profession as the remedy of vaccination for protecting human beings against small-pox. The profession for seventy years sanction inoculation; but it had its fall, and now inoculation was a misdemeanour. The profession in Jenner's time was warned that it diffused small-pox. It was warned seventy years ago that syphilis and other diseases would be transferred by vaccination. The arm-to-arm method had no sooner sprung up, than the objection was started by Cobbett, whose words were almost prophetic; when we read now what he said, he seemed to be a prophet. In 1853, vaccination was made compulsory, and in 1856 the objection to it came very strongly. The question was put, in 1867, to the profession, "Have you, from your information, ever seen or known syphilis transferred from child to child by a true Jennerian vesicle? They said No. First, the vaccinators were applied to; then the men eminent in knowledge of syphilis; and then the heads of the profession. Dr. Watson said the question arose, Could the profession, on its mere authority, claim that the public should have enforced upon them another of its opinions by penal enactment with respect to vaccination? It was an unreasonable claim; and he would say to those who were present, apparently honestly believing that vaccination could protect against small-pox, whether the time had not come when they might safely say, "We will not depend on compulsion any longer". In Belgium, vaccination was not compulsory; neither was it in the United States. Dr. Warlomont came from a country where there was no compulsion. Was it not a fact that by a penal Act of Parliament they had killed the vitality of a remedy which, if left to the fierce competition of medical men, would improve and develop? The very fact that they went to Belgium and the United States, where there was no compulsion, proved this. It was a question whether they should not go to Parliament, and ask to make it a legal thing to take away compulsion. They would then be probably supported; but, if they went to Parliament to enforce their second scheme, they would place the profession in a doubtful position. He was not going to be guided in his opinion by negative evidence; but he asked whether it was wise to enforce by enactment? [The speaker was proceeding to discuss the question of compulsion, when the Chairman ruled that he was out of order.] Was the experience they had consistent with that doctrine? He alluded to the Blue Book on the epidemic of small-pox in 1873, when the disease was so virulent that people were seized who were supposed to be protected. He respectfully submitted that it was consistent with a system of transferring from child to child living disease matter, and, that being the case, the time had gone by when vaccination should be enforced by penal enactment.

Dr. HOGGAN said the question of compulsion was part of Dr. Cameron's Bill, and he hoped it would be made public that the question was not allowed to be discussed. According to the terms of the circular which had been sent out convening the meeting, this was one of the questions, and he hoped it would be made quite clear that the matter was not suffered to be discussed.

Dr. HOUGHTON said that, as to the character of the lymphs used, Dr. Watson stated he used small-pox matter for the purpose of inoculating cows or calves, with a view of producing what was called vaccine lymph. At the meeting of December 4th, there were several gentlemen who strongly maintained the view, that a proper and right way of obtaining vaccine lymph to replenish their stock, and having unexceptionable lymph, was to take small-pox matter out and inoculate cows or calves with it, and from them take the vaccine lymph. From Sir Thomas Watson's letter, it appeared this had been going on for forty years; so that there could be no doubt that there had been in circulation a lymph obtained in this manner, viz., veritable small-pox lymph, transferred from cows and calves to human beings. The result of Dr. Warlomont's remarks was to take away any ground of objection to the use of lymph that syphilis might be transmitted. Dr. Cameron had alluded to the experiments of the Lyons Commission, and said that cow-pox was a disease occurring spontaneously in the bovine race. He went on to say that lymph taken from this eruption, inoculated in the human subject, produced a vesicle undistinguishable from the genuine vaccine lymph. Some gentlemen had gone so far as to say that Jenner was entirely mistaken as to the origin of the disease; that he got it by a disease in the horse, and this was transmitted by the milk or by actual contact. At all events, a great portion of the lymph now in circulation was supposed to be from this stock. With this original stock of Jenner, there was undoubtedly a large quantity of small-pox lymph, produced by actual inoculation with small-pox matter. There being no means of discovering what was the true source of the vaccine lymph to be offered to the public, a difficulty arose. Something was wanted which would free from all objections on the ground of the possibility of skin-affections, or constitutional or enteric diseases, being transmitted. The white corpuscles in the blood, he had ascertained to be present in all specimens that were examined by a friend who undertook this special duty. These might carry any constitutional disease which was at all communicable. Therefore, there could be no doubt in the minds of educated people as to the possibility of such transmission. As it was out of order, he should not allude to what appeared in a medical paper in 1871; but, at all events, they looked forward then to a crisis such as was now at hand. The proposition, that the true origin and source of vaccine lymph was small-pox matter, merely amounted to this: If they could not get a pedigree of the lymph, why were they to regard it as at all different from the lymph in common use? There seemed to be a great tendency for the spontaneous cow-pox to disappear. A gentleman stood up at the last meeting, and stated he had been forty years a veterinary surgeon and he had never seen a specimen of the pox. [*Several voices: "There are plenty of them."*] Whatever cases were used for the purpose of furnishing an entirely new stock for a whole nation would have to be, like Cæsar's wife, above suspicion; and the public, who were looking on with the greatest possible interest, were anxious to read a correct report of the proceedings at these meetings, and would naturally want to know what was vaccine lymph—was it small-pox again; was it, in fact, carrying out the law by breaking the law; was it diluted small-pox, or cow-pox, or something totally distinct, viz., the original vaccine disease which Jenner introduced for use as a protection against small-pox? The public would demand a reply to this question, and would not be satisfied with being told it was a matter of detail. It was not only a matter of detail, it was the source of the whole question; and if it were not answered satisfactorily, not only the unreasonable section of society, but the reasonable section, would take a different view. The Irish Local Government Board had pronounced against the use of calf-lymph, and had written an official letter to the Galway Board that such a thing must not be done, as it would perpetuate small-pox.

Dr. BALLARD said he was not going to reply to all that could be said: but, with reference to the last matter to which Dr. Haughton referred, the stock which was produced by Mr. Ceely, Mr. Marson of the small-pox hospital, who, if ever there were a judge of vaccine, was that judge, used some of that lymph himself. It was introduced by him. This stock was continued for fifteen years, and during that time there was no evidence whatever that it was small-pox matter that was being used. If this were small-pox matter, it would have been small-pox qualified with primary pox, and then the secondary eruption.

Dr. STEVENS said he came originally with one purpose only, and tried as carefully as he could to keep everything he said to that one point. He objected to the Bill brought in by Dr. Cameron as being, as he (Dr. Stevens) said, illogical and mischievous, and on that point alone he spoke. Of course, incidentally he had had to try to answer some of the objections made to the present system of vaccination, and he did so as well as he could; but it seemed that everything he said was misunderstood—even Dr. Warlomont misunderstood him. He had not said a word against the calf-vaccination. He never in his life heard a paper that he admired more than that of Dr. Warlomont. He had had very little experience in calf vaccination; but he had come to this conclusion—it might be as good as the arm-to-arm system; sometimes it was not so good; sometimes it was alleged to have advantages over it; but this he was not satisfied about. Dr. Warlomont seemed to think he (Dr. Stevens) disbelieved him. He did nothing of the kind. If the Government liked to start a centre for the distribution of calf-lymph in London, it would be a very excellent thing for supplementing the supply of the lymph under the present method. But what he meant to convey to the meeting was, that, if Dr. Cameron's Bill passed, giving the option to everyone to be vaccinated from the calf, they could not supply the want thus created. If that Bill passed, Government would be faced by an expenditure a hundred times greater than at present. There were ninety-three public stations in London. At each of those there were over twenty persons applying daily for vaccination. Mrs. A. or Mrs. B. would say, "I will have it done from the calf". The immediate reply would be, "Very well; I have some calf-lymph, which I have just got from the calf". "Oh no", would be the rejoinder, "I must see the calf—the animal". Then people who wanted to use calf-lymph, or people who had an objection to vaccination on all grounds, would avoid vaccination; and it would be utterly impossible to meet such a difficulty as that. There had been some other statements of his misunderstood; for instance, he had been accused of having stated that syphilis could not be conveyed by vaccination. He never said a word of the kind. What he said was, that the danger was so infinitesimally small, that it did not call upon the Government to upset the very excellent plan of vaccination we had now in operation. He believed in vaccine lymph, and in the natural law of like producing like. He believed that natural lymph could no more produce an unnatural disease, than that a duck could be got out of a hen's egg; but as he understood from reliable authority that syphilis had been conveyed by vaccination, he was not going to deny it; but he said now, as he had said before, that the risk was infinitesimally small; that the Registrar-General sent to the Local Government Board's office all the registrations of deaths that took place which were referred to vaccination as a cause. He inquired into these, and he had never been able to trace any one of those deaths to disease communicated by vaccination. They had constant allegations made that such and such a child in such and such a neighbourhood had received a filthy disease by vaccination; and whenever such an allegation was made, he and his colleagues had inquired, but they had never been able to trace syphilis to vaccination. That was all he said, and all he wished to say.

Dr. WYLD observed that, in the United States of America, 200,000 children were vaccinated from calf-lymph, and the Government could produce enough calf-lymph to sell it at threepence a head. Persons wishing to have their children vaccinated with it would willingly pay for it, so that the Government would not be put to any expense.

Dr. STEVENS said he had inquired into it in three quarters of England at the request of the Government, and he knew very well that the people would not be satisfied. The people who demanded calf-lymph were the very people who wanted to evade vaccination, and they were the authors of this movement. Here was a plain statement of it on the tracts published, and these were the persons they would first of all have to deal with.

Dr. WYLD replied that that might be the statement of the people who wrote the tracts; but he knew a great many who were antivaccinators, but had no objection to vaccination from the calf.

Mr. GREENE (Birmingham) said the meeting had already given him an opportunity of expressing his views, but he had something to say in which he would not repeat himself. He had to congratulate himself that many of his remarks at the first meeting had been endorsed by speakers at the second and present meeting. The remarks of Dr. Stevens he considered most appropriate and fortunate. What he wished particularly to advert to now, was the presumed fact that small-pox and vaccination were alike. It seemed strange that men should, at the present time, say it was an open question—that they should go abroad to France, to the futile and speculative experiments of a Frenchman, and take possession of the inferences he entertained, regardless of those valuable and most beautiful and industrious experiments made by Mr. Ceely, which thoroughly and entirely exhausted the subject to any intelligent mind. He (Mr. Greene) had himself produced lymph from small-pox, and it had produced nothing but cow-pox. He could see that with his own eyes, and any other professional man could see there was nothing else in it. This matter had been continued for six months by a public vaccinator, and during that time he was not able to detect the smallest difference. Last time he spoke, he ventured to state that he had no doubt there were many surreptitious cases of producing this metamorphosis. He had received that morning a letter from a leading surgeon in Derbyshire, a man of mature years, who said, "Dear sir, in reply to your note received yesterday, I beg to say that, seventeen years ago, when small-pox was rife in this locality, and not being satisfied with the vesicles produced by lymph I got from London, I inoculated a heifer belonging to Miss —— with matter taken from a variolous patient in the vesiculous stage of the disease. The result was, a crop of vesicles on the teats very like ordinary vaccine vesicles, which ran the same course and became pustular on the eighth day. This experiment, although not made in the interests of science, established in my mind once and for ever the identity between small-pox and the vaccine disease. The constitutional disturbance in the heifer was very marked, and in consequence of this the bailiff would not allow me to make any further experiments. From the lymph of the heifer, I obtained good vesicles in three instances, and two of these cases were very ill at about the time of the secondary fever." He would like also now, having said thus much, to place on record, in opposition to a remark of Dr. Crisp, that he had inoculated a great many animals—approaching four hundred; and in children, in the course of ten years' experience, he had never seen one child that had been in any way affected except being vaccinated; and if these terrors were so common as Dr. Crisp would lead them to suppose, surely in that time he (Mr. Green) would have seen some occurrence of them. The terrors which the debaters put before them were enough to make people refuse to drink milk or eat beef. The discussion had wandered over a great tract of matter, and he thought he should consult better the feelings of the meeting if he did not make any further remarks. He was quite satisfied to draw the meeting's attention to the basis of vaccination—that it was small-pox they had to deal with, and that if they wanted to protect from small-pox they must give small-pox. It was true that it was not an entire protection; but, as like cured like, it seldom happened that a person having small-pox had it a second time.

The CHAIRMAN: We shall now close the meeting; and, in doing so, I have only to say that the meeting was called by the Parliamentary Bills Committee, because we considered that the question was one as to which there were a great many persons in the profession specially capable of affording valuable information, and that they were not within the Parliamentary Bills Committee. A conference such as this is outside the usual practice of that committee, which includes representatives of every branch and a number of members elected by the Association; but, although the Committee is so constituted, the subject is one which demands special expert knowledge. The Committee, therefore, were of opinion that there would be an advantage in asking the experience of a considerable number of members of the profession —all those, in fact, who could bring special information to bear upon the discussion. I think we may congratulate ourselves that we have had a considerable amount of valuable and very weighty matter for consideration, conveyed by persons who have given life-long attention to this subject, and who have afforded us extremely instructive information. It is unnecessary that I should recapitulate the names of all those; but I cannot allow this conference to close without expressing thanks to Dr. Warlomont for the trouble which he took in coming over and communicating his experience derived from unique experiments in this matter. Then we have had great advantage from the experience and skill of Sir Thomas Watson, Dr. Ballard, and Mr. Ceely of Aylesbury, who has unique experience and reputation on the subject. To Mr. Greene and many others we are also indebted; and I may mention Dr. Stevens's speech, without which it would have been difficult to arrive at a just conclusion on such a topic. Had the meeting concluded on the last occasion, as I thought it probably would, when we had a full assembly, I should have submitted a resolution which would have been handed to the Parliamentary Bills Committee; but, as we have arrived at a late stage of the third adjourned meeting, when there are but few members of the Association remaining present, and as it is a mixed assembly, I think it would be useless to submit a resolution, inasmuch as it would not be an expression of the opinion of the whole conference, but the partial opinion of a small number of gentlemen left in this room. The Committee will have the duty imposed upon them of drawing from the report of all that has been said and done at this meeting the conclusions arrived at, and they will also be required to find what those conclusions are and to act upon them. I shall now make one or two observations as to what has occurred. I cannot but think that the whole course of the discussion has been very markedly to strengthen the conclusions that, in some form or other, it will be the duty of the Government to arrive at a solution of the question, in what way and to what extent our system of vaccination may be strengthened by introducing animal vaccination as a source of improvement to the vaccine lymph. I myself am gratified, and I imagine the majority of this meeting are gratified, with the observations of Dr. Ballard and Dr. Stevens. We have heard the last observations of those gentlemen; and I am satisfied with them, because they appear to me to show that, at the conclusion of this conference, these gentlemen—who are not after all merely the official representatives of the Government, but also men of particular, unique, and life-long experience in the matter—have arrived at the conclusion that the introduction of calf-lymph is a thing not only permissible but advantageous, and that it is only an open question in what manner that advantage may best be conferred. Dr. Ballard told us that he was of opinion, and had long been of opinion, that it was not only permissible for public vaccinators to improve their stocks, when they found the humanised lymph failing, by having recourse to animal lymph, but that he encouraged them to do so; and Dr. Stevens told us finally that he did not desire to be understood as disputing any of the conclusions and experiences of Dr. Warlomont on animal lymph, but only as doubting whether it would be possible to introduce it so generally as to meet the requirements of the population when that system was adopted; or whether any attempt to introduce it on a scale sufficiently large would not involve too great an expense. Those, of course, are questions which it peculiarly behoves the Local Government Board to consider, before entering upon a system such as that which has been discussed. I must say that, in the Report which I had the honour of presenting to this conference as the basis of discussion, what was advised was not the introduction of compulsory vaccination by calf-lymph, but the introduction of a Central Station for calf-lymph, which might be distributed as a means of strengthening the sources from which persons might be vaccinated; and in that I did not go the extent of saying that everyone should have the right of demanding to be vaccinated with calf-lymph, but only that the public vaccinators should have adequate supplies of it. As to the administrative difficulty which Dr. Stevens has just stated, that everyone would require to see the calf, I do not think that difficulty would occur to anyone who has seen the system in actual operation. For instance, I have seen in the same city, at Brussels, within a quarter of a mile's distance of each other, the two stations for vaccination, the establishment of Dr. Warlomont, and the station of Dr. Janssens, the communal station at the Town Hall, provided by the city itself. At the station of Dr. Warlomont, the calf is on the table, and the parents have not only the option of having the calf-lymph, but they see the calf, and the vaccination takes place, the calf being present. At the other station this is not the case. The children come into a large room for vaccination, and they are vaccinated from *plaques* which are sent from Milan. The parents do not see the calf. But the number of persons who come to the latter place are considerably more than those who come to the place where they have the opportunity of seeing the calf; so that they do not manifest any preference for having the calf before their eyes. It is also a matter of experience in the same country, that the demand for calf-lymph on the part of parents is limited to a minority. It is not the fact that animal vaccination is universal in Belgium, although everyone could have calf-lymph by asking for it. But the majority of people are reasonable, and are satisfied with the lymph taken from arm to arm—from children seen, examined, locally known by the vaccinators—and it is only a limited number of people who desire to have the specific guarantee which they derive from calf-lymph. I have no doubt whatever that the same would be the result of its introduction here; that, if Dr. Cameron's Bill were to become law, with the saving proviso that no one at any station should have the right to demand calf-lymph without giving a week's notice, so that the public vaccinator should not be taken at a disadvantage, I believe that it would be amply sufficient to prevent an excessive demand for calf-lymph, or any administrative difficulty Dr. Stevens fears. That is my experience abroad; and that, I believe, would be the experience of practitioners here if Dr. Cameron's Bill passes. Finally, I have to say that, in my endeavours to keep this meeting to the subject-matter which it was called to consider, I hope I have not unduly stretched the authority of the chair. I have had sometimes to be more firm than I wished to be; but I hope it will be considered that I only wished to keep the meeting in order.

A vote of thanks to the Chairman was proposed by Mr. J. N. RADCLIFFE, who said the meeting was under peculiar obligations to him for the valuable Report by which he had facilitated its proceedings, and for the firmness and courtesy which he had shown under occasional circumstances of some difficulty. This was seconded by Dr. HOGGAN, and carried.

MALVERN COLLEGE.—The annual examination for Scholarships and Exhibitions resulted, on December 22nd, in the following awards. House Scholarships: Johnson, Moore 3, Frampton, Saville, Polehampton, Spence, Dennett (Malvern College); Ker (Mr. Lefroy Austin, Cheltenham); Wilson (Mr. Wilson, Malvern Link). Founders' Scholarships: Minchin, Ward 1, Ashe (Oundle Grammar School); Buckle (Mr. Lefroy Austin, Cheltenham). Entrance Exhibitioners: Bowles (Mr. Browning, Stoke Mandeville); Wood (Hereford Catholic School); Smith, Beazeley, Bullock (Mr. Wilson, Malvern Link); Thompson (Mr. Gascoigne, Spondon House); Armitage (private tuition).

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council was held on Thursday, the 8th instant. It was unanimously agreed that the College should purchase the Barnard Davis collection of skulls, of which we took notice in our columns a few weeks since. Mr. J. W. Hulke was elected to occupy the seat in the Court of Examiners, vacant through the retirement of Mr. Curling. The remaining business transacted consisted in receiving the reports of the Museum Committee, the Erasmus Wilson Fund Committee, and of the several Annual Committees.

MEDICAL LETTER FROM CABUL.

OUR correspondent writes from Cabul on December 2nd, 1879:—The troops in the cantonment of Shahpur continue wonderfully healthy, notwithstanding the severe cold at night and the exposure consequent on expeditions and necessary guards. The greater number of European troops have moved into quarters, where every provision (difficulties considered) has been made for them. Windows and doors have been constructed in the mud buildings, also fireplaces; and, with an ample supply of fuel and a good charpoy (bedstead) for each man, they should have no reason to complain. Extra blankets are hourly expected. The native troops are somewhat backward in their buildings; but every exertion is being made to complete them.

A few cases of small-pox of very mild type have occurred among the native fellows, due to the disease being prevalent among the inhabitants of the neighbouring villages. As compared with India, it is remarkable how few Afghans are disfigured or pitted with the disease. In India, the disease appears to be of a much severer type, causing destruction of the cornea and deep scars on the face. Some cases of venereal disease have occurred, contracted in the city of Cabul, where the disease is most common. A check has, however, been put to its further spread, by the troops being prevented from entering the city.

European and native troops not likely to bear the severity of the approaching winter have been sent to India. The last convoy left on the 27th ultimo.

It may be interesting to some of your readers to know the names of the medical officers who were present at the taking of Cabul. Subjoined is the list:—Surgeon-Major J. H. Porter, Principal Medical Officer; Surgeon-Major G. Farrell, in charge of Divisional Field Hospital; Surgeons-Major T. Ramsey, 67th Regiment; E. Lytton Low, R.H.A.; C. A. Atkins, 72nd Highlanders; J. Bourke, Ambulance Corps; Surgeons H. B. White, Royal Artillery; J. Duke, 5th Ghoorkhas; G. T. Langridge, 9th Lancers; P. J. McQuaid, Field Hospital; T. Maloney, 3rd Sikhs; D. W. D. Comines, 28th Punjab Native Infantry; W. A. Simmonds, 5th Bengal Infantry; W. A. Mawson, 14th Bengal Cavalry; H. Hamilton, 12th Bengal Cavalry; C. W. Owen, Head-Quarter Staff; J. J. Morris, Field Hospital; J. F. Williamson, 92nd Highlanders; H. Cotton, Field Hospital; A. C. Keith, Field Hospital; A. Duncan, 23rd Pioneers; J. Brodie, Field Hospital; J. Hancock, 5th Punjab Cavalry; W. Coates, Native Field Hospital.

A civil dispensary was opened at Shahpur Cantonment on November 14th, 1879, for the treatment of the Cabulees, under the direction of Surgeon C. W. Owen of the head-quarter staff. The patients were first treated in a couple of tents pitched in the rear of the head-quarters camp, on a large open space of ground; one of these was fitted up with a few beds for the reception of serious cases, and the other was set apart for the dispensary; and both tents had a mud wall two feet in height all round, and in each a fireplace was constructed. From November 14th to the 24th, 107 patients were entered, showing how rapidly they embraced the idea of an European doctor's attendance. Lieutenant-General Sir F. Roberts has taken the greatest interest in the opening of a dispensary; and, it being suggested that a large one should be opened in the city of Cabul itself, he at once gave the necessary orders.

On November 21st, a large house, close to the main bazaar, which had been lately occupied by the Kotwal, was selected by Surgeon Owen. It contains a ground-floor and an upper-floor, with a large well-lighted room on the flat roof, which has been set apart for operation cases. The house is detached, and has a central courtyard. Behind the house was a large open space, at one side of which were three rooms, opening one into the other; this was fixed upon as the out-patient department. On November 25th, the out-patient department was opened; one room was set apart for a dispensary; one for seeing and dressing patients; and the third as a waiting-room for females, and also to be used as an operation-room. An ophthalmoscopic dark room has now been made out of part of this. On the opening day, only twelve patients came, as it was holiday time, being the festival of the Eeal. On the seventh day, 120 patients were treated. Males, females, and children all came for relief. After a few alterations (the house has been severely shaken by earthquakes and has given way in parts), the in-patient department will be opened, when it is hoped that there will be accommodation for about seventy patients. There are at present four in-patients; admission has to be refused to numbers daily. One boy, aged 13, has been operated on for stone, and is doing well. The three other cases are gunshot-wounds. One was badly shot through the lower jaw; the symphysis had to be removed, as there was tremendous shattering of the bone; the tongue is cleft for one inch and a half, and the wound below the jaw, where the bullet made its exit, is very large; the patient is, however, doing well. Another man has been shot through the upper third of the arm, and also through his thumb, necessitating the amputation of the latter member. The third gunshot-wound is through the gluteal region, and also through the forearm. They are all doing well.

Amongst the operations that have been performed is one of some interest. A child was brought, who was said to have received a blow in the eye six days previously. On examination, an ulcer of the cornea was visible, and a whitish streak of matter was seen extending across the anterior chamber. The child was put under chloroform, and with a fine pair of forceps a splinter of wood, exceedingly fine and nearly half an inch long, was drawn out; the eye is clearing up, and no opacity of the lens is visible.

Almost every variety of disease is to be met with here. Syphilis in a virulent form is very prevalent. Leprosy exists to a large extent among the Hazaras; and among the Cabulees it is very frequent to find a small sore break out on the toes, which is rapidly followed by a kind of melting away of the whole toe. Eye-diseases, rheumatism, and asthma are very prevalent.

All the patients express their gratitude in no measured terms for the relief that is afforded them; and it is to be hoped that this dispensary may help to smooth away many of the difficulties which oppose our intercourse with the Cabulees, and that it may in time make them change their opinion of the now detested Kafirs.

DR. FARR.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at their Rooms, 3, Bolt Court, Fleet Street, on January 7th, the following resolution was unanimously passed: "That this Council has learned with deep regret that the claims of Dr. William Farr for the appointment of Registrar-General have been disregarded, seeing that his past services in this department have secured for him a world-wide reputation on all questions relating to vital statistics, and that a gentleman possessing neither technical nor other special acquirements should have been selected. The Council trust that steps will be at once taken by medical men generally to mark their sense of the injustice done to Dr. Farr, and the slight passed on the profession of which he is so distinguished a member."

This expression of opinion appears to us timely, and will no doubt be followed by others of like nature from medical bodies and corporations. The observations which we have made during the last two weeks on this subject have, we are glad to see, been extensively quoted by the most influential organs of public opinion and generally supported. It is now for the profession and the Association to make known its opinion by resolutions from every side, and from every medical society or corporation throughout the country, by memorial to Lord Beaconsfield.

Sir B. Henniker has been gazetted, and what has been so ill done cannot be easily undone; but at least the medical profession can, by an overwhelming declaration of opinion, make it clearly understood what it thinks of this abuse of patronage in the promotion of an ex-Captain of the Horse Guards over the head of Dr. Farr—perhaps the most accomplished statistician and one of the most able administrators in Europe—to a post which Dr. Farr has long rendered famous by the reflected lustre which his great abilities and remarkable achievements have shed over the office of which the Registrar-General is the head, but of which Dr. Farr has so long been, though the second in command, the chief ornament and main support.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A meeting of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 14th day of January next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

161A, Strand, London, December 19th, 1879.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

The next meeting of this district will be held at the Myddleton Hall, Islington, on Thursday, January 15th, 1880, when the following papers will be read.

1. On the Diagnosis of Facial Palsy: Dr. Morison.
2. Notes on a Case of Extra-uterine Fœtation: Dr. Mason.
3. On an Obsolete Mode of Treating some Diseases of the Nervous System: Dr. Wright.

Thomas Stretch Dowse, M.D., *Honorary Secretary.*

2, Old Burlington Street, January 6th, 1880.

BATH AND BRISTOL BRANCH.

The third ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, January 22nd, at 7.15 p.m.; J. Beddoe, M.D., President, in the Chair.

R. S. Fowler,
E. C. Board, } *Honorary Secretaries.*

Bath, January 1st, 1880.

DUBLIN BRANCH.

The third annual general meeting of this Branch will be held in the Hall of the King and Queen's College of Physicians in Ireland, Kildare Street, on Thursday, January 29th, 1880, at 4 p.m.: Dr. Gordon, President of the Branch, will deliver an address; and the Officers and Council for the ensuing year be elected.

By the kind permission also of the President and Fellows, the annual dinner will be at the College of Physicians at 7 p.m. on the day of the meeting; the incoming President of the Branch, Dr. Robert McDonnell, F.R.S., in the Chair.

George F. Duffey, M.D., *Honorary Secretary.*

30, Fitzwilliam Place, Dublin, January 2nd, 1880.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A meeting of this District was held on December 11th, at the Greyhound Hotel, Croydon; Dr. S. Parsons-Smith in the Chair. Twenty-five members and visitors were present.

Papers.—The following papers were read.

1. Dr. Semon read a paper on the Treatment of Acute and Chronic Laryngitis in Adults, with remarks on the use of the Laryngoscope.
2. Mr. Bryant demonstrated the advantages of his Double Splint in Disease and Injury of the Hip-joint.
3. Dr. Roper: On Suppuration of the Knee-joint following an attack of Gout.

Papers by Dr. Coles and Dr. H. G. Thompson were deferred to the next meeting, owing to want of time.

Dinner.—Twelve members and visitors sat down to dinner.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

The third meeting of the session 1879-80 was held at Queen's College on December 11th. Present: The President, Dr. James Johnston, in the chair, and thirty-four members.

New Members.—The following members of the Association were elected members of the Branch: D. B. Walford, Esq., the Guest Hospital, Dudley; John Whitehouse, Esq., the Queen's Hospital.

Council.—Mr. H. R. Ker of Cradley was elected a county member of Council in the place of Dr. G. F. Bodington, appointed Chairman of the Pathological and Clinical Section.

Specimens.—The following were shown.

1. Mr. Lawson Tait exhibited two Cysts which he had removed in a state of gangrene, due to twisting of the pedicle from rotation of the tumour. Both patients recovered, though one of them was in the fourth month of pregnancy.
2. Mr. W. C. Gorman showed a number of Biliary Calculi which had been passed *per anum* by a pony; the largest measured nine inches in circumference.
3. Mr. T. F. Chavasse showed, for Mr. Martin of Alcester, a specimen of Epithelioma of the Penis, and made some remarks thereon.
4. Mr. John Greene showed a fine Steel Pin, called a pivot-brooch, and mentioned its usefulness in passing through occluded subcutaneous needles.

Branch Secretaries and the Committee of Council.—Mr. Solomon brought forward the resolution passed by the Committee of Council of the Association in reference to the attendance of Branch Secretaries at the meetings of that body.—Dr. Malins said that the Secretaries were in receipt of a communication from the General Secretary on the subject, which would be brought before the meeting of the Branch Council.

Paper.—Mr. J. F. West read a paper on Sayre's Treatment of Spinal Affections, in which he recalled Dr. Sayre's visit to Birmingham in 1877, and the valuable plan of treatment he then introduced for angular and lateral curvature of the spine, by means of suspension and the application of the poroplastic jacket. Mr. West insisted upon the importance of early diagnosis and treatment of the disease, giving illustrative cases, and eulogising the principles on which Sayre's plan is founded. He discussed the various methods of treatment which have been subsequently introduced, *e.g.*, that of Dr. Walker of Peterborough, for the application of the plaster-jacket without suspension; the novel method of applying the jacket by Dr. Miller of Dundee; and, lastly, the poroplastic jacket so recommended by Mr. Fisher. From his own experience of upwards of one hundred cases, Mr. West preferred Dr. Sayre's plan, especially in cases of Pott's curvature, though he believed that the poroplastic jacket would be found useful in many cases of lateral curvature.—A discussion followed, in which Mr. W. C. Gorman, Mr. T. W. Williams, Mr. Freer, Mr. F. E. Manby, and Mr. Yates took part.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

The last meeting of this District was held in the Library of the County Hospital at Canterbury, on Thursday, November 27th, at 3 o'clock. Dr. Gogarty was in the Chair, and eighteen members were present.

Papers.—The following papers were read.

1. Case of Colotomy, by Mr. F. Wacher.
2. Case of Hæmopilia, by Mr. T. W. Reid.
3. Case of Amputation of the Thigh with Anterior Flap only, by Mr. W. K. Treves.

Dinner.—The members afterwards dined together.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

A meeting of this District was held in the London Hospital Medical College on December 18th; Alexander Grant, M.D., in the Chair.

Legal Status of Medical Practitioners.—A paper was read on the legal status of medical practitioners by R. H. S. Carpenter, L.R.C.P.Lond., wherein it was stated that the opinion expressed by Dr. Waters and others, that the Medical Act of 1858 had established complete reciprocity of practice, was contradicted by decisions in County Courts, where registered medical men had been refused a verdict because they did not possess an English medical qualification. The ruling of Vice-Chancellor Wood in the famous case of the Apothecaries' Company *versus* the College of Physicians was also quoted, where it was laid down that the thirty-first section of the Medical Act did not give to any corporation increased power, but merely enacted that every medical man should be "entitled according to his qualification" to practise in any part of Her Majesty's dominions. He was to be entitled according to his qualification, not according as he possessed a medical or surgical qualification from any of the corporations named in the Act, but according to the qualification the charter of the corporation empowered it to give. There was no new power given. A Scotch corporation had no power conferred upon it to grant a qualification to practise in England; an English corporation had no power conferred upon it to grant a qualification to practise in Scotland. Further, since the Medical Act did not repeal any previous Act, the penal clauses of the English corporations could still be enforced against medical men practising in England who held Scotch, Irish, or foreign qualifications only.—A discussion followed on the unsatisfactory state of medical law.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 6TH, 1880.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

A Large Gall-stone passed per Anum.—Dr. ORD exhibited a gall-stone sent to him by Dr. Carr Roberts. It had been passed by a lady shortly after her confinement. There had been only two symptoms associated with its passage: excessive pain in the back, and constant diarrhœa of a pale yellow colour. The stone measured one inch and five-eighths by one inch and one-eighth, and weighed five drachms. The concretion was a true gall-stone, composed of cholesterin mixed with bile-pigment, a composition never met with in the case of enteroliths. The examination of this specimen led to remarks on the structure of cholesterin calculi. These consist chiefly of a mixture of cholesterin with biliary pigment. In addition, small quantities of mucus, of lime-salts of the biliary acids, or of carbonate of lime, may be present. In section, they present a composite structure; the central portion is chiefly composed of bile-pigment; around this is a portion composed of crystalline matter, the axes of the crystals being arranged in a radiating manner; outside this is a portion arranged in concentric laminæ of different shades of colour; whilst the outer part of the calculus is deeply coloured, and not obviously differentiated in structure. On microscopic examination, the outer layer is composed of an intimate mixture of cholesterin and bile-pigment. The cholesterin is not in tabular crystals, but is either in masses without form, or in spheres or in undulating crystalline fibres, stained with pigment. In the laminæ, the undulating fibres are found with a radial arrangement. In each successive deeper lamina, the fibres become more distinct, more crystalline, and less coloured, the colour gathering into interstices instead of staining the crystal. By many gradations, this structure passes into one of radiating columnar masses of perfectly colourless cholesterin, with packed pigment between. The centre is composed almost entirely of pigment, but what cholesterin is mixed with it is in rhomboidal or rhombohedral forms. The pigment here is continuous with the interstitial pigment of the radiating layer, and is not a nucleus around which fresh matter has been gathered. In considering the circumstances of the formation of these calculi, it is evident that the outer layer is the last formed, and that this contains, instead of crystals, a mixture of formless crystalloid material, with formless pigment. The central part, again, is the oldest or first formed, and consists of separate masses of crystals and of pigment. There is evidently, then, a metamorphic change taking place in the calculus subsequently to its formation. Dr. Ord suggested that these changes are due to the fact that the cholesterin is first deposited in the company of the biliary pigment, a colloid of high molecule, by which it is prevented from assuming its crystalline form, and takes a spherical or finely divided form. But the colloidal pigment has a tendency to become at some period crystalline, and so a gradual separation of the two takes place, most advanced in the oldest part of the calculus. In relation to this hypothesis, the proportion of the outer layer is largest where the colouring matter predominates, that of the crystalline centre where the cholesterin predominates. In support of this hypothesis, the author cited experiments showing that cholesterin deposited in albumen or gelatin is at first spherical in its form, and gradually changes the spherical for the needle or quasi-crystalline form; and showing, also, that mixtures of bile-pigment and cholesterin, held in solution by hot acetic acid, form homogeneous spheres, which, during cooling, break up into smaller crystalline spheres, with separation of brilliant masses of pigment; then, again, into masses of needle-like crystals; and that these crystals, after a day or two, arrange themselves in a mixed laminar and crystalline structure around the centre of each sphere.

Large Cystin Calculus.—Dr. ORD exhibited a large cystin calculus sent to him by Mr. Reginald Harrison of Liverpool, which had been successfully removed by that gentleman by lithotomy from a man aged 20 years. The stone weighed one thousand and fifty grains, and is therefore one of the largest, if not the largest, on record. The urine did not contain cystin.

Oriental Bezoar.—Dr. ORD also exhibited a concretion that had been presented to the museum of St. Thomas's Hospital as a biliary calculus. It was of elongated oval form, with a slight constriction round the middle. Its surface was brown and shining, its section of a dark slate-colour, and concentrically laminated. It was composed of ellagic acid—a derivative of gallic acid; and in this and the other characters it agreed so completely with the descriptions given by Mr. Thomas Taylor of oriental bezoars, as to leave no doubt of its real nature—a concretion formed in the intestines of a ruminant animal, and consisting of matters derived from the food of that animal.

Calculus from the Kidney.—This specimen was also shown by Dr. ORD. It had been removed from the right kidney of a patient who had died in St. Thomas's Hospital of malignant disease of the bowels. It filled the pelvis completely, but had produced no sign of inflammation or thickening, and had not given rise to renal colic, nor to pyelitis. It was black, tuberculated, but moist and softish in the surface. On section, after drying, it was found to consist of a much wrinkled fragile black shell, with a hard kernel of a dark grey colour. The kernel was concentrically laminated, the circumferential laminæ being imperfect, portions of the surface having been eroded. Between the kernel and the shell was a loose layer, containing large nearly colourless crystals of uric acid, mixed with brown pigment and colloidal matter. The crust was composed of a colloid allied to chitin, deeply tinted with a brown pigment, which was neither blood nor ordinary urinary pigment. The nucleus was a mixture of uric acid and this pigment, the uric acid not being in separate crystals, but in crystalline fibres perpendicular to the laminæ. Dr. Ord suggested that the original firm calculus had been coated with mucus and epithelium, by which, in harmony with Mr. Rainey's law of "molecular disintegration", the surface had been eroded, the molecules of uric acid undergoing rearrangement into large colourless crystals, and the pigment being separated into masses. In ordinary cases, the presence of calculus sets up irritation in the adjoining surfaces. In the present case, there was no sign of irritation, but the coats of the pelvis invested the calculus with extraordinary closeness, so that the ordinary secretions had concreted on the calculus, and produced the very unusual result described. In reply to Mr. Hulke, Dr. Ord further explained that the agent in producing the absorption to which he referred was the pigmentary body, which is a colloid of high molecule and of great activity.

Cystic Kidney removed by Abdominal Section.—Dr. DAY showed this specimen, which had been removed by Mr. Knowsley Thornton from a girl aged 7 years. The patient presented a large abdominal tumour of doubtful character, which she had had since she was two years of age. She passed considerable quantities of healthy urine. On November 4th of last year, fluctuation was felt between the umbilicus and pubes. An exploratory puncture was made, and six pints and a half of urinous fluid drawn off, which was albuminous. After six weeks, the cyst refilled. On January 3rd, the cyst was removed, and was found to be situated in the kidney. The ureter was absent, or, at any rate, impervious. The operation presented no difficulty; the renal artery and vein were separately ligatured at some little distance from their junction with the large vessels. The patient was doing well.

Large Elephantiasis of the Penis.—The PRESIDENT exhibited a drawing of a patient suffering from this disease. The prepuce and skin of the penis alone were affected. Filariæ were found in the blood. The diseased parts were removed, and the specimen was shown at the meeting.

Case of Syphilitic Disease in the Long Bones of a Fœtus.—Mr. EVE showed a number of bones taken from a fœtus that had been aborted at the fifth month. He also exhibited a series of microscopical specimens made from some of the bones. The mother suffered from stricture of the rectum, the result apparently of ulceration about three years previously. Otherwise, the evidence of syphilis was not very definite. The long bones only of the fœtus were affected. All of these, except the left tibia and fibula, showed the changes in the diaphysis termed by M. Parrot gelatiniform degeneration; and, except in the case of the upper extremities of the humeri, radii, and left fibula, and the lower extremities of the radii and ulnæ the epiphyses were separated from the diaphyses. The separated epiphyses were attached to the shaft by thickened periosteum; the extremity of the diaphysis was covered by a dirty-looking grumous detritus, and the surrounding periosteum was discoloured, and in some places separated, the denuded bone being softened and ragged, as though carious. The left tibia and fibula were affected with the osteoid change of M. Parrot; the periosteum separated from the greater part of the surface of the bones. Both bones were greatly and irregularly thickened, more especially in the centre of the shaft. The lower extremity of the tibia was ragged and worm-eaten, and the osteoid deposit stopped short a little above the lower extremity. Both the tibia and the fibula were very chalky and brittle. No osteoid deposit was observed in the other bones, except a thin layer on the posterior surface of the right humerus. Microscopically, the epiphysal cartilage and the adjoining layer of intermediary cartilage were normal; the zone of calcified cartilage appeared thicker than normal; and the narrow spaces between the vertical lamellæ of calcified cartilage were choked with granular matter. The bony lamellæ in this region appeared to have undergone rapid absorption; their margins, extremities, and surfaces presented an exceedingly large number of Howship's lacunæ, containing osteoclasts rarely normal, but usually granular and breaking down. The periosteum was thickened, especially the osteogenetic layer. Beneath the latter was a layer of spongeoid tissue (Parrot), the thickening being greatest opposite the junction of the intermediary cartilage with the extremity of the diaphysis. M. Parrot considered the morbid process leading to these changes to be due to a modification of nutrition. Dr. Wagner, on the other hand, looked upon it as an osteochondritis. Mr. Eve expressed an opinion that it is a hyperplasia of the elements out of which the osseous tissue is formed, in the same sense that gummata in the viscera are local hyperplasiæ of connective tissue. The process in the bones has a different result in the different places in which it occurs. At the extremity of the diaphysis, there is a marked tendency to degeneration; in the surface of the shaft, to organisation. This is probably due to the different forms of ossification in these two regions. At the extremity of the diaphysis, ossification of cartilage takes place by the formation of endochondral bone. The blood-supply is here not so abundant as beneath the periosteum; the too rapidly formed marrow-cells are ill-nourished, and degenerate. At the same time, the trabeculæ of bone already formed appear to undergo rapid absorption; and hence the weakening of the connection between the diaphysis and the cartilage, leading to their final separation. Beneath the periosteum, on the other hand, the blood-supply is more abundant, and the intermembranous ossification peculiar to that part can go on, at least as far as the formation of a large quantity of fibrillar matrix of bone, giving rise to the spongeoid tissue of Parrot. In some cases, this spongeoid tissue ossifies, leading to the thickening of bones; in other cases, it remains unossified. The chondro-calcareous change sometimes met with appears to be due to a continuous formation of calcified cartilage, while the young marrow-cells are incapable of covering its surface with bone.—Dr. GRAILY HEWITT asked whether any examination of the placenta had been made.—Mr. CRIPPS doubted the value of stricture of the rectum as evidence of syphilis.—Dr. HOGGAN thought that some of the microscopical specimens of bone exhibited merely showed the process of ossification of bone from embryonic cartilage.—Mr. EVE stated, in reply, that the placenta had not been examined. He differed from Mr. Cripps in his estimation of the value of stricture of the rectum in forming a diagnosis of syphilis. He had submitted the specimens referred to by Dr. Hoggan to Dr. Klein, who fully agreed with him in the view he had taken of the appearances presented by them.—The PRESIDENT supported Mr. Eve in his view as to the value of stricture of the rectum as an evidence of syphilis.—The specimens were finally referred to the Morbid Growths Committee.

Mr. EVE also showed two specimens of adult skulls with well-marked natiform swellings, the result of congenital syphilis.

Specimen exhibited by Card.—Cystic Degeneration of Left Kidney, the result of obstruction of the ureter by a valvular fold of mucous membrane: Dr. EWART.

BRUSSELS MEDICAL GRADUATES' ASSOCIATION.—At the last monthly meeting of the Brussels Medical Graduates' Association, held at 6, Christopher Street, Finsbury Square; Dr. Beresford Ryley, President, in the chair; Dr. Danford Thomas was elected Vice-President. Dr. Ryley reported that he had attended the recent meeting of the Foreign Graduates' Association, held at the Charing Cross Hotel, when it was suggested that the two Associations should amalgamate. A discussion on the subject arose, and it was unanimously resolved that it would be to the interests of each Association to remain a separate and independent body. The President consented to read a paper, at the next monthly meeting on January 20th, 1880, entitled "The Etiology and Treatment of some of the more Common Forms of Uterine Emergencies". The first annual dinner of the Association will take place at the Café Royal, Regent Street, on Wednesday, January 28th, 1880, at 7 P.M. All graduates of the University are invited to be present.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The second meeting of the session was held at the Royal Kent Dispensary, Greenwich, on November 7th; Mr. J. P. Purvis, President, in the chair. Dr. Curnow read a paper on Rest in the Treatment of Medical Cases, in which he said that rest in the treatment of surgical cases had been fully treated of by Mr. J. Hilton, but that rest in the treatment of medical cases had not received the attention it deserved. Dr. Curnow said that, in the text-books, specific diseases, parasites, and gout, were almost the only diseases treated by specific remedies; and that the treatment of all other diseases depended upon two principles: 1. Giving support to the patient; 2. Giving physiological rest to the organ or organs involved. The first point to be attended to was to remove the cause of the disease, as no treatment would otherwise be of any avail. Dr. Curnow then cited several typical examples of diseases of the brain, lungs, liver, stomach, and kidneys, in proof of the benefit of this mode of treatment.

CORRESPONDENCE.

ANTISEPTIC SURGERY AND ITS STATISTICS.

SIR,—In the letter published at page 34 of your last number, Mr. Holmes writes that he understood me to say, at the Royal Medical and Chirurgical Society, that the death-rate of my latest cases of ovariotomy "before adopting antiseptic precautions, hospital and private, was about 10 per cent." Mr. Holmes has quite misunderstood me. What I did say was, that I could not compare my practice since the adoption of the Listerian details of antiseptic practice with my entire practice previously, because I ceased to operate in hospital at the end of 1877, and did not begin to adopt the stricter antiseptic precautions until January 1878. I added that the mortality of my last two years' hospital practice of ovariotomy was seven deaths in seventy-one cases, a fraction less than 10 per cent., while the mortality in private practice only had been, since 1877, reduced to about 8 per cent. I proved in 1877 that the mortality of my hospital and private practice of ovariotomy had only differed by about a quarter per cent., namely, 0.22. Between the meeting of the Society, and the discussion at St. Thomas's, I compared my experience of antiseptic ovariotomy, in private practice only, in 1878 and 1879, with the same number of cases, also in private practice, before 1878, taken consecutively from my notebook, and I was quite startled at the result. Here are the figures. Before 1878: cases, 84; deaths, 21; recoveries, 63. After 1878: cases, 84; deaths, 6; recoveries, 78. Of course, it is possible to talk about the "extreme untrustworthiness of deductions made from death-rates", and to explain the diminishing mortality by increasing experience, and by other changes in practice independent of the adoption of additional antiseptic precautions. One friend, for instance, says it may be due to the more general adoption of the intraperitoneal treatment of the pedicle during the last two years. I reply that previously, in my hands, the extraperitoneal treatment had shown far better results than the intraperitoneal; and that one great advantage of the antiseptic method is, that it renders the intraperitoneal treatment safer than it was before, and the necessity for drainage far less frequent. If any deductions from death-rates after operations can be trustworthy, I can hardly conceive any to be more trustworthy than the results of the same number of cases of one operation by the same surgeon before and after he has tried a definite alteration in his mode of practice.—Yours, etc.,

T. SPENCER WELLS.

3, Upper Grosvenor Street, January 6th, 1880.

THE INHALATION OF BENZOATE OF SODA IN PHTHISIS: A CRITICISM CRITICISED.

SIR,—Nothing is easier than to discredit any new and comparatively untried therapeutic process. It is only needful to have a becomingly sceptical turn of mind, to have some authoritative position, and to "take up" such a process and apply it with an entire and haughty disregard of implied conditions, a selection of wholly unsuitable cases, and a contemptuous neglect of all the directions which the author of the process insists upon as essential to success; then publish hastily an overwhelming number of unfavourable results; and the process, however intrinsically meritorious, falls for a time into discredit.

The article in the last number of the JOURNAL, on the "Inhalation of Benzoate of Soda in Phthisis", which is therein stated to have been tried with "decisive negative results", offers an example of this kind of criticism. At present, I have personally neither good nor evil to report of the use of benzoate of soda in phthisis; but I wish to protest against the attempt to throw discredit on this drug and on its introducer on the strength of such evidence as is produced in this article.

Dr. Max Schüller, the introducer of this treatment, says: "I do not believe that it will be good in every case; but, whenever it is so, it will be in the early stages." "It is necessary to continue the treatment for several months......The patient must be able to devote his life to his cure." Now, let us see how these conditions have been fulfilled in the trials reported in the article referred to. "Of the thirty-one patients, fifteen inhaled during three weeks (!), one for two days (!!), six from fourteen to nineteen days (!); the remaining nine from three to twelve days" (!!). Remark, in the next place, that, "of these thirty-one patients, nine died" (!)—in the space, I take it, of three weeks! So that more than a quarter of the cases submitted to this treatment must have been moribund at the commencement. It is really difficult to find words to express one's astonishment at such a method of trying a new remedy for phthisis. Is it possible that it can ever have entered into any scientific physician's mind that any mode of treatment can reconstruct and reorganise a destroyed and disorganised lung? There is a singular *naiveté* about the description of the *post mortem* appearances. "Nothing was found in the pathological condition of the lungs which in any way indicated the commencement of a healing process. There was generally an *extensive phthisical change*, with *cavities filled with fluid pus*. In one case of left-sided pneumothorax, there was a *perforated cavern*" (!). Conceive such a case being selected for the trial of a new remedy, or of any remedy! Further on, we read of twenty other cases submitted to this treatment. Of these, "six died and three were on the point of death"; that is to say, about one-half of the cases selected to test this treatment were moribund, or nearly so, at the onset.

It is quite unnecessary that I should pursue this criticism further. I have said enough to show that, whether benzoate of soda be a remedy for phthisis or not, its claims to be given a fair trial are left wholly unaffected by such indiscriminating administration as is detailed in the article in question.—I am, etc.,

January 1880. I. Burney Yeo, M.D., F.R.C.P.

⁂ If Dr. Yeo will be at the pains to refer to the original papers of Kroczak and Rokitansky, and to the details of the control-experiments of Guttmann, Drasche, and Wenzel, reported in the recent Berlin and Vienna medical journals, from which they were quoted, he will see that the control-trials were carefully made under precisely the conditions of disease, time, and treatment upon which Rokitansky and Kroczak founded their claims of cure. He may be able to revalidate the claims of benzoate inhalation; but the verdict is very decisive against it in the country of its birth. Dr. Max Schüller is not the introducer of this treatment, and has never employed it.

NURSING AT GUY'S HOSPITAL.

Sir,—I do not think that the communications which you have published have even yet brought out fully the evils which must result from the introduction at Guy's Hospital of an organised system of nursing founded, however remotely, upon the model of St. John's House; for, whereas at King's College Hospital the governing authority is a committee upon which the medical and surgical staff are largely represented, at Guy's the whole power is vested in the Treasurer. Every one of my colleagues, as well as I, would deprecate any change in our constitution by which the authority of the Treasurer or ourselves should be in any degree curtailed; it has been wisely and justly exercised for many years, and will no doubt still be so. But surely there is no inconsistency in our feeling most jealous about the possible handing over of any part of his power to a "lady-superintendent", with whom our opinions and wishes have not the smallest weight. And, even were we to consent to such an arrangement under the rule of our present Treasurer, who can say what the result would be hereafter? We cannot expect all our treasurers to hold office, as Mr. Turner did, for a period of twenty years; but there is no reason why the same matron should not remain at the head of the nursing department for a still longer time. And what is more likely, if two or three treasurers were to succeed one another at all rapidly, than that a "lady-superintendent" would become mistress of the field; and that, before she could be dislodged, irreparable injury would be inflicted upon the institution? Putting new wine into old bottles is well known to be a dangerous experiment.—I am, sir, yours faithfully,

January 1880. A Third Member of the Staff.

NURSING SYSTEMS.

Sir,—The gist of the letters from two "Members of the Staff of Guy's Hospital" seems to me to be an attempt to show what a wonderful place that hospital is, and how utterly impossible it is for a provincial like myself to grasp any idea of its greatness and its requirements in the nursing departments. I will grant it all, in comparison with a provincial hospital, though we at Leicester have our tracheotomies and ovariotomies, etc., and get them well and successfully nursed. Out of the last five cases of ovariotomy here, four have made excellent recoveries. In the system of nursing complained of, the nurses over special departments are not changed; and the head-nurse in one of our operation-wards was there for several years, till she left the infirmary. I do not think many will be led to believe that all the nursing skill resides within Guy's Hospital, by the specious sentence, "Each surgeon has his own mode of dressing, requiring long-trained and skilled hands to assist him". Charing Cross, King's College, and University College Hospitals have been nursed for some time on the fresh system; and I have only to mention, amongst others, the names of the late Professor Fergusson, Sir Henry Thompson, and Professor Lister, to show that this system can produce nurses good enough for the first surgeons not only in this country, but in any other in the world.—I am, sir, yours faithfully,

C. H. Marriott,
Surgeon to the Leicester Infirmary.

Leicester, January 3rd, 1880.

⁂ The unqualified admiration which Dr. Marriott has for the nursing system at the Leicester Infirmary is not shared by all who observe its working. One shrewd observer, likely to be well informed, writes to us as follows:—The Leicester Infirmary is now nursed altogether by a separate body; viz., the Nursing Institution, which was formed for the purpose of training nurses, and providing, 1, nurses for the poor gratuitously; 2, for the well-to-do, who pay the ordinary wages for the nurses. The Nursing Institution, at its commencement, wanted a hospital to train their nurses; and, finding the Weekly Board of the Leicester Infirmary willing to take a few nurses and probationers to be trained, got Miss Burt into the infirmary as lady-superintendent, with a few nurses and pupils. The matron, Miss Gimson, was to still remain in charge *nominally;* while Miss Burt superintended the teaching and training. Naturally, this absurd arrangement did not last long. Miss Gimson, the matron, was superseded by Miss Burt, the lady-superintendent; and eventually the infirmary was nursed altogether by the Nursing Institution, Miss Burt and the Nursing Institution getting their own way completely. Well, of course the old nurses were got rid of, and new sisters and nurses took their places. It is part of Miss Burt's system to constantly—*i. e.*, every few weeks—change sisters and nurses from ward to ward, so that they may have greater experience. Consequently, they know a little of everything, but no special form of nursing well, such as ophthalmia, obstetric fever, etc. This changing takes away all power of the medical staff over the nurses, and gives that power to the lady-superintendent. Owing to the Nursing Institution supplying nurses to the outside public in the neighbourhood, the medical staff were bound hand and foot to the lady-superintendent; for on her depended whether a nurse should be supplied or not to their private patients, and also as to her being a good one or not. The number of nurses at the hospital might be decreased below the proper nursing requirements; but, if a favourite member of the staff required a nurse for a private patient, he could have one, though she could perhaps ill be spared from the hospital; and of course he would have the best. The Weekly Board cannot discharge a nurse or sister in the hospital. The Weekly Board have handed themselves to the Nursing Institution, and have allowed themselves to be supplanted in their own hospital by a foreign institution. If the Weekly Board of the Infirmary make any complaint to the Nursing Institution about having more probationers and pupils at the Infirmary than they were entitled to, or having probationers and pupils to act as and count as real nurses, or as to any irregularity or inefficiency of any nurse, the Nursing Institution, with a lofty superiority, give some excuse, and virtually laugh at the Weekly Board. As for the medical staff, they have no power at all, even less than the Weekly Board. It is a wretched system—bad for all parties.

STATISTICS OF THE GLASGOW ROYAL INFIRMARY.

Sir,—The calmly reasoned letter of Mr. Holmes, in your issue of the 3rd current, will be read with pleasure by all surgeons whose minds are still open to the necessity of examining whatever is submitted to them; probably it may not prove quite palatable to those who have ceased to examine, and have bound themselves to Listerism. This term is convenient; because, as Mr. Holmes properly points out, antiseptics are used by all surgeons, whether they believe in the theory of malignant germs, or refer awkward occurrences to the action of air, notably of oxygen, as was done thirty years ago.

But, sir, there are actually now not a few who claim the subcutaneous principle as a part of Listerism, and refuse to be convinced of the fact that it dates from the time of Hunter, and was taught and practised before the birth of the oldest surgeon now alive. The healing of wounds over ligatures is also to such a novelty, and due to the introduction of the use of catgut. It becomes painful to deal with such. Mr. Holmes justly remarks: "But it has been shown to demonstration that a mere comparison of the numbers of deaths, if unaccompanied by a full explanation of their causes, is most misleading." And to this, it may be added that the deaths which occur in hospital do not comprehend all those who die either from operations, or from those conditions which necessitate operations; for, if they are removed (expelled is a harsh word) from the hospital before death, then such deaths do not appear in the medical and surgical records of the institution. The following is a case in point, to which very recently my attention was called by a country surgeon, whom I had met in consultation, who complained of the fact that the patient was sent away in such a condition. A woman was subjected to a severe operation in the Royal Infirmary here, which was almost immediately followed by paralysis; she was without much delay transferred to the medical wards, and thence, after the formation of a very large bedsore, sent or taken home in a dying state. For aught I know, this may yet appear as a successful operation; in any case, the death will not figure in the statistics of the Royal Infirmary. It is not unknown to my boastful challenger Dr. Cameron, whose letter demands a reply. And

1. As to my extraordinary statement.

No one knows better than Dr. Cameron that my letter was meant to refer to the mortality as given in the editorial columns of your JOURNAL, though, in my desire for brevity, that is not clearly stated. In that light the statement will bear reaffirming, and though, at the time it was made entirely from my general knowledge of the wards and their contents, it must be nearly absolutely true. The report of the Glasgow Royal Infirmary for 1878 is now beside me; and in it we find that upwards of 3,000 cases were in the surgical wards. About 600 cases were operated on; to these add 56 compound fractures of larger bones, excluding those of the fingers and such like. In the 656, we find 93 amputations of fingers and toes, 84 dislocations, 30 piles and fistula combined, and a host of minor cases, well known to be numerous in all hospitals, a list of which I cannot inflict upon your readers. The result is that I have rather overstated the number by admitting one-tenth as cases whose fate, one way or other, could be influenced materially by any particular system of treatment. I ought to add that the report for 1878 is taken solely because it is in my possession, and, of course, it can be referred to by those who wish to do so. Dr. Cameron may, if he so choose, put all his patients under carbolic spray; but the benefit may remain doubtful, to say the least of it.

2. As to the burns; all I have to say is that they are included in the reports, even in that of 1878, the last issued.

As to his challenge, I beg to refer him to what follows; and, that he may not be kept waiting, let us take the compound fractures of the last two reports which I have published, and that without any view to this or any other discussion. The reports I might quote, but it seems preferable to give the notice of them which appeared in the pages of the *British and Foreign Medico-Chirurgical Review* for April 1874, thus: "The eclectic principles upon which Dr. James Morton manages his cases certainly yield good results. Can antiseptic surgery offer us anything better? Last year (1871), his statistics included eleven compound fractures, all of which terminated favourably. During 1872, the number was eighteen, whereof fifteen recovered. Of the three that died, two were considered hopeless and unfit for amputation at the time of admission; the third died of phlebitis. Such results as these must be regarded as satisfactory and creditable to the system pursued, whatever it may be." When Dr. Cameron far excels this, it will be my duty to inquire how it is accomplished; and, if by an original plan of his own, to admit that he has fairly won his spurs. Dr. Cameron knows well that what he proposes regarding the past five years is now unattainable; the circumstances, etc., of the patients cannot now be stated as they ought; and this I say in ignorance of what the result might be. But let a beginning be now made; let competent and unbiassed parties be appointed to take accurate notes of the cases in all important particulars, and let the results be compared, either annually or otherwise as may seem best. If unbiassed reporters cannot be had, then take one on each side. Let me add, however, that those who quackishly pretend to a moral certainty of success (the phrase is not mine) will be expected to show a very decided superiority. Dr. Cameron knows that I can afford a defeat.

Dr. Cameron backs up your lay contributor (the reason is obvious to Glasgow readers) in respect to the question of admission, but forgets to notice an addition to the remark as quoted by me. My quotation from your leader does not contain the words "as long as there is an empty bed in he wards under his charge". The importance of this addition will be seen when it is stated that Mr. Lister (when here) and his disciples since then keep their patients a very long time in the wards, a consequence of which is that my wards are always receiving their overflow, what are called "cases passed on". The returns they quote show that, giving one hundred and seventy-eight more cases in three years, equal to more than one every week, and usually these are not good cases, such as cannot wait for admission. I should feel more comfortable if there were no passed-on cases, though clinically my wards might be less interesting.

Finally, let me say that Mr. Holmes's letter is in reality a reply to my opponents, and an overwhelming one. With his summing up, I cordially agree; and I also concur with his idea that the surgeons of King's College Hospital could collect such data as would lead to a settlement of this question. It is worth mention that we have wards for erysipelatous cases; and though it often happens that, for a length of time, I have no such patients, yet there are always patients there. As Byron pithily says, "We wonder how the devil they got there". But this letter is already too long; and I am, yours, etc., JAMES MORTON, M.D.

P.S.—Some months ago, I intimated to your lay correspondent (whom, by-the-by, I have never named, though he says so) that I would not enter into a controversy with him; and to that resolution I adhere. His vainglorious burst at Amsterdam, promptly transmitted to the *Glasgow Herald*, led to a little correspondence, part of which he quotes; but, for the sake of the other managers, I give you the conclusion of it, which, if satisfactory to him, was also entirely so to me. It is dated October 17th, 1879, and is:

"Dear Sir,—Your letter of the 11th instant will be submitted to the first meeting of managers. I am desired by the Weekly Committee to inform you that the meeting which the minute sent you represents was unanimously of opinion that it was not their province to discuss professional treatment; but, at the same time, they thought it their duty to call your attention to the results as brought out in the tables, a copy of which you have already been furnished with, leaving you to act in the way you thought best.—Yours faithfully,

"*Pro* HENRY LAMOND, Secretary.

"(Signed) R. P. LAMOND."

This proves that the majority of the managers are possessed of a proper discretion, and guided by the dictates of common sense. Your lay friend apparently does not know when he is snubbed, and he has not the modesty to disclaim the title of President of the Royal Infirmary. There is no such office. He also ought to remember that the pressure he may place upon those who may fear his influence is apt to lead to inhumane practices.

SUGGESTIONS CONCERNING THE SCIENTIFIC WORK OF THE ASSOCIATION.

SIR,—Since the paper on this subject appeared, Dr. Arthur Ransome has kindly sent me a reprint of his paper "On the Need of Combined Medical Observation", published in the JOURNAL of October 8th, 1864. I very much regret that I was previously unaware of the existence of this most important contribution to the subject; for my own paper would have derived much additional weight had I been able to refer to Dr. Ransome's most able article, in which he makes almost exactly the same suggestions as those which I have again brought forward. Dr. Ransome suggests that combined observations should be made having the following objects: 1, The registration of disease; 2. The duration of contagion; 3. Some points in the natural history of disease; 4. The action of remedies. He gives such practical evidence of the possibility of a systematic registration of disease, as afforded by the work done by the Manchester Sanitary Association, and by a Committee of the Council of the Lancashire and Cheshire Branch of this Association, that I can but look with renewed hope for the speedy establishment of such a system throughout Great Britain. This, of course, is a subject which has recently been much discussed by those engaged in sanitary work; and it appears that a further effort on the part of the Association might induce the Government to attach such a system to the office of the Registrar-General, and at the same time overcome in some way the difficulty of affording payment for the work done by employing the members of the profession (who would have to furnish the returns) as the official registrars in each district. The "registration of disease" to which I alluded in my paper was not of this character; it was not intended for *sanitary*, but for *clinical* purposes, and was rather for the advantage of the individual than for the good of the community. And, subsequently to the decease of the individual, these "medical sheets" would be forwarded to a central authority, by whom they would be classified and extracted with a view to obtain adequate grounds on which to formulate sundry great generalisations for our guidance in clinical medicine. The fulfilment of such a scheme as this is as yet far distant. It is to a much smaller and more feasible enterprise that I venture to ask the attention of the Association; namely, that we should collect facts on the subject of temperaments and their relation to diatheses. I am glad to be able to state that a Committee formed of some of the most distinguished members of our Association will be readily forthcoming. I owe to Dr. Michael Foster the suggestion that, by means of photography, the facts could be recorded beyond dispute, and many errors of observation might thus be guarded against.

Will you allow me to correct two rather important typographical errors that occur in my paper which you were kind enough to insert in you last issue? At page 32, in the second column, eleventh line, "he might be a carefully filled up 'medical sheet'" should read "he might be provided with a carefully filled up 'medical sheet'". On the same page also, in the first column, thirty-seven lines from the bottom, under the heading "Cranium", the phrase, "If possible, 1. Greatest circumference measurements, such as:" should read, "If possible, measurements such as, 1. Greatest circumference;".—Yours faithfully,

January 5th, 1880. F. A. MAHOMED.

MILITARY AND NAVAL MEDICAL SERVICES.

The New Principal Medical Officer of the Madras Army.—Surgeon-General Thomas Crawford, M.D., ranking with major-generals of the army, who has been appointed principal medical officer of the Madras Army, *vice* Surgeon-General C. A. Gordon, M.D., C.B., took his M.D. degree at Edinburgh University in 1845, and became a licentiate of the Royal College of Surgeons in the same year. In 1848, he entered the medical service of the army as assistant-surgeon, and served with the 51st Light Infantry throughout the Burmese War of 1852-3. He was on board the Honourable East India Company's steam-frigate *Ferooz* during the naval action and destruction of the enemy's stockades in the Rangoon river, and served during the succeeding three days' operations in the vicinity and at the storm and capture of Rangoon, including the storming of the White Horse Redoubt. He also took part in the storm and capture of Bassein, on May 10th; was present at various skirmishes at Prome; and during the advance on Meaday; receiving the medal with clasp for Pegu. He was promoted to be surgeon in February 1855, serving with the 18th Royal Irish in the Crimea from the 9th of that month, and receiving the medal with clasp for Sebastopol and the Turkish medal. He became a surgeon-major in February 1858; a deputy surgeon-general in February 1870; and surgeon-general in December 1876.

Promotions in the Medical Department of the Navy.—The undermentioned Surgeons have been promoted to the rank of Staff-Surgeon in Her Majesty's Fleet, with the seniorities stated against their names: M. U. Creany, M.D., W. H. Putsey, G. B. Murray, St. Lawrence Ffrench Mullen, M.D., R. A. Mowll, M.D., with seniority of December 24th; J. Robertson, J. K. Conway, M.D., H. Clarke, W. Galloway, M.D., A. G. Delmege, M.D., with seniority of December 25th; R. Turner, T. L. Horner, S. Sexton, with seniority of December 26th; S. Evans, with seniority of December 27th; W. P. M. Boyle, with seniority of December 28th.

THE ZULU REWARDS AND THE ARMY MEDICAL DEPARTMENT.

Sir,—In your issue of the 27th December, 1879, you announce that Deputy Surgeon-General Woolfryes, C.B., the principal medical officer during the Zulu war, has received a C.M.G. I would venture to draw your attention to the utter inadequacy of the reward. Should it not be supplemented by promotion to the grade of Surgeon-General? Deputy Inspector-General Woolfryes was occupied in Natal for many months before the declaration of war in making preparations for the coming campaign under considerable local difficulties, and was uninterruptedly in medical charge, both during the anxious time of disaster and defeat, and when the subsequent arrival of reinforcements rendered him responsible for the medical care of nearly 20,000 men. While, therefore, brevet promotions, knighthoods, and various decorations are being served out on some principle intelligible only to those in high places, it cannot be held that more than a year's continuous and successful labour on the part of the principal medical officer of the whole expedition is adequately rewarded by the bestowal of that humblest of orders, a C.M.G.—Yours, Justice.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

Gonville and Caius College.—Open Scholarships.—An examination will be held at Gonville and Caius College, beginning on Saturday, March 13th, 1880, when six scholarships at least (three of £60, and three at least of £40) will be offered for competition to students intending to begin residence in October 1880. In cases of special merit, the College is prepared, on the recommendation of the examiners, to increase the value of a scholarship to £80 or £90. These scholarships are limited to persons who have not yet begun residence in the University, and have not yet been elected to a scholarship at any college. They will be awarded for proficiency in classics, or in mathematics, or in natural science, or in any of these branches of study combined. Each will be tenable for a year, after which the holder will be eligible to an ordinary scholarship. Candidates in classics will be examined in Latin and Greek translation, and composition, both prose and verse. Candidates in mathematics will be examined in Euclid, algebra, plane trigonometry, geometrical and analytical conic sections, the subjects being treated without the aid of the differential calculus. Candidates in natural science will be examined in chemistry, chemical physics (including light, heat, and electricity), zoology and comparative anatomy, and physiology. Excellence in one or two of the above subjects will be preferred to less perfect acquaintance with a greater number. Each candidate will be required to furnish a list of those of the above subjects in which he requires to be examined, at least three weeks before the examination. He will also be required to satisfy the tutors that he possesses such knowledge of elementary Latin, Greek, and mathematics as will enable him to pass the University previous examination. The natural science part of the examination will be held on Saturday and Monday, March 13th and 15th. The classical on Tuesday and Wednesday, March 16th and 17th. The mathematical on Thursday and Friday, March 18th and 19th. During the examination, rooms in College will be provided for the candidates as far as possible. A post-card should be sent to the College porter two or three days before. Candidates are required to send their names, with certificates of age and testimonials of good conduct, to the Rev. N. M. Ferrers, Senior Tutor of Gonville and Caius College. The successful candidates will be required to enter their names at the College, and to begin residence in October next. Those who acquit themselves creditably in the examination will, if they enter at the College, be admitted without entrance examination. The entrance examinations will begin severally on March 16th, June 9th, and October 9th.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Wednesday, December 24th, 1879.

Heritage, Julius Harvey, Montpelier Road, Peckham
Lowe, Howard Griffiths, Birmingham
Mehta, Maneckjee Serabjee, M.D.Brussels, L.R.C.P.Ed., Bombay
Strover, Herbert Charles, St. Helier's, Jersey
Swale, Harold, Guildford
Thornton, James Parsons, Riding Street, Southport
Wright, George Arthur, M.B.Oxon., F.R.C.S.Eng., Vange, Essex

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

The following vacancies are announced:—

BALLINASLOE UNION—Medical Officer for Laurencetown Dispensary District, at a salary of £112 per annum, £15 yearly as Medical Officer of Health, together with Registration and Vaccination Fees. Election on the 13th instant.

*BRISTOL ROYAL INFIRMARY—House-Physician. Salary, £100 per annum, with furnished apartments, board, and washing. Applications on or before February 2nd.

DROGHEDA UNION—Medical Officer for Stamullen Dispensary District, at a salary of £110 per annum, with £20 per annum as Medical Officer of Health, and the usual Registration and Vaccination Fees. Election on the 12th instant.

DUNFANAGHY UNION—Medical Officer for Gweedore portion of the Cross Roads (Falcaragh) Dispensary District. Salary, £100 per annum, with £10 yearly as Medical Officer of Health. Registration and Vaccination Fees. Election on the 16th instant.

*GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY—Dispenser and Assistant to House-Surgeon. Salary, £50 per annum, with board, lodgings, attendance, gas, etc. Application to the Secretary.

*HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Assistant Physician. Applications and testimonials to be sent on or before the 21st instant.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications, with testimonials, on or before Jan. 10th.

KENT COUNTY ASYLUM, Barning Heath—Senior and Junior Assistant Medical Officer. Salary, £220 and £150 per annum, with furnished apartments, washing, gas, etc. Applications, with testimonials, on or before January 20th.

MANCHESTER ROYAL INFIRMARY—Resident Surgical Officer. Salary, £150 per annum, with board and residence. Applications, with testimonials, to the Chairman of the Board on or before January 17th.

ROSCREA UNION—Medical Officer for Roscrea No. 1 Dispensary District, at a salary of £100 per annum, £10 as Medical Officer of Health, with Registration and Vaccination Fees. Election on February 2nd.

ROSCREA UNION—Medical Officer for Workhouse, at a salary of £80 per annum. Election on February 5th.

THURLES UNION—Medical Officer for Templemore Dispensary District, at a salary of £100 per annum, with £10 per annum as Medical Officer of Health, Registration and Vaccination Fees. Election on the 14th instant.

*WORCESTER GENERAL INFIRMARY—Third Physician. Applications, with testimonials, not later than the 14th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Barnet, R. W., M.D., M.R.C.P., appointed Physician to out-patients at the Great Northern Hospital.

Carlyle, John, M.B., C.M., appointed Certifying Factory Surgeon for the Chemical Works, Dyce, Aberdeenshire.

*Robinson, C. H., F.R.C.S.I appointed Lecturer on Botany in the Ledwich School of Medicine, Dublin.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

Clouting.—On the 2nd January, at Thetford, the wife of J. R. Clouting, M.R.C.S.E., of a daughter.

Nicholls.—On the 5th December, 1879, at Dominica, West Indies, the wife of H. A. Alford Nicholls, M.D., of a daughter.

DEATHS.

Freund.—On Monday, the 29th December, at 7, West Street, Finsbury Circus, of chronic bronchitis, Jonas Charles Hermann Freund, M.D., aged 71, deeply regretted, Deputy Inspector-General of Hospitals during the Crimean war, Surgeon in the Army, and originator of the German Hospital, Dalston, London.

Hancock, Henry, F.R.C.S., Consulting Surgeon to Charing Cross Hospital, at Standen, Chute, Wilts, aged 70, on January 1st.

Rankin, George C. G., retired Surgeon Bengal Army, at Holles Street, aged 79, on January 2nd.

A Centenarian.—A man named David Delshery, of Scart, near Mallow, died recently at the age of 102 years.

At the annual meeting of the Sheffield Literary and Philosophical Society, held on January 6th, Dr. Hime was elected President for the ensuing year.

Presentation.—Mr. Ernest Dykes Bower, the House-Surgeon at the Gloucester Infirmary and Eye Institution, being about to enter upon private practice, has been presented with an address, a handsome escritoir, an inkstand, and a book-slide, by the nurses and servants.

Vanilla as a Flavouring Matter.—The *Pharmaceutical Journal* notes some recent experiments on the action of artificial vanilla by Mr. L. Wolff, who has found that in one-grain doses taken for three weeks it produces no bad results whatever. The vanilla experimented with was Dr. J. M. Haarmann's. He therefore concludes that it is not to artificial vanilla that the reported poisonous effects of vanilla ice-cream must be attributed, but rather to the other ingredients. He recommends vanilla for disguising the taste of chlorate of potash in lozenges, and recommends it to be used in the following proportions: Chlorate of potash, lb. iv; powdered sugar, lb. xvi; vanilla, gr. xv; mucilage of gum acacia, q.s.; made into lozenges weighing twenty-five grains each.

Public Health.—During last week, the last week of 1879, 4,742 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 29 deaths annually in every 1,000 persons living. The annual death-rate was 24 in Edinburgh, 23 in Glasgow, and 43 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Sunderland 20, Portsmouth 21, Oldham 22, Norwich 23, Bradford 23, Newcastle-upon-Tyne 23, Sheffield 23, Wolverhampton 24, Leicester 24, Hull 26, Birmingham 27, Bristol 28, Manchester 28, Leeds 28, Nottingham 30, Liverpool 31, Brighton 31, London 32, Salford 32, and the highest rate 35 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 4.3 per 1,000 in the twenty towns, and ranged from 0.0 and 0.8 in Wolverhampton and Portsmouth, to 5.3 and 9.1 in Liverpool and Plymouth. Scarlet fever showed the largest proportional fatality in Newcastle-upon-Tyne, Leicester, and Bristol; measles in Plymouth, Hull, Liverpool, Bristol, and Nottingham; and whooping-cough in Salford, Newcastle-upon-Tyne, and London. Of the 27 deaths from diphtheria in the twenty towns, 16 occurred in London, 3 in Birmingham, 3 in Liverpool, and 3 in Manchester. Small-pox caused 4 more deaths in London, but not one in any of the nineteen large provincial towns. In London, 2,188 deaths were registered, which exceeded the average by 304, and gave an annual death-rate of 31.5. The 2,188 deaths included 4 from small-pox, 39 from measles, 69 from scarlet fever, 16 from diphtheria, 165 from whooping-cough, 20 from different forms of fever, and 13 from diarrhœa—being altogether, 326 deaths, which were 45 above the average, and equal to an annual rate of 4.7 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 799 and 652 in the two preceding weeks, were 672 last week, and exceeded the corrected weekly average by 152; 426 resulted from bronchitis, and 154 from pneumonia. Different forms of violence caused 93 deaths; 87 were the result of negligence or accident, including 32 from fractures and contusions, 16 from burns and scalds, 5 from drowning, and 25 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 45.7°, and 7.4° above the average. The general direction of the wind was south-west, and the horizontal movement of the air averaged 24.4 miles per hour, which was 11.6 above the average. Rain fell on four days of the week, to the aggregate amount of 0.44 of an inch. The duration of registered bright sunshine in the week was equal to 14 per cent. of its possible duration. The amount of ozone recorded during last week showed a considerable increase upon that in recent weeks.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W. 9; Dental, Tu, 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, M. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. G. C. Coles will exhibit and demonstrate the Laryngo-Phantom; Dr. Hughlings Jackson, "A Case of Tumour of the Cerebellum"; Mr. Thomas Bryant, "On the value of Parallelism of the Lower Extremities in the Treatment of Disease or Injury of the Hip-joint, with the best means of securing it".—Odontological Society of Great Britain, 8 P.M. Annual General Meeting. Casual Communications from Mr. W. H. Skeet, Mr. Percy May, and Mr. R. H. Woodhouse.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Adjourned Discussion on Mr. Morris's and Dr. Thin's papers "On the Connection of Eczema of the Nipple with Cancer of the Breast"; Mr. Frederic S. Eve, "Two Cases of direct Dislocation backwards of the Femur"; Mr. Christopher Heath, "On Aneurism of the Subclavian Artery treated by Amputation at the Shoulder-joint, and the introduction of Needles into the Sac".

WEDNESDAY.—Hunterian Society. 7.30 P.M.: Council Meeting. 8 P.M.: Dr. Herman, "On a Class of Cases in which Relief may be given by the Use of Vaginal Pessaries"; Dr. Braxton Hicks, "On Lateral Obliquity of the Pregnant Uterus"; Dr. Galabin, "On a Case of Unusual Pelvic Deformity".—Obstetrical Society of London, 8 P.M. Specimens: Ruptured Fallopian Tube, Dr. Godson; New Instruments, Dr. Heywood Smith; One-headed Twin Monster, Dr. Hilliard. Paper: Dr. Champneys, "On the Pain in Pelvic Cancer, and its Relief by Morphia".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

We cannot undertake to return Manuscripts not used.

A Contributor.—There is no reason to depart from the rule of general society, which is, that the older resident takes the lead in calling upon the new comer.

Experiments on a Decapitated Criminal.

Sir,—In the British Medical Journal of December 13th, page 958, I find the relation of the experiments made by Dr. Evrard, my father, and myself, on the head of the decapitated man Prunier. After having given the reasons for which we believed ourselves right in admitting the instantaneity of death in this case, your correspondent adds: "The responsibility, or otherwise of the murderer, however, is not so clearly made out; for, notwithstanding the *post mortem* appearances, which point to cerebral lesions, evidently the result of alcoholism, the reporters have come to a negative conclusion—that is, nothing (as asserted by them) would exonerate the culprit of the terrible crime of which he was convicted, and for which he paid the extreme penalty of the law. The medical and lay papers are, however, unanimous in considering that the unhappy criminal, having acted under the influence of a diseased brain, of which he showed manifest symptoms during life, ought to have had a respite of his sentence, or, at any rate, that he ought to have been kept under observation for a sufficient length of time to enable the medical authorities to judge as to whether he should be treated as a criminal or a patient." Many papers, indeed, without being so unanimous as your correspondent states, have, a long time before the publication of our report, and consequently without knowing anything of the fact, agitated the question of insanity, because they had vaguely heard of cerebral lesions found by us. Unhappily for them, but happily for the honour of French justice, the murderer had never at any time showed the least symptom of mental disturbance. According to the numerous witnesses heard, notwithstanding his drunken habits, that man, aged only 23, was always in full possession of his senses, and there are no insane in his family (he had thirteen brothers and sisters). Dr. Evrard, who saw him every day in his prison during more than three months, always found him perfectly conscious of all his acts. We have, it is quite true, discovered adhesions of the membranes of the brain, probably due to alcoholism; but there is in this fact no sufficient reason to infer the irresponsibility of the culprit. Lunacy, as my father recently wrote in the *Union Médicale*, is only recognisable by clinical signs. Prunier's case is not, therefore, a favourable one for the advocates of the abolition of the sentence of death, and it indicates no defect of the law. I send you, moreover, a copy of our report, which contains a brief relation of this horrible crime.—I am, yours sincerely,

Paris, December 23rd, 1879. Dr. Gaston Decaisne.

F.R.C.S.E. should give his name. Anonymous communications of the kind are in the last degree despicable.

Fees to Medical Witnesses before Select Committees.

Sir,—Perhaps some member of the Association can inform me what are the fees payable to a medical witness summoned to give evidence before a Royal Commission or Select Committee of the House of Commons? Are travelling and hotel expenses allowed, in addition to a fee *per diem*, until called to give evidence?—Yours faithfully, Epsilon.

*** Yes, for those summoned from a distance, but not for persons resident in London.

A Distressing Case.

The following is a list of the donations received for Mr. Dalton since last week.

1879.—Dec. 30.	—W. J. Ingham, Esq.	£1	0	0
,, ,, 31.	—Dr. J. A. Ball, Stockport	2	2	0
1880.—Jan. 1.	—K. F. Sylvester, Esq., L.R.C.P.Ed., Trowbridge	1	0	0
,, ,, 2.	—Dr. Withers Moore, Brighton	2	2	0
	G. S. Stansfield, Birkenhead	0	10	0
,, ,, 5.	—Geo. Charles Coles, Esq.	0	10	6
	Mr. Cromie	1	0	0
	Francis Vacher, Esq., F.R.C.S.Ed., Birkenhead	2	2	0
	Dr. Leworthy Thorne, Swanage	0	10	0
	Dorrel Grayson, Esq., Rayleigh	1	1	0
	Rev. R. Guinness, Leicester	1	0	0
	Dr. Barr Meadows	1	1	0
	Dr. Foster McGeagh, Tunbridge Wells	1	1	0
	Dr. Langdon Down	1	1	0
	E. H. Roe, Esq., A.M.D.	1	0	0
	Edward Parke, Esq., Liverpool	2	2	0
,, ,, 6.	—Dr. Bowles, Folkestone	2	2	0
	Surgeon-Major Tomlinson, Malta	3	3	0
	Surgeon-Major Maclean, Redhill	0	10	0
	M.	0	5	0
	Lennox Browne, Esq.	2	0	0

January 1880. Yours faithfully, Heywood Smith.

*** Any further subscriptions forwarded to the editor or to the Journal office will be acknowledged in these columns and applied for Mr. Dalton's benefit.

R. S.—"Homœopathic practitioners" are apparently outside the ordinary rules of professional modesty. We doubt whether the colleges would interfere.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Tinnitus Aurium.

Sir,—Would any of your members advise a *confrère*, aged fifty-two, who suffers from tinnitus aurium? It came on, after a short course of quinine and phosphorus, two and a half years since, ordered for "nervous derangement of the left ventricle" from erratic gout. Quinine makes it worse. Strychnine, the bromides, and arnica have no effect. A good dinner and a little alcohol relieves it for a time. It is most troublesome in bed. The speculum reveals nothing abnormal: the hearing is perfect. It is much worse when a bilious attack is imminent. It did not exist during some months' suffering from weak heart and anæmia, only coming on when strength was returning. Does tinnitus from quinine really last for years in some cases?—Yours, A New Member.

Temperaments.

Sir,—G. H. will find the information he seeks in Laycock's *Medical Observations and Research.* If there be any difficulty in obtaining a copy, I will gladly lend mine.—Yours faithfully, Wm. Fairbank.

Wells, Somerset, December 27th, 1879.

Sir,—Your correspondent "G. H." will probably gain the information he requires on temperaments from Laycock's *Medical Observation and Research*, Finlayson's *Clinical Manual*, or Fothergill's *Practitioner's Handbook of Treatment.*—I am, etc., W. C. D.

A Dedication.

Sir,—The enclosed lines, addressed to Dr. —— as a dedication to a new book, by an anonymous writer, just come from Mudie's, and called *Life behind her Screens*, are so appropriate to members of the medical profession that I hope you will insert them in your Journal. The last two verses are particularly happy.

"*Dedication to Dr.* ——.

"They listen to his footsteps on the stairs,
To them distinct, through all the city's hum,
Hushing their painful sighs, heartbroken prayers,
To count those footfalls as they nearer come.

And sadly, as he bends above the bed,
They wait for words of comfort from his lips:
Death shuts the fatal wings so darkly spread,
And life smiles out behind her black eclipse.

His soothing hand relieves the racking pain,
Wipes the cold death-damp from the haggard face,
Brings hope and peace to the o'er-troubled brain,
And stays pale death in his too rapid pace.

No wonder that they bless him as he leaves
The darkened bedroom and its fevered air:
The saddened brow, the bitter heart that grieves,
Are happier, better, for his presence there.

Ever serene and calm himself, he goes—
Heedless of place and time—where duty calls;
Be it to soothe the mightiest monarch's woes,
Or suffering penury in prison walls.

He, too, hath suffered, though his brow is calm:
Grief, sickness, pain, are not to him unknown;
But he, from whom so many seek their balm,
Seeks from on High the solace for his own."

December 25th, 1879. Yours, etc., H.

One who believes in doing unto others as they would be done by.—In such a case, the physician who was called in consultation ought to be ready to give the fullest explanations; indeed, it might have been expected that he would have tendered an explanation unasked. Such events, if they pass unexplained, destroy professional confidence. The circumstances might perhaps be mentioned to the Council of your Branch.

A Novel Aid to Diagnosis.

Sir,—Permit me, in a few words, to draw attention to the additional facilities afforded in aid of diagnosis in certain cases by an inspection of the key-hole face of the watch. The winding up of this useful article is usually performed last thing at night, and a certain amount of calm adaptive power is required for the proper performance of that function, without scarring and marking of the key-hole face. It is evident, therefore, that we may here observe indications as to the general steadiness or otherwise of the hand at this crucial period, as, also, that the abnormal markings and scarrings will be in proportion to the existence and continuance of habits of alcoholic intemperance, which may give rise to such unsteadiness. Few they are, let us hope, who indulge in alcoholic excess to such an extent as to neglect altogether this important function, and to retire to bed oblivious or careless with regard to it; but it is to be feared that not a few, though scorning the idea of being unable to wind up their watches, nevertheless persist in doing so under difficulties due to over-indulgence in alcoholic drinks, which are very apt to leave distinct traces not easily effaced. Of course, such scarrings and markings may be due to other causes; but these, as a rule, will be self-evident, whilst other sources thereof may not be admitted, or may, indeed, be denied. I am therefore of opinion that, considering the difficulties we sometimes have in getting at the truth in such matters, it is desirable that no additional available source of information should be neglected, and I consider that valuable corroborative evidence at least is to be obtained from such a source. In the circumstances, I beg leave, therefore, to suggest the regular resort to such an aid to diagnosis where it may be considered necessary or advisable, leaving it to individual discretion to obtain the information thereby afforded in such a manner as not to rouse the suspicion of a patient unwilling to admit alcoholic excess.—I am, sir, your obedient servant,

J. Wilkie Burman, M.D.

Maid of Honour Row, Richmond, S.W., December 22nd, 1879.

P.S.—I may add that I have verified, to a certain extent, the results that I should expect, by such means of diagnosis, by the examination of a number of watches of teetotallers and notably temperate men, the key-hole faces of whose watches I found to be smooth and unscarred, whilst among a number of watches examined belonging to those of suspected or notorious habits with regard to alcohol in excess I found more or less scarring and scratching of the key-hole face.—J. W. B.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Liquor Pancreaticus.

Sir,—Will you allow me space for a few remarks in reply to Mr. F. Arnold Lees, whose letter I accidentally overlooked. Unless I misunderstand Mr. Lees' communication, it contains an implied accusation against me of having, in my endeavour to push the pharmacy of the digestive ferments a step forward, done some injustice to Messrs. Savory and Moore, who, it seems, have worked in the same direction. I must confess it had never struck me that Messrs. Savory had any exclusive or peculiar right or special means of access to the pancreatic glands of the animal creation, as these have long occupied the attention of physiologists and chemists. Under the circumstances, I, as a practical pharmacist, felt as much at liberty to work on that subject as on any other of pharmaceutical interest, and I venture to think that my "liquor pancreaticus" has been correctly described as a new preparation. It differs entirely in name, taste, odour, colour, etc., from Messrs. Savory's "unadvertised" saline essence of pancreatine (by the bye, Mr. Lees has deprived Messrs. Savory's preparation of this last distinguishing characteristic). I will only add, that mine is not a "saline" essence. Were I to enter here more fully into details of its merits, the *puff oblique* might be suspected, and your readers would accept the whole *cum grano salis*, so bringing about that confusion I am anxious to avoid. Having satisfied myself that liquor pancreaticus possesses the properties ascribed to it, I willingly leave the medical profession to decide as to its value in therapeutics and dietetics.—I am, etc.,
F. Baden Benger, F.C.S.

7, Exchange Street, Manchester, December 22nd, 1879.

Sir,—In your issue of December 13th, which I have only just now read, I see a letter from Mr. F. Arnold Lees, claiming priority of invention for Messrs. Savory and Moore for a "peptic and pancreatic liquor", as I believe not quite correctly. I will ask you to allow me to state in your columns that in the year 1870 I made a preparation of the kind, at the suggestion of Dr. Kinkead, Professor in the Queen's College, Galway, an account of which, with an account of some careful experiments and observations on its use, etc., was published by him in the *Lancet* of November 12th, 1870, page 667, and subsequently copied into other publications of the day. This preparation has been a good deal used in Dublin and Ireland generally, from the recommendation of one medical man to another; and, I understand, has proved a very efficacious agent in suitable cases. It is rather agreeable in flavour, and, moreover, it will keep for an almost indefinite time, as I lately tested some made nine years ago, and found the digestive and emulsifying power as strong as ever.

Let me observe, in conclusion, that the "acid preparations" alluded to would not seem very philosophic remedies, if we bear in mind that the acid and pepsine are not brought into contact by nature till the act of digestion begins, and is not at all required to aid the action of pancreatine. The "ketchup flavour" imparted to their preparation by Messrs. Savory and Moore seems a very happy idea, and doubtless will render it acceptable to many patients.—Your obedient servant,

Dublin, December 29th, 1879. Edward Long.

A.L.S.—Alcoholism; by Dr. V. Magnan, translated by Dr. Greenfield. The alcohol question, by various authors, published by Strahan. Köhler's *Arzneimittellehre* not only gives a good *résumé* of the actions of alcohol, but gives a very complete list of papers on the subject in English, French, and German periodicals.

Sir,—A medical practitioner in my immediate neighbourhood is in the habit of signing certificates thus:—M.D., M.B., C.M., F.O.S.E., F.A.S.L., etc. Can the latter initials be added for the purpose of making the public believe him to be an F.R.C.S.? I for one am at a loss to know what they signify, and it certainly is not "the thing" for a medical man to sign both the M.D. and the M.B., as the greater degree includes the lesser. I shall be glad to hear the opinion of your readers.—I am, etc.,

December 1879. M.D.Edin., M.R.C.S.Eng.

Prolapsus Ani.

Dr. T. M. Lownds (Egham Hill) says that if "L. F. P. S." will try a grain of Barbadoes aloes with two or three grains of pepsine in a pill every evening after his last full meal he will probably find immediate relief. As an instance of the benefit of this plan, he mentions the case of a gentleman aged seventy-six, who has never had an evacuation of the bowel for twenty years without protrusion taking place. Dr. Lownds proposed small doses of aloes daily, with pepsine; but he said he had been cautioned never to take aloes. A few weeks afterwards, Dr. Lownds was called in haste, as a protrusion had taken place, and he could not reduce it. The mucous membrane protruded to the extent of seven or eight inches. It was returned with some difficulty; and, with some misgivings, he tried a daily pill after dinner. Next day, he had no return of his old inconvenience, nor did it ever recur to the day of his death, at the age of 83 or 84. Aloes given in small doses is a powerful tonic to the lower bowel. In cases where atonic congestion of the rectum is the cause of the protrusion, this treatment has never failed. The dose of aloes should be so graduated that a soft but not liquid motion is daily procured.

M.D. having been a sufferer for some years from the same affection as L. F. P. S., recommends the use of a truss which was made for him by Mr. Gasdun, 45, South Bridge, Edinburgh. It is composed of a waist-strap with a back pad, to which is fixed a strong steel spring, with an ivory pad attached. A double perineal band is attached to the fore part of the belt when in use. He has no doubt it could be got at any surgical instrument-maker's. Since he has worn it, he can scarcely tell how much easier his work has been, or how much pain and loss of blood and time it has saved him.

Houses of the Poor.

We are very glad to see the very valuable letter of Mr. Henry Taylor of Guildford on "The Homes of our Poor" in the *Surrey Advertiser*. The influence of medical men can hardly be more usefully employed than in impressing upon the lay public the immense importance of attention to sanitary laws, both in the construction of the homes of the poor and in the management of the details of houses generally. If Mr. Taylor can succeed in inducing the formation of an association for building small cottages in the neighbourhood, offering good models of construction, so as to raise the standard of comfort and convenience of the working classes, at a moderate rental, he will undoubtedly effect a great step in the improvement of the public health and happiness in his vicinity.

M.R.C.S.—The guardians ought to have insisted upon your having the entire charge of the case. You ought not to be required to attend a patient who is at the same time under the care of a bone-setter.

A. B. C. D.—A retired partner, even though he is a confirmed invalid for years, and gives much trouble, may reasonably expect that his successor in the practice will treat him gratuitously. In such a case, no charge should be made, except for money out of pocket.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. **Fowke**, not later than *Thursday*, Twelve o'clock.

A Newly Discovered Disease (?), "Angina Ludovici".

In a recent number of the Journal, Mr. Stuart described a case of the above disease, the pathology of which is given as "simply inflammation of the cellular tissue of the neck". This disease, though found in "no work on practice of medicine", will be found in surgical works. A good description, with treatment, is given in Bryant's *Surgery*, as "diffuse inflammation of the cellular tissue". Cellulitis of the neck is a very serious disease, especially in young persons. At present, I have a child suffering from cellulitis of the arm: the constitutional symptoms are severe; and had the disease affected the neck, the case would probably prove fatal. Believing that the disease is not a new one, I trust the name of "angina Ludovici" will be given up.—Yours, etc.,
Cellulitis.

A. F. H. had probably better apply to Mr. Alsager Hay Hill, at the Central Labour Exchange and Agency, 15, Russell Street, Covent Garden. At this office, full information is given on subjects relating to employment, emigration, and industrial intelligence. The judgment of Mr. Hill in such matters is based upon special experience, and he is enabled to afford advice and caution which would in the present, as in many other instances, no doubt be found useful.

A. F., M.D., asks whether Mr. Francis Galton's paper on Composite Photographs is published separately, and, if so, where it can be obtained.

A Question for Hospital Physicians and Surgeons.

A correspondent of the *Charity Organisation Reporter*, who signs himself "A Hospital Surgeon", calls attention to the frequency with which the medical officers of hospitals are requested to give certificates for clubs, school boards, government emigration, and so forth. Certainly it is worth while to consider how far these requests should be granted. At some hospitals they are so numerous, that printed forms are kept for the purpose. On the other hand, some medical men attached to hospitals decline to sign them altogether. Between these two extremes, what is the proper course to adopt? Where a certificate is needed for an institution which is purely charitable, it may be granted without hesitation; but where it is wanted for a medical club, for a school board, for emigration—in short, for any purpose which is not charitable—the medical man may well decline. Surely there is, or there ought to be, some person to whom such applicants should address themselves, and who is paid for giving them the attention they require. It is unreasonable that sick clubs should send their members for charitable treatment at hospitals, and should expect the surgeons and physicians to fill up certificates; yet this is frequently done. It is time the matter should be considered, and some definite rule laid down on the subject.

Errata.—In Mr. W. W. Morris's note on Guaiacum Resin, at page 14 of last week's Journal, *for* "tinctura guaiaci compositum" *read* "tinctura guaiaci composita"; and for "five grains in one ounce" *read* "five grains in one drachm".

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

***** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.**

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. T. Holmes, London; Dr. J. M. Finny, Dublin; Dr. A. Hughes Bennett, London; Dr. Cameron, Glasgow; Dr. Samelson, Manchester; Mr. H. Greenway, Plymouth; Mr. J. Spence, Edinburgh; Mr. Burdett, Greenwich; Dr. Mahomed, London; Mr. T. Vincent Jackson, Wolverhampton; Dr. A. S. Taylor, London; Dr. Burney Yeo, London; Mr. S. Sewell, Frome; Dr. Day, London; Dr. R. McKechnie, Rutherglen; Dr. Otis, New York; Dr. J. Ellis, Los Angeles, California; Dr. Pietra Santa, Paris; Mr. H. L. Bernays, Old Charlton; Mr. J. E. Brogden, Cardiff; Dr. Stedman, New York; Dr. L. A. Sayre, New York; Dr. Richer, Paris; Dr. Hirschberg, Berlin; Dr. Marcet, Cannes; Mr. Wagstaffe, Cannes; Mr. Burrows, Witheridge; No Vaccinator; Mr. J. J. Murphy, Dublin; Messrs. Letts and Co., London; Dr. Kinkead, Galway; M.; Dr. Galton, London; Mr. J. B. James, Bermondsey; Dr. A. Turnbull, Gosport; Mr. T. Leeds, Balham; Mr. F. Parson, Rothbury; Dr. Magenniss, London; Mr. John Hollingshed, London; Mr. Henry Brown, Northallerton; Mr. Lennox Browne, London; Mr. T. J. Barnardo, London; Mr. Edward Thompson, Omagh; Dr. C. H. Marriott, Leicester; Mr. W. E. Peebles, Howth; The Secretary of the Hunterian Society; Mr. H. Gorst, Liverpool; Dr. W. Fairlie Clarke, Southborough; The Secretary of the Odontological Society; Mr. J. M. Hobson, London; Mr. Durant Cecil, London; Mr. F. M. Wright, London; Dr. Crookshank, London; Mr. P. Burroughs, Weston-super-Mare; Our Dublin Correspondent; Dr. R. W. Burnett, London; Mr. H. G. James, Beverley; Messrs. Mackey, Sellers, and Co., London; Mr. J. W. Stride, Brighton; Our Glasgow Correspondent; Mr. Jas. Startin, London; Mr. W. T. Grant, Birmingham; Dr. J. Williams, London; Mr. W. W. Morris, Nottingham; Dr. Cameron, Liverpool; Mr. B. P. Lamond, Glasgow; Mr. D. W. King, Glasgow; Messrs. Street and Co., London; Mr. G. Eastes, London; Mr. F. J. Marshall, London; Mr. G. Field, London; Mr. J. Turton, London; Mr. S. F. Murphy, London; Mr. R. J. Bryden, London; Dr. W. E. Steavenson, London; Mr. E. A. Fardon, London; Mr. Davy, London; Mr. E. Penny, London; etc.

A CONSIDERATION
OF
SOME OF THE FALLACIES WHICH ARE BASED UPON A NARROW VIEW OF THE GERM-THEORY.*

By ALFRED CARPENTER, M.D.Lond., C.S.S.Camb.

SOME writers fall into serious error when they put forth theories regarding the causation of enteric fever, which are based upon possibilities and which are not in accordance with every-day experience. They are forgetful of the evanescent nature of the matter which spreads the disease, and also of the certainty that, if the requisite conditions are departed from, there will be no production of fever. They assume that, if an enteric germ or particle of potent matter find admission to an ordinarily pure water-supply, it retains its vitality independently of the circumstances in which it is placed, and thus they make it differ from all similar living matter.

There are two fallacies which are based upon this idea, and which are prevalent at the present time. They are put forward by advocates who are forgetful of the protection which nature provides against evils, especially those which they confidently assert to be in store for those districts in which their views are not immediately carried out.

The first fallacy is, that there is no limit to the distance to which the contagia of disease can be transmitted by underground streams, and that no amount of filtration will remove or alter the particles upon which the contagium depends for its specific power.

The second is, that neither microscopical nor chemical analysis is able to prove the absence of such particles, and that conclusions based upon those analyses are likely to lead to disastrous results.

The authors who use these ideas point to cases which they assume to be sufficient to support their statements. This has been especially so in regard to outbreaks of fever in districts which are supplied with water from deep wells. But, until there is proof that an epidemic of typhoid has been distinctly caused by a water-supply which has been shown to be microscopically and chemically pure, reasonable men ought to hesitate before they accept the doctrine as a contingency at all likely to arise.

The statements are used for the purpose of assailing the character of waters which microscopical research and chemical analysis of specimens taken at their source have uniformly shown to be pure. Nevertheless, zymotic disease has continued to appear in the district, arising occasionally at distinct intervals in batches of cases. Their origin has generally been explainable by importation, by milk distribution, or by defective sewerage arrangements, which have been quite sufficient to account for them. Yet some persons have put these aside, and have accused the water as the immediate and direct cause of all the zymotic diseases which have appeared in the district (as, for instance, in Croydon). It is argued also that water which has been once polluted by mischance or accident is utterly unfit to be used as a public water-supply, and it is assumed that there are no safe provisions in nature for restoring it to a state which will fit it for use as a potable water.

If these conclusions could be established, there is scarcely a large town in the kingdom which could not be called upon to execute gigantic schemes for water-supply, ostensibly to avoid infinitesimal causes of danger; whilst the suggested schemes (when any are suggested) would be just as open to the causes which produce mischief as those which they propose to supplant.

The suggestions which have given rise to the false premises upon which the conclusions are based are such as those which were made by Dr. Frankland when reporting upon the cases of typhoid fever which arose at Lausanne in 1875, and also by Dr. Thorne Thorne at the conference on national water-supply which was held at the Society of Arts in May last. Dr. Seaton also, at the same time and place, put forward the idea that analysis was not to be depended upon for the detection of the contagia of disease in potable water. But Dr. Thorne Thorne would be the last person to advise that the source whence the Caterham Company derive their supply should be changed; but others, trusting in Dr. Frankland's admission, that neither the microscope nor the test-tube could show a typhoid germ, have advised that similar waters always having a satisfactory chemical report should be changed as sources of supply.

The grounds for this advice are, that there is evidence in the water of previous sewage contamination, as shown by the presence of nitrates and nitrites. These, they argue, must have been obtained from animal contamination. They say that the water has been derived from a collecting-ground which has been made impure on its surface by cultivation of the soil, by animal-feeding, and by defilement by human beings; that, as neither the microscope nor the test-tube can discern with certainty the germs which are capable of developing enthetic disease, there are no means of knowing whether they are present or not until the disease arises; that, if such germs are distributed on the surface of the soil, there is no certain power in filtration which will alter their character; although they do not deny that filtration has some power. They argue that the germs of matter upon which the propagation of the disease depends actually increase and multiply in the soil itself, and not in the bodies of the patients. They also state that a rise of water in the subsoil, which rise is always caused by a heavy rainfall, will bring the germ from the soil into the water and enable it to spread the disease, without necessarily bringing into the water the other accompaniments of sewage-pollution. Thus, water pronounced pure by the chemist and the microscopist may yet (they say) be teeming with germs of matter capable of setting up enteric fever and all the class of zymotic diseases.

The well-known theory of Pettenkofer is taken up and dissected. He affirms that the conditions necessary for the production of typhoid are, an impure and porous subsoil saturated with water, and the level of the ground-water or water-line rapidly falling after attaining an unusual height; whilst another authority—Buhl—takes the converse, and believes it to be the rise of the water-line in the subsoil which spreads the malady. Neither of these authorities states that the water thus contaminated was absolutely pure. They infer that the soil is contaminated by organic matters and surcharged with carbonic dioxide. This is necessarily absorbed with other impurities in large quantities by the water. The engineers, who are so anxious to change the sources of supply to which I refer, catch hold of Pettenkofer's and Buhl's theory; separate the first part from the second, leaving out the latter, and attach the former to Dr. Frankland's admission, that the chemist is not necessarily able to detect the germs of living matter capable of developing into the cacozymes or micrococci which set up typhoid. They seize hold of the fact that the water may be perfectly transparent to the electric beam of light, and yet soon after be full of living germs. They conclude that similar conditions will be persistent, without reference to the circumstances under which they are placed. The hybrid theory which is thus produced is launched as if it had the support of the great names with which it is associated, and is used at public meetings of ignorant ratepayers with wonderful effect.

I will examine the evidence given in support of this theory by the light of my own observations and experience; and for this purpose I must refer to the epidemic of enteric fever which arose in 1875 in the town in which I reside. It has been published that neither imperfect sewers, intermittent water-supply, nor personal infection had anything to do with that epidemic, and it is said that the water alone, as obtained from its source, was the culprit. Dr. Buchanan made an exhaustive statement regarding that epidemic to the Local Government Board, which appears in the annual report published in 1876. He inquired into the particulars of 1,164 cases which occurred during its progress. Previously to Dr. Buchanan's inquiry, and whilst the disease was in progress, I published in the *Times* newspaper, and also in the BRITISH MEDICAL JOURNAL for November 20th, 1875, statements as to the cause of the disease, the means which ought to be taken to remove its incidence, and to prevent its recurrence. Nearly four years of further experience have now been gained, and there is no reason whatever to alter the opinions I then expressed—viz., that the water (although in a great measure the exciting cause of the disease) was pure at its source; that it became contaminated during its distribution; and that such contamination was caused by the local circumstances incidental to the arrangements of the local authority. Those arrangements were such, that the water was liable to serious pollution whenever the supply was made to be intermittent instead of constant; that, from a series of circumstances, a distribution of fever-poison occasionally took place in the district; that, after this general distribution by means of water had ceased, defective sewers and imperfect house-drains caused the inmates of individual houses to suffer more or less from the exhalations which arose from deposits containing typhoid excreta, such deposits being retained in the neighbourhood of the houses in question or in the sewers with which those houses were connected; that, undergoing chemical change *in situ*, the germs of disease-producing matter were set free and conveyed by the drains into the houses, and disease was produced in those who were liable to its incidence. These outbreaks occurred at irregular and uncertain intervals, according to the time when the deposit in the sewer happened to be disturbed.

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

The causes to which I attributed the propagation of the disease required for their removal an alteration of the fittings in a very large number of houses, and also a serious rearrangement of the sewers, involving a large general, but still more unfortunately a large individual, outlay. The proposed outlay was not a new suggestion; it had been urged upon the local authority for several years. A gigantic effort was made, by appeals to popular prejudice and to the ignorance of the masses, to prevent the suggested alterations, and a violent outcry was raised to prevent the completion of works which were urgently required to enable the local authority to provide a really constant water-supply instead of the fictitious one which had lately been in operation.

The two statements I have mentioned were most unscrupulously used; fortunately, without effecting the object aimed at. Had they prevailed, and had the popular clamour which was raised in the place been successful, the district in which I reside would still have had an intermittent water-supply; fever would have been often with us, and our proverbially healthy town would have continued under the stigma which bad work connected with both sewer-system and water-service had brought upon us. I mention the two together, because I am satisfied that it was a compound cause, produced by the two, which led to the troubles of 1875. In this view of the case I am fully fortified by recent experiences. The water-supply is taken from the same source as in 1875; it has been for the past two years entirely constant. The total mortality in the fever year of 1875 was 21.6 per 1,000 living. This is an indication of good general health. But the zymotic death-rate was high, reaching 3.66; it was nearly as high as that for the whole of London, and included ninety fatal cases of fever. In 1876, according to the returns of the medical officer of health, the death-rate fell to 19.7; in 1877, it was 18.08; and in 1878 it was 18.5. The zymotic rate in the latter year was 2.8, and included eighteen cases of enteric fever. Of these, seventeen occurred in the second half of the year; and Dr. Philpot remarks, in his report, that "the incidence of the disease according to a certain milk-supply was so marked, as to lead to the conclusion that the fever-poison was distributed with the milk". In this opinion I entirely concur. The milkman who distributed the milk to the people disappeared from the neighbourhood, and I could not find his whereabouts; otherwise I should have searched out the truth by means of a coroner's inquest upon one of the victims. But, as the man could not be found, and as he was the only witness who could have proved whence the poison was derived, there was no means of finding out its secret and of tracing to its source the real cause of the mischief.

It is a fact that, coincidently with a constant water-supply, we have a complete absence of enteric fever, except as regards cases which are clearly traced to causes outside the range of water-service; and, although the milk was the vehicle by means of which the poison was conveyed into the houses, yet a predisposing cause existed there also, for the houses in which the fatal cases arose were just those in which defective sanitary arrangements also existed. Those who succumbed to the disease had been exposed to miasms from defective sewers. At the time, also, at which the epidemic arose, serious complaints were continually made to the local authority regarding smells from the sewers in the very district in which most of the fatal cases occurred.

The incidence of the mortality in 1875 was clearly within the watery district; and within that district it was in houses which had glaring sanitary defects in the construction of their drains, or which were in close proximity to such. I did not meet with a single case in which there had not been a departure from one or two canon laws of sanitary work; that is, in which either the sewers communicated directly with the interior of the house, or in which the water-services were not in some way directly connected with the sewer; this latter proviso seriously affecting every house on that particular main. These views are fully borne out by the evidence obtained by Dr. Buchanan. He states (page 46 of his Report): "Oftentimes in a group of houses resembling each other in their general sanitary arrangements, some particular drain-defect was discoverable in certain houses, but not in others; and it was as often found that the incidence of the fever was upon those which showed the drain-defect, but not upon houses which did not show it."

A typical case which came to my notice occurred in North Park. A drain common to two semi-detached houses was allowed, in defiance of the by-laws of the Board, to pass beneath the walls and under a living-room in one of the houses. A settlement had taken place, and the whole of the sewage of those two houses had been discharged into the subsoil beneath. Every person living in that house, with one exception, suffered from enteric fever; and several nurses who were employed to wait upon the sick contracted the disease; and, of the total number of eleven cases which were connected with that house, three were fatal. It was only after the patients were removed and the house evacuated, that the continuing cause was discovered. The most noteworthy points in this case were, that the plans of the houses had been approved by the Local Board; the drains were said to have been examined by an officer appointed for the purpose before they were covered up; and a certificate had been given by the then surveyor to the Board that the house had been built in compliance with the by-laws of the Board; whilst, in fact, every one of the regulations of the Board as to direct communication with the sewer, as to ventilation of the soil-pipes and position of the drain, was directly contravened.

The origin of the disease in the first instance was, in point of time, coincident with the distribution of fever-germs in the water; but its continuance was manifestly due to the sodden state of the subsoil under the house. Cases continued to arise some time after the subsidence of the general epidemic.

On the first outbreak of the fever, the water was accused as the vehicle which had distributed the germ. I had even given warning that such an event would happen if the course which was being followed were continued. I was of opinion that pollution arose after the water had been raised from the bottom of the well. Analyses of specimens taken at its source were always good, whilst analyses of specimens drawn from a distance were unsatisfactory. Frequent complaints were made by individuals regarding the impurity of the supply as delivered. Specimens were produced (one of which I drew myself from the tap) which were contaminated to the eye, as well as to the taste and smell. For a long time, the Water Committee refused to allow that the cause was in the water; but eventually the evidence upon this point was so overwhelming, that they were obliged to take the measures which were necessary for immediate safety. The result of the epidemic of 1875 has been to convince the authorities of the necessity for perfect ventilation in the sewers; and of the advisability of a constant water-supply and a complete separation between the sewers and the water-services. A constant supply has now been given for between two and three years, and, as a consequence, there has been a comparative immunity from enteric fever. The other works are being gradually carried out; so that, if we should by accident be compelled to trust to an intermittent water-supply, the danger will be reduced to a minimum, and no general rise of fever need be anticipated. The inhabitants also are more fully alive to the necessity for sewer-ventilation, and no longer allow themselves to be led astray by absurd newspaper paragraphs, or try to cheat the local authority by putting up dummy pipes. The Board's officers now understand the reasons for ventilation, and do not so easily wink at a departure from the by-law upon this point. There is no proof whatever in the case of Croydon that a chemically pure water-supply was instrumental in producing enteric fever; but, on the contrary, there is abundant proof that the water was fouled after it left the well; that the fouling was detectable without the aid of chemistry; and that the incidence of the fever fell upon those who lived in houses, the air of which was contaminated with sewer-atmosphere.

The next case which is said to prove the truth of the statement that a chemically pure water was instrumental in producing a typhoid epidemic, is that afforded by the Caterham outbreak. The Caterham Company had found that the demand for water exceeded their power to supply. They were in a similar position to that of the Croydon Local Board in 1875. They began works to enable them to increase their power of supply; and they partially suspended Clark's process for softening the water, which they had habitually used. Complaints arose that the water was not only deficient in quantity, but that it was also hard and turbid. Some families, who could obtain other water, ceased to use it just at the time at which the distribution of typhoid excreta took place, and they escaped the consequences of the outbreak. Dr. Thorne Thorne traced the cause to the distribution of typhoid excreta. The advocates of the first half of Pettenkofer and Buhl's theory are not satisfied with the evidence, and have stated that Dr. Thorne Thorne's views are not proven; but no unprejudiced person can read his report without being convinced as to the cause. But I demur to the idea that the chemist would not have detected the pollution if he had had an opportunity. No analysis was made by a chemist at the time when actual distribution was effected; and there is no foundation, therefore, for the statement that analysis did not detect it. In fact, an analysis was made by Dr. Hilliard, a medical man residing at Caterham, and who, as a pupil of Mr. Wanklyn, was fully competent to make it. The specimen analysed was drawn on February 1st, at which time the company had taken alarm, and were pumping water to waste which had been previously sent into the general supply. Dr. Hilliard also tested the water from the reservoir as supplied to the people. Free ammonia was absent; but it contained .05 of combined ammonia in parts per million. He examined the water which was pumped to waste; it contained .04 of free ammonia and .05 of combined ammonia. Water drawn from a tap in the analyst's own house showed a perceptible amount of free ammonia, viz., .013; whilst the combined ammonia amounted to .07. The quantity of ammonia which ordinarily belongs to the Caterham water is far below that which Dr. Hilliard found in water as supplied to the people on February 1st and 2nd of this year. I think this is conclusive of contamination from an outside source. If the analyses had been made ten days earlier, when the distribution was in operation, it would have been much more decided. There was no suspicion as to the nature of the pollution until after the distribution of the polluting matter. It is said that analyses have been made of water to which so much urine had been added, and yet the analyst had not been able to detect the addition. The user of this argument has to show that such water had given rise to typhoid or other enthetic disease. The urine thus added to pure water would have its organic matter immediately oxidised by the gases contained in the water, and it would be reduced to innocuous matter. This is no proof that analysis is unsatisfactory, because it fails to detect small quantities of organic matter in large quantities of water. There are powers in nature sufficient to protect the people from such accidents, and able to destroy evidence, and by that means destroy the disease-producing power, in the water. If the chemist cannot detect it, pollution has not advanced beyond the protecting power which is contained in the water itself.

The Caterham epidemic was mild in its character, and produced a low mortality, corresponding in this point with similar so-called accidental epidemics. I infer that this mildness was due to the healthiness of the district in which it arose, but many of the people are living in unsatisfactory conditions. The houses are supplied with cesspools sunk into the chalk, and some of them are so arranged that the products of decomposition, whenever they arise, must find admission into dwelling-houses; but, in consequence of the porous nature of the geological formation of the district, there is no general production of sewer-gas, and the cesspools do not easily fill. I was not able to obtain information regarding the house-arrangements in all the fatal cases; but, in some, there were defective conditions likely to damage the health of those residing within their influence. If the sanitary conditions of the houses had been in compliance with the canon laws of sanitary science, the distributed germs would have aborted, or would only have produced a slight febrile disorder. The character of the case will not always depend upon the size of the dose, although a frequent repetition will lead to aggravation, and eventually produce a bad case. A single germ planted in a favourable soil may at once produce a bad case; but the habitat of that case must have had unsanitary surroundings. A repetition of the dose, if given to a person inhabiting a healthy house, may in the end set up a typical case of fever; but, as a rule, it will be mild if the surroundings of the patient be satisfactory, his health good at the time at which the doses are administered, and the administration cease as soon as the fever is set up. There was no continued repetition at Caterham after the first few days. The cause being removed, new cases ceased to arise, except in a few instances in which it is probable that secondary causes were at work. It is also probable that the stage of incubation varies, just as occurs in the vegetable world; seeds planted in a given soil do not all spring up at the same moment of time.

Reasoning from analogy, I may fairly assume that there were defective sanitary arrangements in all the houses of those affected, which damaged the constitutions of the victims previously to the reception of the fever-poison; although, of course, there might be other circumstances fully capable of accounting for the fatal termination. I have followed out by personal examination a large number of fatal cases in different districts; and I have scarcely ever failed to find that the sanitary arrangements of the house in which the patient resided had manifest departures from correct sanitary law. This has been denied sometimes; but the denial has arisen from a want of knowledge as to what sanitary law really requires. I place them thus: There has been either a direct communication between the sewers and the interior of the house, often unsuspected by the occupant; or the sewers and the water-supply have been in direct communication, so that an interchange of material took place, or the water as supplied was contaminated by a neighbouring household.

Experience gained in my own neighbourhood proves very clearly that germs of infectious or zymotic disease are evanescent in their vitality, and are easily destroyed by a combination of motion, dilution, filtration, and the action of vegetable life. The excreta of nearly twelve hundred cases of typhoid fever, with all the excreta from other cases which occurred in this district, were distributed, in 1875, over the fields upon which the sewage of Croydon is utilised. In a large number of instances, these excreta were not disinfected. The number of hands employed upon the farm then averaged from forty to sixty per week. A large number of persons were also employed in removing produce from the farm. No instance has been brought to my knowledge of typhoid fever or of any other zymotic disease arising among the people on the farm, although I studiously sought for them. There has been an all but complete immunity from these diseases among the several thousands who live within a mile of the borders of the farm.

I gather from this experience that there is a retrocedent action going on in excreta which are in motion, and that air, soil, and vegetable life so alter its nature, that any further development of the cacozymes or micrococci of enthetic disease becomes all but impossible. Analogy teaches us that this must be so, otherwise the presence of a few cases of infectious disease in a given neighbourhood would, by loading the air with infecting matter, bring all persons liable to the disease within the range of its influence. Ventilation is found to be an effectual remedy against aërial pollution, assisted, no doubt, by other agencies. The particles of albuminoid matter which are able to produce disease do not retain their dangerous power for any considerable period, except as regards one form, which is persistent, and is similar in endowment to the resting spore of the fungi. Universal experience shows that, in the greater portion of them, they are evanescent, and are rapidly altered, so that they are then no longer able to produce fruit.

It is reasonable to assume that Providence has not left us unprotected as regards underground streams; that powers exist below the surface of the soil as well as above it. One of the means which produce this is that movement of water which is always taking place in the soil. Mischief only arises when that movement is arrested or becomes very slow, and water is brought to a state of rest (mischief, I mean, from the reproduction of disease-germs). Then we find miasmatic influences arise, and evil is produced such as Pettenkofer found in the subsoil of Munich. Circulation of air is impeded, carbonic dioxide is in great excess, the water becomes surcharged with it; and then those vegetable growths, which luxuriate in such an atmosphere, are able to assert their individuality, and the water teems with germs capable of setting up zymotic disease whenever that water contains organic matter in its composition. But a carbonic acid atmosphere cannot arise in a chalk-water whilst it is in contact with chalk, unless it be thoroughly saturated with the bicarbonate of lime. Carbonic acid is carried down by rain, or it is produced in an organic subsoil by oxidation. The acid comes at once into contact with the chalk, and is fixed as a bicarbonate of lime, and dissolved in the water. So long, therefore, as the water is in motion, and so long as it only contains some eighteen to twenty-two degrees of hardness, there is no carbonic acid atmosphere for cacozymes to run riot in: and without a pabulum for them to feed upon, it is not possible for fungi or algæ, or other living things, to increase and multiply in the water of a chalk-formation in the manner which is possible in the shallow wells and the subsoil of Munich. I believe that chalk-waters are fully protected from the chance of such evils as naturally belong to shallow wells; and, so long as they have good chemical and microscopical characters, we need be under no apprehension of evil from their use. It is requisite, therefore, for those who are responsible for the provision of a water-supply to a given district to have it analysed at regular intervals, and to watch the changes which take place in its character. So long as these changes are in narrow limits, there is nothing to fear. If, however, analysis at any time show that alteration is taking place, it is for the authority to search out the reason for it, and to take measures for its removal; or, if it cannot be removed, then to be prepared to obtain a supply of water from another source before the contamination becomes dangerous.

PUBLIC HEALTH.—During last week, being the first week of the present year, 4,051 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 24 deaths annually in every 1,000 persons living. In London, 1,754 deaths were registered, being 76 below the average, and giving an annual death-rate of 25.0. The 1,754 deaths included 8 from small-pox, 48 from measles, 73 from scarlet fever, 11 from diphtheria, 120 from whooping-cough, 22 from different forms of fever, and 10 from diarrhœa; in all, 292 deaths, which were 29 above the average, and equal to an annual rate of 4.2 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 652 and 672 in the two preceding weeks, declined to 455 last week, and were 40 below the corrected weekly average. Different forms of violence caused 67 deaths; 61 were the result of negligence or accident, including 21 from fractures and contusions, 12 from burns and scalds, 3 from drowning, 7 from poison, and 13 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 34.8°, and 2.9° below the average. The mean degree of humidity of the air was 94. The direction of the wind was variable, and the horizontal movement of the air averaged 5.0 miles per hour, which was 8.2 below the average. Rain fell on four days of the week, to the aggregate amount of 0.05 of an inch. The duration of registered bright sunshine in the week was equal to 7 per cent. of its possible duration.

OBSERVATIONS ON SOME OF THE WAYS IN WHICH DRINKING-WATER MAY BECOME POLLUTED WITH THE CONTAGIUM OF ENTERIC FEVER*

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PERMIT me to commence this paper with a confession of faith. In a recent report which I had occasion to make to the Local Government Board upon an outbreak of enteric fever, I thus formulated my creed. "Enteric fever contagium, as we now meet with it, has an ancestry; and, however long and widely and through whatever media it may have travelled about prior to finding a lodgment suitable for its development in a human system, it or its ancestor at one time issued with excremental matter from some individual affected with the disease. I accept this doctrine provisionally, as most in accord with my own experience, and also, so far as I have been able to judge, with that of the most competent and, let me add, most patient observers. With such as dissent from it, I can agree in admitting that there is very much in the natural history of contagium in general, and of enteric fever contagium in particular, wrapt in an obscurity yet unpenetrated; but I am hopeful enough to look forward to the time when the advance of scientific inquiry will render that clear which is now dark. But, however this may be, the doctrine is one which furnishes a salutary rule of practice, inasmuch as it is calculated to foster a minuteness of investigation which has, at any rate, the chance of being fruitful."

In this expression of belief, it is encouraging to me to be in accord with my distinguished colleague Dr. George Buchanan, who four years ago wrote as follows. "In an out-of-the way house, looking as if isolated from all chance of infection, where there has been no previous sickness for months or years, but where a number of common nasty conditions exist, a case of fever occurs, and the impulse of the doctor who investigates it is to say that the disease has had a *de novo* origin from the ordinary excrement-filth of the place. Now, whether or not this has been so is a question of the highest moment to science, but is by no means to be settled out of hand by the apparent absence of specific cause in a few instances. Repeated observations and very complete record of all the circumstances are wanted, before any deduction can be properly drawn from such an occurrence as I am supposing. Often room has been left in the records of such cases for doubt as to the nature of the disease in question; or an oversight on a point so demonstrably important as the period of incubation has led observers to hasty and untenable conclusions; or the possibility of dangerous material passing a long distance through the soil or along a stream may not have been held in view; or some vehicle for the conveyance of specific contagion may have been overlooked." Referring then to a piece of inductive work which it was my privilege to be able to do in 1870, he goes on to say: "If we consider how, a dozen years ago,...... those many wonderful outbreaks of enteric fever that we now trace to the agency of milk were unintelligible, and how all of them, instead of being merely regarded as unexplained, were liable to be regarded as demonstrating *de novo* origin of the disease, we shall the better apprehend the caution with which it is necessary still to proceed before we can affirm the adequacy of any common filth-condition to originate enteric fever......Obviously, we have to be incessantly on the look out, not only for these, but for other and even obscurer vehicles for the specific poison; and there are most serious difficulties in arriving at a definite conclusion that no antecedent case has been concerned in the production of a given fever occurrence." (Dr. Buchanan's Inaugural Presidential Address to the Society of Medical Officers of Health, 1875.)

And here, since the Association has under consideration the spread of enteric fever specially through the agency of drinking-water, let us not be forgetful to do honour to the memory of the dead. I allude to my old friend Dr. John Snow, whose indomitable industry and patience of research, undaunted by ridicule, established, a quarter of a century ago, for us and for the world, in respect of cholera, the doctrine of the transmission of bowel-contagium through this medium. Had it not been for his laborious inquiry, it is not likely that our knowledge of the etiology of enteric fever would have been what it is now. He opened the gate and showed us the road. Not only so; he showed us how to tread it in safety.

The object I have in writing this paper is to recall to the memory of the Association some of the results of work done in this direction, demonstrating the difficulties which surround endeavours to trace the ancestry of the enteric fever contagium, indicating some previously unsuspected ways in which water may come to contain it, and drawing the moral of untiring patience of research and caution in deduction. I will be brief (for the time allotted to me is short); and I will draw my illustrations almost wholly from my own experience or from that of my colleagues in the department which I have the honour to serve.

1. I need not go far back for my first illustration; it is an instance of one of the most admirable pieces of work yet done in the department. In the early part of the current year, my colleague Dr. Thorne Thorne was instructed to inquire into an outbreak of enteric fever at Caterham in Surrey and in its neighbourhood, which was known, in the course of about six weeks, to have attacked three hundred and fifty-two individuals, rich and poor. Following the *via exclusionis*, the favourite method in the department, and indeed the only one applicable to such difficult inquiries, Dr. Thorne spotted the water supplied by the Caterham Waterworks Company as the medium through which the disease had been communicated; and the question then to be solved was, how this water itself came to be polluted with the specific poison of the fever. Here was the difficulty. False scents presented themselves, leading in various directions; it was long before the true one was found. In an early stage of the inquiry, Dr. Thorne's curiosity led him to descend one of the wells which furnished the water; and, having his eyes wide open, he noticed that any article let down by a rope, by its oscillation to and fro, came into constant and somewhat violent contact with the walls of the well. When he made this apparently trivial observation, he certainly could have had no notion of its importance or of what it was ultimately to lead to. The well was under repair; a new adit was being constructed to a new bore which was being sunk; and a number of men were employed, some on the surface, and others in the well below. This fact afforded a new direction for the inquiry, and the investigation pushed in this direction proved fruitful. One of the men who worked below, it was believed, had been ill; but no one knew anything about his illness. With much trouble, this man was sought out and discovered; and then the following strange history became disclosed. The man had had opportunities of contracting fever elsewhere; and on January 5th, on which day he was at work, the first symptoms of fever, and among them diarrhœa, appeared. Notwithstanding his illness and persistent frequent diarrhœa (sometimes his stools ran from him), he continued to work in the well for fifteen days, using for the relief of his bowels the buckets by which the excavated chalk was drawn by the rope to the surface. According to the man's statement, the bucket was used by him as a closet when it was empty, when half-full, and when full; and the man admitted that some of the contents of the bucket frequently fell over into the water below. On further inquiry, the man added that some portions of his evacuations probably did so also; and he further stated that the looseness of his bowels was such that the bucket itself must almost of necessity have been stained with them. "Here, then, were the stools of an enteric fever patient, from about January 5th onwards, getting into the company's water, and distributed with that water to the district served by the company." The first case of fever from this cause occurred on January 19th, just fourteen days from the commencement of the workman's illness.

2. In November 1873, an outbreak of enteric fever occurred among the students at Caius College, Cambridge, with special incidence on a portion of the buildings which had only been erected about four years. Caius College is a peculiarly medical college, and not only were the sanitary arrangements excellent generally in the establishment, but "such an amount of care and thought was bestowed upon the structural arrangements in the new buildings at the time of their erection, that it appeared almost impossible for any injury to health to occur from mischances of sewers, drains, or water-pipes". Yet out of sixteen cases of fever among the one hundred and twelve residents in the College (for none residing out of College suffered), no fewer than twelve were among the residents in Tree Court, the new buildings referred to. Fever had been more than usually prevalent in the town for about four months; but, although this fact might have led to an explanation of an indiscriminate distribution of cases among the students residing within and outside the College, it would not, of course, explain the special incidence referred to. All the more usual ways of spread of enteric fever, including that through milk, were severally passed under review, closely scrutinised and dismissed one after another, as inadequate to explain the intensity of incidence of the fever upon Caius College, or its remarkable incidence on the new buildings in Tree Court. The puzzle remained still unsolved, when it occurred to Dr. Buchanan that, notwithstanding the good character of the general supply of water given by the water-company, there might still be some local contamination in the local service. A surrounding five-inch main supplied water to the College on the constant system at six different places, but one of the

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

supplies from it was for Tree Court, and Tree Court only. Dr. Buchanan was also early "struck with the circumstance that, while every water-closet in the old part of the building was provided with a cistern proper to itself, the closets in the Tree Court buildings were supplied with water direct from the high pressure constant service pipes. Here was the clue, the importance of which quickly became evident." Soon, Dr. Buchanan learned that from time to time air had come mixed with water from the taps, notably from those of Tree Court, which, notwithstanding the presumed constant service, could only have occurred from some real intermission of supply; and this intermission must have gone to the extent of allowing the whole horizontal main service of Tree Court to become emptied of water, if any hypothesis of mischief resulting from this air in the water-pipes was to be upheld. Inquiring further, complete intermission was found to have actually occurred on two occasions, the dates of which were determinable, viz., on October 25th, and again on November 1st. Now, a fortnight is about the incubation time of enteric fever. A fortnight after October 25th is the date of the first attack in Tree Court. A fortnight after November 1st is the date of the second, third, and fourth attacks. The prospect was already brightening. The closets of Tree Court alone were unprovided with special cisterns, and hence this part of the College alone ran the risk incidental to the omission of this arrangement; but, of these closets two only were directly connected with the service that furnished drinking-water for every staircase in the court. The interest chiefly centred upon one of these two, which was situated on the first floor; the other was in the basement. The scope of the inquiry was narrowing. What was the fault here? A strict investigation of the arrangements disclosed it, and cleared up the mystery. When the pressure of water was intermitted, a supposed automatic valve-tap at the foot of the staircase on which these closets were situated clearly failed to fulfil its intention of preventing air from entering the horizontal main. On such an occasion, it only needed the water-valve of the upper closet to have been open or leaking, while in the basement the water-valve of the closet, or the tap over the adjoining sink, was also open or leaking, in order to cause the entire horizontal main of Tree Court to have become filled with air containing water-closet vapours, afterwards to be delivered in drinking-water. Dr. Buchanan further showed that, from the construction of the closet, any such water-closet air "must have been essentially sewer-air". This would have been enough for some people, but not for Dr. Buchanan, who succeeded in ascertaining that the particular sewer into which the closets discharged themselves and from which the air mingled with the drinking-water was derived, was actually contaminated by having received, in the month of October, the excreta from known cases of enteric fever in a neighbouring part of the town. Diligence and patience met their reward.

Passing now from town to country supplies of water, I will offer a few illustrations from my own experience.

3. The first shall be an instance of pollution of a river water-supply to a village. In the summer of 1872, an epidemic of enteric fever prevailed in the little village of Nunney, near Frome, the inhabitants of which mostly took their drinking-water from a brook, which traversed the village after passing through a steep gorge just above it. This stream was habitually foul from receiving the sewage of the place and of a hamlet above the gorge; yet for twenty-eight years no epidemic fever had occurred. The general filthiness of the stream was no greater this year than in former years. The facts elicited left no doubt that the river-water used for drinking was the medium of spread of the disease. The interest of the inquiry lay, therefore, in the differentiating of the circumstances of this and former years. It turned out on inquiry that, in the month of June, a man ill with fever had come from a distance and had taken up his residence in a cottage on the summit of the gorge above the village, and that his evacuations had been deposited on an ash-heap at the very edge of the gorge. On July 6th, a heavy rainfall, capable of washing down some of this excremental matter into the brook below, occurred, and it was the first such rainfall that happened after it is certain that the excrement was so deposited. On July 20th, a singing-master at Frome, who had taken a meal in the village on the 10th (four days after the heavy rain), was attacked with fever. But for a knowledge of the history of this man's proceedings, and of what had happened on the gorge, his case might easily have been taken to have been one of *de novo* origin. In the meantime, other people had been attacked with fever in the cottage on the gorge, and their evacuations had been similarly dealt with. On July 25th, a thunderstorm occurred, which must certainly have carried more of the specific matter into the brook, and probably much more than previous more gentle rains. Twelve days thereafter, the first burst of fever occurred in the village below, in five families who drew their water from the brook at nearly the same spot. Before the epidemic was over, there had been seventy-six cases of the disease in a population o about eight hundred persons.

4. This is an illustration of a similar course of events, but in a village which draws its supply of water from wells sunk in the oolite of the Cotswolds. The accident occurred in the village of Hawkesbury Upton, consisting of a long street running down the slope of a hill. The oolite rock here is deeply, and in many places much and widely, fissured, and into this rock are sunk, often in close proximity, the privy-cesspools and also the wells from which the water used for all purposes is drawn. It is significant that the inhabitants rejoiced in the convenient fact that their privies very rarely, if ever, required to be emptied or cleaned. The estimated population of the village is about 660. In this village, and among children from the neighbouring country attending school there, at least 113 cases of enteric fever occurred in the spring and summer of 1872. The habitual excremental pollution of the well-water cannot be questioned, yet for ten years at least previously there had been no remarkable prevalence of enteric fever, that is to say, any cases that had occurred had not spread extensively. But in February 1872, a man ill with enteric fever arrived in the place from Bristol, and passed through his illness at a cottage at the upper end of the village, and his evacuations were thrown into a privy cesspool situated only fifteen yards from a well, from which several families at this end of the village drew their drinking-water. The first families subsequently attacked were such as used this water, and of these, a very large proportion were invaded. Children from these families went to the national school (also at the upper end of the village) during early periods of their illnesses, and no doubt infected the privy-cesspool, and from it the well-water there, since the next persons attacked were children attending the school, and notably those who came from a distance and took their midday meals at the school. These children infected by their evacuations other privies and wells, and in this way the fever spread through the village and into neighbouring villages and hamlets.

Let me, in this connection, allude to the irregular course which enteric fever is apt to follow in children, so irregular that the nature of the ailment or illness, acquired perhaps by a single casual draught of infected water or milk at school or away from home, may pass unrecognised; yet such a case may be the means of introducing the contagion of the disease into an isolated house, thus giving occasion to the suspicion of a *de novo* origin of an unquestionable case of fever in it.

5. The case I am now about to mention illustrates the readiness with which a *de novo* origin might have been assumed by an investigator who had not received the correct clue to the cause of the accident. In the country, about a mile from Moseley, a suburb of Birmingham, in an isolated row of five cottages, an outbreak of fever occurred in January and February 1873, and the fever invaded four out of the five cottages; the cottage which escaped invasion being occupied only by three labouring men, while the other cottages contained women and children. Suspicion fell upon a well in the back yard, but it was not at first clear how this could have become specifically infected. The first case that occurred was in a boy, whose exposure to the contagion away from home was, from circumstances, improbable. This boy was attacked on January 4th, so that he probably received the contagion from ten to fourteen days previously. He, and the others who were subsequently attacked, drank of the water from the well in the back yard, across the imperfect wooden cover of which ran a slop-channel constructed of pairs of bricks laid angularly, the intervening space of one and a half inches only being occupied with a mixture of clay and ashes quite permeable by water. Now it turned out that a laundress lived in one of the cottages, and that the washing-slops were habitually thrown down this channel, and ran away by it across the top of the well. Habitually slop-water, then, fouled by nastiness of all kinds, must have found access to the well-water, yet no fever had occurred previously to this outbreak. The source of the infection became accidentally discovered by my friend Mr. Ross Jordan of Moseley, who, in the month of December, had been in attendance upon a fatal case of fever in the person of a servant in a private residence in Moseley. The case was one of a series of cases from infected milk, occurring during an epidemic that I was at that very time investigating, and I had myself seen the servant during her illness. This girl's linen, fouled with her diarrhœal discharges, had been sent to the laundress in question, and had been washed by her, and the slops from the wash-tub had been, as usual, thrown down the channel above described. The condition of the linen had been observed, but no particular thought had been bestowed upon it. But the specific matter that fouled it had furnished the one element needed to originate the fever at the cottages. As it happened, the source of the infection of the well was traced; but how would it have been, and what inference might have been drawn, under other circumstances less favourable to the inquirer?

6. Lastly, let me direct your thoughts to an epidemic of fever which prevailed at Ascot for the long period of four years and a half, namely, from July 1873 to November 1877, and which only came to an end

when certain alterations were made in respect of the drainage and pump of a dairy-farm, the supply of milk from which I clearly demonstrated to have been, for all that long period, the agent in the spread of the fever. In respect of duration, for a milk-caused epidemic, the case is unique, but I am not going to trouble you with this aspect of it. No case of fever had occurred at the dairy-farm, which was isolated about half a mile from the village of Ascot, until August 5th, 1876, that is to say, until the epidemic produced by the milk sent out from the farm had lasted for three years. From this time onwards, the water used for washing and rinsing the milk-cans had an opportunity of specific pollution, inasmuch as a careful investigation showed that, in consequence of defects in masonry and woodwork, drain-air had an opportunity of passing from the privy-cistern, which received the specific excreta, through drains, by a circuitous course into the pump-case, and also to a sink within the house, over which sink the cans were habitually inverted to drain. But this circumstance would not account for the infection of the milk from July 1873 to August 1876. I failed, on the closest inquiry, to discover that any person suffering from fever had, during these three years or previously, been upon the premises of the dairy-farm, nor could I discover how contagium from a distance could have reached the farm, except it had reached it in some way through the water that entered the well in the yard. So far as the method of exclusion was practically applicable, I seemed tied down to this agency, or to some untraceable accidental introduction of contagium, unless I could admit that the contagium had originated *de novo* in the filth which had accumulated in the drains, and in the heap of fermenting cow-dung and offensive matters which occupied much of the surface of the farmyard. There was filth everywhere, and slovenliness reigned supreme. Some medical men would probably have been satisfied that they had here fallen upon the *fons et origo mali;* I confess that I was not; the difficulties in admitting such an explanation appeared to me to be as great as, if not greater than, those attending the suggestion which I have hazarded. It is mainly based upon the geological conformation of that part of the country, and upon the fact that the first cases, those which initiated the epidemic, were imported cases, being offshoots of the great Marylebone milk epidemic of 1873. One of these cases occurred at the summit of the hill on which Ascot stands, and the evacuations were thrown carefully away, at a distance from the house, into a hole in the earth, and some of the earlier evacuations also probably found their way into the earth from some imperfect drains into which the water-closets discharged themselves. Now it is to the nature of this earth that I must call your attention. Ascot is situated on a hill formed of the lower Bagshot sand, beneath which lies the London clay. When the sand is dug into, it is found to become wetter and wetter, as the clay is approached, until at last it is found so supersaturated with water as to be no longer coherent, and, in fact, a water-layer is arrived at, into which all the wells of the district, including that of the dairy-farm in question, are sunk. The place where the case which I suggest to have been the origin of the milk outbreak occurred, is on the top of the hill, while the dairy-farm is half a mile off near the bottom of the hill to the northward; in the direct line, in fact, in which I am assured by the geological authority I consulted, the subsoil water most probably flows, especially when the quantity of water is augmented by the imbibition of rain. It is impossible, in a short account like this, to go into the details of my argument; but what I have suggested is, that the specific matter thrown with the evacuations into a hole in the very permeable sand, at a place not very far above the water-layer, would, with the help of rain also running into the hole, have scarcely failed to reach the water-layer beneath, and, having reached it, would have become more or less diffused in it, and, in the course of time, that the movement of the mass of subsoil-water might have brought it to the well at the farm. Theoretically, such an occurrence under the circumstances does not appear to be beyond the bounds even of probability; certainly it is quite possible. As a matter of fact, the dates at which the earlier cases of the milk outbreak occurred, coincide sufficiently in point of time with such an explanation, if we allow six weeks and upwards for the contagium to travel in the subsoil water a distance of half a mile.

I admit that the suggested explanation is somewhat startling; some may regard it as far-fetched, and be disposed at once to throw it over. I shall not quarrel with them if they do, although perhaps experience in etiology might suggest the wisdom of a different course. Let me commend to any such the consideration of an event that happened at Lausen in Switzerland in 1872, which has been recorded by Dr. Frankland for our instruction. Two parallel valleys, distinct from each other about one mile, are separated by a mountainous ridge. In one valley, through which a brook flows, several cases of fever occurred in an isolated farmhouse in the months of June, July, and August, and the brook-water, which at that time was made to irrigate the meadows, was polluted with the infected dejections. It was known that the spring which supplied the drinking-water at Lausen, in the other valley, communicated with this brook through the intervening mountain; but whether by a fissure or by filtration through a loose soil, the experiments made to determine the point do not determine satisfactorily to my mind, although Dr. Frankland appears to believe it was by filtration. However this may be, about three weeks after the annual irrigation of the meadow, a sudden severe explosion of enteric fever occurred at Lausen, sparing, however, six houses which were supplied, not like the rest from the spring, but from private wells. Even assuming the Swiss case to have been one of communication by means of a fissure, the Ascot conditions are not altogether incomparable, inasmuch as the water at the depth of forty feet or more from the surface can scarcely be said to filter through sand, but must rather be regarded as a layer of water mixed with sand, so loosely aggregated as scarcely to be capable of exercising any filtering operation upon it at all. The well-sinkers call it a "running sand".

I must apologise for the manifold imperfections of this paper, on the ground of its having been written at intervals of pressing and absorbing official work.

THE ETIOLOGY OF ENTERIC FEVER.

By ALEXANDER COLLIE, M.D.,

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III.

The objection usually urged against the proposition that enteric fever is contagious, arises from the fact that it rarely spreads to nurses in hospital. It has been compared with typhus, for which it was long mistaken; and because, unlike typhus, it comparatively rarely affects persons over the age of thirty, it has been concluded that it is not contagious. This is, in my opinion, a mistake. No one doubts that scarlatina is contagious, and that in a very high degree, even although it rarely spreads to nurses in hospital. Thus, whilst in the London Fever Hospital, during the years 1861-78, one hundred and ninety-five of the staff contracted typhus, only fifteen contracted scarlatina. To this it will be replied that the latter prevails in infancy, childhood, and adolescence, and that, therefore, the majority of adult persons are protected. It appears to have been forgotten that, for the same reason, enteric fever comparatively rarely spreads amongst nurses in hospital. It also is a disease of infancy, childhood, and adolescence, and by reason of this a very large proportion of adults, in particular of adults over thirty, are protected. It is for this reason that Dr. Wilks and others whom Dr. Murchison quotes have never seen the disease arise in hospital; and it might very well be that, with a nursing staff whose age ranged from thirty to fifty, and exposure to the few cases which find their way into the general hospitals, this were a rare occurrence, in the experience of many physicians, and yet might prove nothing against the view that enteric fever is contagious. That this experience is not universal we shall see as we proceed; but I would here direct attention to the importance of considering the element of age in etiological inquiry concerning enteric fever; for which purpose I have compiled the following statistics. (See Tables in next page.)

From these tables it appears that, whatever the cause, be it drains, stools recent or decomposed, or personal contagion, their effect is determined by the age of persons. For it may be fairly assumed that the various causes—if there were various causes—were in operation in the long period covered by the tables; so that, given a cause, whether continuously in operation or not, the extent of effect would depend upon the number of persons of the suitable or more liable age; in other words, of persons susceptible. Thus equal causative conditions would in different hospitals have different effects, and in the same hospitals at different times, varying in proportion to the varying number of the second factor—susceptible persons. Given, then, a cause of enteric fever, continuous or not, the answer to the question as to the probability that but a small number of any class of persons subjected to its influence shall be affected by it, is that the probability increases with the age of the persons of that class. In accordance with the law which the tables indicate, if the age of the persons were over thirty and verging upon forty, the probability of a small number would be great; whereas, if the age of the persons fell short of twenty-five, the probability of a small number would be very slight. This element of age Mr. Murphy

(British Medical Journal, April 29th, 1879) appears to have forgotten in his estimate of the relative proportion of nurses attacked at Homerton, as compared with the number of those attacked at the London Fever Hospital, and he has attributed to conditions special to the hospitals what, I think, properly belongs to conditions special to the persons engaged in them. It is not enough to compare nurses and nurses. What has to be shown is that, of the same number of nurses of the same age and equal exposure, a larger proportion contract enteric fever at Homerton than at Liverpool Road.

Table I.—*Summary of Admissions, Liverpool Road, Stockwell, and Homerton.*

	Enteric.			Scarlet.			Typhus.		
	Total Admissions.	Under 25.	Under 30.	Total Admissions.	Under 25.	Under 30.	Total Admissions.	Under 25.	Under 30.
London Fever Hospital	2627	2053	2293	2367	2043	2243	5656	2964	3512
Stockwell Fever Hospital	865	704	780	1717	1614	1667	761	498	532
Homerton Fever Hospital	1436	1158	1279	1780	1709	1739	698	378	435
	4928	3915	4352	5864	5366	5649	7115	3840	4479

Table II.—*Admissions into the London Fever Hospital: Typhus and Enteric Fevers, from 1867 to 1878; Scarlet, from 1871 to 1878.*

Year.	Enteric.			Scarlet.			Typhus.		
	Totals.	Under 25.	Under 30.	Totals.	Under 25.	Under 30.	Totals.	Under 25.	Under 30.
1867......	378	304	328	..	..	..	1383	695	848
1868......	461	386	423	..	..	..	1971	1060	1251
1869......	368	294	320	..	..	..	1260	641	745
1870......	595	466	516	..	..	..	631	356	414
1871......	308	246	275	268	235	259	411	212	254
1872......	44	31	38	68	52	65	..	..	..
1873......	61	39	52	45	40	42	..	..	..
1874......	77	57	70	207	159	179	..	..	..
1875......	68	48	55	527	476	508	..	..	..
1876......	88	59	71	520	455	498	..	..	..
1877......	90	60	73	375	310	350	..	..	..
1878......	89	63	72	357	316	342	..	..	..
	2627	2053	2293	2367	2043	2243	5656	2964	3512

Table III.—*Admissions into the Stockwell Fever Hospital from July 1872 to December 1877.*

Year.	Enteric.			Scarlet.			Typhus.		
	Totals.	Under 25.	Under 30.	Totals.	Under 25.	Under 30.	Totals.	Under 25.	Under 30.
July 1872 to	132	101	115	329	304	317	137	94	99
Dec. 1873	67	54	61	17	17	17	16	11	14
1874	177	144	159	46	40	43	21	15	16
1875	134	113	123	286	274	282	297	206	218
1876	125	104	112	624	588	602	226	130	142
1877	230	188	210	415	391	406	64	42	43
	865	704	780	1717	1614	1667	761	498	532

Table IV.—*Admissions into the Homerton Fever Hospital from October 1871 to December 1878.*

Year.	Enteric.			Scarlet.			Typhus.		
	Totals.	Under 25.	Under 30.	Totals.	Under 25.	Under 30.	Totals.	Under 25.	Under 30.
1871-1872 ..	183	152	169	79	69	73	82	42	49
1873 ..	233	193	213	45	44	45	160	99	108
1874 ..	258	196	214	396	379	387	239	141	164
1875 ..	165	136	146	509	492	498	44	21	23
1876 ..	163	135	153	256	246	249	123	53	63
1877 ..	142	116	130	150	143	144	38	20	24
1878 ..	292	230	254	345	336	343	12	2	4
	1436	1158	1279	1780	1709	1739	698	378	435

It is but recently that hospital authorities have begun to see that elderly and aged women are not equal to the work of nursing the sick. Typhus, no doubt, showed this at the London Fever Hospital at a very early period, and I do not doubt that, during the years 1855-78, a much larger proportion of their nurses were young women than in the general hospitals; but, having regard to the fatality of typhus in persons over thirty, the younger women would probably have been assigned to typhus wards and the elder to enteric wards. This would to some extent explain the smaller number of persons attacked by enteric fever at Liverpool Road as compared with Homerton; and whilst I have no wish to make out that any considerable number of the nurses at Liverpool Road which have been compared with those at Homerton were protected, it may be supposed reasonably that some were, and it will be evident that a new fever hospital with a staff to make would in its earlier years show a greater incidence of fever on its nurses and servants than one which had existed for a quarter of a century. For this reason alone, Homerton is not only not comparable "roughly" with Liverpool Road, but not comparable at all. That the staff at the latter institution was to some extent protected, appears in a recent report of the hospital, which states that one of the nurses had been in the service for the long period of nineteen years. One such nurse as this will account, in no small degree, for the comparative freedom from enteric fever which the staff of that hospital shows, whilst the structure of the hospital itself would, from its more compact arrangement, permit greater economy of nursing, and consequently increased advantage from protected persons, than the more widely separated pavilions of Homerton. But the most important difference in the nursing staffs of the two institutions will be found probably in their age.

Having in view the fatality of typhus in persons of mature age, and ignoring the liability of young persons to contract enteric fever by contagion, the managers passed a resolution prohibiting the employment of nurses and servants over twenty-five, unless they had had typhus fever; and with the view of inducing young women to apply, they also passed a resolution raising the wages of the nurses at once from £20 to £30 a-year, and of the assistant nurses and ward-servants in proportion. By this means, and by degrees dispensing with the older women, a large number of young women entered the service, and, in particular, a class of assistant nurses who were nearly all between twenty and twenty-five years of age. This, with the reasons just indicated, is why attacks of enteric fever have been more frequent at Homerton than at Liverpool Road. In respect of the frequency of enteric fever in its staff, Homerton has conformed to the law of the disease, and in like conditions I do not doubt that the experience of the London Fever Hospital will be the same. I submit, therefore, that the incidence of enteric fever at Homerton is not due to conditions special to the hospital, but to conditions special to persons who have been in its service. A moment's consideration will show this. Thus, of the twenty-one cases, fourteen were under 25, two were exactly of that age, two were 26, one was 28, one was within a month of 30, and one was 30. Over this age, there have been no cases among the staff. Thus, if the age of our staff had exceeded this age, we would possibly have not had any enteric fever at all. In this way, also, may be explained the disproportion between the liability of nurses and servants at Liverpool Road to contract enteric fever in its earlier, as compared with the later years of its existence. In the years 1855-69 inclusive, a period of fifteen years, three nurses are recorded as having had enteric fever, whereas, in the nine years 1870-78, four are recorded. During these years, 1,431 cases of enteric fever were treated at the London Fever Hospital. In the six years and a half during which Homerton has been used as a fever hospital, it has treated, excluding five cases during the small-pox period, 1,431 cases of enteric fever—exactly the same number as were treated at Liverpool Road—and five nurses contracted enteric fever. A similar experience occurs at Stockwell, where, during five and a half years, 865 cases were admitted, and four nurses contracted enteric fever. I do not attach much value to this, and I am not forgetting that in the comparison our assistant nurses and ward-servants are excluded, as I think they ought to be; but I wish to indicate that, in proportion as we reach to a comparison of like things with like, the experience of the two hospitals approximates, and to show the fallacy attending the comparison of institutions differing in age, in structure, number, age, and arrangement of nurses, *i.e.*, differing almost in every element essential to the validity of a comparison.

So much in regard of the frequency of the attacks. The cause of their occurrence still remains to be considered. Of those which took place at Homerton, it is urged that contagion by direct personal intercourse was the cause; but in opposition to this, it is urged that "defects in drains" having been found to be the cause of certain cases which occurred at Liverpool Road, due examination of drains at Homerton would have shown similar defects, and it is suggested that the frequency of attacks in the latter institution would be explained in that way. Between these two views there is no incompatibility; and if Mr. Murphy had conclusively established his position, mine would be in no way affected thereby; for my contention is not that enteric fever does not arise from defects in drains, but that the disease is communicable by direct personal intercourse. So far from ignoring the danger arising from defects in drains, in my first article I have distinctly pointed it out, and have urged in view of this that enteric stools should not be disposed of by drains, but should be buried; whilst in enumerating the nurses who contracted enteric fever at Homerton, I have pointed out one who probably caught the disease in the way which Mr. Murphy suggests, *i.e.*, conditions special to the hospital *plus* the patient. And I would here point out that, in claiming for enteric fever a contagious origin, I am in complete accord with good authority. Dr. Murchison says: "It is impossible to deny that enteric fever is in some way communicable by the sick to persons in health" (*Continued Fevers*, 2nd ed., p. 465); and Dr. Harley says "that it (contagious enteric fever) exists, appears to be an indisputable fact".

From all which we see that elsewhere, besides in the Homerton Fever Hospital, the contagious mode of origin has been admitted; and I should be surprised to learn that Mr. Murphy denied this. If, then, it do, albeit only rarely, arise from contagion, and if all admit this, the essential point appears to me to be conceded. If it arise sometimes from contagion, it is contagious. The precise extent to which it is contagious seems to me a minor matter. Granting to the fullest extent that it is not so contagious as typhus or scarlatina, nor contagious in the "ordinary" or "strict sense" of the term, whatever such words may mean, almost all admit that it is contagious "in some way"; and inasmuch as we never know at what time or in regard of what person or persons this contagious property may make itself felt, it ought not to be disregarded in practice; and if it be duly considered in future etiological inquiries, it may be found—indeed I dare hazard the conjecture that it will be found—to have had a greater share in the spread of enteric fever than has been thought.

Whilst, however, there is no contradiction between the two hypotheses, it will be of interest to consider to what extent the drain hypothesis explains the phenomena. A good hypothesis should explain all, or at any rate nearly all, the facts; and if we find that on the most favourable view the drain hypothesis does not explain more than a small proportion of these, we shall be justified in concluding that some other explanation is needed to supplement it. And if it be shown that the drain hypothesis fails at Liverpool Road, there is no reason to suppose that it will be more successful at Homerton, admitting even—a very great admission—that conclusions of a general character could be drawn from an induction which really rests on a single observation. There would be considerable probability that such an observation would require to be modified or supplemented; and it is important to note this, viz., that the hypothesis which Mr. Murphy has advanced rests upon a single observation, *i.e.*, upon the examination of the drains which was made in 1864. The suggestion in reference to the cases which arose in 1866, if it prove anything as to the etiology of enteric fever, would prove that it arose from cholera stools, and was therefore not specific, which it is argued to be. Admitting, moreover, the explanation to be a correct one, it leaves the origin of five out of seven cases amongst the nurses wholly unaccounted for, or 70 per cent.; and of these unexplained cases, four occurred, admittedly, after drain-defects had been remedied. I am not here calling in question the accuracy of the conclusion that the four cases which arose in 1864 were due to drain-defects. It is probable that they were; but this does not explain the origin of the remaining fifteen cases arising at widely separated periods before and after 1864, to wit, two in 1855, one in 1859, one in 1862, two in 1866, two in 1867, two in 1869, two in 1870, one in 1871, and one in 1878; and in regard of the nurses the explanation is less likely to be true, inasmuch as the drainage of the wards would be probably more carefully attended to than the general house-drainage. The argument in favour of the drainage hypothesis appears to be somewhat as follows: inasmuch as, in the year 1864, there arose four cases of enteric fever in persons not employed in the nursing of the sick, and these four cases were traced to defects in drains, it is probable that the eight others equally unconnected with the sick, and which arose in the years 1855, 1859, 1867, 1869, and 1878, were also due to the same cause; seeing, in particular, that not being exposed to contagion, that element in these eight cases is excluded. It is then argued that, there being thus a cause of enteric operating over the whole hospital, it is probable that this general hospital cause was the cause of the seven cases contracted by those who nursed the sick, because had their attacks been due to contagion, a continuously operating cause, there would have been more of them.

If one admits that twelve of nineteen cases had been traced to defects in drains upon each of six different occasions, I will grant that there would have been a strong case; but it would have fallen far short of proof. The cases of the remaining seven, who nursed the sick, and who were, therefore, exposed to contagion, would yet remain to be explained, for these cases might have arisen from contagion, and it might be reasonably argued that, because twelve persons not exposed to contagion could not have taken their disease by contagion, it does not therefore follow that seven persons who were exposed to contagion could not have taken it in this way. But there are strong objections to this view of the case. In the first place, it does not follow that, because drains were wrong in 1864, they were also wrong in 1855 and in 1859. Much less does it follow that they were wrong in 1867, 1869, and 1878, after they had been remedied in 1864. In the second place, it does not follow that, because nurses and housemaids, etc., were not directly engaged in sick nursing, that they were "in no way connected with the sick, and that they were not habitually exposed, gratuitously or otherwise, to contact with sick persons". Admitting that they were never engaged to convey clean linen from the linen-room to the wards, or dirty linen from the wards to the laundry; that they were not utilised to convey food or medicine to these wards; that it was not their duty to take messages from the physicians, the resident medical officers, or the matron, and that their cases might not be explained by their having visited friends or relatives in enteric wards (very large admissions), the administration of the London Fever Hospital must be a marvel of perfection if it ensure, and always has ensured, that housemaids are never where they have no business to be. I do not say that this was so, and it is of no importance to me to make out that it was so; but without some evidence that the possible origin from contagion, by some kind of communication with enteric wards, was definitely considered, and definitely set aside as untenable, I may fairly contend that the cases may have arisen in this way. It would not probably occur to any physician of the London Fever Hospital to suggest any cause but that of contagion for the origin of the fourteen cases of scarlet fever which took place there among persons not connected with the care of scarlet fever patients, and what is the objection to the same explanation in the case of enteric fever, but the fixed belief that it cannot occur? Thirdly, the objection to the contagious origin, owing to the small number of cases which, on the hypothesis of a continuously operating cause, should have been a large number, is inapplicable if it be true, as we have said, that the extent of the effect is determined by the age. Fourthly, it is assumed, not proved, that the drains were only occasionally out of order at Liverpool Road. They were, on this hypothesis, out of order ten times in twenty-four years, that is, every time that enteric fever occurred; so that, as far as the evidence goes, the drain as well as the patients may have been a constantly operating cause, or one not operating at all. In no case, however, can it be permissible to argue that, because enteric fever arises, therefore drains must be out of order. The connection between drains and enteric must be shown in detail, and it must at the same time be shown that all other possible causes have been seriously considered, and this does not appear to me to have been done at Liverpool Road; on the contrary, it appears to have been regarded as a self evident proposition that, given enteric fever, therefore drains must be wrong; and whilst I do not deny that this may be so, it does not appear to me to have been even approximately proved in respect of the cases which occurred at the London Fever Hospital. Lastly, granting all that Mr. Murphy claims, he still leaves 50 per cent. of the attacks on his nurses wholly unexplained, a considerable residue for which some other explanation must be found. For these reasons, it appears to me that the drain hypothesis in respect of the Liverpool Road cases is untenable.

That drain defects were not the cause of the Homerton cases, is rendered probable by the absence of enteric fever amongst the general staff, and still more by the fact that, on every occasion upon which enteric arose, due inquiry was made into the condition of the drainage, with a fixed belief that somewhere it must be wrong, and with every desire to find it wrong. Drains were taken up, junctions of ward-drains with pavilion-drains examined, inquiry made of the escape of sewer-air in bath-rooms and sculleries, but to no purpose. The drains were found to be right. If this conclusion had rested on my opinion, I should hesitate to attach much value to it, being no authority on such matters; but it was the opinion of various medical men and sanitary engineers who at various times visited the hospital; for, convinced that our cases must be due to drains, the attention of every physician and sanitary inspector who visited the hospital, some of whom were qualified to judge, was directed to this point, but without any result. An entire absence of blocks was established, and the air of bath-rooms, closets, and sculleries, was found to be perfectly sweet. It was with no little hesitation, and much against our will, that we abandoned the drain hypothesis. The absence of enteric fever in any part of the building outside an enteric fever ward, and, in particular, the entire absence of enteric fever in wards and in nurses' and servants' dormitories directly connected with enteric wards by their drains, would appear to negative absolutely the notion that there was anything wrong with the general drainage. This being eliminated, there remains the ward-drainage; and as the distance to be traversed by the pipes leading from the bath-room, in which is the sluice-pan down which the enteric stools are passed to the pavilion-drain, is short, these may at any time be traversed by iron rods, and thus effectually cleared; and as the connection between these and the pavilion-drain is outside the building and easily reached, it is very easy to find out whether drains be free or not; and as closets and sinks are inspected daily, no serious defect could exist for any long time without being detected. Moreover, pipes through which upwards of two thousand gallons of clean water are poured every day, would, if blocked, soon run over; and there is little likelihood that air would accumulate in the main drain, through which there passes, every day of the year, twenty-five thousand gallons of clean water. But admitting that drain-air did escape, did accumulate in rooms in which windows are never shut by night or by day, in winter and in summer, and in which consequently the ventilation is quite free, to such an extent as to infect persons with enteric fever, is it possible that this could take place unnoticed by anybody? Would no one of the many persons whose business leads to this bath-room have smelt this air? I am not here maintaining that stink is a measure of the strength or weakness of fever-producing poison, but it is a fair measure of the degree to which drain-air may be infecting rooms. The objection, then, to the drain hypothesis in regard of Homerton, is the very pertinent one that the drains, due inquiry having been made by various persons, were found to be right; and here the matter might end. Let it be admitted, however, that, notwithstanding daily flushing with twenty-five thousand gallons of water, absence of blocks, traps in good working order, ventilating pipes clear, enteric fever-producing material did escape from the drain and soil-pipes, unaccompanied by any of the odorous products which exist in drains, and did accumulate in rooms ventilated by cross windows opened day and night, how does the hypothesis explain the facts? Having gained admission to the bath-room unperceived by anybody, it shows an inexplicable partiality for a particular class of persons, not more exposed to it than two other classes, and not more susceptible to it than these, whilst it is not wholly indifferent to persons practically outside its influence. In order to make this quite clear, it will be necessary briefly to explain our ward administration. In each ward there are, during the day, a nurse, an assistant-nurse, and a ward-servant. It is the duty of the nurse to be always in her ward, a rule which is enforced with unusual rigour; and in order that the whole of her time may be given to actual nursing and superintendence, and that she may have no excuse for being out of her ward, she is provided with an assistant-nurse; and in order that the latter may be as little away from her ward as possible, stores of every kind are delivered at the ward, so that the occasions on which an assistant need be away from her ward are few. It is the duty of the assistant to remove and empty bed-pans, and generally to do the kind of work which requires the ward to be left. The cleaning and scrubbing of the ward is the work of a ward-servant, one of this class being attached to each ward. The duties of nurses at Homerton do not then bring them into special contact with drains, sinks, or sluice-pans. On the contrary, this is the duty of a special assistant; and nurses at Homerton find that the rule which requires them to be in their wards, and always there, may not be disregarded with impunity. To ensure this, everything which a nurse requires is sent to her; to ensure this, she is relieved of the duty of emptying night-chairs and bed-pans, and does not, therefore, come into contact with these articles; she does not wash dishes, and therefore does not stand over sinks, for the performance of these tasks would take her out of her ward. The closet for her use is not the pan down which any enteric stools go, nor the one which adjoins the drain-pipe of the sluice-pan, down which nearly all enteric stools are passed. Of all the persons, then, exposed to sinks and sluice-pans at Homerton, the nurse is not that person, and attacks of enteric fever on nurses are not likely to be due to that cause. Of the whole number of the Homerton staff affected, six were nurses. Of this number, I shall eliminate Proctor, who may have been infected by the drain; King, who, being a night-nurse, and night-nurses having no assistants, would be exposed to bath-room and sluice-pan air every time she emptied a bed-pen; Honey, who, although a nurse, was probably doing assistant-nurse's duties; and Weaver, who, although a nurse, was, owing to nurses falling sick, occasionally without an assistant; and there remain two cases, Day and Hannaford, whose cases no amount of ingenuity can show were due to exceptional exposure to the drains of sinks and sluice-pans.* Of course, it is not maintained that these two nurses never emptied a bed-pan nor ever entered a bath-room. What is maintained is, that their duties were not there, and that there was less exposure of nurses to sewer-air than of patients, 956 of which, during the period of convalescence, a period, short though it may be, yet in many cases exceeding the period of exposure found sufficient to cause enteric in ten out of nineteen of our staff. Is it possible that, of 956 persons, many of whom, or some of whom, at least were susceptible, who spent daily some time in this fever-polluted atmosphere, who regularly spent in bathing half an hour three times in every week, of a convalescence, in a large number of cases equal in duration to the duration found sufficient to cause the disease in more than half of our cases; is it possible, I say, that this poison should miss all these, and seize upon two people much less exposed to it? Granting that the attacks would not show themselves until the patients had left the hospital, for the same reason that they came in the first instance, would they not be sent back again? Indeed, it may be presumed more readily, for the reason that they would be thought to have carried out with them some infectious disease. As regards these two nurses, then, I submit that the drain hypothesis fails to explain them, and that they must have some other cause. The case of Day deserves special notice. She was said to have had enteric fever previously, for which she was treated at the London Fever Hospital, and for a long time, from October 1st, 1871, until October 1872, she nursed enteric patients with immunity. About this time, there was a severe case in her ward, in which the diarrhœa was profuse, and all the motions were passed in bed. This case required necessarily frequent changing, and Day observed that the "stink" was strong, and mentioned it at the time. It was after this that she contracted enteric, in which she was followed, on November 6th, by her assistant Warner, who died. A similar case is recorded by Dr. Peacock in the *St. Thomas's Hospital Reports* for 1873, p. 18, where he says, "It is also fair to suppose that the disease is capable of being disseminated by inhalation of emanations from the body of the patient, and especially from the stools". It seems to me impossible to avoid the conclusion that contagion was the cause of these cases, and one might ask where, if not here, would one see relations of cause and effect. We arrive now at the assistant-nurses and ward-servants, and we find that, of an equal number of persons of about the same age, and therefore about equally susceptible, four and-a-half times as many of the assistant-nurses as of the ward-servants contract the disease. As the duty of the latter is to keep these sewer-polluted bath-rooms and closets clean, they are as much exposed to sewer-air on the drain hypothesis as are assistant-nurses; they are of similar age; equally susceptible. In what way do these ward-servants differ from the assistant-nurses but in this, that the latter have direct personal relations with the sick, and the sick persons' morbid products? Thus, in whatever way the drain hypothesis be tested, it fails; it fails on the most favourable view to account for more than one half, or 50 per cent., of the cases at Liverpool Road; it fails, making every allowances to account for the cases of two nurses at Homerton; it fails to explain the entire immunity of 956 persons exposed for periods in many cases exceeding that necessary to produce enteric; and it fails to explain the incidence on the assistant-nurses and the comparative immunity of the ward-servants. On the other hand, the contagion hypothesis explains all the cases. Thus, of the whole nineteen which took place at Homerton, fourteen—five nurses and nine assistant-nurses—had direct relations with the sick; two, the ward-servants, probably caught the disease by assisting the nurse when the assistant-nurse may have been absent on leave or from illness, or the ward unusually heavy; so that sixteen of the nineteen are explained by personal relations with the sick; one case, that of the laundry-woman, Capron, may have been due to decomposed stools in soiled linen; and one may have been due to a specifically infected drain. Of one (Bentinck's) attack, I have no explanation to offer, and may here say that I never was myself satisfied that she had the disease, and the case was included in the list on the representations of a colleague.

Briefly to sum up, the frequency of attacks of enteric fever among the staff at Homerton as compared with Liverpool Road is, I submit, due not to conditions special to the hospital, but to conditions special to those engaged in it, *i.e.*, to the younger age of its assistant-nurses and ward-servants; that the drain hypothesis is untenable, because it fails in regard of Liverpool Road to explain the facts, and that a like hypothesis in regard of Homerton is wholly inapplicable (1) because frequent and careful examination failed to detect such defects, and (2) because, if granted, it fails to explain the facts.

In concluding these articles, my special thanks are due to Dr. McCombie, who wrote some parts of one article, and to Dr. Twining for valuable assistance in arranging and sifting the facts.

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* For the cases of these nurses, see BRITISH MEDICAL JOURNAL, March 15th, 1879, page 385.

ENTERIC FEVER, DIARRHŒA, DIPHTHERIA, AND SCARLATINA, ORIGINATING FROM DRINKING-WATER.*

By NORMAN KERR, M.D., F.L.S., London.

I. MRS. P., farmer's wife, aged 35, in June 1871, suffered from a typical attack of enteric fever, with hæmorrhage from the bowels, from which she made a perfect recovery. Diarrhœa had previously never been absent for more than a fortnight at a time from the house. Either the father or the mother, or one or other of the four children, or one of the servants, was the sufferer. Two children had been attacked with scarlatina, of which, and of the other ailments enumerated, there had been no case in the neighbourhood for more than two months previously. Nearly the whole household had also repeatedly suffered from more or less severe sore-throat, one child having diphtheritic patches on the tonsils on one occasion. By the method of exclusion, I arrived at the conviction, after the milk-supply had been changed with no benefit, that all these illnesses, to which the family were so prone, must arise from the water of the well used for drinking purposes. My opinion was not seriously listened to till the typhoid fever set in, when the alarming state of the patient secured me, at last, a favourable hearing. The water formerly in use was given up, and a new supply brought from another well about fifty yards off.

The unhealthy symptoms ceased from the day of the change. So marked was the improvement that, in a month, the farmer and the landlord (the latter's mansion being close by) at length consented to my long urged request to clear out and examine the old well in the yard, the water of which they had formerly drank. An old drain, which carried the liquid refuse from the pigstye and cattle-sheds, was found opening into the well, about five feet from the surface.

After this outlet had been built up, and the drainage of the yard diverted into an adjoining water-course, the family once more resorted to the old well; and, during the three years they remained at the farm, there was no recurrence of any of the former symptoms.

I ought to add, that neither enteric fever nor any similar disease had affected the stock during the whole period of the illnesses referred to.

II. In the residence of the gentleman who owned the farm where so much illness arose from the use of contaminated water, and which was not more than one hundred and twenty yards from the farmhouse, sore-throats, twice accompanied by diphtheritic patches, were seldom absent. Diarrhœa was also a constant guest; but, though frequently of a typhoid type, it never passed into thoroughly developed enteric fever.

Every other source of poisoning having been eliminated by elaborate inquiry, I laid it down that the symptoms must arise from the pollution of the potable water. The aged head of the family, who, strange to say, was the only inmate who never suffered from any of the symptoms referred to, was of the old school, represented by a worthy and reverend friend of mine, who died from enteric fever, who did not believe in modern sanitation, and who was accustomed to boast that he had a cesspool so deep and so capacious that it needed cleaning out only once in every thirty years. My hale and venerable patient, firm in his belief that neither bad water nor bad smells ever hurt anyone, had always ridiculed my interpretation of the cause of the constant unhealthy state of the household, and would never accede to the well and drains being examined. But the result of the inquiry into the sanitary state of the farm so convinced the rest of the family, that a thorough inspection of the sanitary state of the house was instituted. The result was unmistakable. The well from which the supply of drinking-water had been taken was in the middle of the courtyard, which latter was traversed by four brick drains, one from each corner of the house, these drains converging into one large common drain at a point adjoining the well. Large leaks were found in all the drains, the leaks being caused by rats. The refuse from the drains had thus been freely soaking into the well. It only remains to add that, since the defects were made good and the drainage no longer allowed to pour into the well, the old diphtheritic and enteric symptoms have never reappeared.

III. Three sons of a gentleman farmer, aged respectively 13, 11, and 8 years, were simultaneously struck down by diphtheria. Notwithstanding the most watchful care and nursing, all three died within ten days. No other member of the numerous family was attacked. There had been no diphtheria in the neighbourhood, and none of the family had been where it was. The milk-supply was found blameless; so, unless it be contended that the poison was "in the air", there was no other possible solution than that the drinking-water was at fault. The well lay in a hollow in the farmyard, and there was considerable leakage into it from the brick drains leading from the cowshed and pigstye, through the surrounding damp soil.

IV. In an old county family, the father, aged 35, was seized with diphtheritic sore-throat and typhoid diarrhœa; and the son, aged 5, with similar throat-symptoms and extreme weakness. Both had suffered previously from repeated, though less severe, attacks of sore-throat and diarrhœa respectively. The milk was minutely examined, and found pure; but, opening into the well (behind the immense pile of buildings), from which the drinking-water for the establishment was drawn, were found leakages from seven different drains emerging from the house. As soon as proper sanitary measures were completed, the family, who had all left, returned; the old well was used as before; and no ill consequences of the nature to which the father and son had formerly been subject thereafter overtook them.

REMARKS.—These are but a few cases, selected from a large number, where contaminated water seemed to be the originating cause of enteric fever, diarrhœa, diphtheria, or scarlatina. I have seen, in one family at the same time, one member struck down by scarlatina, a second by diphtheria, a third by diarrhœa, a fourth and a fifth by slight sore-throat, and a sixth by erysipelas. In more than one instance of this kind, the varied diseased conditions were all traced to the impure drinking-water.*

I have long been driven to the conclusion that the same contaminated drinking-water may, without the presence of specific germs, give rise to different diseases, the poison making itself manifest in the shape of erysipelas, scarlatina, diphtheria, diarrhœa, or enteric fever. The source is the same, the poison is the same, but the physical state of the individual constitution, or some idiosyncrasy of susceptibility, or some differential surrounding condition, is the factor in determining the special form of ailment which the poison may assume in any particular case.

FACTS ILLUSTRATIVE OF THE SPREAD OF ENTERIC FEVER AND DIARRHŒA, BY THE AGENCY OF POLLUTED DRINKING-WATER.†

By R. S. HUDSON, M.D., Redruth.

THE distribution of enteric fever in the central mining district of West Cornwall is so peculiar as to be worthy of record; and, as we ascribe this peculiarity to the varying nature of the water-supply, a short account may not prove uninteresting to those who take part in this discussion.

The district presents an area of about 40,000 acres, and a population of about 50,000 persons. The occupation of the working-classes is, to a small extent, agricultural; but the great industry is tin and copper mining, with its subsidiary employments. The density of population varies very much, some of the courts in Redruth and Camborne being as overcrowded as similar arrangements in large cities; while, in other parts, the district is so purely agricultural as to have a very thinly scattered population. The towns of Redruth and Camborne have each a population of about 8,000; but the distance (three miles) between these towns is occupied by three villages and their offshoots, so that the roadway is almost a continuous street. These towns are only three miles and a half from the north coast of Cornwall, and the whole district is daily swept by Atlantic breezes. No sewage-works have as yet been completed for this district. In Camborne, the pipes are being laid down; in Redruth, the engineers' plans have not yet been sanctioned by the Local Government Board. Redruth dates its water-supply from 1854. Camborne received its boon of a bountiful supply of pure water from a public company in 1870. The milk-supply of the two towns and the many villages is not carried out on any largely organised plan, many of the small farmers keeping a few cows, and disposing of the milk and cream to their immediate neighbours.

It will be seen that the conditions are favourable for the study of the etiology and spread of any zymotic disease, as the factors of sewer-gas and polluted milk-supply, which frequently give trouble in large towns, are at once eliminated from the inquiry by their non-existence. The seaboard also effectually guards against the admission of any infectious disease from without, except at certain ports; and almost invariably infectious diseases may be traced along the lines of traffic from one of these ports, or by the rail which runs from east to west through the district.

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

* It should be understood that in these remarks I refer only to the apparent origination of disease. Instances of propagation, through water infected with excretions from previous cases of disease, are continually confronting me.

† Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

The facts are briefly these.

1. Long before the labours of Stewart and Jenner had proved that typhus and enteric fevers were distinct diseases, differing in their origin, symptoms, spread, duration, and complications, the medical practitioners of this district were familiar with certain local types of fever, which they designated by such terms as "Brea fever", "Trelowarren Street fever", etc.; "Brea fever" being a form with troublesome bowel-complications and usually extensive hæmorrhage. Year after year, it cropped up in Brea village, and, when a case appeared in other parts of the country with like symptoms, it was called "Brea fever". At this period, the highly infectious typhus was not uncommon; so the difference between the forms was very marked, and apparent even to superficial observers.

2. Although the practitioners of to-day cannot observe the broad distinctions which were readily recognised forty years ago between these local forms, the death-register and the reports of the Robartes Convalescent Hospital plainly indicate that enteric, or typhoid, or gastric fever still clings to certain districts; whereas, in others, there is scarcely ever a case. For example: in Redruth, there has not been a single sufferer from typhoid fever originating in the town itself for many years. True, there have been a few imported cases, who came with the disease on them, but in no instance did the disease spread.

It is to be hoped that the new drainage-works will be so efficiently devised as to preserve for us a like immunity in the future.

Such being the facts regarding this fever, what is the explanation?

I have no hesitation in saying that infected evacuations polluting the water-supply have been the prime agents in disseminating the disease; and, in proof of this, I make the following statements.

a. Enteric fever was common to the whole district, including Redruth and Camborne, when pumps, deep-wells, and open streams formed the only water-supply.

b. Fortunately for Redruth, Pednandrea mine, in its work of shaft-sinking, tapped the underground streams which supplied the pumps and wells, and people could not obtain the contaminated water, even if they desired it. In connection with this, I may be excused a digression, which points forcibly to either some careful superintendence on the part of a central authority, or to better education in sanitary matters, as a necessary qualification for the members of local authorities. Pednandrea mine has lately been abandoned; pumping operations have ceased; the water has risen to its former level; pumps and wells, during the late wet season, have been full. For many years, some of the former pumps have been utilised as convenient cesspits, and privies have been built over them; so that, not only are these old pumps indirectly contaminated by being sunk in a sewage-laden soil, but excrementitious matter has direct admission. The water must, therefore, have its fair proportion of sewage; yet, it has been gravely urged in a local newspaper that the town need not trouble itself in going to further expense regarding water, a supply being brought back again to their own doors, and, as it suited their fathers, it may do for them. "It's an ill wind that blows nobody good."

c. Camborne has also had much less fever since the excellent house-to-house supply was laid on; and the Medical Officer of Health, Mr. Angove, tells me that, without much trouble, he can trace the importation of nearly every case.

d. Those localities where the fever still exists have, in every instance, a polluted well- or pump-supply, into which excremental and slop nuisances have ready access.

The germ and pythogenic theories do not come within the scheme of this discussion; but I cannot help remarking that the germ-theory fully explains these local outbreaks, and their being confined to certain spots where previous infected evacuations have been deposited; whereas, if the pythogenic theory were true, how is it that similar conditions regarding water-supply and proximity to cesspits do not invariably produce it? Only last week, I examined water from a pump three yards from an old manure-heap. Percolation is evident; the water contains ammonia and nitrites; it is clear and sparkling, and much valued; but those who drink it do not suffer. I have, however, no doubt that, if the specific poison were once introduced, typhoid cases would be an annual occurrence in the hamlet where it is situated. Diarrhœa is the resultant of a filthy water-supply, and not enteric fever, if the specific poison be absent. The common septic poison may also produce a low form of continued fever or septicæmia. The only instance I bring forward has been already mentioned by Dr. Blaxall, in his report to the Local Government Board, and I can vouch for its truth. Certain families, who suffered severely from scarlet fever in the epidemic of 1876—two, three, and even four in a family having been carried away after a few hours' illness—"were in the habit of getting their water from an obviously polluted source, to wit, an open stream, which in its course to the locality in question, passes through a farmyard. I observed two dead dogs in it, also ducks paddling about."

Surely, we had here pythogenic conditions sufficient to develope fever; but no. For months the children suffered from chronic diarrhœa, and, when attacked with scarlatinal poison, they readily succumbed.

TYPHOID FEVER AND MILK.

By R. P. OGLESBY, M.R.C.S.,

Ophthalmic and Aural Surgeon to the General Infirmary, Leeds.

THE number of cases now on record in which typhoid fever has arisen from individuals partaking of milk, contaminated with poisonous matter, makes it desirable that all well-authenticated cases should be placed on record; so that, the subject being well ventilated, not only the profession but the public may be fully alive to the danger.

During the summer of 1876, a family—consisting of father, mother, and four children, with one male and three female servants—removed from a house in the borough into one in a neighbouring village. They were all in robust health, and anticipated much enjoyment in their new home. Things went on well for a while; they were all healthy, and the country lanes and fields and their health-giving breezes were much extolled; and their old town friends envied their freedom and the advantages they had gained both for their children and for themselves. After they had resided in their new home but three months, it was noticed that the eldest child, a fine well-developed girl of nine or ten, began to look pale and thin; the food was taken sparingly, and often refused. Languor superseded to such an extent, that lessons had to be abandoned. Shortly afterwards, a rash (but not typical of typhoid fever) appeared, showing itself chiefly on the arms, legs, and abdomen. Treatment had no effect, and the child remained in a typhoid condition for weeks. During her convalescence, a younger sister complained of feeling unwell, and she exhibited symptoms not unlike her sister, but the rash was less persistent and not so well defined. Convalescence was tardy, and came by fits and starts; one day the children assumed a cheerful demeanour, ran about, and joined the others in play; the next day, the lassitude supervened, and they passed their time on the sofa or in bed. Before they had fairly convalesced, their father complained of sickness, aversion to food, and fatigue after walking but a short distance; the skin became slightly jaundiced, and the liver congested and tender; the action of the bowels, which before was regular, became uncertain. At the end of the third week, an abscess formed in the right axilla, followed by another the week after in the same region on the left side. Although all the symptoms pointed to decided blood-poisoning, they were not sufficiently pronounced to make the patient uneasy as to the result, but were still most annoying, keeping him from business, and entailing considerable expense. When the blood-poisoning appeared to be on the decline, and the family were rejoicing in the belief that their troubles had almost ended, the coachman—a man who, during their lengthened illness, had proved himself a most valuable help to all from the ready manner in which he could nurse or perform other little offices about the sick-room—also sickened. The disease in this instance resembled in most of the symptoms that of his master, notably so concerning the amount of poison which settled in the liver, although he had not, so far as my memory serves me, any abscess externally. At one time, the region over the liver became suspiciously swollen and tender, and it appeared as if matter were forming.

So soon as the disease first made its appearance, the sanitary arrangements of the house and its surroundings were overhauled. Everything was perfect, as indeed I expected to find it; for, prior to its occupation, I had advised that all drains, water-closets, sinks, etc., should be looked to; this was done efficiently and to my satisfaction.

The drinking-water was obtained from a well conveniently sunk towards the rear of the house. Its surroundings were carefully examined. Nothing injurious could contaminate the water, as was proved from analysis by an expert. To what, then, could this long typhoid condition be due? It was impossible to say. When we were giving up the search for the cause in despair, I determined to make a final examination of the premises. I began by following the drain from the water-closet, which passed through the kitchen-garden and emptied its contents into a running stream in the field beyond. What was my surprise may be imagined, when passing through a door in the garden-wall into the field, to behold staring calmly at me a lean and hungry-looking cow. Up to that moment, I had not the least knowledge that a cow existed on the premises. In a joking way, I remarked to the gentleman that accompanied me: "Your cow also appears to be ill." "Yes", he replied, "for the past three or four months she has been ailing, getting thinner, and refusing to graze." On further inquiry, I found the amount of milk given was now but sufficient for household purposes, and that it creamed badly. Here, then, I thought, is the clue to this chronic typhoid condition. How, then, is this result to be arrived at?

First, the fæcal matter from the water-closet drain is poured into an open stream; the water of the stream becomes mere sewage, and this contaminated water is the only drink the cow can get. So perverse were these good folks in their belief that it was impossible that the milk from their cow could be the cause of their illness, that I had the greatest difficulty in persuading them to refrain from drinking it. After they consented to send their cow away, and get their milk from a neighbouring farm, a tardy but permanent convalescence resulted.

ON NURSING SYSTEMS.

By JOHN E. NEALE, M.R.C.S.,

Late House-Physician, Northern Hospital, Liverpool; formerly House-Surgeon and Surgical Registrar to Westminster Hospital.

The question as to the merits of the different systems of nursing is one which at the present time is exciting a good deal of interest in the professional world; and in the British Medical Journal for January 3rd, Dr. Braxton Hicks has written a most able and practical article, in which he has discussed the question so fully that, beyond agreeing with him in his conclusions, there is very little left to be said. However, always having had a great interest in the matter, and also a fair amount of experience, I have thought that further remarks, based on practical experience, might be of use, when we are on the eve of a revolution taking place in the nursing arrangements of one, if not more, of our metropolitan hospitals.

Without the slightest doubt, it can be most positively asserted that of all the "systems" now in vogue, that characterised by the "ward system" is by far the best. In that, a nurse, having passed through her period as probationer, during which her time has been divided between the various general and special wards of a hospital is, if considered competent, appointed to a particular ward or wards, where she remains a fixture. She thereby becomes thoroughly acquainted with the peculiarities and modes of treatment of the physician or surgeon in whose wards she is working; she soon takes a pride in her work; is looked up to by all in the place, especially by young dressers and clerks, whom she can teach a great deal which will be of untold value to them hereafter; while the residents, perhaps holding their first appointments, are made a great deal more confident in themselves, knowing that they have under them a woman on whom they can most implicitly rely, and whose interests are, as it were, common with their own. The knowledge which the nurse has, too, that she will not be shifted or dismissed without her case being fairly considered, goes very far in keeping her up to the mark, if not on purely conscientious motives, at least on the grounds of good policy. There is no other method by which this *esprit de corps* can be obtained.

How different this is from that which exists in what Dr. Hicks calls the "central system" none but those who have had to work under the two can appreciate. Here the nurses may be every bit as good, but another element steps in, in the shape of a "matron" or "lady superintendent", who, though not nominally, yet practically, reigns supreme. She can shift the nurses about from ward to ward as her fancy takes her, and discharge them in the same manner; while, if the medical staff should ever remonstrate, the result is a general snubbing from the governors and the commencement of a series of petty annoyances instigated against them by the matron, who now, after her victory, knows the feeling of the lay to the medical staff, and is, therefore, free from fear of losing her comfortable home, and may even go so far as to have the audacity, when occasion presents, of making open or underhand reports about the medical staff. This is by no means an exaggeration of the actual facts, as I can testify from actual experience.

Apart from this feature of the system, the constant changes in the wards cannot be anything but sadly detrimental to the care and comfort of the patients, especially in the larger institutions. There the nurse, not knowing when she may be removed, naturally cannot take that interest in the patients which she otherwise would; while to those who have the medical charge of the patients, the amount of unnecessary repetition of orders and supervision in seeing them properly carried out, is very annoying, not to say heart-breaking, to anyone who puts his whole energies into his work.

The younger nurses also appreciate the constant changes in their superiors, for it is impossible for them to gather such good hints from all-round nurses as from those who by long experience have been accustomed to work of one kind. Nothing proves this more assuredly to my mind than the fact, that those who have been unfortunate enough to begin under this "central system" rarely remain at the hospital longer than they are absolutely obliged, not knowing when they may be dismissed, thereby losing a character. Thus not only is the general standard of efficiency lowered, but there is no trained material to fill up vacancies amongst the older nurses, thereby causing the appointment of raw material to responsible posts.

The question as to the value of training institutes is a wide one, as there are several varieties of them. Those which are farmed out to hospitals are, as far as my experience goes, the worst embodiment of the "central system", and afford another outlet for the pecuniary resources of benevolent people, in the shape of a "fat living" for one or more "lady superintendents". This subject has now reached such a point that it ought not to be dismissed without very mature consideration. If we are to have our hospitals properly carried on, there must be a professional and not a lay authority over the nursing arrangements; and above all, it is high time that the committees of hospitals were made to understand that some weight should be attached to the representations of the medical men, who have devoted some of the best years of their lives in trying to alleviate the sufferings of mankind.

THERAPEUTIC MEMORANDA.

TREATMENT OF POST-NASAL CATARRH.

In the *London Medical Record*, which frequently contains useful hints for the general practitioner, I saw lately a formula for the treatment of post-nasal catarrh. It was, I believe, originally suggested by Dr. Duffin. It consists of oxide of bismuth, powdered gum acacia, and a small quantity of muriate of morphia. It should be well mixed, and then, if used as a snuff in severe coryza or post-nasal catarrh, it acts in a most charming manner. Cases of great severity and long duration have yielded to its influence after three or four days.

Dean Street, Soho. Joseph Rogers, M.D.

HOW TO CURE FITS OF SNEEZING.

In the issue of the British Medical Journal dated December 27th, 1879, the above heading having attracted my attention, I was very much interested to find that the course of procedure recommended agrees to a certain extent—the principle being the same—with the practice I have adopted for years. Since my schoolboy days, I have known that, if the nostril of the affected side be stopped early enough, as by pressure with the finger on the ala nasi, there will be no sneeze. During more recent years, when I have been suffering from irritation of my Schneiderian membrane so as to annoy me, I have selected out and placed a good "chamomile flower" in each nostril. I find that it not only acts as a respirator, but the flower gives off a very grateful aroma, which I consider beneficial from its soothing influence. These flowers are inexpensive, and can be obtained of all sizes. They will be found, I believe, very useful if placed lightly within the nostril. Although I have practised this little idea for some time, I did not consider it worthy of recording until I observed the communication of Mr. S. M. Bradley in this Journal. I may add that, during the past autumn, I was very much annoyed with continuous irritation of my Schneiderian membrane, to which the foregoing only gave temporary relief. After trying many things, I bethought myself of trying extract of belladonna; the small dose of half a grain of this drug produces its toxic effects on me, drying up the secretions of my fæces, etc. Although it is now more than two months since I took my dose, I continue free from anything unusual in this way. I may say that the irritation complained of did not amount to sneezing, but to a raw sensation on inhalation, which I found very annoying. I was, therefore, very much pleased when I found that the irritation produced by my dose terminated in complete resolution. Should these hints be of any benefit to mankind, I will be more than compensated.

John Martin, L.K.Q.C.P.I., L.R.C.S.I.,
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OBSTETRIC MEMORANDA.

THE *POST PARTUM* UTERINE PAINFUL SPOT.

After confinement, if the hand be placed on the abdomen, the uterus in general will be found contracted into a hard ball, longer than it is broad, and somewhat tapering from above downwards; and if careful manipulation with pressure be practised, there will invariably be found one spot exquisitely tender; the remainder of the uterus grasped and kneaded remaining comparatively insensible. This spot may possibly not be found immediately after delivery, but I have never failed to find it within the twenty-four succeeding hours. This spot does not always occupy the same situation, but will be found sometimes on the left side, sometimes on the right side, sometimes a little more to the centre, and occasionally a little lower down, trenching on what, by external palpation, might be deemed the region of the neck of the uterus. The commonest sites, however, are the right and left sides, at a distance nearly between the middle and upper thirds of the womb.

This pain, which does not make its appearance till after the expulsion of the placenta from the womb, is persistent more or less for about eight days, becoming every day less and less acute, and at last totally disappears with the last remnants of bloody discharge; at least, I have not detected it afterwards. This painful spot is neither more nor less, in my opinion, than the position of the attachment of the placenta. On a future occasion, I shall supply statistics bearing on this most important point, and more especially with reference to the determination of the sex of the child; this method of investigation forming a ready means of testing the usual theories on the subject. In the meantime, I simply announce it as a fact, and will be glad to hear of the experience and opinions of other workers in the same field.

J. Stuart Nairne, L.F.P.S.G.

REVIEWS AND NOTICES.

THE PLAGUE IN RUSSIA.*

THE report of the medical commission sent by the Roumanian Government is the first actually published in which we find a detailed statistical account of the late epidemic in Astrakhan. Dr. Petresco, like all the commissioners, arrived on the spot when the epidemic was completely at an end. He has consequently little original observation to offer, and his report is based chiefly upon Russian official reports, with some information collected from the inhabitants. The statistics it contains are apparently what the British commissioners were unable to obtain, but which, as they state in their report, it was promised should be made accessible to them at some future time. Since, however, no official statistics on the subject have, we believe, yet reached this country, the abstracts given by Dr. Petresco are, for the moment, very valuable. His report gives a good summary of fact and opinion with reference to the history, origin, and course of the epidemic.

The question which will naturally first present itself is that of origin. On this point, we find that Dr. Petresco does not adopt the hypothesis favoured by the Russian officials and by Professor Hirsch of Berlin, that the plague was introduced into the country by Cossacks returning from the war in Asia, or by any plunder brought thence. He traces the epidemic, which prevailed especially (as is well known) in the village of Vetljanka, on the right bank of the Volga, to the city of Astrakhan, and supposes it to have been conveyed by a certain woman named Mavra Pissarewa, belonging to Vetljanka, who visited Astrakhan in October 1878, and was taken ill with plague after her return home. This is supposed to have been the first case of plague in Vetljanka. A good deal of controversy has already arisen about this case. The generally received statement is, that no plague or any disease resembling it existed at Astrakhan in 1878, though it is admitted that some disease of this type existed there in 1877. Dr. Petresco appears to doubt this statement, since he says expressly that the plague was still prevalent (*regnait encore*) in the neighbourhood of Astrakhan when it was carried to Vetljanka; but he does not give any authority for this assertion. Professor Hirsch dismisses the story altogether, on the ground that the period of incubation of plague is such, that the woman in question must have already been infected before she left her home to visit Astrakhan. The British Commissioners, in their report, simply recite the story, though with apparent incredulity, noticing that the plague is not alleged to have prevailed in Astrakhan for about a year before the outbreak at Vetljanka. On the whole, we must conclude that too much importance is given to minutiæ of dates and other particulars collected some months after the occurrence. Dr. Petresco relies on the authority of a certain Cossack, who must have trusted to his memory for the detailed story he relates. Nor does Dr. Petresco seem to be alive to the difficulty of establishing that any particular case was really the "first case" of plague in the place where it occurred. All that can be shown is, that it was the first fatal case recognised and registered as such. But there may easily have been non-fatal cases which would not be registered, and even fatal cases described by some other name in villages without skilled doctors.

The plague in Astrakhan itself, whether in 1877 or 1878, Dr. Petresco assumes, as a matter of course, must have come from Resht, in Persia. Supposing the pestilence once arrived at the ill-fated village of Vetljanka, Dr. Petresco traces very minutely the spread of the disease in different families and from one family to another, drawing his facts apparently from official records. The above-named woman, Mavra Pissarewa, is said to have been attended in her illness by her two nieces, one of whom was taken ill four days after the death of her aunt, and suffered severely, but recovered. The husband of this niece and several of her relatives died of the disease. The other niece also died of the plague; but, as she was not taken ill till two months afterwards, when the epidemic was at its height and was widely spread in the village, the infection can hardly be traced to the original case. It is singular also that in the household of Mavra Pissarewa no one was attacked till two months afterwards, and then only after two of the "field-surgeons", who came to lodge in the house, had died there. It was, however, generally noticeable, as in many other epidemics of plague, that the incidence of the disease upon particular houses was very severe; in some cases, the whole household being exterminated. This was still more noticeable in some of the other villages than in Vetljanka. Dr. Petresco gives some elaborate and interesting tables showing the mortality of particular families (meaning by this *kinsfolk*, not *households*), to show that the disease spread among relatives who tended or visited the sick. Thus, of the relatives of the woman Pissarewa, twenty-two died of plague, including, beside her husband and children, grandchildren, daughters-in-law, and other more distant relatives or connections by marriage. Of another family or clan—Barova—fifty are recorded as having died, nearly all during the extreme height of the epidemic. The statistics are not, however, drawn up according to houses, and supply no means of estimating the absolute or relative mortality in each house. Dr. Petresco's conclusion on this point is, that "the disease was eminently contagious, that it was transmitted directly from family to family, that in general it was limited to the houses into which it entered, and rarely passed into other houses—that is to say, by way of contagion". These facts certainly deserve serious attention with respect to the vexed question of contagion in plague, and especially from the non-contagionist school, which has of late years been predominant. House-to-house infection—that is to say, the conversion of one house after another into a focus of plague—is certainly not the same thing as personal contagiousness, such, for instance, as we see in measles or scarlet fever. But it would be difficult to explain all the facts of the Astrakhan epidemic on the former theory alone.

The history of the epidemic in Vetljanka showed remarkable variations in severity. In the first period, from October 17th to December 4th, the mortality was small, giving, on an average scarcely one death a-day. It then suddenly increased, and, for about a week, twenty-five or thirty deaths occurred daily; after December 20th, it again declined, and, by the beginning of January, had again fallen to less than one death daily, till the epidemic ceased in Vetljanka by January 13th. No reason can be given for its cessation, which appeared to be quite spontaneous and uninfluenced by the preventive measures on which much stress has been laid.

Dr. Petresco enters very elaborately into the conveyance of plague from Vetljanka to the other villages. There is no doubt that the disease appeared in these places after it had attained its height of malignity at Vetljanka, and, so far as is known, not before. Prishib, a village only six English miles from Vetljanka, was the first to suffer. Dr. Petresco gives two instances of importation of the disease—one on December 3rd, another about the 12th—with his usual circumstantiality. Considering that the two villages are only six miles apart, on the main and only post road to Astrakhan, regularly traversed by the mails, and in winter by all the traffic which follows the right bank of the river, the only wonder is that a communicable disease which had existed for at least six weeks in one place had not before this made its way to the other, no sanitary cordon or other precautionary measures having been established till later on. It seems to be an instance of that unaccountable slowness of transmission which has been observed before in certain epidemics of plague, even in the great plague of London.

A similar account is given of the introduction of the disease into the village of Staritzkoi, sixty miles from Vetljanka. The history of the plague crossing the river to the left bank is given entirely from the Russian official accounts, as Dr. Petresco did not visit that part of the country. Here, too, the disease did not appear till it had already reached its acme at Vetljanka, and hence it is thought it must have been conveyed from the latter place. But the circumstantial proof of any importation is, in this case, extremely deficient. The last death, in Selitrensi, on the left bank, happened on January 28th, and closed the epidemic in the whole district; so that we now know the epidemic to have been at an end long before most of the European governments had resolved to send any commissioners to investigate it, and probably even before the question had been mooted. One sporadic and non-fatal case occurred at Vetljanka in March, and is spoken of by the British and all other commissioners. Dr. Petresco attributes the infection in this case to handling clothes which had belonged to persons who had died of plague in the winter.

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* *Mémoire sur l'Epidémie de Peste du Gouvernement d'Astrakhan* (Russie), par le Dr. Z. Petresco, médecin principal de l' Armée roumaine, envoyé en mission par le Gouvernement roumain. Bucuresci (Bucharest): 1879.

The part relating to the symptoms of plague will be read with interest; though, as Dr. Petresco did not himself see a single case, his information is entirely second-hand, and it is not always stated with sufficient clearness on whose evidence the description is based. The accounts seem to have been chiefly derived from the official records of the Russian doctors, scanty and imperfect though those records were. The best known symptoms of true plague, swollen or suppurating glands, were observed at the beginning of the epidemic at Vetljanka, but said to be entirely absent while the mortality was greatest. This may have been partly due to imperfect observation in a time of panic, but not wholly; since in the other villages, where the disease presented the same characters as the worst type of the Vetljanka epidemic, and where the small number of cases allowed of more careful watching, the same observation was made. Cases in which buboes were absent were remarkable for their malignity and short duration. Carbuncles seem to have been absent; they are only said to have been previously present in some persons who afterwards had plague; and are doubtless referable to the carbuncular disease or malignant pustule known as "Siberian plague", which is prevalent in some villages on the Volga, and by its ambiguous name has given rise to strange misunderstandings even in official quarters. Headache was a very frequent initial symptom; but there was generally, even to the last, an entire absence of delirium. Hæmoptysis was so notable a symptom at one time as to give rise to the reports of "Indian plague", "black death", etc.; but it seems after all to have been infrequent, except in the latter part of the epidemic and in the villages later affected. Pneumonia (called by Dr. Petresco "*diphthéritique*", apparently the so-called "croupous" or what we call lobar pneumonia) is recorded by some of the Russian doctors; but, since they never made a single *post mortem* examination, and the cases were very rapidly fatal, their diagnosis must be received with caution. These pulmonary symptoms, too, came on just as there was a change from mild to more severe weather. Petechial spots are said to have been very rarely present, but there is no evidence that they were looked for in such a way as really to establish their absence; and, with regard to this, as to other symptoms, the foundation of observation is so extremely slender, that it seems dangerous to build any coherent edifice upon it. It is possible that too much detail may be positively misleading.

With regard to the transmission and propagation of plague, the indirectness of his information does not prevent Dr. Petresco from speaking with great confidence. He thinks that the "pestiferous germ must be (*doit être*) a bacterium analogous to the *Bacillus anthracis* discovered by Dr. Koch in carbuncular diseases". But in support of this opinion he offers neither facts nor arguments. He thinks that the vehicle of this bacterium may be the human skin, clothes, or any objects which have been used by the sick, and that it can be transported only for a short time and for a short distance by the air. He does justice to the remarkable infecting power of houses in which plague patients are, and thinks the name of a domestic or house-epidemic a very good one for the disease. On this point, he seems to agree with most of the recent evidence from the East.

Dr. Petresco attributes the cessation of the epidemic to the measures of isolation and sequestration which were taken, though too late, at Vetljanka, and more promptly in other villages, when the plague appeared in them. With regard to Vetljanka itself, we cannot think that the facts adduced quite bear out this conclusion. In the other villages, especially in that last affected, Selitrensi, there is more to be said for the effect of these measures. But in the whole history there was one very important factor which Dr. Petresco has left out of sight—that is temperature. The continuance of plague in winter weather surprised those whose experience of the malady was gained in the East. It is known, however, that up to the end of December the weather was unusually mild, the mildest winter, it is said, ever known in the district. After that time, far more severe cold set in, and temperatures were recorded far below those by which the plague has been known in other localities to become arrested. Just at this time, the epidemic declined in its original seat, and failed to make way in those places where it had lately appeared. It is impossible to overlook the immense influence which cold so severe must have produced, and to this it seems reasonable to attribute the largest share in arresting the epidemic. It was very generally believed that the plague would recur as soon as warm spring weather prevailed; and if this expectation were not justified, it is only in accordance with the apparently capricious manifestations of a malady the laws of which are yet very imperfectly understood. As sanitary measures, Dr. Petresco recommends the old formulæ of isolation, cordons, and quarantine, but points out that small and limited cordons are far more effectual than a long line, which is always difficult to maintain intact. He also insists upon the absolute destruction by fire of all houses in which plague has occurred, with the clothes and goods of the infected persons. Quarantine stations should be organised on the solitary cellular system of persons. No therapeutical measures were found to be of the slightest benefit. The physical and social condition of the country receives less attention from Dr. Petresco than from the British commissioners.

We have to thank Dr. Petresco for an able and interesting report, the only drawback to our confidence in which is, that so very small a portion of it rests on his own personal or immediate observation. This was, so far as the Roumanian commissioner himself was concerned, unavoidable; but it shows that the inferences and lessons supposed to be deducible from the last plague epidemic have to be received with much caution.

THE MEDICAL AND SURGICAL HISTORY OF THE WAR OF THE REBELLION. Part II, Vol. I, Medical History; being the second medical volume. Prepared under the direction of JOSEPH K. BARNES, Surgeon-General United States Army. By J. J. WOODWARD, Surgeon United States Army. Cloth, 4to, pp. 869. 1879. Washington, D.C.: Government Printing Office.

THIS exhaustive and extremely valuable volume is a further contribution to the unrivalled medical history of warlike operations which is being contributed by the Army Medical Department of the United States from the materials collected during the great war of the rebellion. The present volume deals with alvine fluxes. It is based upon the record of 905 cases, and includes a summary of a considerable number of fatal cases, with accounts of the morbid appearances and a mass of valuable statistics. This is followed by interesting original discussion. No fewer than 1,739,135 cases of acute or chronic diarrhœa, or acute or chronic dysentery, were reported during the war of the rebellion, and the deaths recorded from these causes amounted to 44,558: 5,605 prisoners died from diarrhœa and dysentery in one prison alone—the notorious Andersonville Prison—in little more than a year. This prison was, in fact, an enclosed piece of ground consisting of about seventeen acres, through which flowed a sluggish stream of water about six feet in width, bordered on each side by a low swamp which occupied six acres, and into which passed all the drainage of the camp, while it was also the chief source of water-supply. There was no shelter for the prisoners, except for the hospital patients. The rations were poor in quality and insufficient in quantity; scurvy was general; and the habitual accommodation was meagre; so that here were combined all the essential conditions for excessive mortality from intestinal disease. The general result of the analysis of these cases is, that Dr. WOODWARD is supposed to distinguish several forms, of which the most common perhaps is acute diarrhœa, where the lesions are generally seated in the cæcum and colon, but may extend throughout large tracts of the ileum. When the inflammation or ulceration involves the mucous membrane of the sigmoid flexure and rectum, producing tenesmus, the condition becomes that of inflammatory dysentery. The causes of diarrhœa and dysentery are in this view to be found in the variety of the conditions producing irritation or inflammation of the mucous membrane of the alimentary canal. Some of these act directly by irritating or inflaming the intestinal mucous membrane, others indirectly by affecting the general constitutional condition of the individual. Dr. Woodward is disposed to limit the use of ipecacuanha to the cases of vigorous patients suffering with acute catarrhal diarrhœa, or with the preliminary catarrhal stage of inflammatory dysentery. It is only useful, he thinks, in the chronic flux where there is no ulceration, or when the ulcers are of a slight and limited character. Wherever extensive intestinal lesions are known to exist, or wherever patients are considerably debilitated and exhausted, ipecacuanha is, he thinks, contraindicated. It is hopeless to attempt, in the very limited space which we can devote to it, to give any detailed review of a book so voluminously and so largely dependent for its value upon a careful examination of the abundant materials which it presents. We may, however, readily accord to the editor and author of this book the credit of having presented their material in a very satisfactory form, and especially of having well recognised the limits imposed upon them by the imperfection of the records at their disposal in certain directions. The illustrations are excellent, and photography is used without being abused—that is to say, it is used chiefly for the presentation of appearances which are capable of examination by low magnifying powers. Up to the present time, microphotography with objectives of high powers has been little more than a serious plaything. It may one day develop into practical usefulness, and we owe thanks to those who will continue to work at it in that view; but, up to the present, rarely, if ever, have any photographs been presented from pathological objects, magnified more than sixty or seventy times, which were worth the paper on which they were printed.

SELECTIONS FROM JOURNALS.

PATHOLOGY.

TUBERCULOSIS OF THE HEART.—M. Sänger (*Archiv der Heilkunde*, Band xix, Heft 5 and 6), from data yielded by the anatomical examination of twenty-two cases of tuberculosis of the heart collected in his work, endeavours to establish the following forms of this affection: 1. Extrapericardial tuberculosis, having by direct propagation reached the pericardium and the myocardium; 2. Perimyocardial tuberculosis; 3. A myocardic tuberculosis properly so called; 4. Endocardial tuberculosis. The first form of tuberculosis of the heart generally proceeds from a tuberculous bronchial gland. It is doubtful if its originating focus can be constituted by a pleural tuberculous exudation. With reference to the nature of the tuberculous lesions which may affect the heart, Sänger distinguishes—1, circumscribed tuberculosis, characterised by the presence of large or small nodosities; 2, a diffuse tuberculosis; 3, chronic myocarditis with tuberculosis. 4. In cases of circumscribed tuberculosis, the cardiac muscle is the seat of an uniform alteration, leading to a homogeneous caseous transformation of the epicardium and the myocardium. It is under the form of tuberculosis that the cardiac muscle is habitually the seat of foci of softening of the centre. Finally, the third variety comprehends the cases in which a chronic caseous or fibrous myocarditis is only accidentally complicated with tuberculous lesions. Amongst the secondary changes brought on by tuberculosis of the heart, M. Sänger mentions one case of œdema of the valves of the left heart, two cases of hypertrophy and dilatation of the heart, one case of compression of the pulmonary vessels, one case of stricture of the right auricle, one case of dropsy of the pericardium. Tuberculosis of the heart supervenes at all ages; it has no special symptomatology. Thus, when it is characterised anatomically by the presence of true tubercles in the pericardium, it is only by accident that these latter are discovered on *post mortem* examination.

KERATOMYCOSIS ASPERGILLINA AS A CAUSE OF ABSCESS OF THE CORNEA.—Lieber (*Archiv für Ophthalmologie*, Band 25), says that it has been ascertained, by recent researches, that various kinds of minute fungi can grow in living cornea, and give rise by their growth to a severe suppurative inflammation. On the other hand, no observations have yet been made on a similar power of the mould fungi (*Schimmelpilze*). The opinion is rather generally held that the latter can only develope on the dead parts of animal and plant tissue, and not on living bodies. In a case of abscess, observed by Lieber, it now appears established that a mould-fungus (*aspergillus*) may develope itself in the living human cornea; and, from further researches carried on by him, it appears that the inoculation of the cornea with the aspergillus may give rise to a very active growth of the latter in the tissue of the cornea, and an intense suppurative inflammation, which is entirely similar to that excited by other fungi. The case in question was that of a countryman, twenty-four years of age, who had suffered an injury in working at a thrashing-machine, in consequence of a beard of oats which had struck the eye, and, without any complication of inflammation of the lacrymal sac, had given rise to a severe hypopyon of the cornea. What was remarkable about the case was the severe chemosis of the sclerotic, and a sort of white covering around the base of the swelling, which, on microscopic examination, proved to be the necrotic substance of the cornea, entirely penetrated and mixed up with threads of the fungus. Notwithstanding the opening of the abscess and antiseptic treatment, this process went on to complete destruction of the whole cornea and the formation of a total leucoma. For the purpose of a botanical determination of the fungus culture, experiments were made, with all necessary precautions, with small portions of the fungoid material taken from the living eye, of which those succeeded best which were carried on in fresh fruit juice, since the well-known fructification of aspergillus glaucus quickly developed in this solution. It must be assumed that the fungoid germ was introduced into the eye at the moment of injury. Probably the beard of the oat, which had for a long time been laid out in the open air, had this fungus attached to it; at least no other source easily suggests itself. It was further probable that the keratitis was chiefly due to the growth of this aspergillus, although the coincident effect of a spalt fungus cannot be entirely excluded. Further researches on guinea-pigs support also this view, since, in this aspergillus, when quite pure and raised by the fractional culture of spores suspended in weak solution of salt, and injected with a fine needle cannula into the cornea, quickly gave rise to a considerable development of the fungoid threads. Without regard to histological structure, they penetrate the cornea in all directions, through and through, and quickly establish themselves in its whole thickness and on a great part of its surface. At the same time, a suppurative inflammation of the border of the cornea sets up, and hypopyon occurs just as is observed after inoculation with micrococcus. Keratomycosis aspergillina is related closely to the mycosis of the same nature of the tympanum, where also aspergillus especially, according to the observations of Wraden, gives rise in the living tissue by its growth to active inflammatory processes.

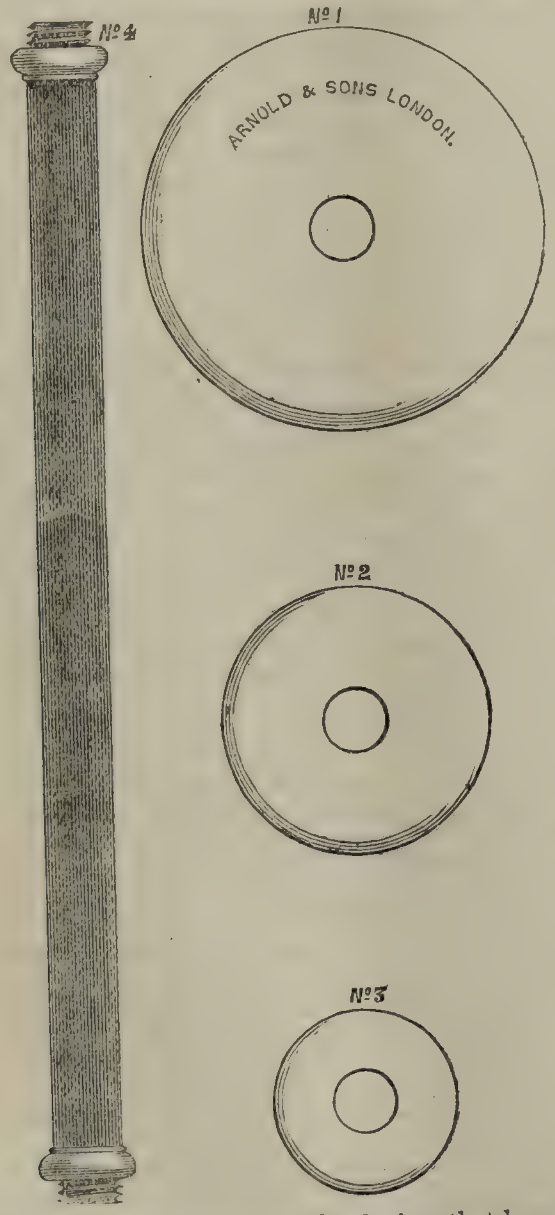
MEDICINE.

SYPHILIS OF THE LUNG AND ITS RELATION TO PULMONARY CONSUMPTION.—The important question of pulmonary syphilis has been recently discussed by Professor Schnitzler of Vienna in an interesting paper published in the *Wiener Medicinische Presse* (October 1879). The author's experience, which is confined to the acquired form of the disease, shows that syphilis of the lung can not only be recognised *post mortem*, but also may be diagnosed during life. The account which he gives of the pathological anatomy of pulmonary syphilis is mainly derived from the descriptions of Virchow, Wagner, Lancereaux, and other well known authors. The chief interest of the paper centres in the clinical study of the disease, and especially in the five striking cases narrated at length, for which we must refer the reader to the original. The author believes that syphilitic disease of the lung is far more common than is usually thought, and may be either a secondary or a tertiary symptom. In the first case, the affection is a catarrh, which may appear a few months after the primary sore, just as at the period there may be a catarrh of the larynx or pharynx. The pulmonary affections in the tertiary stage are more severe, and lead to indurative or gummatous changes. Is no case is the lung-disease the only manifestation of syphilis, but is always preceded and accompanied by affections of other organs. The symptoms of pulmonary syphilis are in the main those of phthisis, though hæmoptysis is less common, and the constitutional effects are less marked. Laryngeal symptoms are commonly present in addition to the ordinary chest-symptoms of phthisis. Fever is not a constant feature, though often present at some period or other of the disease. The physical signs indicate consolidation, which may be confined to one lung or may attack both. The middle or lower lobes are as a rule the seat of the disease, but in some cases the consolidation may be limited to the apices. A laryngoscopic examination in every case discovered characteristic syphilitic ulcers on the epiglottis, false vocal cords, or arytenoid cartilages. It frequently happened that cases previously regarded as phthisical, were diagnosed as syphilitic after the larynx had been examined, the correctness of the diagnosis being proved by the subsequent course of the disease. Some authors maintain that syphilis of the lung can be diagnosed by the fact that it attacks one lung only, Grandidier even going so far as to affirm that consolidation of the right middle lobe in particular, without implication of the apex, warrants the diagnosis of syphilis in the absence of any other evidence. Schnitzler, on the contrary, found the apices affected on both sides in some cases, although more frequently the disease was limited to the lower or middle lobe. In his opinion, the laryngoscopic appearances give the most important and trustworthy information as to the nature of the pulmonary affection, and he remarks that hitherto other observers have not attached much diagnostic value to this point. He fully admits the difficulty of making a diagnosis of syphilis of the lung, considering that a phthisical patient may acquire syphilis, and a syphilitic patient may become phthisical. But he contends that, in many cases, such a diagnosis is possible when clear evidences of syphilis are found in the larynx, and the lung-affection improves rapidly under antisyphilitic treatment. The prognosis is not unfavourable if the nature of the disease be early recognised, and a corresponding treatment be adopted; even in far advanced cases recovery is not impossible. Unless recognised and properly treated, pulmonary syphilis leads to consumption of the lungs. The treatment recommended is iodine in large doses, whether as iodide of potassium or of sodium, or in combination with iron if much anæmia be present. If this remedy do not produce the desired effect, it should be combined with a systematic mercurial inunction. Such treatment always effected an improvement, and in many instances was followed by complete absorption of marked consolidations of the lung.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE MEDICAL OFFICER'S STETHOSCOPE.

Sir,—A great authority on auscultation has remarked, that a new stethoscope requires to be tried on as carefully as a new hat. The reason for this is clear. Some men hear best with a concave ear-piece; others prefer a flat or slightly convex one; but all seem agreed that the ear-piece, whatever may be its form, is the most important part of a stethoscope. Still, the shape and size of the chest-end are not without importance; for, although medical men generally use the same instrument for all cases, pulmonary as well as cardiac, and for all patients, whether lean or stout, it is nevertheless a fact that, for the localisation of pulmonary sounds, especially in emaciated patients, a small-ended stethoscope is desirable; whilst, for collecting faint, distant, or deep-seated pulmonary sounds, a stethoscope with a large chest-end is to be preferred. It would be inconvenient, however, to carry two stethoscopes about with us. Even one stethoscope of the usual form is an awkward instrument to carry, and many are the devices that have been adopted to overcome the difficulty. In my early days, the stethoscope used frequently to be carried crosswise inside the hat; and many Edinburgh graduates of five-and-twenty years ago will remember the circumstance of a medical student having been accused of being armed with a life-preserver, owing to his stethoscope having rolled out when his hat was knocked off in a snowballing encounter.



A perfect stethoscope should have the following qualities: it should be portable under all circumstances; it should be a good conductor of sound; its ear-piece should be of a shape to fit any ear; its chest-end should be capable of being adapted to any surface, and it should be suitable for any case. The instrument which I have devised will, I believe, meet nearly all these requirements. It consists of four parts—viz., a stem, an ear-piece, and two chest-pieces. The stem is a wooden cylinder, six inches and a half long, having an uniform diameter of half an inch, with a short entering-screw at each end. The ear-piece, of boxwood, ivory, or ebony, is slightly convex on one side, and slightly concave on the other, rather less than the eighth of an inch thick, and about two inches in diameter, with a receiving-screw in the centre. No. 1 chest-piece exactly resembles the ear-piece, except in having a diameter of only one inch and a half; No. 2 chest-piece is exactly like No. 1, except that it has a diameter of only one inch. The screws of the ear-piece and chest-pieces are all alike, and are made to fit either end of the stem. They are also reversible, so that the surface applied to the ear or to the chest may be either concave or convex, as required; either chest-piece may be used, according to the nature of the case. For cardiac cases and for very emaciated patients, I use the smaller one; but for pulmonary sounds, in persons ordinarily well nourished, I prefer the larger chest-piece. When the stethoscope is not required for use, the ear- and chest-pieces can be unscrewed and carried in the waistcoat-pocket, occupying about the same space as a crown, a half-crown, and a shilling; whilst the stem can be carried as easily as a pencil-case. Thus, by substituting a couple of nearly flat chest-pieces for the ordinary trumpet-shaped extremity, an elegant and universally applicable instrument is obtained, for which even military officers, whose pockets have been reduced to the vanishing-point, will be able to find room. Country doctors also, to whom the ordinary stethoscope is a burden when riding, whether carried in the hat or pocket, would find this instrument particularly useful.

Stethoscopes of this description are now made by Messrs. Arnold and Sons of West Smithfield, E.C., to whom I am indebted for much intelligent aid in executing my design.—I remain, sir, your obedient servant,

H. Veale, M.D.

Royal Victoria Hospital, Netley, October 30th, 1879.

A NEW BED-URINAL.

Messrs. Edwards and Bradley, 7, Devonshire Place, Vauxhall, have produced a new convenience for the use of invalids suffering from incontinence of urine. There has hitherto been no efficient apparatus to relieve the discomfort produced by this distressing malady; and we are inclined to think that the present invention—the result, it is stated, of nearly two years' experimenting—will prove to be very useful and acceptable to many.

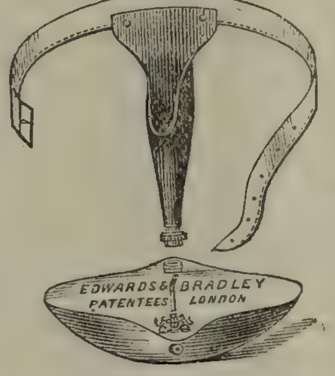


Fig. 1.—Male.

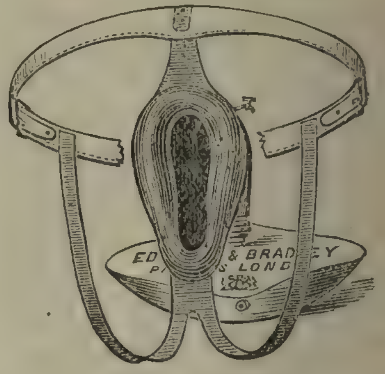


Fig. 2.—Female.

It consists of two parts, one acting as a reservoir, and the other adapted to the patient's body; the parts united together by screw-mounts. The reservoir is of plated metal, and is ingeniously formed so as to completely bury itself in the bed or couch under the thighs of the patient. The upper part is of India-rubber, and differs somewhat, according to the sex for which it is designed. For men (Figure 1), it consists of an India-rubber sheath attached to the body by means of a soft band round the hips. For women (Figure 2), it is shaped like a narrow curved basin, the edges of which can be inflated with air; and it is fastened to the body by means of two perineal straps and a front strap attached by buckles to a band passing round the hips. The contrivance allows of no regurgitation of urine and no leakage, and is easy to keep clean.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 17TH, 1880.

THE UNIVERSITY IN LONDON.

SINCE it was demonstrated by the evidence given before the Select Committee of the House of Commons last year, that the number of candidates graduating in medicine in the London University hardly exceeds five per cent. of the total number of medical students in London, and in consequence, in some measure certainly, of the urgency and constancy with which we have pressed this subject upon the attention of the authorities of the University of London, indications have shown themselves of a more serious attention to the extreme inefficiency with which that University at present performs the functions of a graduating university to the medical schools of London. The result of that evidence, and of the pressure which we felt it our duty to put upon the University, is showing itself at both ends. On the one hand, the Senate has appointed a Committee specially to consider the subject, who are believed to be disposed to suggest changes in the final M.D. examination of a kind to facilitate final graduation to the doctorate; and, on the other hand, as will be seen in a report which we publish in another column, the younger members of the University are moving in Convocation to lessen some of the technical difficulties which obstruct the preliminary entrance to the medical department of the University. The Committee of the Senate, as we stated, have been discussing the question of omitting moral philosophy, which is oddly tacked on the final examination for the degree of Doctor of Medicine at Burlington House, and substituting a thesis. We need not enter into any detailed discussion on that point; we have already referred to it, and it will require to be dealt with later, when the proposition shall ripen in the minds of those who at present entertain it. The resolution which was carried on Tuesday in Convocation will have the effect of enabling rejected candidates at the preliminary examinations to come up for re-examination in the subjects in which they have failed to pass, with less delay and loss of time than at present. The reasons in favour of such a change were so overwhelming, that the resolution was carried without opposition.

These are both steps in the right direction, and the unanimous assent with which Dr. Poore's motion met may be accepted as a good omen for future proceedings tending to popularise the degree of the University. Both propositions, however, are merely tinkering at the two ends of the question, and cannot be for a moment accepted as affording a settlement or giving due satisfaction to a principle which cannot be safely or wisely discarded from consideration. The question must be dealt with in a much larger manner and from a much more general point of view, and we have not the least doubt that it will be so dealt with. The University must cease to be an University *in* London, and must become the University *of* London, if it is to hold up its head and maintain any of the claims which its founders had in view and which its present graduates like to repeat. At the present moment, it has not any fair claim to the title, which is put on its prospectuses, of the University of London. It is an examining board in London, which has earned a certain reputation by the simple expedient of confining itself to examinations, and of making those examinations excessively difficult. On these terms, it is easy to create what may be called a body of *élite;* but, however easy to earn such a reputation, it is very doubtful whether that character is worth having, or whether that function ought to be encouraged to the extent to which it is.

Dr. Poore expresses the opinion that the British Medical Association has too easily humoured the cry for making the examinations of the University of London easier than they are. The British Medical Association has as yet said nothing in the matter. If there be any blame, the blame lies with the BRITISH MEDICAL JOURNAL. Dr. Poore is a member of the Association, and, if he choose to challenge the opinion of the Association on the subject, a very interesting and valuable discussion might follow, seeing that upwards of ninety per cent. of the medical graduates of the University are, we believe, members of the Association. The Association at the present time, however, has not itself, or through any of its Branches, given any opinion. So far as the JOURNAL is concerned, the editor of the JOURNAL stated his opinion on the subject before the Committee of the House of Commons, and that opinion we are, of course, prepared to maintain. Nor do we see that Dr. Poore's argument in any way touches our position. He points to the number of distinguished men occupying hospital positions in London who are graduates of London, and intimates that this proves that the examinations are not too difficult, and that the University is adequately fulfilling its functions. A little consideration will show that it may easily prove the opposite, but that it cannot prove the thesis which he seeks to maintain. It is, no doubt, an arguable thesis that any university which is also a teaching body such as Oxford or Cambridge, and which turns out a number of distinguished pupils, may point with pride to those pupils as a result of its teaching and as reflecting credit upon it as their Alma Mater. The University of London stands in quite a different position. It is purely an examining board; and the fact that among its graduates is a major proportion of men who reach the posts of hospital surgeons and physicians may readily prove, and we believe does prove, that its examinations are so severe and so out of proportion to the ordinary requirements of medical practice—so specially designed to require labour, considerable industry and study, ambition on the part of the student, with considerable staying power—as to become almost the favourite goal of men of special industry, adequate means, and the ambition for the higher professional posts. In other words, the fact to which he points proves our proposition, and not his. We maintain that the University of London is failing in its duty at the present time, and has done so for some years; that a large number of men who belong to the flower of the London students winter in Glasgow, Aberdeen, Edinburgh, and other schools, in order to obtain the degree of M.D., who should not be exiled from London, but who should, under a reasonably well adapted system of examination by the University of London, be able to graduate in London. We hold that the present system of examination of the University of London is a mischief to the teaching of medicine in London instead of a benefit, that it is an injury to the London schools, and that it is a hardship upon the London students of medicine.

The hardship to London students is of two kinds: not only are they excluded from graduating in medicine by the ill-devised, ill-arranged, and too severe series of examinations of the London University; but the fact that it possesses a charter conferring a degree in medicine prevents what otherwise would have happened now, if not long ago, and that is the conferring under a Medical Act of graduating powers upon a Joint Board of the Medical Corporations. It is to our mind a monstrous thing that students who have passed a good preliminary examination, and have the diplomas of the College of Surgeons in Surgery, and of the College of Physicians in Medicine and Obstetrics, should not be entitled to call themselves Doctor; while any student who has the good fortune to be born or to study at Belfast, at Cork, at Aberdeen, at Glasgow, or at Edinburgh can, by a course of study no more prolonged and no more difficult, achieve University honours and the title of Doctor. We have no doubt that this anomaly would have been rectified in the course of the present inquiry by the Select Committee of the House of Commons, but that the institution at Burlington House stands there, claiming to be an University of London, and the dispenser of medical degrees for London. That claim is solely based upon a lay series of excellent examinations, and upon a considerable body of eminent graduates who have gathered around it; but it should be used, not against, but for the benefit of the profession; and our object is, and will be, to fight this battle until the portals of the London University are thrown open to respectable capacity and respectable industry for its ordinary degree, leaving superior qualifications of the highest kind to be recognised by honours.

The claim of the University of London to be something superior to the University of Edinburgh is really absurd and mischievous. It is not recognised, and does not need to be recognised, practically in life; it does not accord with the facts of life, and it is only a part of that oligarchical feeling which quickly grows up in any circle of men who have achieved with some difficulty that which they conceive to be an especial distinction, and who desire, by a feeling which history shows to be almost instinctive, that all who come after them shall at least find the title which they have won as difficult to attain as they found it.

We are glad to know that the views which we have expressed on this subject are daily attracting fresh adherents among the most thoughtful men in the profession. It is an open secret that a letter has been addressed to the Senate of the University of London by Dr. Bristowe, in which he argues ably for an extension of the facilities of graduation by the University. We have not seen this letter, and cannot even speak of the general tenour of its contents, but it is known that it is in the general sense in which we speak; and it cannot be doubted that, supported by so conservative and thoughtful a physician and so experienced a teacher as Dr. Bristowe, with the detailed and elaborate care which he commonly bestows on every subject which he treats, these views will be materially aided towards their consummation by his intervention. At any rate, the question is now brought into a state of activity, in which it cannot rest. It must move, and we feel certain that it can move only in one direction. The University of London needs to be brought more into sympathy with the schools by a representation on the Senate of teachers of the schools, affiliated to it, and its degrees need to be popularised. The example of the University of Edinburgh is there to show that this can be done without any lowering of the character of the University; and, even if the kind of *prestige* which the younger graduates are so anxious to make prominent should be lowered, it would gain infinitely more on the other side by fulfilling its duty to the metropolis, and by becoming really a metropolitan university, instead of remaining permanently dwarfed to the dimensions of a somewhat pedantic examining board in Piccadilly.

RECENT STUDIES ON THERAPEUTICS.

I.—Picrotoxine and its Properties.

The discovery of a new mode of treatment or a new method of cure is always a subject for congratulation, and this is especially the case when the complaint against which our efforts are directed is of common occurrence. The introduction of picrotoxine as a remedy for that distressing night-sweating which frequently exhausts the little remaining strength of the victim of phthisis is worthy of notice, and we take this opportunity of reviewing our knowledge of this curious and interesting drug. This is the more necessary, as little, if any, information will be found on the subject in our ordinary text-books on materia medica or therapeutics.

Picrotoxine is the active principle of cocculus Indicus (*Anamirta cocculus*, the *Menispermum cocculus* of Linnæus), a plant which has been recognised as a medicine since the days of the Arabian physicians, by whom it was described under the name of *maheradsch*. This cocculus was probably first known in Europe as a poison for taking fish, which it first throws into violent irregular motion and then stupifies. All kinds of fish are killed by it; the barbel, it is said, taking the longest to die. Fish are inordinately fond of the berries, and, when rendered helpless by the dose they have taken, they are readily caught. They should be removed from the water as soon as they appear on the surface, and their bellies emptied, or their flesh may become poisonous and cause irritation if eaten. In nearly all civilised countries, the use of cocculus for this purpose is illegal. Cocculus has also been used from an early period by unprincipled brewers, partly for giving beer a due degree of bitterness without the employment of hops, partly to give it "bottom" and render it more intoxicating. In an old treatise on brewing, we find the following instructions. "Three pounds of cocculus Indicus to be added to ten quarters of malt, it giving an inebriating quality which passes for strength of liquor; it also prevents the second fermentation of beer, and the bursting of the bottles in warm climates." It is said to be used by thieves and bad characters for the purpose of drugging their victims.

It is a curious circumstance that, although cocculus Indicus possesses such powerful and valuable properties, it has in modern times found little favour as a medicinal agent; and we cannot help thinking that its general abandonment as a remedy was a singularly unwise step. It is a valuable local application for certain forms of skin-disease. In the east, it has been long used applied externally in the form of a powder for the destruction of vermin on the skin, as well as for the cure of scabies; and, in the form of ointment, it is said by Christison to be one of the best applications for the treatment of ringworm of the scalp. Speaking of the ointment of the old *Edinburgh Pharmacopœia*, he says that, although it may occasionally fail to cure the eruption, it always does good by relieving the accompanying irritation. Undoubtedly a picrotoxine ointment, made with vaseline or some similar substance, would prove a welcome addition to the armament of the dermatologist. Cocculus Indicus also possesses considerable value as a medicine for internal administration. A few years ago, M. Felix Planat recommended it as a remedy for epilepsy—not as a specific, but as a truly useful drug. The sole exceptions recognised by him to its curative powers in this affection are inveterate cases, whether idiopathic or symptomatic. He employs a tincture made by macerating for three weeks two hundred *grammes* of cocculus Indicus in one thousand *grammes* of alcohol. Of this, he begins by giving two drops twice-a-day, and then each successive day increases each dose by one drop until thirty drops a-day are being taken. He then gradually reduces the quantity a drop at a time until the original dose is reached, when the treatment is suspended for a fortnight; after which it is renewed, and again intermitted alternately during six months. These directions certainly seem somewhat fanciful, but M. Planat was able to produce sixteen cases of cured epilepsy—the best criterion of the value of his treatment. His observations attracted considerable attention at the time; and the Paris Academy of Medicine showed their appreciation of his meritorious work, extending over a period of twelve years, by awarding him a prize of five hundred francs. Picrotoxine is undoubtedly worthy of a trial in obstinate cases, especially when the attacks occur chiefly at night. For chorea, it is recommended by no less an authority than Gubler; and, according to Tschudi and others, it is especially useful in paralysis of the sphincters. It is also employed in various forms of dyspepsia, notably when there is severe epigastric pain aggravated by pressure or by taking food. Dr. Phillips speaks of it as being of singular service when the colon is distended with flatus, and when the bowels are constipated and the motions hard and lumpy. He also recommends it for certain symptoms associated with irregular menstruation. In females of nervous temperament and of thin and delicate fabric of body, the menses are often preceded by paroxysms of colic felt in the hypogastric region, and accompanied by more or less pain in the back and hips. This pain not only precedes the appearance of the catamenia at each period, but accompanies them for the first day or two. They are of a twisting, griping, or colicky character, and are attended by a scanty discharge or a profuse one, in either case somewhat paler than usual, and mixed with clots and shreds of membrane. The administration of two or three drops of a saturated tincture of cocculus three or four times a day prior to the expected flow, and continued during the first two or three days of its progress, will frequently ward off the pains and render the discharge more natural.

Picrotoxine, or cocculine as it is sometimes called, was discovered by

Bouillay in 1812; and its composition is represented by the formula $C^{12} H^{14} O^{5}$. It may be obtained in several different ways, details of which will be found in Watts's *Dictionary* and other works on chemistry. It is colourless, inodorous, has an intensely bitter taste, and is neutral to test-paper. It is soluble in water, alcohol, ether, and fixed oils, and it crystallises out from aqueous solutions in the form of beautiful stellate groups of colourless needles. In its physiological action, it is most peculiar. In some respects, its effects on the living organism resemble those of strychnia. Tonic and clonic spasms of great severity and violence culminating speedily in death are induced by large doses, and opisthotonos and gasping are frequent concomitants. It induces spasmodic contractions, involving first a single group of muscles, and finally almost every muscle in the body. The tetanic cramps of picrotoxine differ from those of strychnia in that the latter affect chiefly the extensors. It has been well said that the convulsions of picrotoxine more resemble the choreic, those of strychnia, the tetanic; in other words, picrotoxine exerts its influence chiefly on the cerebral centres, whilst strychnia affects the spinal. It must be confessed that the exact mode of action of picrotoxine on the cerebrum is but imperfectly understood. An attempt has been made to explain its tetanising action, on the supposition that it exerts an impression on Setchenow's inhibitory centre of reflex movements. In some observations made by Glover of Newcastle-on-Tyne five and twenty years ago, it was found that a dog under the influence of the drug exhibited symptoms resembling those of hydrophobia, and, in addition, a singular convulsive movement backwards was observed, shown in a slight degree by convulsive twitches of the head, neck, and shoulders backwards, and in a more marked manner by regular forced retrogressive movements. The animal tried to mount some steps, and even clung to them with energy; but he was forced down again backwards, and continued to progress in this direction until he fell seized with tetanic convulsions. A very constant effect of large doses of the drug on the lower animals is stimulation of the peristaltic action of the intestine. The bowels are almost always evacuated in the freest manner, and sometimes repeatedly, the motions being generally moist and pulpy. The bladder, too, is emptied more than once during the action of the drug; but whether this is due simply to stimulation of the muscular tissue of that viscus, or whether it is the result of diuresis, is not known. Profuse salivation, as Glover has shown, is another symptom. Two scruples were injected under the skin of a bulldog, and in a few minutes the animal got up and rushed forward, a terrific object, the saliva and foam flying in sheets from his mouth, and his eyes glaring. He suddenly stopped, ran straight backwards, and was seized with a violent fit of tetanus, at the end of which he was dead. Dr. Crichton Browne, in his papers published in the BRITISH MEDICAL JOURNAL for 1875, has shown that in the lower animals picrotoxine first quickens, and finally retards, the movements of respiration and the cardiac contractions. He finds, too, that its action on the temperature of the body is very uniform and constant. Immediately after its administration, there is a slight rise attributable to the agitation attending the exhibition of the drug, and subsequently there is a steady fall, amounting sometimes to seven or eight degrees.

Quite recently, Dr. Murrell has introduced picrotoxine as a remedy for the night-sweating of phthisis. He uses a 1 in 240 solution in water, and of this he gives from one to four minims three times a-day, the last dose being taken at bedtime, or immediately before the time at which the perspiration usually commences. He has employed this mode of treatment at the Royal Hospital for Diseases of the Chest in twenty cases, with only one failure. The sweating is usually arrested in two or three days, and there is no return for a fortnight or more. The picrotoxine is best given alone, and not in a mixture, and it has been found to succeed after oxide of zinc, belladonna, Dover's powder, and other remedies have failed. A great advantage of the treatment is that it does not make the skin too dry, but leaves it comfortably moist, whilst not unfrequently atropia seems to parch it up. The aqueous solution is apt to deposit crystals in winter, but it soon clears up on warming.

NURSES AND DOCTORS.

THE question raised by the very important incident at Guy's Hospital, of which we have had to take notice during the last few weeks, is one which deserves very careful consideration upon principle, and opens up a discussion from which we hardly feel justified in refraining, although it may easily tend to became interminable, and possibly evoke some rather warm feeling. The elevation of the function of nursing has of late years been a very notable feature in hospital administration and in private life. It is due in the first instance, and most largely, to Miss Nightingale and her devoted band of assistants, who afforded, in the Crimea most strikingly, although not for the first time, proof of what intelligent, devoted, and well-bred women can do, and do well, in hospital wards. That movement has had the warmest sympathy, the most earnest help, and the wisest counsel from medical men of various grades. Everywhere the nurses have been supported, praised, encouraged, trained, and favoured by doctors, who have seen at once how large a sphere of usefulness such occupation opens to women, and how great an advantage may be derived from bringing into hospital nursing the highest qualities of educated minds. On the other hand, there has no doubt been a mixed experience of lady-nurses and nursing sisterhoods; and, from time to time, it becomes evident that we have not yet settled upon what is the type of nursing system which will, on the one hand, combine the greatest attraction to good and devoted nursing-ladies, and to respectable, teachable, and trustworthy female nurses of lower social grade, with, on the other, adequate independence, and due control by the medical heads of the wards. There tends very easily, and in some places quite fatally, to grow up an empire within an empire; and, as the lady-superintendent is often personally intimate or influential with the lay members of the governing board, on which the medical staff are frequently not represented, and as the administration of any institution once entrusted to a nursing sisterhood is largely dependent upon that sisterhood or other organisation for its smooth working, the power which the lady-superintendent acquires becomes very considerable, and is not always used with sufficient discretion or reasonableness. The Guy's Hospital incident is one example. What we hear from Leicester, in spite of Dr. Marriott's opinion, shows that even where, in the opinion of some, this system of nursing despotism succeeds, it is far from being an unmixed benefit. We have to-day another story from Manchester, which illustrates again the necessity for some sort of reconsideration of the methods and principles under which nursing is to be conducted in hospitals, unless we are to see the nurses, who are essentially the instruments of the doctor, become his mistresses. As we have it on good authority, the recent incident at the Children's Hospital, Manchester, is painfully instructive in this respect. Dr. Humphreys, a Cambridge graduate of high distinction, Fourth Wrangler, Fellow of St. John's, etc., and one who, from his medical career, had a fair chance of getting on the staff of one of the hospitals with which he had been connected in London, was induced to join the Children's Hospital at Pendlebury as assistant-physician. To this post, a salary of about £300 a-year was attached. After some time, the directing physician resigned, and Dr. Humphreys was appointed physician with a salary of £400 a-year, a colleague being appointed at the same time, also paid. The payment is necessary, since the hospital is situated far from the town (five or six miles), and general practice is forbidden. After holding the office of physician and assistant-physician for three years, during which time he had every reason to believe that his position was a permanent one, Dr. Humphreys has been suddenly suspended from his duties, and has, in consequence, felt it incumbent on him to resign his office. The only cause given for the suspension is, that he had been guilty of a breach of discipline in interfering in an improper manner with the control of nurses by the lady-superintendent. The Committee refuse to give any further reason. Dr. Humphreys admits that he did interfere, when he found that he was about to lose one of his most able "sisters" without good cause.

The profession generally in Manchester feel very strongly that Dr.

Humphreys has been treated in a very unjust manner, and that to dismiss a physician of his standing because the head of the nursing department complained of his interfering with her in her duties, is to pass a slight on the profession. The various hospital physicians and surgeons feel that there is a tendency to make the nurses, not their aids, but their supervisors and superiors. Meanwhile, Dr. Humphreys himself loses the income on the strength of which he had taken a house near the hospital, which he has on his hands for five years; and, in fact, his career in life is seriously damaged. The following is the wording of a memorial which has been most influentially signed.

"*To Henry Humphreys, Esq., M.D., M.R.C.P.*—We, the undersigned physicians and surgeons to the hospitals in Manchester, wish to express our sympathy with you in the position in which you have been placed by the action of the Committee of the Children's Hospital, Pendlebury. Since you came to Manchester, three years ago, you have shown, by your contributions to the Medical and Microscopical Societies, and in other ways, that you possess marked ability, and that you follow your profession most zealously. We deeply regret that your work, which promised to add much to medical knowledge, should have been cut short for the present in the manner it has been. Since the Committee of the Pendlebury Hospital refuse to give other grounds for their action than those which appear in your letter to the *Lancet* of the 20th of December, we can only presume that they have acted solely on these grounds. Should such be the case, we feel that their conduct has been extremely arbitrary and unwarranted, and that they have been wanting in that courtesy which was to be expected from the committee of an hospital toward a physician of your standing. If, on the other hand, the Committee have been led to the course they have adopted by reasons other than those which they have set forth, but which they decline to communicate to you, we cannot but characterise such conduct as unjust to you, and unworthy of those gentlemen to whom the supervision of the hospital has been entrusted. We feel that the Committee have by their action done you a most grievous wrong, and we are satisfied that in doing so they have acted in a manner detrimental to the interests of the hospital of which they have the management.—Wm. Roberts, M.D., F.R.S.; F. A. Heath, M.R.C.S.; H. Simpson, M.D.; E. Lund, F.R.C.S.; J. E. Morgan, M.D., F.R.C.P.; S. M. Bradley, F.R.C.S.; D. J. Leech, M.D., M.R.C.P.; W. Whitehead, F.R.C.S.Ed.; J. Thorburn, M.D., M.R.C.P.; D. Little, M.D.; J. Dreschfeld, M.D., M.R.C.P.; J. Hardie, M.D.; J. Ross, M.D., M.R.C.P.; D. Lloyd Roberts, M.D., F.R.C.P.; R. Heslop, L.R.C.S.; C. J. Cullingworth, M.R.C.P.; J. H. Ewart, M.R.C.S.; E. Gumpert, M.D.; W. N. Maccall, M.D.; H. W. Boddy, M.B.; S. Buckley, F.R.C.S.; A. W. Stocks, M.R.C.S.; A. M. Edge, M.D., M.R.C.P.; A. Boutflower, M.R.C.S.; J. H. Morris, M.R.C.S.; W. J. Sinclair, M.D.; R. D. Fox, F.R.C.S.Ed.; J. Scott, M.B.; C. E. Glascott, M.D.; P. H. Mules, M.D.; A. E. Jones, M.D.; F. M. Pierce, M.D.; T. H. Pinder, M.R.C.S."

We make no further comment on this document, than to say that the sympathies of the whole profession will be with Dr. Humphreys under these circumstances, as the case is one which seems to point to a scandalous abuse of administrative power. Unless it is set right, no respectable member of the profession should, until the profession in Manchester are satisfied on the subject, become a candidate for the appointment. Meantime, the general bearing of this incident, taken in conjunction with what is now going on at Guy's Hospital, must satisfy the Guy's Hospital staff that it will be necessary for them to assume a very firm position in the matter, and to insist in the most absolute and positive manner that their wishes shall be carried out in the nursing of the wards. They, and not the nurses, are responsible for the patients; and they have a right to insist peremptorily and absolutely that the nurses shall be disposed according to their wish, and that the nursing shall be carried out according to their orders and in the manner which they think most likely to be conducive to the welfare of their patients. The Guy's Hospital staff are in a position to insist upon this; and the extraordinary treatment of Dr. Humphreys by his Committee should make them more determined than before to assert in this manner the rights of medical men—absolutely necessary when viewed in connection with their grave and constantly enduring responsibility for the life and health of the patients of whom they take charge. The doctor is responsible for his patient; and the nurse must be a person who owes strict allegiance to him, who pays blind obedience to his orders, and pays it as absolutely as a private soldier the command of his superior officer.

Mr. Teevan delivers, on January 19th, at 8.30, the second Lettsomian lecture on Enlarged Prostate.

Messrs. John Wood and Hulke have resigned their seats at the Board of Examiners of the Royal College of Surgeons. The election of their successors will take place on the second Thursday in March.

At a meeting of the Council of the Royal College of Surgeons on the 8th instant, Mr. Luther Holden, the President of the College, was requested to deliver the next Hunterian Oration, and consented to do so.

Not a single member of the College of Surgeons has competed for the Jacksonian Prize of the Royal College of Surgeons; and only one for the Collegial Triennial Prize.

Mr. Henry Trentham Butlin, F.R.C.S., of St. Bartholomew's Hospital, a Jacksonian Prize Essayist of the Royal College of Surgeons, has been elected the Erasmus Wilson Professor in the College, and will give his lectures early in the present year.

Recent decrees of the Minister of Public Instruction have created a Clinical Chair in the Faculty of Medicine of Paris for Cutaneous and Syphilitic Diseases. The combination is, to our opinion, a forced and not altogether a desirable one; for although many syphilitic diseases are cutaneous in some of their manifestations, it is far from being the fact that a large majority of skin-diseases are syphilitic. By another decree, a Chair of Comparative Pathology in instituted at the Museum of Natural History, and to this Chair M. Bouley is appointed.

M. Rouget, Professor of Physiology in the Faculty of Medicine at Montpellier, is nominated Professor of General Physiology in the Museum of Natural History of Paris, in succession to the late Claude Bernard.

The year 1879 has thus seen the addition of an almost complete series of Clinical Chairs to the Faculty of Medicine of Paris. A Chair of Clinical Ophthalmology, as we have mentioned before, has been instituted at the Hôtel Dieu in connection with the Faculty, and has been entrusted to the hands of M. Panas, more known as a general surgeon than as an oculist. The Chair of Mental Disease has also been opened this year by Professor Ball. Professor Parrot, well known in this country by many excellent researches, especially those on athrepsia and on a characteristic deformation of the skull, has been appointed Professor of the Clinical Chair of Diseases of Children; and the list is completed by M. Fournier's appointment to the newly created Chair of Syphilology and Dermatology. Thus specialties have made their formal and complete entry into the Faculty, and have conquered the ground which they have so long attacked unavailingly. It is, however, to be noted that all these specialties are connected with general hospitals, and thus that association of special study with general hospital teaching and general hospital practice is ensured, which in this country we think very desirable, but have not been always able to attain.

Other new professors of the Faculty this year are Professors Bouchard, Hayem, and Brouardel, who have succeeded Chauffard, Gubler, and Tardieu, all deceased during the year.

It is announced that a new work on water analysis, by Profesor Frankland, will be published during this month by Mr. Van Voorst. It will be eagerly studied.

The City of Bath deserves great credit for the vigorous and satisfactory manner in which they have dealt with the outbreak of small-pox which has occurred there. It will be seen that the cases have been satisfactorily dealt with, that the outbreak has been thus limited, and is on the point of dying out. The rumours which have got about on the subject were, it will be noticed from the figures which we gave last week on the accurate information of the Health Officer, Dr. Brabazon, extremely exaggerated. The general healthfulness of the city has well maintained its standard, and the outbreak has been dealt with in a satisfactory and vigorous manner.

WE cannot but feel satisfaction that the Leicester magistrates have marked by the imposition of a very heavy fine, with the alternative of three months' imprisonment, their sense of the enormity of using meat of animals infected with consumption for human food. So grave an offence cannot be too seriously regarded. All recent knowledge tends to confirm the opinion that tubercle is essentially infective, and experimental research leaves little reason to doubt that the consumption of tuberculous meat is extremely likely to produce in man, as it undoubtedly does in animals closely allied to him, tuberculous disease of the system by inoculation through the alimentary canal.

ROYAL COLLEGE OF PHYSICIANS.

THE lectures for the present year will be delivered at the College, Pall Mall East, on the following Wednesdays and Fridays, at five o'clock: the Gulstonian lectures, on Epilepsy, by Dr. Gowers, on February 20th, 25th, and 27th; the Croonian lectures, on Some Points in the Pathology and Treatment of Typhoid Fever, by Dr. Cayley, on March 3rd, 5th, and 10th; and the Lumleian lectures, on Researches on the Digestive Ferments and the Preparation and Use of Artificially Digested Food, by Dr. W. Roberts, on March 12th, 17th, and 19th. The lectures will be published in the BRITISH MEDICAL JOURNAL.

THE HARVEIAN SOCIETY.

THE annual *conversazione* was held at the Stafford Rooms, on January 8th, and was a complete success; a large gathering of the members of the Society, including several distinguished members of the profession, being present. The proceedings commenced with an able address on the Life of Harvey by Dr. H. C. Stewart, the retiring President. After the election of the new officers and the usual routine business of the annual meeting, Mr. James Samuelson of Birkenhead gave a demonstration of Rhodes' audiphone, illustrating its use on some of Mr. Field's patients. The interesting experiments were listened to, and evidently appreciated, by the large audience present. Several works of art were exhibited, including Indian curiosities kindly lent by Sir J. Fayrer, photographs of Harvey's tomb by Dr. B. W. Richardson, a portion of the Cleopatra needle, and a model of the ship by Professor Erasmus Wilson; Mr. Ernest Hart lent a portrait-medallion of Professor Charcot by his wife, and the original drawing for the pro-vivisection cartoon in *Punch* by Mr. Tenniel, finished and heightened in chalk by the artist whose signature it bore. This interesting cartoon contains portraits of Sir W. Jenner, Sir W. Gull, Sir Henry Thompson, and Mr. Hart. Antique jewellery by Messrs. Hunt and Roskell was shown: and other objects of interest were lent by Dr. Shepherd, Dr. Murray, Dr. H. C. Stewart, and Mr. Howard Hayward. Microscopical specimens were shown by Mr. D'Arcy Power and Mr. Malcolm Morris. The Society is to be congratulated on the success of the *soirée*, which was to a great extent due to the unflagging zeal and energy of the secretaries.

OXFORD MEDICAL FACULTY.

DR. DONKIN's letter on scientific endowment at Oxford, which is published at page 110, is very interesting as correcting what seems to have been the impression made on his mind, and may possibly, therefore, have been the impression made on the minds of others, by our last note on the subject of the lost medical school at Oxford, that the whole of the £10,000 a-year now spent on biological science at Oxford is spent exclusively on the preparation of the few students who are really educated in medicine in London, and about four of whom annually subsequently return to be examined in medicine, at great expense, at their Alma Mater. This is, of course, not the case; and our readers are now so familiar with all the facts and figures which have been more than once detailed by ourselves and Professor Ray Lankester, that we do not again go into the details. Oxford is entitled to lay claim to whatever credit is due to the education of a limited number of students in Natural Science as the outcome of this vast expenditure; but what we have pointed out—and in that we are happy to know that Dr. Donkin entirely sympathises with us—is that the best resources of Oxford for the training of medical students in biological science are painfully misapplied and wasted. Medicine is, as he says, so thoroughly exiled from the University that "it is notorious that the medical student at Oxford is a somewhat rare specimen, and that he never learns his medicine there." The misapplication of funds is twofold. In the first place, the biological subjects are so taught and arranged as to form no part of any regular medical curriculum. The special medical subjects are so taught as to be useless as part of a medical curriculum, or else are not taught at all. Secondly, funds, specially and exclusively intended for the use of medical students, are applied to other purposes. The clinical resources of the hospital are wasted, and everything is so arranged as to make it nearly impossible for a medical student to avail himself, except at an enormous waste of time and money, of such biological education as Oxford offers. That is our case; and Dr. Donkin, we believe, and many others, fully agree and entirely sympathise with our views.

CHLOROFORM DEATH.

THE *St. John Globe* (New Brunswick) reports a death by chloroform on the 18th ult., in the case of a lad aged 17, suffering from an accident to the left foot. The quantity of chloroform used was said to be small; hardly three ounces of blood were lost during the operation. The *post mortem* examination showed the body to be well nourished, the heart normal, the left side being empty and contracted, and the right filled with black fluid blood. About three drachms of blood were found in the pericardium. The right lung was congested, and the left lung was hepatised, more particularly in the lower lobe; and, with the exception of the apex, there were adhesions on nearly all parts of it. The stomach was empty and contracted; and the liver normal. Death was ascribed to asphyxia, hastened by the action of chloroform on the congested lung. The amount of chloroform used is stated to have been not more than three drachms. The coroner was of opinion that ether should have been used instead of chloroform, being attended with less risk, although a little more difficult to administer. We should not be sorry if this question were more directly raised in chloroform deaths in this country. The risks of chloroform appear to be so considerably greater than those of ether, that we should not be surprised if some day, in the course of an investigation where death has occurred from chloroform, when there was nothing to contraindicate the use of the apparently safer anæsthetic, ether, some very serious and severe blame, and perhaps even more unpleasant consequences, should result to the administrator. It is not sufficient in such cases to say that every care was exercised in the administration of the anæsthetic, unless it be very clearly shown that the anæsthetic was chosen which had the best record, and was by the best authorities accepted as being least likely to cause fatal accidents. This view of the subject is apparently not always sufficiently considered by surgeons and by some of the gentlemen who hold themselves out as especially undertaking the business of administering chloroform. It is, however, one which will deserve very serious consideration, and the neglect of which may some day cause very unpleasant consequences.

VARIOLA AND VACCINATION.

PROFESSOR Naunyn, of Königsberg, gave a very interesting address on variola, vaccination, inoculation, etc., at a meeting held at Eisenach, which is reported in the *Ærtzliches Verein-Blatt* for September 1879. Among other things, he mentioned the presence of variola in man, goats, sheep, and hogs, which produces an eruption, accompanied with fever and affections of the mucous membranes, whilst that occurring in cows and horses is a mere local disease. The first group, besides the contagion effected by the virus, produces fomites, whilst in the second group the immediate transmission of the virus is necessary for the propagation of the disease. It has been frequently and long observed that cow-pock and horse-pock were inoculated on man, but sheep-pock has only been transmitted by direct and artificial methods. The cow is predisposed to inoculation with human, equine, and ovine virus. The horse and ass have been successfully inoculated with bovine, humanised, and pustular virus. Ovine virus has had no effect. Sheep are readily affected by bovine and equine virus, but have little susceptibility to the human. Goats are susceptible to the lymph of the sheep and hog, and reproduce it. Hogs can be inoculated with human, ovine virus, etc. The first transmission of a foreign virus is often unsuccessful, or produces doubtful results, so that it appears that there is a natural resistance which is to be overcome by previously acclimatising the virus. In the same species, however, the propagation is easy. In all cases, however, human and animal virus can be reciprocally and successfully inoculated. There is a law by which man has a susceptibility, in common with some other diseases, of contracting variola but once in a life-time. The practice of inoculation in the past year has proven that the disease, artificially induced, is as competent to insure this further immunity. These laws are equally applicable to the inferior animals. Equine or bovine virus received by accident or intentionally has proved to be of the same value as variola as a future protective. Ovine virus is also a guarantee against variola, and destroys further susceptibility to vaccination. Cattle that have been inoculated have no longer any adaptability to the reception of equine, ovine, or bovine virus. Sheep enjoy the same immunity after an inoculation.

SCURVY.

In reporting the reception of Professor Nordenskjöld and the staff of the *Vega* at Nagasáki, *Nature* notes that there was not a single case of scurvy during the whole voyage. This was owing to the free use of a curious little berry that springs out of the ice and snow during the short summer; it bears profusely, and has a taste like the raspberry, but more acid. The fruit is dried, and then mixed with the milk of the raindeer, and it can be carried in a frozen state for thousands of miles. There was also used a curious kind of food made from the whale's hide, which is pickled and eaten freely during the winter. This will be of interest to our future Arctic explorers, and is once more a lesson to persons of the opinions of Captain Markham and Sir G. Nares to prefer vegetable juices and potatoes and fruits to rum as a preventive of scurvy.

A HOMELY SUBSTITUTE FOR COD-LIVER OIL.

Dr. Thomas Addis Emmet (*Principles and Practice of Gynæcology*) recommends as a good substitute for cod-liver oil the fat of pork. For its proper preparation he gives directions as follows. A thick portion of a rib piece, free from lean, is selected and allowed to soak in water for thirty-six hours before being boiled, the water being frequently changed, to get rid of the salt. It should be boiled slowly and thoroughly cooked, and, while boiling, the water must be changed several times by pouring it off, and fresh water, nearly boiling, substituted. It is to be eaten cold, in the form of a sandwich, made from stale bread, and both should be cut as thin as possible. It is very nutritious, but it should only be given in small quantities until a taste for it has been acquired. It is the most concentrated form in which food can be taken in the same bulk, and Dr. Emmet has frequently seen it retained when the stomach was so irritable that other substances would be rejected. For this condition of the stomach, it may be rubbed up thoroughly in a porcelain mortar, and then given in minute quantities at a time. It is made more palatable by the addition of a little table-salt, and this will be well tolerated, while the salt used for preserving the meat, having become rancid, if not soaked out, will produce disturbance, even in a healthy stomach. For obvious reasons, it is best not to inform the patient of the nature of this food until he or she has learned to relish it.

THE PROPAGATION OF DISEASE THROUGH CIGARS.

In the current number of the *Archives of Dermatology*, Dr. L. Duncan Bulkley of New York publishes an account of two cases in which syphilitic disease was probably contracted through the medium of cigars. Both the infected persons were physicians who had closely studied this disease, and every care appears to have been taken to exclude other modes of contagion. In the first case, the initial manifestation was situated on the upper lip. There was an indurated sore on the margin of the lip at the left side, and a second sore towards the right side. No other lesion could be found either on the penis or elsewhere. The patient denied having ever had any venereal ulcer. He had not kissed anyone except members of his own family for a long time. Enlargement of the submaxillary glands, mucous patches of the fauces, and a macular eruption on the skin, followed. The patient was a great smoker of cigars made in the country. In the second case, the primary sore appeared about the middle of the lower lip at the site of a fissure from which the patient had suffered for some years. Enlargement of the glands beneath the jaw occurred, and a general papulo-erythematous syphilide subsequently appeared. There had been no exposure to venereal contagion for many months. This patient also was a considerable cigar-smoker, and very careful investigation failed to discover any other origin of the syphilis. In connection with these observations, Dr. Bulkley remarks that he lately had a cigar-maker, who was suffering from extensive syphilitic ulceration of the mouth, under treatment at the Demilt Dispensary. This man acknowledged using his saliva during his work for moistening the ends of the cigars. Dr. Bulkley also states that he has himself seen the workmen in a cigar manufactory moisten the tips of cigars in their mouths.

THE DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.

We are informed that Inspector-General John Watt Reid, M.D., Senior Medical Officer at Haslar, is nominated to succeed Sir Alexander Armstrong, K.C.B., whose term of office as Director-General of the Medical Department has been prolonged beyond the usual time.

THE HABITUAL DRUNKARDS' ACT.

At the Gloucestershire Quarter Sessions, held at Gloucester on the 6th instant, application was made by Mr. A. Iles for a licence under the Habitual Drunkards' Act for a house at Sheepscomb, near Stroud. It appeared that the application was somewhat informal, as it had not been received in time to permit of its being advertised with the notice of the sessions. On this ground, as well as because other technical points were involved, the Chairman (Mr. J. E. Dorrington) suggested that the consideration of the application should stand over until next sessions. Several magistrates expressed their opinion that great caution would have to be observed in granting licences under the new and important statute having reference to habitual drunkards, and it was agreed to appoint a committee to inspect the premises which Mr. Iles proposes to convert into a Retreat. Mr. Iles is not, we understand, a qualified medical man, but he has for some time conducted a private home for nervous invalids in Derbyshire. Should Mr. Iles's application be granted, it will become at once incumbent on the Home Secretary to appoint an Inspector of Retreats; and we need scarcely remind our readers that the Government gave an undertaking that no one but a medical man should fill that office.

A HINT TO PUBLIC SCHOOLMASTERS.

The Principal of Ampleforth College, Helmsley, has sent a circular to the parents of his pupils on the subject of the prevention of infectious disease. It is a notorious fact, that scarlet fever and other infectious diseases are constantly brought to schools by the pupils after the holidays, and a precaution like that mentioned in the circular may be the means of preventing the admission of infectious disease into the College. At present, there is at least one large educational institution in the North of England suffering from a severe epidemic of scarlet fever, which has proved fatal to several of the pupils. The first case was traced to a boy who had returned from home when his family were convalescing from the fever, and he was thus the means of causing the death of some of his fellow-pupils, and also the cause of great suffering, expense, and anxiety to many others. The circular is issued with a view of preventing an occurrence like the above. The wise and scientific policy of the principal is worthy of imitation. The circular is as follows. "In consequence of the great prevalence of scarlet fever, measles, and other similar ailments throughout England at the present time, and with a view to prevent any of these illnesses being introduced into the College after the vacation, the parents of each student are respectfully requested to forward to the Prior a doctor's certificate, or at least a satisfactory assurance that their sons have been in no way exposed to the danger of any infection during the holidays. The Prior is sorry to ask the parents to put themselves to this trouble, but as several colleges in England have lately suffered from severe and in some cases fatal epidemics in consequence of one boy bringing back some infection from home, he thinks he is only acting in the interest of the parents themselves in endeavouring to prevent the possibility of any illness being introduced amongst their children."

THE COMPULSORY REGISTRATION OF INFECTIOUS DISEASE.

THE Police Commissioners of Dundee, finding that their previous order (see BRITISH MEDICAL JOURNAL, vol. I, 1879, p. 532) with regard to the notification to them of cases of infectious disease has been neglected, have issued a further order, bearing date the 12th ultimo, drawing attention to the regulation in force, and explaining its aim. The local authority warn the inhabitants that they will not hereafter readily accept any excuse for neglect in reporting cases of infectious disease, and that inattention to the order will subject defaulters to prosecution and a penalty. By the new order, the diseases to be reported are defined to be "cholera, small-pox, typhus fever, typhoid or enteric fever, relapsing fever, scarlet fever, childbed fever, measles, and diphtheria".

THE WEEKLY RETURNS OF THE REGISTRAR-GENERAL.

THE weekly returns for 1880, as did those of the four preceding years, will contain the vital statistics relating to twenty-three of the largest cities and towns of the United Kingdom, estimated to contain an aggregate population of 8,633,571 persons at the middle of this year; they will also contain statistics for the outer ring of metropolitan suburban districts around London, the estimated population of which at the same date is 955,503 persons. These returns for 1880 will, therefore, deal week by week with the vital statistics of an estimated population of rather more than nine and a-half millions of persons residing within the United Kingdom; they will, moreover, as heretofore, contain weekly statistics relating to twenty-nine large foreign cities situated in the four quarters of the world, and having an estimated population of more than thirteen millions of persons. The population of the twenty large English towns specially dealt with in these returns, estimated to the middle of this year, is 7,499,468 persons, and shows an increase of 115,469 upon the estimate for 1879. The population of registration London is estimated at 3,664,149, and that of the nineteen provincial towns at 3,835,319; the estimated year's increase being equal to 12.0 per 1,000 in London, and to 19.2 in the nineteen other towns. The population of Greater London, however, is estimated at 4,619,652, showing an increase of 85,512, or 18.9 per 1,000 upon the estimate for the middle of 1879. The estimated rate of increase of population in the metropolis differs, therefore, but slightly from the average rate of increase in the nineteen provincial towns.

DR. FARR'S SUCCESSOR.

RUMOURS are numerous as to a probable successor to Dr. Farr, as Superintendent of the Statistical Department of the General Register Office. Dr. Farr having created and thoroughly organised the system of vital statistics which have rendered the reports of the Registrar-General so valuable and so generally useful, it is, fortunately, unnecessary to expect in his successor that rare combination of ability and industry which gave such special value to Dr. Farr's services. It is natural, however, that in his successor we should look for special qualifications and aptitude for dealing with vital statistics. It should not be forgotten that the duties of his post are more especially statistical than they are medical. The Government has thought fit to appoint a Registrar-General who, whatever may be his qualifications, has to acquire at his post a knowledge of registration. Let us at least hope that they will not also appoint, in succession to Dr. Farr, a Superintendent of Vital Statistics who has no special knowledge of statistics. Among the rumours as to the probable successor to Dr. Farr, the one which has been put forward with most show of probability is that which names Dr. William Ogle, M.A., F.R.C.P.Lond. Dr. Ogle is an undoubtedly able man, and capable of doing honour to any professional position in which he may be placed. He has for some time held the appointment of Medical Officer of Health for the combined district of East Hertfordshire, and has suffered, like other medical officers of health of combined districts, from the anomalous position in which they are left by the inaction of the Local Government Board. He has also made several special reports on outbreaks of infectious disease for the Medical Department of that Board. The appointment of Dr. Ogle to succeed Dr. Farr would have this advantage, that the statistical adviser of the Registrar-General would possess an intimate knowledge of the necessity which medical officers of health feel for more help from the National Death Register than they at present receive. The question, however, which naturally suggests itself with reference to any proposed successor to Dr. Farr, remains to be asked with reference to Dr. Ogle—Has he any special acquaintance with the science of statistics? We have seen no statistical work of Dr. Ogle; and on this account, are almost inclined to view as premature the report that he is to succeed Dr. Farr as Superintendent of the Statistical Department of the General Register Office.

MIRRORS IN RAILWAY CARRIAGES.

A CORRESPONDENT writes to us:—You may have seen mirrors in railway carriages on both sides for reflecting advertisements. I spoke to a station-master on the subject, and he agreed with me that even a slight collision would bring down with great force a shower of broken glass on any passengers. I understand a company has been formed on purpose to supply these mirrors; and as the railway companies derive a large income from advertisements, we may expect the mirrors will be more generally adopted, and the danger increased. Slight collisions are not unfrequent, and permanent injury to the eyes would deprive the majority of passengers of any means of getting a living.

TRICHINOSIS IN THE SCHOOL-SHIP "CORNWALL".

SOME exaggerated statements being current on this subject, it is desirable to give the actual facts of the case as far as yet known, although the inquiry is still incomplete. In the year 1877, application was made by the Home Office to the Local Government Board to allow one of the inspectors of their medical department to inquire into the causes of a considerable prevalence of typhoid fever amongst the boys on board the *Cornwall*, specially with regard to the allegation that their health was affected by the outflow of metropolitan sewage at Barking and Crossness. Mr. Radcliffe was commissioned to make the inquiry, which was of a desultory kind, being made in the intervals of more pressing work. Nothing came of it except some valuable observations (which will be found chronicled in volume II of the JOURNAL for 1878, pages 934 and 935) on the vexed question of the pollution of the Thames. Mr. Radcliffe found the registration of sickness and death on board the ship to be so defective as to hamper his inquiry seriously, and in the end nothing definite was arrived at as to the circumstances of the outbreak. It is just possible, from what has now transpired, that the outbreak of "typhoid fever", which Mr. Radcliffe could make nothing of, was, in fact, an outbreak of trichinosis, for the one disease may easily be mistaken for the other. In fact, the enteric irritation, the loss of appetite, diarrhœa, the irritation and pain in muscles, the fever, sweating, anasarca, the diminished secretion of urine, combined with continued sleeplessness, produce a condition of the blood in trichinous patients which those who have well observed it have termed typhoid- or typhus-like. A further series of cases of "typhoid fever" having occurred on board the *Cornwall* last autumn, application was again made by the Home Office for a reinspection of the ship by the medical department of the Local Government Board. This request was complied with, and Mr. W. H. Power was instructed to make the inquiry. The records of sickness have apparently been improved since

Mr. Radcliffe visited the ship; for Mr. Power, on commencing his investigation, was at once struck with certain symptoms and clinical facts which hardly accorded with the cases being typhoid fever; and his suspicions were aroused that he was dealing with an outbreak of trichinosis. With the view of clearing up this point, it was necessary to exhume the body of the only boy whose attack was fatal; and the sanction of the Secretary of State having been obtained, this was done, and a *post mortem* examination made of the remains. Clear evidence was then obtained that the boy had not died of typhoid fever, as supposed, but of trichinosis, and Mr. Power is now working out the symptoms of the other boys whose attacks were not fatal. There can, of course, be no doubt that the outbreak has been caused by the eating of trichinous pork of some kind or other; but until Mr. Power's final report is publicly issued, it seems premature to brand any particular description of pork as concerned in the outbreak. The only previous outbreak of trichinosis in this country that has been recognised, that at Wokington in April 1871 (see BRITISH MEDICAL JOURNAL, vol. I, 1871, p. 435), was caused by eating the flesh of a home-fed pig. It might have been thought that, of all ways of killing the trichina, the prolonged and continuous boiling, which is the universal mode of preparing pork on board-ship, was the most effective. It may perhaps turn out that, on a particular occasion, the pork was not boiled sufficiently long, and was underdone. Consumers of pork need not, however, entertain any foreboding as to our immunity from trichinosis being a thing of the past. All that they have to be careful of is, that the food is properly and thoroughly cooked. If, during cooking, the flesh have been raised to a persistent temperature of 170° Fahr., then the ingestion of pork, trichinised or not, however little an object of ambition, will do no harm. The outbreaks of the disease, of which we not unfrequently read as occurring on the continent, are due to the fact that the flesh is not adequately cooked, an unpleasant habit being common in many parts of Germany of eating pork, particularly in the form of sausages, more than half raw. Uncooked pork or ham is excessively dangerous, and should never be eaten by any person who respects his health or his life; for trichinosis is a dangerous disease to deal with, and if not taken in time, before the parasites have gained admission to the muscles, its consequences may be of the most serious and even fatal kind.

THE SUBURBS OF LONDON.

DURING the third quarter of 1879, the death-rate of Tottenham was at the rate of 15.5 per 1000 *per annum*, against 18 in the third quarter of 1878. The death-rate from zymotic diseases was 2.9 against 4.9 in the corresponding quarter of the previous year. The total number of deaths from all causes was 132, of which 25 were from zymotic diseases. No deaths occurred from small-pox, measles, scarlet fever, diphtheria, or enteric fever. The deaths from diarrhœa (twelve) were less than half the number in the corresponding quarter of 1878, this decrease being doubtless due to the low temperature. At Finchley, the death-rate for the same period, calculated on as accurate an estimate of the population as is now feasible, was very low; but the numbers are too small to admit of any safe deductions being drawn from them. Dr. Tuke seems to be commencing his new duties as health-officer of this recently constituted district with commendable vigour, for we find him denouncing, in no measured terms, the abominably insanitary condition of some of the national schools in his district. During the quarter, one case of typhoid fever and twelve of scarlatina came under observation, besides two or three cases of mild diphtheria in a house, the basement and surroundings of which were found to be saturated with sewage, and which was in close proximity to some large cow-sheds. The sanitary state of Edmonton would appear to be very bad. The continuous prevalence of typhoid fever there has induced the Local Government Board to direct an inspection of the district by Dr. Parsons, one of their medical inspectors; and we observe that only the other day a deputation from West Edmonton waited upon Mr. Sclater-Booth with a memorial, praying that the western part of the parish might be separated from the jurisdiction of the Edmonton Local Board, who had neglected the sanitary wants of the district. This is the first occasion that any application of this sort has been made, and Mr. Sclater-Booth has taken time to think over the propriety of the proposal. The fact of the deputation's attendance, and the reasons for it, draw attention again, and very forcibly, to the really shameful condition of many of the suburbs of London. An attempt was made some years ago, by the Medical Department of the Privy Council, to make an investigation of the actual state of affairs all round the metropolis; but the effort was, on account of other more immediately pressing claims upon the time of the department, given up when it had not proceeded far, and it has unfortunately never been resumed, although evidently greatly wanted.

FOOT-WARMERS FOR RAILWAY-CARRIAGES.

THE English railway-companies, in denying foot-warmers to their travellers in cold weather, are more than parsimonious—they inflict a severe punishment and, it may well be, from time to time, a dangerous injury on their travellers. It is very well known to physicians that there are many persons, even in sound health, to whom coldness of the feet is much more than a discomfort. It is the signal for internal congestions, quite out of proportion to the mere lowering of temperature of the part, but due to reflex impressions on internal organs. We are cognisant of more than one case in which coldness of the feet means always an attack of congestion of the kidneys. The persons who are particularly liable to injury from this cause are, especially, literary men and others of sedentary pursuits; but, besides these, there are a numerous class of invalids to whom the want of foot-warmers in cold weather is a source of pain and injury. England is the only civilised country with which we are acquainted, in which adequate provision is not made for supplying this necessity of railway travelling in cold weather. Everyone knows that in France, and, indeed, throughout the continent, as in America, either the carriages are heated or the supply of foot-warmers is abundant, regular, and gratuitous. In England, they are often not to be had, even by paying for them, while other than first-class passengers are absolutely denied this very necessary comfort. It may be hoped that public attention being directed to the subject will induce the directors to give the necessary consideration to what would, no doubt, in the first instance, involve a somewhat costly addition to their permanent stock, and some increase of labour. To continue, however, to deny such a simple and elementary necessity of travelling in cold weather, is hardly justifiable. It is more than probable that the hardships of travelling without it prevent many from taking journeys in severe weather if they can avoid it; and that it would not be, even from a money point of view, bad policy for railway-directors to provide railway-travellers with the means of keeping the feet warm in cold weather.

DR. WILLIAM BUDD.

THE death of Dr. William Budd, late of Clifton, is announced this week. Dr. Budd was the fifth of a distinguished family of brothers, whose name he did much to make celebrated in medicine, and to inscribe in permanent letters in the annals of medical progress. Born in 1811 at North Tawton in Devonshire, he pursued his studies in Paris, London, and Edinburgh, taking the gold medal for his thesis on Rheumatic Fever when graduating M.D. in 1838. After settling in Bristol, he was, in 1844, appointed physician to the Bristol Infirmary, and subsequently lecturer on medicine at the Bristol Medical School, an office which he held during fourteen years with the highest credit to the institution and the city. He quickly came into a large consulting practice, and became known throughout Europe for the admirable researches by which he demonstrated the infectiousness of typhoid fever from person to person through the excreta, and the specific character and methods of conveyance of the typhoid poison. Dr. Budd's work on typhoid fever is classic in medicine, and has the great merit of not only establishing a fact, but introducing a principle. Nothing, probably, has done more to advance the cause of scientific medicine, and few things more to quicken the progress of sanitary science, than the strict, logical, and severe inductions by which he proved the essential character of the typhoid poison, and the facility with which it could be excluded from operation by closing the channels through which it spreads. Thus, he at once established the etiology of typhoid fever on the same basis as Snow and Simon had established that of cholera, and demonstrated its dissemination by means of water-carriage, through the operation of sewers and of water-supplies much contaminated by sewage. This most fertile demonstration has lain at the basis of our recent sanitation, and Budd's share in the work was so conspicuous that his name, probably more than that of any other physician, will remain stamped on the history of the investigations of typhoid fever of his time. His studies of the mode of contagion of scarlet fever and of the peculiarly infectious character of the epidermic scales in that disease, led him to lay down practical directions for the limitation of the infection by the inunction of the skin, and by a strict hygiene of the sick-room, which have now become the commonplaces of sanitarians. A large part of this work was done in the pages of the BRITISH MEDICAL JOURNAL, from which his papers were subsequently republished, and reproduced throughout the world. Later, he began to study the typhoid of the pig and ovine small-pox, and the pathology of cattle-plague. On all these subjects, he produced monographs which have a standard value, and in all probability he would have carried his researches to a still more fruitful end, had he not broken down in health at a time when they were still in course. For the last six or seven years, Dr. William Budd has been removed from practice by cerebral disturbance arising from over-work, which ultimately compelled him to relinquish the practice of his profession, and has terminated his existence by inducing general paralysis. We cannot hope, within the short limits which we are compelled to assign to ourselves this week, to do any justice to the life and labours of one of the most distinguished physicians whom this country and this century have produced; but we shall hope at a later period to present a more detailed analysis of work which is a permanent credit to British medicine, and an enduring gain to the healing art. Dr. Budd was one of those provincial physicians whose reputation could not have been enhanced by being seated in the metropolis, and who did much by his character and by his work to show that provincial medicine claims with justice a high place in the medical hierarchy.

PRIVATE LUNATIC ASYLUMS.

AT the next meeting of the South London District of the Metropolitan Counties Branch, to be held at Bethlem Royal Hospital, St. George's Road, S.E., on Wednesday, January 21st, at 8 P.M., John Wood, Esq., F.R.S., President of the Branch, in the chair, a discussion on private lunatic asylums will be opened by Dr. John C. Bucknill, F.R.S.

DR. FARR.

AT the same meeting, also, a resolution regretting the retirement of Dr. William Farr will, we are informed, be brought forward, in accordance with the suggestion which we thought it desirable to make to this effect last week. If passed, a copy of the resolution will be forwarded to Lord Beaconsfield and Mr. Sclater-Booth, and sent for publication to the papers. It may be hoped that such resolutions will be very general throughout the country in all the local Councils and Branches of the Association, and in the greater corporations and medical societies.

METROPOLITAN WATER-SUPPLY.

DR. FRANKLAND reports, as the result of his analyses of the waters supplied to the metropolis during December, that, taking the average amount of organic impurity in a given volume of the Kent Company's water during the nine years ending December 1876 to represent unity, the proportional amount of such impurity in an equal volume of water supplied by each of the other metropolitan water companies, and by the Tottenham Local Board, was :—Colne Valley 1.4, Kent 1.4, Tottenham 1.8, West Middlesex 1.8, Southwark 2.8, Chelsea 2.8, Lambeth 3.2, Grand Junction 3.4, New River 3.6, and East London 3.7. The quality of the Thames waters delivered by those companies drawing their supply from that source was above the average; the West Middlesex Company's water was again specially free from organic matter. The Lea water, distributed by the New River and East London Companies, was of slightly inferior quality from that drawn from the Thames. All the river waters had been efficiently filtered. The deep-well waters delivered by the Kent and Colne Valley Companies, and by the Tottenham Local Board, were of their usual excellent quality; the Colne Valley Company's water had been softened before delivery. Dr. Hill, the Medical Officer of Health for Birmingham, reports that the water supplied to that town, although rather turbid, contained less organic impurity. Dr. Mills reports that the excellent Loch Katrine water supplied to Glasgow would be much improved in appearance by filtration.

THE TRUTH CONCERNING THE NAVAL MEDICAL SERVICE.

WE call attention to the letter of "Veritas", a gentleman likely to be well informed, and who undoubtedly has the good of the service at heart, in which he cautions intending candidates for the navy that his information goes to the extent that a Warrant is not likely to be forthcoming for the service if candidates present themselves for the ensuing examinations.

DEATH FOLLOWING A POST MORTEM WOUND.

WE regret to have to record that another promising life has been lost from pyæmia following a *post mortem* wound. One of the physicians assistants at University College Hospital cut his hand while making a *post mortem* examination at the end of November. At first, the wound attracted no particular attention; but the finger suppurated; and, after two or three weeks of illness, with rather vague symptoms, decided signs of pyæmia set in, abscesses formed in various parts, and he sank at the commencement of last week.

THE COPLAND FUND.

THE Committee of the above fund, which was instituted for the benefit of the widow and children of the late Mr. J. C. Copland, announce that the subscriptions hitherto received amount only to £84 9s. As this sum is quite inadequate to meet the necessities of the case, the Committee are induced to solicit further contributions, recalling the facts of Mr. Copland's services to medical literature, especially in the assistance rendered by him in the composition of the well-known *Copland's Cyclopædia*, his own blameless character, and the suddenness of the visitation by which he was carried away in the prime of life, before he had time to make any adequate provision for his family. Subscriptions may be forwarded to the Treasurer, Dr. Semple, 8, Torrington Square, W.C., or to the Secretary, Arthur Norton, Esq., 6, Wimpole Street, W.

POISONING BY LAUDANUM.

A FEW days ago, Dr. Hardwicke, the coroner for Central Middlesex, held an inquiry into the death of Mrs. Alice Clarke, aged 28, the wife of Mr. Charles Clarke, an ironmonger in Bayswater. One night, she went out and had a Turkish Bath, returned home about 9 P.M., and went to her bedroom. About ten, she came down, as she said, to have supper. She seemed low-spirited, and asked for champagne. She soon afterwards fell into a state of stupor, and lay down, and was unable to speak. Shortly after 2 A.M., her husband was called, and administered mustard and water, but as it took no effect he sent for Mr. Curgenven, who came at half-past 3 A.M., and stayed with her till her death, at 9 A.M. After death, he found under the washstand in her bedroom a bottle labelled "laudanum", with the name of Mr. Jones, chemist, Bayswater Road. He was aware deceased took laudanum for neuralgia and sleeplessness, and he had seen her similarly stupid with it on six or eight occasions previously. Mr. Jones said at nine on the previous night, Mr. Clarke's man came for a shilling's worth of laudanum, and he refused to serve him. Afterwards Mrs. Clarke came in, and said she had face-ache, for which she wanted it, and he let her have it. Shortly after two next morning he was called up, and went to Mr. Clarke's, and found deceased breathing hard, and evidently labouring under the effects of laudanum. He gave an emetic, and sent for a doctor. Mr. Curgenven, of Craven Hill Gardens, stated he was called at 4 A.M. on Sunday morning, and found deceased dying from the effects of opium. He used all the well-known appliances to relieve her, but without effect. She died at 9 A.M. After some strong comments on the facilities afforded to persons to obtain narcotic and other poisons, the jury returned a verdict "That the deceased died from narcotic poisoning hy taking an overdose of laudanum for relief of pain and sleeplessness, and that the same was taken by misadventure."

CLINICAL SOCIETY OF LONDON.

THE annual meeting of this Society, for the election of officers and other members of the Council, the reception of the report, and the consideration of the new by-laws relative to the property of the Society, was held on Friday, the 9th instant. Additional by-laws relative to the trustees and property of the Society, as recommended by the Council, were adopted. The following officers and Council for the year 1880 were elected. *President:* E. H. Greenhow, M.D., F.R.S. *Vice-Presidents:* S. Bristowe, M.D.; T. Buzzard, M.D.; A. Clark, M.D.; R. B. Carter; J. W. Hulke, F.R.S.; Thomas Smith. *Treasurer:* Christopher Heath. *Council:* J. Althaus, M.D.; T. Barlow, M.D.; W. Cayley, M.D.; R. Farquharson, M.D.; J. F. Goodhart, M.D.; J. E. Pollock, M.D.; G. V. Poore, M.D.; E. S. Thompson, M.D.; T. T. Whipham, M.B.; A. Wiltshire, M.D.; M. Beck, M.S.; E. Bellamy; W. B. Dalby; J. G. Glover, M.D.; J. Langton; C. Macnamara; T. P. Pick; L. W. Sedgwick, M.D.; W. F. Teevan; W. Spencer Watson. *Honorary Secretaries:* Frederick Taylor, M.D.; F. Howard Marsh. Votes of thanks to the retiring Vice-Presidents and members of Council concluded the proceedings.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

AT the annual general meeting, held on January 12th, the following members were elected as officers and councillors for the year 1880. *President:* *Alfred J. Woodhouse, Esq. *Vice-Presidents* (resident): Charles James Fox, Esq.; T. A. Rogers, Esq.; *J. Walker, M.D.; non-resident: David Hepburn, Esq., Edinburgh; Alfred Meara, Esq., India; *J. E. Rose, Esq., Liverpool. *Treasurer:* James Parkinson, Esq. *Librarian:* Felix Weiss, Esq. *Curator:* C. S. Tomes, Esq., F.R.S. *Honorary Secretaries:* *Ashley Barrett, Esq.; for Foreign Correspondence: *S. J. Hutchinson, Esq. (Council); *F. Canton, Esq. (Society). *Councillors* (resident): E. B. West, Esq.; J. S. Turner, Esq.; T. Underwood, Esq.; Oakley Coles, Esq.; W. H. Woodhouse, Esq.; *Edwin Saunders, Esq.; *T. C. White, Esq.; *G. Wallis, Esq.; *W. F. Henry, Esq.; non-resident: J. Doherty, Esq., Dublin; W. R. Wood, Esq., Brighton; W. Hunt, Esq., Yeovil; T. W. G. Palmer, Esq., Cheltenham; *T. J. Browne Mason, Esq., Exeter; *W. Williamson, Esq., Aberdeen. The names to which an asterisk is prefixed are those of new officers and councillors.

SCOTLAND.

POISONING BY ARSENIC.

A WOMAN called Elizabeth Poustie has died in Greenock Infirmary, from the effects of some arsenic which she had mixed up by mistake in an effervescing mixture, and after swallowing which she soon developed symptoms of poisoning.

UNIVERSITY OF EDINBURGH.

FROM the matriculation returns (now complete) of last year, it appears that, of a total of 2,856, there were 1,442 medical students. Of these, 622 were from Scotland, 492 from England, 25 from Ireland, 89 from India, 174 from the colonies, and 40 from foreign countries. At graduation, 32 took the M.D. degree, and 99 the M.B. and C.M. degrees, or an average of about 1 in 11. The Leckie-Mactier Fellowship, consisting of the interest on £2,000, and tenable for three years, has been ained by Alexander Bruce, M.A. and M.B. (Ettles Scholar, 1879). This is the first year this valuable prize has been awarded. It is open to all Bachelors of Medicine of the University, and is awarded for pre-eminence in written and oral examinations in midwifery, medicine, jurisprudence, surgery, and public health; as also for written reports and commentaries on clinical cases in medicine, surgery, and gynæcology. The holder of this fellowship must, previously to the expiry of his terms, submit to the Medical Faculty of the University a paper embodying the results of his original observation or historical research in some department of medicine. The new University buildings for the accommodation of the Medical Faculty are expected to be so far ready as to accommodate some of the classes in the session 1880-81.

SCIENTIFIC EXPLORATION OF SOCOTRA.

AN expedition, equipped by the Royal Society and the British Association, for the purpose of exploring the flora and fauna of the island of Socotra (or Socatra), has just started. Professor Isaac Bayley Balfour of Glasgow University is at the head of the expedition, and, having freedom from university work at present, will be able to devote himself to the task till his return in April.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS.

FROM the report by the Registrar-General on the eight principal Scotch towns during December, it appears that there were 2,897 deaths registered during the month, of whom 1,413 were males and 1,484 females. This is 319 below the average for the same month during the preceding ten years, but is actually 1,064 more than for the month of November 1879. The death-rates per 1,000 of the various towns were: Perth 19, Greenock 22, Dundee 23, Edinburgh and Leith 25, Aberdeen 28, Glasgow 30, and Paisley 41. As usual, over 40 per cent. of the deaths were of children under five years of age; Perth, with 19 per cent., being the lowest; and Leith, with 48 per cent., the highest. Zymotic diseases contributed 12.6 per cent. of the entire mortality; and of these whooping-cough was most fatal, having caused 4 per cent. of all the deaths. One death from small-pox in an unvaccinated child of two months of age was registered in Edinburgh. There were 161 deaths from cardiac diseases, 128 from apoplexy and paralysis, and 41 from premature birth debility. Phthisis caused 9.7 per cent., and other inflammatory affections of the respiratory organs 33 per cent., of the entire mortality. Two males and four females were over 90 years of age, one of the females being 96. The mean barometric pressure was greater by 0.353 of an inch, the mean temperature less by 3.5°, the mean humidity greater by 1, the rainfall less by 2.28 inches, and the wind-pressure less by 0.24 lb., than the average for the same month during the preceding twenty-two years. The lowest temperatures prevailed at Edinburgh and Dundee, and the highest at Greenock.

SMALL-POX AT FORFAR.

SEVERAL cases of small-pox have occurred lately in Forfar. On Monday, the Police Commissioners met as a local authority, and the Public Health Committee reported that the medical officers could do nothing further to prevent the spreading of the small-pox, unless a hospital were provided for treatment of epidemic diseases. The report had been forwarded to the Board of Supervision. The Committee expressed their opinion as being favourable to the use of a piece of ground near the infirmary for the site of the proposed hospital; this was remitted to a committee for consideration. It is thought by some that the cottage system would be preferable to one hospital.

DEATH FROM HYDROPHOBIA.

ON the 7th instant, there died, in the Royal Infirmary of Glasgow, a man who showed all the symptoms of hydrophobia. The patient was a married man, about thirty-five years of age, and was a gamekeeper by occupation. About a month ago, he was bitten in the hand by a strange dog, now supposed to have been mad. The wound never completely healed, and, as it was becoming troublesome, he was sent for advice to the Royal Infirmary. On his way to the hospital from the country, where he lived, serious symptoms showed themselves, and the disease became quite pronounced soon after his admission to the hospital. He was under the care of Dr. Charteris, and the chief line of treatment followed was the injection of pilocarpine. This caused free perspiration, and also allayed the laryngeal spasm; but he gradually sank, and died on the 7th instant. A *post mortem* examination of the body was obtained.

FEVER EPIDEMIC IN AYRSHIRE.

TYPHOID fever has of late been very prevalent about the district of Ayr. In the small village of Dunure, about six miles along the coast, southward from Ayr, the disease assumed and still wears the aspect of an epidemic. The village, which is very small, is inhabited entirely by fishermen and their families, and not a single family has escaped. At the commencement of January, there were thirty-nine cases, but the number has diminished since.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

AT the meeting of this Society, held in the Faculty Hall, on the evening of the 9th instant—Dr. Fergus in the chair—there was a large attendance of members, and several subjects of interest were discussed. The first was the Radical Cure of Hernia in Children. Dr. George Buchanan read a communication in support of operative interference, describing a method of operating which he had followed in some cases, and he showed two of the children on whom the operation had been performed. He next read a paper on the Importance of Detecting the Presence of Stone in the Bladder; on the occurrence of the early Symptoms; and the Treatment by Lithotrity; with illustrative cases. He also gave statistics of the operation for stone in the bladder in the infirmaries of Glasgow, from the opening of the Royal Infirmary in 1795 to the present day. As regards this latter communication, it may be said that the mortality over all was found to be about 7½ per cent.

CHILD POISONED BY LUCIFER MATCHES.

ON the 27th of last month, a distressing occurrence took place in Glasgow, which resulted in the death of a girl aged four years. Unobserved by the parents, she obtained possession of a box of lucifer matches, with which she amused herself for some time. Shortly afterwards, she seemed somewhat indisposed, and, though an examination of the box showed that the child had been sucking the phosphorus on the matches, not much was thought of the occurrence. As the child, however, grew worse, medical advice was obtained; but she gradually sank, and died early on the following morning.

IMPORTANT DECISION UNDER THE POOR-LAW.

A POOR-LAW case, involving a novel point as to the relief of the wife of a pauper lunatic, has just been decided by Sheriff Spens in Glasgow. The Board of one of the city parishes had refused to support the woman on the ground that she was able-bodied; but the Sheriff holds that she is entitled to relief, ordains the Board to proceed to determine the amount of relief, and finds the parish liable in expenses. The Sheriff gives his reasons for considering that the pauperisation of the husband makes his wife also a pauper—chief among which are that the husband's ailment may be only of a temporary nature; and that, as public policy has determined that he should be meanwhile put under confinement, the same public policy is also bound to look after his wife, so that she may not become a criminal or sink into vice, and that the husband, if his reason returns, may find that his wife has not drifted away from him through circumstances over which he had no control.

THE RECENT STORM IN SCOTLAND.

WRITING from the Observatory, Glasgow, Professor Grant states that the storm of December 28th was one of the most violent that has occurred for many years. Owing to the system of self-recording instruments which has been established at the Observatory in connection with the Meteorological Office in London, it is possible to obtain a complete pictorial representation of the various meteorological circumstances which occur from the commencement to the final termination of every storm passing over the Observatory. From the results obtained in connection with the late storm, it appears that, at 3 P.M., the hourly velocity of the wind was twenty-four miles; at 3.30 P.M., it was forty-two miles; and at 4.20 P.M., it was sixty miles. At 6 P.M., the velocity was also sixty miles; but at 7.10 P.M., it reached seventy-two miles. This was the highest velocity attained, so far as could be indicated; but Professor Grant does not entertain the least doubt that there occurred, from time to time, sudden gusts of wind which attained a velocity of ninety miles an hour. This is equivalent to a pressure of forty pounds on the square foot. On the occasion of the great storm of January 1868, the maximum pressure, as indicated by Osler's anemometer, amounted to forty-two pounds on the square foot. From these facts, Professor Grant concludes that the storm of December 28th was somewhat less intense than the great storm of 1868, but that it almost equalled it in this respect.

PROFESSOR MCKENDRICK ON THE TEACHING OF HUMAN PHYSIOLOGY.

AT the meeting of the Educational Congress, recently held in Glasgow, under the auspices of the Educational Institute of Scotland, a paper was read by Professor McKendrick, entitled "A Demonstration of what may be Taught of Human Physiology in Schools". In his remarks, the speaker alluded to the importance of the subject, and admitted that there were difficulties in the way; but he pointed out how he thought these might be overcome, and also suggested that means might be taken, in connection with each of our universities, of having short courses of instruction, so as to enable teachers to qualify themselves for imparting a knowledge of the subject to the pupils under them.

THE WORKHOUSE HOSPITAL AT BARNHILL, GLASGOW.

FROM a report, recently submitted by a subcommittee on the sick-nursing of this hospital, it appears that there is a proposal to appoint trained nurses after the system of nursing conducted at the Highgate Infirmary, London. As it was feared that, if this system were entered upon, it would ultimately involve a large expenditure by the Board, it was ultimately agreed to defer consideration of the subject until a report was submitted with regard to the additional expenditure that would be required.

REGISTRAR-GENERAL'S RETURNS FOR SCOTLAND.

FROM the weekly return issued for the week ending Saturday, December 27th, it appears that the death-rate in the eight principal towns during the week was 25.1 per 1,000 of estimated population. This rate is 6.8 under that for the corresponding week of last year. The lowest mortality was recorded in Perth, viz., 17.6, and the highest in Paisley, viz., 35.1. The mortality from the seven most familiar zymotic diseases was at the rate of 3.3 per 1,000, being slightly under the rate for last week. Whooping-cough continues the most prevalent epidemic. Acute diseases of the chest caused 209 deaths, being 38 under the number recorded during last week. The mean temperature was 39.7°.

THE ROYAL INFIRMARY, GLASGOW.

THE usual New Year's Day meeting with the nurses belonging to the Royal Infirmary was held, on the 1st instant, in the lecture-room of the building. There was a large attendance of the nurses, and a number of ladies and gentlemen who take an interest in the institution were present. There was a plentiful supply of toys and presents for the youthful patients in the building, and the walls of the hall were nicely decorated with devices and evergreens. The Lord Provost occupied the chair; and afterwards, Professor Gairdner delivered an interesting address, in which he touched on the principal points which should be observed by nurses in the discharge of their important duties. At the conclusion of the gathering, the wards were visited by the ladies and gentlemen.

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IRELAND.

DURING the September quarter, the deaths registered in Dublin from small-pox amounted to seventy-five, being an increase of ten as compared with the previous three months.

DEATH OF DR. HUME OF CRUMLIN.

THIS gentleman died on the 9th inst., at his residence in Crumlin, county Antrim, aged 60 years. Dr. Hume, whose health had been impaired for about a year, was a graduate in medicine of the University of Glasgow, and held the post of coroner for the Belfast district of the County Antrim for the past fifteen years, the duties of that important office being performed with ability. His practice was of an extensive kind, and he was a most popular and esteemed member of the community among whom he resided. Dr. Mussen of Glenavy is a candidate for the vacant coronership, and it is most probable that he will be returned without opposition.

THE DUBLIN BRANCH.

THE annual meeting of this Branch will take place on Thursday, the 29th instant, in the Hall of the King and Queen's College of Physicians; the use of which has, as on former occasions, been kindly granted by the President and Fellows of the College to the Branch. It is anticipated that the proceedings of this year's annual meeting will be of much interest. In addition to the address which the outgoing President of the Branch (Dr. Gordon) will deliver, a paper on the important subject of Compulsory Notification of Infectious Diseases will be read by Dr. J. W. Moore; and an animated discussion, in which several leading sanitarians and physicians have already expressed their desire to take part, is expected thereon. The Right Honourable the Lord Mayor of Dublin; Mr. E. Dwyer Gray, M.P.; the Right Honourable Lord O'Hagan; the Right Honourable the Attorney-General for Ireland, M.P.; the President of the British Medical Association; and other distinguished guests, have accepted the invitation of the President and Council to the annual dinner of the Branch in the evening. Judging from the success of the former annual gatherings, we may safely predicate that the forthcoming meeting and dinner of the Dublin Branch will prove equally successful and enjoyable. By bringing public men of high position and note into social relationship with its members, the Dublin Branch is doing much to increase the influence of the Association, and to promote its fundamental principles.

DUBLIN HOSPITAL SUNDAY FUND.

THE Committee of Distribution of this fund notified their awards to the fifteen participating hospitals, at the meeting of the Council of the fund held on Monday last. Notwithstanding the financial depression of the past year, which it was feared would have the effect of diminishing the collections for the fund, it is most gratifying to observe that the amount collected shows an increase—a small one, it its true—over that collected the previous year. So that it may still be said that the collection has annually increased. The available balance to the credit of the fund for distribution this year was £4,125, against £3,955 last year. This sum has been distributed as follows: Sir Patrick Dun's £278 10s. 3d.; City of Dublin £570 3s. 2d.; Steevens' £66 19s. 7d.; Meath £378 16s. 9d.; Mercer's £273 13s. 11d.; Whitworth £72 1s. 11d.; Coombe £327 4s. 7d.; Rotundo £137 8s. 2d.; St. Mark's £127 8s. 5d.; Eye and Ear Infirmary £52 2s. 3d.; Convalescent Home £224 13s. 1d.; Cork Street (Fever) £880 18s. 6d.; Adelaide £443 11s. 1d.; Monkstown £123 12s. 5d.; Orthopædic £167 15s. 11d.; total £4,125. The fund has been distributed according to the same proportions as were adopted in former years: namely, two-thirds according to the amount of voluntary contributions received, and one-third according to the work done for such contributions. The large award to Cork Street Fever Hospital is accordingly mainly due to the liberal response to the appeal for subscriptions made to the public last year, in consequence of the greatly increased expenditure incurred by that institution during the small-pox epidemic. Last year, this hospital only received £143 from the fund; its income from voluntary contributions being only £435 in 1878, against £3,310 in 1879.

DR. D. PATERSON BARRY has been appointed Surgeon-Major, from half-pay, to the Brigade Depôt at Bury St. Edmunds.

SURGEON-MAJOR PORTER, LATE PRINCIPAL MEDICAL OFFICER OF THE CABUL FIELD FORCE.

THE death of Surgeon-Major J. H. Porter, the Principal Medical Officer of the forces acting under the command of General Sir F. Roberts in Afghanistan, was announced in a telegraphic communication to the *Times* dated Cabul, January 10th. Mr. Porter had died on the previous day, the 9th instant, from pneumonia; and his death was described to be a "great public loss", his services having been of the greatest value both in the present and in the previous campaign in Afghanistan. Surgeon-Major Porter was well known in this country for various contributions to surgical literature, and more especially as the author of the *Surgeon's Pocketbook, specially adapted for the Public Medical Services*. This work gained the second prize offered by the Empress of Germany, on the occasion of the Vienna Exhibition, for the best "handbook on surgical appliances and operations for the battle-field"; the first prize being awarded to Professor Esmarch of Kiel for his essay, which has been since published under the title of the *Surgeon's Handbook on the Treatment of Wounded in War*.

Mr. Porter entered the Army Medical Department in June 1853. He served in the Crimea with the 97th Regiment from November 1854 to the end of the war with Russia, and afterwards, in 1857 and 1858, took part in numerous engagements in India with the Sepoy mutineers, including the siege and capture of Lucknow and the storming of the Kaiser Bagh. He was also engaged in the subsequent military operations in Bundlecund in 1859. During the war between Germany and France in 1870, Surgeon-Major Porter volunteered for service in the neutral ambulance, which was fitted out under the auspices of the British National Aid Society. In December 1873, Mr. Porter was appointed Assistant Professor of Military Surgery in the Army Medical School at Netley; and in this position, in which he displayed the highest skill and ability as an operating surgeon, he remained until the close of the year 1878, when he left England for India. Since the date of his arrival in that country, he has been constantly employed on service with the troops operating in Afghanistan; one of the most important duties which devolved on him being that of organising the hospital arrangements, in concert with an officer of the Quartermaster-General's Department, for the return of the troops in successive detachments from Gundamak through the Khyber Passes to Peshawur. On the conclusion of the treaty of peace with the Ameer, Surgeon-Major Porter received great praise from his military superiors for the energy and skill with which he accomplished this trying and difficult task.

After the perpetration of the massacre of the British Embassy at Cabul, Surgeon-Major Porter was suddenly ordered to proceed from Allahabad to join the head-quarters of General Roberts at Aly Kheyl. Arriving there on September 22nd, he found he had to organise the field-hospitals, with the necessary transport, preparatory to a move of the force towards Cabul. He was now in the position of Surgeon in charge of the divisional hospital; but on the first march of the force, on September 27th, when it was about ten miles on the road, an attack was made upon it by one of the hill-tribes, and in this encounter Dr. Townsend, the Principal Medical Officer of the division, was badly wounded in the face and compelled to retire from the field. This casualty left Surgeon-Major Porter the senior medical officer, and from that date he has acted as Principal Medical Officer of the Cabul Field Force; all the hospital arrangements for meeting the necessities arising from the various conflicts with the enemy in which the force was engaged from the time it fought its way into the city to Cabul to the last attack on the Sherpur cantonments, as well as the arrangements for the sanitary care of the troops, having devolved upon him. Both the official and private reports which have reached England from time to time have shown that, in all such matters, the professional recommendations of Surgeon-Major Porter have been received with the greatest respect by the military authorities; and that they have been invariably acted upon whenever it has been possible to find the means for putting them into execution. It could hardly be otherwise, coming, as the advice did, from a medical officer of so much practical experience, such acknowledged sound sense, and such unvaried tact and discretion; from one, too, whose most earnest endeavours were known to be always devoted to achieving the welfare of all who fell under his medical charge. It may well be said, therefore, that the Cabul field-force has "sustained a great public loss" in the death of Surgeon-Major Porter; and it may be asserted with equal truth, that in him the Army Medical Department has lost one of its ablest and most distinguished officers. The death of Surgeon-Major Porter will be long mourned by a very large circle of warmly attached friends and admirers.

Our readers suffer a special loss; for the valuable letters which have been appearing in our columns lately from Cabul, describing the medical arrangements for the troops, which have been widely copied by the daily papers and have brought comfort to many minds by testifying to the thoughtful care of the sick, were from the pen of Surgeon-Major Porter.

THE GREYSTOKE PLACE SCHOOL.

DR. SEDGWICK SAUNDERS would appear, from a report of a Subcommittee of the London School Board, to have been a little hasty in his communications to the Commissioners of Sewers with regard to the prevalence of measles and scarlatina at the Greystoke Place school (see JOURNAL for November 1st, 1879, page 705). In a report made in October last, Dr. Saunders commented in severe terms on the refusal of the School Board to close the school on his recommendation, and gave a very deplorable account of the state of the school and its surroundings. Indeed, he went so far as to describe it as a focus of contagion, not only because of the number of cases of infectious disease amongst the scholars attending it, but because it was built partly over the remains of an old burial-ground, and partly over the space formerly occupied by a place of evil sanitary notoriety. It was, indeed, stated that "as a matter of history and of fact, the site of the school has been known for a long time past as a pestilent and insanitary area". As to the building itself, Dr. Saunders described the trough-system of privies as disgusting, and animadverted on the offensive odours arising from some privies and urinals at the top of the building. Ultimately, the school was closed on October 24th; but as the statements made in Dr. Saunders' report were of a very serious character, the Subcommittee of the School Board considered it desirable to have the matter fully investigated by an independent authority. They accordingly took the wise course of calling in Dr. Alfred Carpenter of Croydon, who, in company with the Subcommittee, carefully examined the school and its surroundings. In a very able and temperate report, Dr. Carpenter gives what cannot but be considered as a most complete answer to the statements made with regard to the sanitary condition of the school; and it seems difficult to understand how Dr. Saunders can have published his report with such very imperfect information on the subject. It appears from Dr. Carpenter's report that the statement that the school is erected over a burial-ground is an error; and the most searching inquiry failed to discover any serious defect in the construction of the school drains. The closets are certainly capable of improvement, and are not of the very best character; but there are great difficulties in the way of satisfactory water-closet accommodation for children, especially when those children are units in a dense and ignorant population. As to the trough-closets so greatly condemned by Dr. Saunders, there are certain considerable advantages in them if the care-taker attend to them and look after them properly; in fact, MacFarlane's trough-closets (which are in use at the school) have recently been recommended by the Local Government Board and Education Department as "the best form of closet for schools". Dr. Carpenter admits that the ventilation at the top of the building is open to objection, but it may very easily be improved.

Into Dr. Saunders' allegations regarding the existence of disease among the officials, its extension to the children, and through them to the whole neighbourhood, Dr. Carpenter goes very fully, and points out numerous mistakes in the medical officer's report. Indeed it would appear, from the remarks of the Subcommittee appended to Dr. Carpenter's statement, that the figures given by Dr. Saunders as to measles and scarlatina amongst the scholars were very greatly exaggerated. Dr. Saunders had said that he saw at the school "many pallid flabby-looking children evidently in feeble health"; the inference to be drawn from this statement necessarily being that the pallor and feeble health were caused by the "pestilent and insanitary area" in which the children were said to be congregated. After searching diligently, and failing to find within the school buildings a sufficient reason for the illness which undoubtedly existed among the children, and still further a condition of things which would account for their poor state of health, Dr. Carpenter visited some of the homes of those who attended the school. He did not find that the parents generally imputed the illness of their children to infection received at the school, nor could he find any proof that scarlatina had been spread by means of the school. But as to the reasons for pallid looks and feeble health, the evidence was overwhelming; and here Dr. Carpenter gives a graphic picture of the horrors of the courts lying off Fetter Lane. That such a state of things should be possible within a few yards of one of the main arteries of the City of London may well shock Dr. Carpenter, as it does every one who knows the terrible condition of these courts. As Dr. Carpenter well says, "with scanty water-supply, stored in a filthy place, nearly dark; the people without closet-accommodation, almost without light, and no possibility of fresh air, it is no wonder if illness abounds among the children of the neighbourhood". He arrives, therefore, at the conclusion that, provided due care be taken to exclude actual cases of disease, it is far better for the children that they should assemble at these schools than that they should spend all their time in the insanitary districts in which many of them have to live, whilst the home arrangements as to water and closet accommodation are so seriously defective.

Dr. Carpenter ends his report with a series of recommendations designed to improve the sanitary condition of the school, and suggests that it would be an advantage for the School Board to possess one of Frazer's disinfecting chambers, with a vehicle for the conveyance of infected clothes and bedding; and that a systematic inspection of schools should be frequently made by some one acquainted with sanitary work, who would personally see that the care-taker did his duty by properly cleansing the closets, keeping the drains flushed, and the traps clean and in good working order; and also see that the ventilation of the building had not been tampered with. This last recommendation seems to us to be particularly worthy of the attention of the School Board; and we would suggest even a further reform, that the School Board should have a medical officer of their own, to advise them on such points as that which has caused the present controversy, and to make a systematic inspection of all school-buildings in the metropolis at regular intervals.

SCARLATINA AND MILK.

A VERY important contribution to our scanty knowledge with regard to the spread of scarlatina by means of milk has just been made, in the publication of a report by Dr. Hubert Airy to the Local Government Board on a sharp and sudden outbreak of scarlatina at Fallowfield, near Manchester, in the summer of last year. Although milk has for a considerable period been recognised as a carrier of the poison of scarlatina, but few epidemics of scarlatina due to this cause are known to have occurred, and none of them have been reported upon with any approach to the fulness of the present report on the late epidemic at Fallowfield. We have pleasure, therefore, in giving as ample an abstract as our space will permit of Dr. Airy's extremely interesting and ingenious report. It deserves to be widely circulated as a model of what such reports should be. Whilst one material link to the chain of evidence is wanting, viz., the discovery as to the direction which the can containing only milk from the implicated dairy took on the morning of August 2nd, in all other respects the evidence is complete; and it is sufficient to show very strongly the unwisdom of the recent legislation entrusting to veterinary authorities the supervision of the sanitary arrangements of dairies.

The main outline of the facts of the epidemic is as follows. In the last week of July 1879, there were, among adults resident in Fallowfield, two or three attacks of illness (premonitory, so to speak, of the outbreak which followed), marked especially by vomiting and diarrhœa, and in one case by sore-throat, but not developing the characteristics of scarlatina. On July 31st, there occurred, in a child in one of the same families, a decided case of scarlet fever, which, however, could not be suspected of giving rise to any of the subsequent cases. On Sunday, August 3rd, two children of one family, and four children of another family, were taken ill with symptoms which soon declared themselves to be those of scarlet fever, accompanied with vomiting and diarrhœa. In the course of Sunday night, August 3rd, and Monday, August 4th, eighteen persons in eleven other families, belonging to or having relation with, though some of them absent from, Fallowfield, sickened in the same way. Several of them had felt their throats sore on the Sunday evening. On Tuesday, August 5th, two other cases occurred in two families previously attacked. On Wednesday, August 6th, another family had a slight case of sore-throat, which might have been passed over had not two other members of the same family subsequently sickened with scarlet fever, apparently caught from the first by direct contagion, on August 9th and 14th. There was also a doubtful case on August 7th, and another on August 13th. Thus, including nine cases of somewhat doubtful or undeveloped character, there were in all thirty-five persons in eighteen families attacked within a period of one month; and, of these thirty-five, no fewer than twenty-four were attacked within a space of thirty-six hours, between Sunday morning, August 3rd, and Monday evening, August 4th. The symptoms which accompanied the onset of the disease were in many cases so remarkable, as to lead the medical men who attended them to believe that there must be something exceptional in the cause or mode of infection. Not only was there frequent vomiting, but also severe and continued diarrhœa;

indeed, in some of the persons attacked, diarrhœa was the most prominent and almost the only symptom; and, in one of the earliest cases, which occurred in an adult, and did not show full febrile development, it was remarked that the symptoms were more those of irritant poisoning than of scarlet fever. There was, however, no doubt as to the real nature of the disease in other cases which, with similar symptoms of irritation of the alimentary canal, presented also all the characteristics of scarlet fever. Among the medical men who were on attendance on these cases, a decided opinion prevailed that, in all probability, the morbific matter had entered the system through the alimentary canal. The outburst of twenty-four cases of scarlet fever within thirty-six hours pointed to some one common source and act of infection. At once suspicion fell upon the milk; and, on inquiry, it was found that every family that was attacked had received its supply of milk from one and the same dairy, while neighbouring families, taking milk from other dairies, had entirely escaped. It was further found that one of the milkers employed at this dairy lodged at a house where a boy lay in the desquamating stage of scarlet fever; and it was concluded that he had in some way conveyed the contagium of the disease to the milk.

Keeping these conclusions regarding milk as much as possible in the background, Dr. Airy's inquiries were directed, in the first place, to the examination of other possible or conceivable modes of fever-dissemination. But he found that, neither as regards social gatherings, nor attendance at places of worship, nor employment of laundresses, nor receipt of letters or newspapers, nor drainage, was there any community that would account for the epidemic. On the other hand, the customers of other dairies than the one implicated wholly escaped; and it is quite impossible that any local cause unconnected with the milk-supply could have operated with such unerring selection upon the customers of one dairy, where so many who were supplied from other dairies were in all respects exposed to the same local conditions. The evidence adduced by Dr. Airy makes it clear that the scarlet fever infection was conveyed, not only with, but *in*, the milk supplied from this dairy. The families served may be classed into three groups: one to the north, supplied by cart from one can; a second group to the south, also supplied by cart from another can; and a third supplied by hand. Though none of these three groups were exempt from scarlet fever, yet they were not all equally affected. The families that were supplied by hand were eleven in number, including the farm itself, and five of them were attacked with scarlet fever. Of the remaining six, three contained only servants, the families having left on or before July 20th, and in two the families consisted only of adults. In this group, out of six families that were probably susceptible of infection, five were attacked. In the remainder of the north group, there were about twenty-five families supplied by the north cart in the morning. Of these, ten were visited with scarlet fever. Of the remaining fifteen, four families had left, on July 9th, July 18th, July 19th, and August 1st, leaving only servants in the house, who took but little milk, and were generally supplied with it in the evening; one family had discontinued taking the milk from the farm on July 29th; at least six families consisted only of adults. In this group, out of fourteen susceptible families, ten were attacked. The south group numbered about thirty families, of which only two were certainly infected. This disparity had, of course, to be taken into account in any attempt at explaining the origin of the outbreak.

As to the probable date of inception of the fever-poison, there is, in one remarkable case, evidence of singular importance. On August 4th, a child, residing more than two miles from Fallowfield, was attacked with the scarlatinal rash and fever. There were smart premonitory symptoms on the evening of August 3rd. She had returned along with the rest of the family from an out-of-the-way country residence where scarlatina was untraceable, on August 1st. On Saturday, August 2nd, she with four others of the children was sent to the farm, whence the family intended to get their regular supply, and had there some milk to drink. She was more fond of milk than the others, and so it was probable that she had the largest quantity. This history, taken in connection with the Fallowfield outbreak, "seems to establish an almost certainty that the child was infected by one drink of milk, that her brothers and sisters who tasted more sparingly at the time were unaffected, though one of them was very feverish for a few hours, and that the period of incubation can have been little over thirty-six hours. The last point is the most important, as tending to show that infection through the gastro-intestinal canal implies a very short incubation." A nearly parallel case was found in another family. Two boys, aged 14 and 16, returned from school at Wolverhampton, where there had been no recent scarlet fever, on Friday, August 1st. On Saturday and Sunday, August 2nd and 3rd, they were at Fallowfield, and drank milk from the dairy. On Monday, August 4th, they left for Scotland, and both suffered from diarrhœa that night. On Tuesday, the eldest boy had a rash. The fever was not fully developed in these cases, but they were very like some others in the same outbreak, and probably depended on the same cause. Another case in which suspicion rested on one particular draught of milk occurred in a family where the lady of the house suffered from violent vomiting and diarrhœa in the night of August 2nd, having that evening taken some biscuit and a draught of milk for supper. The attack was so sudden and violent as to simulate irritant poisoning, and the biscuit at first came under suspicion; the milk was overlooked until the general outbreak of the next few days became known. Moreover, there was an instance of a family of three children, aged 4 months, 16 months, and 4½ years, drinking milk from the dairy without any special precaution up to the morning of Friday, August 1st (on which day they left home), yet escaping infection altogether. While these cases go to show that infection in the main did not take place before Saturday, August 2nd, there were three cases in two families, which showed that infection took place not later than about 2 P.M. on that day, for about that time these families left Fallowfield for distant parts of the country, and developed the symptoms of scarlet fever on Monday, August 4th. These indications make it probable that the principal date of infection was the morning of Saturday, August 2nd, the disease showing itself in eighteen cases on Monday, August 4th, after an incubation of forty-eight hours, and in six cases on the Sunday, perhaps, after only twenty-four or thirty-six hours' incubation.

As to the manner in which the milk from the dairy, and especially that portion of it which was delivered to the northern group of customers, should have become contaminated with the poison of scarlet fever, it is stated that, early in the outbreak, investigation by two or three local medical men brought to light the fact that, while at the farm itself there was no scarlet fever prior to August 4th, and two of the three milkers were free from any evident risk of contamination; the third milker, an old man named Hill, was lodging at a house where his grandchild was lying in the full height of desquamation after scarlet fever. Having regard to the confined space, imperfect ventilation, low standard of cleanliness, and want of sanitary intelligence, it is difficult to believe that the old man Hill could come from that house without carrying about him the taint of scarlatinal infection. Dr. Airy suggests that it is not at all impossible that he may have carried in his pocket a handkerchief, seldom changed, which had been in contact with, perhaps moistened by the mucus of, the sick child; and at any time his hand may have become accidentally charged with the scarlatinal contagium. What if some such accident happened on the morning of August 2nd, just before Hill took his share of the milking? Might not the taint have passed from his hand to the milk in the very act of milking? or possibly from his clothing as he grasped the milking-can between his knees? There are evidently many possibilities of contamination under such conditions. The old man himself, it should be said, vehemently denied that he had been near the child.

As to the disparity in the incidence of scarlet fever on the two groups of customers, north and south, it is plain that if the whole milk were all mixed together in one can, and the different customers were all served in the same way and under the same conditions, there would be no great inequality between the results in two groups, each containing so many individuals. But at this dairy one can was filled before the other, so that they not only received the yield of different cows, but they must also have received in different degree the taint (if any) of the milkers' hands. It is indeed impossible that the contents of the two cans should be absolutely similar, though they may be equally wholesome or unwholesome. But in all probability they will be unequally so. In the particular instance, this inequality would in all probability be still further increased by the unequal addition of milk from another dairy, which at a certain point on the road was poured into the cans in one of the carts—which cart cannot unfortunately be stated. (It should be added, that the supplementary supply was cleared of all suspicion by Dr. Airy's inquiry.) It is, then, quite reasonable to suppose that on the morning of Saturday, August 2nd, the two cans of milk were unequally infective, that the one which took a northerly direction was more strongly charged with the infection of scarlet fever than the one which went to the south. This supposition would account for the unequal incidence of the fever on the north and south groups. Dr. Airy confesses, however, that there is no positive evidence that the first part of the milking was delivered to the northern, and the last part to the southern group. By the time the inquiry had reached this stage, it became difficult to obtain information, and the thorough elucidation of the facts was thus unfortunately prevented. Dr. Airy thus sums up the theory which appears to offer the most probable explanation of all the facts of this remarkable outbreak; that the milkman Hill did in some way convey the infection of scarlet fever from his sick grandchild at home to the milk with which he was concerned at the dairy-farm; that, while probably on one or two previous days the milk had been contaminated in a less degree, on one special occasion it was especially contaminated; that the contents of the milk-can from which the northern group of customers were supplied were on that occasion contaminated in a higher degree than the contents of the other can from which the southern group were served, and that thus there was more general spread of fever among the former than among the latter; that this special contamination probably took place at the morning milking on Saturday, August 2nd; and that the period of incubation in the majority of cases was about forty-eight hours.

ASSOCIATION INTELLIGENCE.

GLOUCESTERSHIRE BRANCH.

THE next meeting will be held in the Board Room of the General Infirmary, Gloucester, on Tuesday, January 20th, at 7.30 P.M., under the presidency of T. S. ELLIS, Esq., of Gloucester.

The following papers are promised.

1. Sequel of a Case of Skin-Disease shewn last year: Mr. Ellis.
2. Cancer of the Liver: Dr. Payne.
3. A Costless Water-Supply: Dr. Bond.
4. Hospital Medical Cases: Dr. Batten.

RAYNER W. BATTEN, *Honorary Secretary.*

Gloucester, January 13th, 1880.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

THE next meeting of this district will be held at Bethlem Hospital, St. George's Road, S.E., on Wednesday, January 21st, at 8 P.M.: JOHN WOOD, Esq., F.R.S., President of the Branch, in the Chair.

A discussion on Private Lunatic Asylums will be opened by Dr. John C. Bucknill, F.R.S.; and a resolution regretting the retirement of Dr. William Farr will be proposed for adoption.

H. NELSON HARDY, *Honorary Secretary.*

The Grove, Dulwich, S.E., January 14th, 1880.

BATH AND BRISTOL BRANCH.

THE third ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, January 22nd, at 7.15 P.M.; J. BEDDOE, M.D., President, in the Chair.

R. S. FOWLER, } *Honorary Secretaries.*
E. C. BOARD, }

Bath, January 1st, 1880.

DUBLIN BRANCH.

THE third annual general meeting of this Branch will be held in the Hall of the King and Queen's College of Physicians in Ireland, Kildare Street, on Thursday, January 29th, 1880, at 4 P.M.: Dr. GORDON, President of the Branch, will deliver an address; and the Officers and Council for the ensuing year be elected.

By the kind permission also of the President and Fellows, the annual dinner will be at the College of Physicians at 7 P.M. on the day of the meeting; the incoming President of the Branch, Dr. ROBERT McDONNELL, F.R.S., in the Chair.

GEORGE F. DUFFEY, M.D., *Honorary Secretary.*

30, Fitzwilliam Place, Dublin, January 2nd, 1880.

MEDICAL MAGISTRATE.—Mr. James Charlesworth, M.R.C.S.Eng., has been placed on the Commission of the Peace for the Borough of Hanley, Staffordshire.

THE CORONER'S COURT.—The adjourned meeting of medical men to consider their relations with the coroner's court was held in the Court Room, King's Road, St. Pancras, on Tuesday last, under the presidency of Dr. Hardwicke. Several fresh resolutions were moved, discussed, and carried; and suggestions made for necessary alterations in the Registration Act. It was also moved and carried that a report of the proceedings of the last two meetings which have been held should be prepared and presented for consideration to the medical profession, in view of impending legislation on the subject during the ensuing Parliamentary session. Dr. Thomas, the Deputy Coroner, with the assistance of Dr. Stevenson, was requested to draw up the report. The meeting ended with a cordial vote of thanks to Dr. Hardwicke for his kindness in presiding and allowing the subject to be discussed before him.

CORRESPONDENCE.

THE RELATIONS OF COW-POX AND HUMAN SMALL-POX.

SIR,—In the leading article of the last issue of the BRITISH MEDICAL JOURNAL, the question of "the identity of cow-pox and human small-pox" is mentioned, but not discussed. Believing that much error is afloat in respect of that question, I am desirous of making some remarks upon it.

That the vaccine—or rather the equine—disease owed its virtue and efficacy in vaccination to the fact that it was really small-pox in another form, was an opinion which I had inconsiderately adopted. I have since done what I could to make known my reasons for abandoning that belief, which I fancy is no uncommon belief. A little consideration will suffice to show that the vaccine disease is *sui generis*. In no sense does it owe its origin to small-pox. There is no such relation between the two as that of parent and offspring. The true attitude of cow-pox towards small-pox is an attitude of antagonism. Cow-pox is a *preventive cause* against, not an *effect* of, pre-existing small-pox. All this is equally true of all the disorders properly called *zymotic*, including small-pox itself.

It follows that the attempts made forty years ago to procure fresh lymph for vaccination purposes, by inoculating the cow with the virus of human small-pox, were a mistake. The cow so treated underwent no fever or constitutional affection, and presented no local phenomena beyond some pimples containing no fluid around the incised spot. The ensuing so-called vaccination was, therefore, performed by taking matter from the original incision on the cow and inserting it into the vaccinated person, who, in fact, was not *vaccinated* at all, but *inoculated with small-pox:* the very process which, in years gone by, was voluntarily submitted to by thousands of unprotected persons, of whom I was myself one, whereby we obtained great individual advantage and safety, while the community at large was seriously injured in consequence of the introduction of the poison of small-pox into multitudes of places to which otherwise it might never have come.

There must have been—there probably still is—a vast amount of mitigated small-pox thus spread about; and hence some of the strange apparent anomalies of our vaccination statistics.—I am, sir, your faithful servant,

THOMAS WATSON.

16, Henrietta Street, Cavendish Square, January 14th, 1880.

⁂ The main reasons alleged for believing that cow-pox is in fact small-pox inoculated in the cow, and not a special and different disease, are, as we understand them: 1. That it is always "cow-pox", and never "bull-pox"; and that analogies fail of zymotic or infective diseases proper to a race or species which affect only the male; 2. That, whereas what was described as "cow-pox" was a very common disease when small-pox was prevalent among milkers, and abounded in Jenner's time, it is now so rare that large rewards, offered for a considerable space of time, fail to produce examples; 3. That cow-pox is a disease of the udder, which is the part handled by the milkers; 4. That the matter taken from the vesicles of a cow successfully inoculated with small-pox matter (and then infected with human small-pox) produces, when vaccinated into the human subject, pustules on the arm (and there only) indistinguishable in character, course, and effect, from those of ordinary Jennerian vaccination. We are not aware whether Sir Thomas Watson traverses these propositions, or how he deals with them. It would be a matter of great interest if he would restate his argument in respect to them.—ED. B. M. J.

THE NAVAL MEDICAL SERVICE.

SIR,—I have read your excellent and truthful article in the last issue of the BRITISH MEDICAL JOURNAL, on the Disabilities of the Naval Medical Department; and, as you allude therein to the rumour of a new warrant being under consideration at the Admiralty for the amelioration of medical officers, I think it right to acquaint you at once, for the information of intending candidates at the examination advertised in February next, that the Admiralty have abandoned all idea of bringing out any warrant at present; and that, if a sufficient number of successful candidates—say eight or ten—be obtained next month, nothing whatever will be done. If, on the contrary, no candidates come forward for the navy, the Admiralty will be compelled to issue a warrant at once, as, owing to the reduced state of the list, it would be impossible to carry on with efficiency the duties devolving on the Medical Department of the Navy.

Intending candidates for the navy will, therefore, be wise if they take your hint and hold back until the warrant is actually published.—I am, etc., VERITAS.

January 1880.

*** We have received various communications from distinguished officers of the service, concurring in the views expressed in our leader of last week. The subject has been brought under the notice of the Parliamentary Bills Committee; and, in virtue of a resolution of this Committee, Mr. Hart is preparing a memorial to the First Lord of the Admiralty, based upon the leader of last week, with such changes or additions as further correspondence may suggest. We shall be able to publish only abstracts of a few of the letters received touching points of special interest, but we shall be glad to hear further from officers interested.

NURSING AT GUY'S HOSPITAL.

SIR,—Dr. Marriott, in an ironical tone, asks, What is there so remarkable in the requirements of Guy's Hospital, that the same nursing system will not suit it as has been successful at King's College and University College? The answer is, that the methods are different. He will already have seen a letter next to his own, written by one of the staff of Guy's, in which it is stated that the nursing at King's College is superintended by a board on which some of the medical officers are represented. My colleague might have added that a similar method obtains at University College, where, if I am rightly informed, a committee sits fortnightly, composed of the treasurer and other governors, the lady-superintendent, and two or three of the medical officers of the hospital. At Guy's, we have no voice in the matter. The treasurer is supreme; and if, as it seems, everything is placed in the hands of the matron, we have become subordinate to the nurses. I cannot believe that Dr. Marriott would submit to this, any more than the staff of Guy's. We have, therefore, protested against it, and are still protesting; for it is quite impossible that the hospital can be worked harmoniously with its servants constantly opposing one another. The sooner the treasurer and governors try to bring about an amicable arrangement, the better.—I am yours, etc.,

January 10th, 1880. A MEMBER OF THE STAFF.

DISTINCTION BETWEEN TYPHUS AND TYPHOID FEVERS.

SIR,—As a lover of justice and one who delights to see what is called fair play, I think Dr. A. P. Stewart has no more right to be considered the first who pointed out the distinction between those fevers (typhus and typhoid or enteric) than I have. The whole ground was paved before ever Dr. Stewart appeared upon the scene, and he only confirmed in 1840 what was made manifest almost to absolute demonstration in 1835. For a long time, various authors were drawing attention to the intestinal lesions in cases of fever. In Paris, in America, in Italy, in Switzerland, in Germany, as well as in Great Britain, medical men were working earnestly and honestly, and with ever increased vigour, when some author propounded a new theory or offered a fresh view in elucidation of the vexed question of distinctive signs in fevers.

Louis was well acquainted with the difference between typhus and typhoid, and he it was who gave it the name of *fièvre typhoide*. Bretonneau, Landini, and Trousseau, before Dr. Stewart knew what fever-symptoms meant, were studying the question of distinction. If any name deserve a distinctive mention, it is that of Dr. Peebles. Dr. Stewart was present when Dr. Peebles pointed out to Dr. Perry the rubeoloid eruption of contagious typhus; but there is no note that the rose-coloured spots of enteric fever were mentioned. The eruption was, up to 1835, overlooked in Glasgow.

Now the important point remains to be stated, and I give the words of the late lamented Dr. Murchison. "In January 1836, Dr. Perry published a paper in which he correctly described many of the distinctions between typhus and enteric fever. He referred to the complete absence of the 'typhus-eruption' in 'dothinenteritis', but did not state that the latter was characterised by an eruption of its own; although, four years later, Dr. Stewart remarked that Dr. Perry was the first whom he heard maintain the complete difference of the two eruptions."

How, then, can Dr. Stewart lay claim to a discovery of the distinction in these fevers? I should not like to say it savours of presumption; but all will agree that he is claiming an honour to which he can have no just right. That he was a good worker in the field we do not deny; but his own published papers are the best answer to negative his claim as being even among the first to draw the distinctive lines between typhus and enteric fevers. Even the rose-coloured eruption is not always present. In many cases of enteric fever, especially in the country, not a spot is to be found. Often have I looked for them in vain, and in many fatal cases I did not detect one. Gerhard, in 1837, pointed out the difference of typhus and enteric fever; and he not only referred to the lesions of the glands of Peyer, but called attention to the "marked difference between the petechial eruption of typhus and the rose-coloured spots of typhoid fever".

Other names might be given; but Dr. Shattuck of Boston, in 1839, pointed out the distinction; and Dr. Barlow, on February 6th, 1840, in a communication to the Parisian Medical Society, thus says: "Surely two diseases which differ in all these particulars cannot be identical." Dr. Stewart's researches were not made known until the 16th and 23rd of April, 1840, and then published in October.

No doubt Dr. Stewart clearly pointed out the difference, in his communications, between typhus and typhoid fevers; but it is asking too much of those who understand the history of the points in dispute to accord the palm to Dr. Stewart and leave all others in the shade, especially those to whom he is indebted for the first hints and early training in medical knowledge. For one, I will never accord to him the honour, because facts and history both stand out and point to Dr. Perry as one of the very earliest pioneers; and if, in the language of Dr. Carson of Coleraine, Dr. Perry was thought to ride "a hobby", it was a grand and noble one—one which should not be lightly thrown aside or confiscated from the memory of the dead.—I am, etc.,

Northallerton, January 1880. HENRY BROWN.

SIR,—My attention has been called to the following passage in my friend Dr. Aitken's *Practice of Medicine* (vol. i, page 376), where he quotes me as saying that "Dr. Perry was the first to maintain the complete difference of the two eruptions—namely, those of *typhus* and *typhoid fever*". In order to ascertain whether these was really my words, I had recourse to vol. liv of the *Edinburgh Medical and Surgical Journal*, and, in my paper on Typhus and Typhoid contained in it, but of which I have not possessed a copy for many years, I found my statement to be as follows: "Dr. Perry of Glasgow was the first *whom I heard* maintain the complete difference of the two eruptions". When he first did so, and whether or not the idea was his own, I cannot say; but this quotation fully substantiates his son's assertion that he changed his views some time or other after the publication, in 1836, of his propositions, which, though new, were confessedly not true. But, since I commenced the practical study of the two diseases, in 1836, I have never changed the opinion I then formed, that they were distinct specific fevers, a conclusion forced upon me, as I wrote in 1840 (*Edinburgh Medical and Surgical Journal*, vol. liv, page 291), by "characters so marked as to defy misconception".—Yours faithfully,

Grosvenor Street, W., January 14th, 1880. A. P. STEWART.

SCIENTIFIC ENDOWMENT AT OXFORD.

SIR,—Though I share the view advocated in this JOURNAL, that it would be well to establish the Medical Faculty at Oxford in a complete manner, I think it indispensable that the facts pertinent to either side of the present controversy should be stated with all possibly accuracy.

In your issue of December 20th, 1879, it is said that "£10,000 a year are wasted without any benefit, except to a few professors, and here and there a preliminary student or two who have to be seriously educated elsewhere". This would apparently imply that the annual sum of £10,000 had been intended to be spent, or was really spent, on medical education; its whole practical outcome being the preliminary education of a few students. Were this implication accurate, no fault could be found with the statement; for it is notorious that the medical student at Oxford is a somewhat rare specimen, and that he never learns his medicine there. But this apparent implication is really erroneous; for not so much as half the sum quoted is ostensibly spent on medicine, even including anatomy and physiology (the rest being devoted to physics, chemistry, botany, zoology, etc.). The real fact, which I stated in my evidence to the University Commissioners, is, that the round sum of about £10,000 a year is spent altogether in Oxford by the University and Colleges on the teaching of and examining in *natural science and medicine*. The result shown is the graduation of about twenty-five men annually in natural science, and a varying small number, probably included in the above, who take a degree in medicine. We may add, in justice to those who take the opposite view, that many Oxford-trained students holding important scientific posts elsewhere may be regarded as partly the outcome of the above quoted expenditure; but we must still complain that the result is not commensurate with the cost, and that the money might be redistributed with advantage to science, to medicine, and to the University.—I am, sir, yours, etc.,

H. DONKIN.

Upper Berkeley Street, January 1880.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF LONDON.

THE House of Convocation of this University held a meeting on January 13th. The Convocation took into consideration a question referred to the annual committee, whether the Preliminary Scientific and First M.B. Examinations might not with advantage be held more frequently than once a year. Drs. G. V. Poore and J. Curnow moved the following resolution:

> "That the Senate be requested to consider whether it would not be desirable that, in future, the Preliminary Scientific and First M.B. Examinations should be held twice annually."

The reasons urged on behalf of the resolution were the following. 1. There was a gradual increase of late years in the number of candidates at both these examinations. 2. As proved by statistics, a large percentage of the rejected candidates failed in only one or two subjects, and it seemed neither expedient nor just to make such candidates wait a whole year for a second chance. 3. There was every reason to believe that the long interval between the examinations in question kept many good students from beginning, and others from continuing, the course of medical study required by the London University. Apart from the question of time, there was that of expense. It was obvious that preparation for these examinations involved attendance in colleges or schools where the student could have access to laboratories and dissecting-rooms. 4. The University of London was the only University or medical examining body (save Oxford) which held examinations of the kind but once a year. 5. The published statistics of the University of London showed that a large percentage of candidates for the medical degrees stopped short from no obvious cause, and it was but reasonable to suppose the length of the curriculum (a length which became excessive in case of failure at any examination) to be the sole deterring cause with many. 6. If held more frequently, students would most likely be better prepared for these examinations. 7. It was most desirable that as many students as possible should be induced to enter for the medical degrees in this University; and this should be done by offering every reasonable facility, but without in any way changing the character of the examinations. Under this head, Dr. Poore denounced very emphatically the clamour for easy graduation, which, he said, the British Medical Association had humoured far too much. He could not for a moment admit that preparation for the London medical degrees too heavily taxed the brain, still less that they favoured "cramming". The high positions in the professions and in public life filled by London University men could not have been taken by forced scholars. On the eighth and last argument in the report, in answer to the suggestion that it might be sufficient, at least for a time, if the Preliminary Scientific Examination alone were held once a year, the mover of the resolution did not deem it necessary to remark further. Members of Convocation would see this was of comparatively little advantage, since candidates who might pass that examination in the winter would still be unable to pass the First M.B. Examination until eighteen months later. No debate arose on the resolution, and it was carried *nem. con.* The report of the scrutineers gave 535 as the number of votes for Mr. Shaen, 177 for Mr. Herschell, and 115 for Dr. Weymouth for the vacant seat on the Senate.

BRIGADE SURGEONS.—A military correspondent calls our attention to the fact of no brigade surgeons having been yet appointed according to the terms of the new Army Medical Warrant. It is probable that the delay in making these appointments is due to the want of the necessary funds for meeting the expenditure which would be incurred by them, and that none will be made until the estimates for the purpose have received the sanction of the House of Commons in the forthcoming session.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on January 7th; and, when eligible, will be admitted to the pass-examination.

Messrs. Samuel Crawshaw, Henry Mitchell, John W. A. Wood, and Clement B. Voisey, students of the Manchester School; Frank E. Musgrave and Francis O. Hodson, of the Cambridge School; Thomas R. Mulroney, of the Bombay School; Charles A. Wolrige, of the Bristol School; John H. Wilson, of the Aberdeen School; Richard Brown, of the Newcastle School; Wm. O. Maher, of the Dublin School; George Fox, of the Leeds School; and Osborne H. Hudson, of the Sheffield School.

Eleven candidates were rejected.

The following passed on January 9th.

Messrs. Arthur T. Wills, Thomas W. Buckley, and Ralph G. Heathcote, students of the Manchester School; Charles B. Parker and Edward H. Squire, of the London Hospital; Charles W. E. Toller and Edward S. Webber, of St. Bartholomew's Hospital; Edward F. Greenhill and George Serjeant, of University College; William Groom, of the Cambridge School; Austin C. Bissill, of St. George's Hospital; William J. Stephens, of King's College.

Twelve candidates were rejected.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, January 1st, 1880.

Hart, Robert Alfred Hillings, Stones' End House, Southwark

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 8th, 1880.

Sanjana, Kavasji Cursetji, Gower Place, Euston Square
Sawtelle, Frederick Appleton, Chatham Place, Brighton

The following gentlemen also on the same day passed their primary professional examination.

Conolly, Paul Bennett, Charing Cross Hospital
Cooper, Richard Gilpin, St. Bartholomew's Hospital
Stevenson, Henry Wickham, St. Bartholomew's Hospital

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the examinations held on Monday, December 8th, 1879, and following days, the undernamed gentlemen passed their final examination for the Letters Testimonials of the College, and having made and subscribed the declaration, were admitted Licentiates.

Robert Allman, Richard John Baker, Charles James Barry, James Henry Beattie, Robert Ettingsall Beattie, Charles Matthew Brady, Hubert Watson Brownrigg, Charles Hayden Cox, James Davison, Matthew Digan, George Digby, George Philip Elliott, Hubert Flanagan, John Gray, Arthur Greene, Arthur Robert Harper, Thomas Higgins, John Anderson Irwin, L'Estrange Isdell, James Kernan, Anthony Kidd, Patrick Joseph Lenihan, John Stephen M'Ardle, John M'Cullagh, John M'Loughlin, George Alexander Montgomery, Charles George Drummond Moss, John Murphy, Thomas Joseph O'Donnell, James Joseph O'Dwyer, John Pollock, William James Swanson, John Whittaker Tate, William Augustus West, Edward De Lacy Wickham, and John Wilson.

UNIVERSITY OF DUBLIN.—At the recent Michaelmas Term Examinations for the Degrees of Bachelor of Medicine and Bachelor of Surgery, the following candidates were successful.

For the Degree of M.B.—John P. Barry, Wallace Beatty, Malcolm H. Moore, and Richard H. Sawyer.

For the Degree of B.Ch.—Wallace Beatty, Joseph D. Pratt, Robert H. Johnston, and John A. De Courcy Williams.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BIRMINGHAM GENERAL HOSPITAL—Resident Registrar and Pathologist. Salary, £130 per annum, with board and residence. Applications on or before the 26th instant.

BRIGHTON AND HOVE DISPENSARY—Resident House-Surgeon. Salary, £140 per annum, with apartments, gas, etc. Applications on or before February 2nd.

BRISTOL ROYAL INFIRMARY—House-Physician. Salary, £100 per annum, with furnished apartments, board, and washing. Applications on or before February 2nd.

*CITY OF DUBLIN HOSPITAL—House-Surgeon. Salary, £100 per annum, with apartments, light, fuel, and attendance. Applications on or before the 26th instant.

*EVELINA HOSPITAL FOR SICK CHILDREN.—Registrar and Chloroformist. Salary, £30 per annum. Applications not later than February 5th.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY—Dispenser and Assistant to House-Surgeon. Salary, £50 per annum, with board, lodgings, attendance, gas, etc. Application to the Secretary.

*HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Assistant Physician. Applications and testimonials to be sent on or before the 21st instant.

IRVINESTOWN UNION—Medical Officer for Workhouse, at a salary of £70 per annum. Election on the 21st instant.

IRVINESTOWN UNION—Medical Officer for Irvinestown No. 1 Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health. Registration and Vaccination Fees. Election on the 21st instant.

KENT COUNTY ASYLUM, Barning Heath—Senior and Junior Assistant Medical Officer. Salary, £220 and £150 per annum, with furnished apartments, washing, gas, etc. Applications, with testimonials, on or before January 20th.

*LONDON FEVER HOSPITAL—Physician and Assistant-Physician. Applications, with testimonials, to the Secretary, not later than February 7th.

MANCHESTER ROYAL INFIRMARY—Resident Surgical Officer. Salary, £150 per annum, with board and residence. Applications, with testimonials, to the Chairman of the Board on or before January 17th.

NORTH-WEST LONDON HOSPITAL FOR WOMEN AND CHILDREN—Physician. Applications to the Secretary on or before the 20th instant.

OUGHTERARD UNION—Medical Officer for Lettermore Dispensary District. Salary, £100 per annum, with £10 a year as Medical Officer of Health. Registration and Vaccination Fees. Election on the 24th instant.

ROSCREA UNION—Medical Officer for Roscrea No. 1 Dispensary District, at a salary of £100 per annum, £10 as Medical Officer of Health, with Registration and Vaccination Fees. Election on February 2nd.

ROSCREA UNION—Medical Officer for Workhouse, at a salary of £80 per annum. Election on February 5th.

ROYAL PORTSMOUTH, PORTSEA, and GOSPORT HOSPITAL—House-Surgeon. Salary, £100 per annum, with board and residence. Applications on or before the 22nd instant.

WEST KENT GENERAL HOSPITAL, Maidstone—House-Surgeon. Salary, £120 per annum, with lodgings, attendance, etc. Applications on or before the 31st instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*CHANING-PEARCE, J., M.D., appointed Honorary Medical Referee to the British Home for Incurables, Clapham Rise.

*HOBSON, J. M., M.B., appointed House-Surgeon to the North Eastern Hospital for Children, Hackney Road, E.

*MACFIE, Johnstone, M.D., appointed Aural Surgeon to the Glasgow Royal Infirmary, and Lecturer on Aural Surgery in the Medical School, *vice* J. Patterson Cassells, M.D., resigned.

*MACNAB, James, L.R.C.S.Ed., appointed Certifying Factory Surgeon for Stirling District, *vice* Andrew Beath, L.R.C.S.Ed., deceased.

*PYLE, Thomas T., M.D., appointed at Quarter Sessions of the County of Durham Visiting Physician to the Dinsdale Park Lunatic Asylum.

RIGDEN, Brian, M.R.C.S., L.S.A., appointed Assistant-Surgeon to the Canterbury Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

FLEMING.—At 155, Bath Street, Glasgow, on the 9th instant, the wife of William James Fleming, M.B., of a son.

DEATHS.

BEECROFT.—On the 12th instant, aged 59 years, Samuel Beecroft, F.R.C.S., of Hyde, Cheshire. Friends will please accept this intimation.

FOSTER.—On the 7th instant, at Huntingdon, Michael Foster, F.R.C.S., aged 69.

THE LATE MR. HANCOCK.—At the last meeting of the Council of the Royal College of Surgeons, it was resolved unanimously: "That the sincere condolence of the Council be and is hereby offered to Mrs. Hancock and her family in the irreparable loss which they have sustained by the decease of Mr. Henry Hancock. That the Council feel that by the death of Mr. Hancock they have lost not only a valued and esteemed personal friend, but a colleague who, throughout the whole of his long official career, has taken the keenest interest in the welfare of the College, and has worked with incessant energy for the good of the profession which he adorned."

REGIMENTALISM AND UNIFICATION.—We have received a letter from Surgeon-General J. Mcuat, of the Army Medical Department (retired), in which that officer very fully discusses the relative merits of the unification and regimental systems of army medical administration, and also of a mixed system combining the two modes of administration, with particular reference to the medical results obtained during the late war in South Africa. We feel, however, that it would answer no good purpose to open our columns to a fresh discussion of these questions after the recent publication of a new warrant, the very decided and explicit declarations made by two successive Secretaries of State for War, that under no circumstances would a return to the regimental system of army medical administration be sanctioned.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.: Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S,. 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Lettsomian Lectures, by W. F. Teevan, B.A., F.R.C.S. Lecture II.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Coupland: Late Hereditary Syphilis: organs affected by Visceral Syphilis. Dr. Lees: Malformation of Heart, with transposition of Aorta and Pulmonary Artery. Mr. Godlee: Dislocation of External Semilunar Cartilage of Knee-joint. Mr. Eve: 1. Dislocation and Fracture of Clavicle; 2. Dislocation forwards of first Phalanx of Thumb. Dr. R. Smith: Œsophagus and Stomach from a case of Carbolic Acid Poisoning. Dr. W. Ewart: Congenital Malformation of the Left Kidney; Double Ureter on both sides of the body. Mr. Hulke: Drawings of Cancer. Dr. Pye-Smith: Membranous Inflammation of the Air-Passages. Mr. Morgan: Specimen of Diseased Bone. Dr. Goodhart: Congenital Occlusion of the Duodenum; Gangrene of the Colon. Dr. Norman Moore: Ulcer of Stomach; Perforating Ulcer of Duodenum. Dr. Gilbart Smith: Epithelioma of Pharynx. Dr. Buzzard: Cases of Locomotor Ataxia, with Osseous and Articular Lesions (living specimens).

FRIDAY.—Clinical Society of London, 8.30 P.M.—Mr. Pick: A Case of Subastragaloid Dislocation. Dr. Hewan (for Mr. Adam): A Case of Bullet-Wound of the Lung. Dr. Habershon and Mr. Davies-Colley: Pyelitis; Discharge of Pus; Incision in the Loins; Recovery. Dr. Habershon: Chylous Urine after Ague in India; Albuminuria; Cessation of Chylous Urine with the development of Glycosuria and Polyuria. Dr. Pavy will exhibit a modified form of the Copper-Test for Sugar, especially adapted for clinical use. Dr. Sturge will show Two Cases of Trade-Neurosis.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Medical Etiquette.

The comment which we made under this title on December 27th, has called forth communications from Mr. Welsh and Mr. E. S. Lane, which throw a fuller light upon the questions at issue, and enable us to form a more complete opinion. We are glad to say that these communications modify our judgment and exonerate Mr. Welsh.

From the statements and letters that have been laid before us, it appears: 1. That Mr. Welsh visited the patient in a very informal manner, and under the impression that she was under the care of Mr. E. S. Lane, who was the habitual medical attendant of the family; 2. That Mr. Davies demanded an apology in a peremptory and offensive manner [to such a demand it is no wonder that Mr. Welsh replied—as he acknowledges he did—"under a strong sense of annoyance"]; 3. That Mr. Welsh subsequently tendered an explanation, which Mr. Davies accepted as satisfactory.

It is evident that this difficulty would have been easily adjusted had it not been for Mr. Davies's action in respect to the Poor-law appointment, which, prior to his arrival in the neighbourhood, Mr. E. S. Lane had held in undisputed possession, and to the satisfaction of the guardians. It is not surprising that the unnecessary zeal, to which we alluded in our former comment, should have caused great annoyance to Mr. Lane and his friends.

An Anomalous Eruption.

Sir,—An affection has broken out in the Southam Workhouse, chiefly among the children, which commences as vesicles (rapidly becoming pustules) on the soles of the feet and palms of the hands; it then affects other parts of the body, where it assumes eczematous characters. Not having met with the affection before, and not having succeeded in getting any information about it as yet, I write in the hope that some of your numerous readers may be able to inform me as to the name and nature of the disease, which, I may say at first, on account of some points of similarity, I thought to be scabies.—I am, yours faithfully, Walter Lattey.

Southam, January 14th, 1880.

A Distressing Case.

The following is a list of the donations received for Mr. Dalton since last week.

January 7th.—	T. H. A. Bosanquet, Esq.	5	0	0
,, 8th.—	Dr. G. Kincaid Pitcairn, Littleborough ..	1	0	0
,,	Dr. A. Jackson, Southsea	5	0	0
,, 12th.—	Dr. Valentine Bird	1	1	0
,, 14th.—	T. Starkey Smith, M.B., Warrington	1	1	0
	Thomas Smith, Esq., Stafford Place, W. ..	5	0	0
	W. Stewart, M.B., Edinburgh	0	5	0
	H. G. James, L.R.C.P.Ed., Beverley	0	10	6
,, 15th.—	J. H. Gray, M.B., Wandsworth Common ..	0	10	0

January 1880. Heywood Smith.

*** Any further subscriptions forwarded to the Editor or to the Journal Office will be acknowledged in these columns, and applied for Mr. Dalton's benefit.

Tobias Smollett, M.D. (Plymouth).—The Gilbert Blane gold medal will be awarded shortly. We understand there are eight candidates for the two medals to be awarded this year.

The University of Philadelphia (?).

Sir,—One of your correspondents (Mr. W. H. Browne) appears to cast some reflections upon the University of Philadelphia. I beg to inform him that the American University of Philadelphia is a properly recognised university, having a charter from the State of Pennsylvania, and having the power to grant degrees in arts, divinity, law, and medicine. These degrees are recognised by the State; and I believe the medical degrees are certified by a public notary before a judge. I believe what he calls the University of Philadelphia has been closed by the State.—I am, sir, yours truly, One who has Travelled in America.

*** Our correspondent seeks to correct an error, and makes another. The recognised—and highly reputable—university to which he refers is the University of *Pennsylvania*, not the University of *Philadelphia*. There is no recognised "University of Philadelphia".

Pruritus Ani.

M.K.Q.C.P. writes, that in several instances in which he has had to prescribe for the intolerable "pruritus ani", he has found that careful sponging or washing of the part with cold or chilled water two or three times in the day, and subsequently "dabbing" (not rubbing) it dry with a soft cloth, and then applying externally and within the sphincter ani a little olive oil, has, after a few applications, afforded great, and eventually entire, relief. The state of the stomach and bowels must at the same time be attended to. Should the preceding remedy fail, a like application of the following ointment will, he believes, be found effective in relieving the distressing nuisance:—℞ Ung. zinci oxidi ʒiij; ung. hydrargyri nitratis ʒss; morphiæ acetatis gra. ii; spiritûs rectificati ʒiss.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Savory's Peptic Liquor.

Sir,—I ask a few lines of comment upon Mr. Benger's letter, in which I am accused of the *puff oblique*. Such a line of reply I feel to be very unfair: it has absolutely no ground in fact, and I might as justly insinuate that Dr. Roberts deliberately advertised Mr. Benger's preparation. I have no personal knowledge or business relations with Messrs. Savory, and I did not "puff" their liquor to their order. The facts upon which I wish to lay stress are, that I recognised the superlative value of Messrs. Savory's preparation, and used it, as an unalcoholic liquor, to peptonise milk, broths, etc., three or four years before Dr. Roberts so pointedly recommended Mr. Benger's liquor as *the* preparation most admirably suited for that purpose. Facts are facts, and cannot be gainsaid. I thought it a pity that Dr. Roberts should have overlooked Savory's saline essence: he was clearly unacquainted with it, or his high praise of Mr. Benger's liquor would not have been so exclusive. The risk was, that the "new" preparation of Benger might drive the older and equally good one of Savory out of the market.—Yours, F. Arnold Lees.

Sir,—Could any of the readers of the British Medical Journal inform me if there be an English translation from the German of Hermann Lotze's work on *Philosophy?* He is described as "a man recognised everywhere as thoroughly acquainted with physiology, especially with the latest research". And also by whom it is published, and where can it be procured?—Yours very truly, Member.

A Correction.

Sir,—In your report of the ordinary meeting of the Birmingham and Midland Counties Branch, held on December 11th, at which I read a letter on Sayre's treatment of spinal affections, I am reported to have spoken of "the valuable plan of treatment he then introduced for angular and lateral curvature of the spine, by means o suspension and the application of the poroplastic jacket". This is clearly an error as Professor Sayre's special recommendation was the plaster-of-Paris jacket, and that is what I alluded to, and spoke in favour of on the occasion. I must ask you, in justice to Professor Sayre and myself, to insert this correction, and remain, yours faithfully, Jas. F. West, F.R.C.S., Senior Surgeon to the Queen's Hospital, Birmingham.

Edgbaston, Jan. 13th, 1880.

Mr. Samuel Arnold.—No such journal is published.

Slow Pulse.

About two years and a half ago, a man came under my observation who complained of fainting fits. His pulse was only 22 in the minute, and there was no perceptible difference made by position. His heart-sounds were clear and normal. He never had any serious illness. His age was about 52. His trade that of a hawker or pedler. I saw him in two or three prolonged fainting attacks. He continued in this way for about eighteen months; and one morning I was not surprised to hear of his falling dead from his chair after some slight excitement. I showed him to two or three other medical man, who said they had never heard of so remarkably slow a pulse. J. S. Gunning, Enniskillen, Ireland.

In 1874, I had under me an old man, aged 79, whose pulse for the last nine months of his life was only 22 per minute, full, regular, and apparently fairly strong, but accompanied with great præcordial uneasiness and tendency to syncope. He attributed his heart-troubles to the use of hypodermic injections of morphia. Eighteen months before, he had compound fracture of the tibia and fibula, for which he went into the hospital. A portion of bone had to be sawn off, and during the healing process, neuralgia of the parts set in; and, to procure sleep, morphia was injected subcutaneously. After a time, each injection was accompanied with what he described as such a "horrible sensation" at his heart, that he preferred to endure the neuralgia rather than suffer the distressing sensation induced by the injection. Later on, he began to suffer convulsive fits. One day, whilst I had my finger on his pulse, he was seized with a fit. The pulse suddenly stopped, and a violent spasm seemed to radiate from the heart to every part of the body, which was convulsed from head to foot, the eyelids opening and shutting every second. The heart did not beat for thirty-five seconds; then for twenty-five. It then beat four times per minute for about four minutes, when consciousness, which ceased when the pulse stopped, returned as the pulse went up again to 22. The fits increased in frequency, until he died exhausted. W. Henry Day, L.R.C.P.

Pentonville, December 30th, 1879.

The following case occurred in my practice this year. R. W. B., aged 74, a private gentleman, on June 21st fell down, and was insensible for a few minutes. I saw him soon afterwards, and found him with a pulse of 28. From then until July 3rd his pulse varied between 20 and 28. The peculiarity of the case was, that when the pulse became 22—which it did many times in the day—he became insensible, his heart ceased to beat, and he had a fit, which in its characters resembled an epileptic attack. He became convulsed and livid during the attack. In several of these attacks, I thought he must have died: they generally lasted about one minute, but some as long as three or four minutes. For two or three days, seizures came on every ten minutes. After July 3rd, the fits gradually passed off; and I left off attending him on July 26th, his pulse being then 28, full and regular. On August 8th, another attack of syncope came on; on the 9th, another; and on the 10th, he had one both morning and evening. On the 11th, he had a very bad attack; he was insensible for half-an-hour, and his pulse was at one time as low as 15 in the minute. From August 8th to the 13th, the pulse varied from 20 to 28, the fainting attacks coming on at irregular intervals. On August 13th, the pulse, apparently suddenly, became 56, and it has remained more or less so ever since. I saw him a few days ago, and his pulse was 60, and he was then taking active exercise. For three weeks before the latter illness, beginning August 8th, his legs were much swollen. During his illness he was kept in bed, and took large quantities of stimulants: nitrite of amyl, ammonia, digitalis, etc., were tried, but it would be hard to say if any drug in particular did good. His lungs were healthy; he had hypertrophy of the left heart; the cardiac sounds are normal. His intellect was perfectly clear all through his illness, except during the attacks. The cause of his slow pulse I am unable to account for: he is now in apparently perfect health.

It is interesting to note respecting the cases that have been lately recorded in the Journal, that in eleven cases in which the age of the patient was stated, the age on the average was 72, and also that eight of the cases were males, and only in four were there symptoms of syncope. W. J. Tyson, M.B., F.R.C.S.

Folkestone, December 30th, 1879.

An Explanation.

It is with no desire to hurt Dr. Allison's feelings that we publish the subjoined letter as written. In form and substance, taken in connection with the communication to the provincial paper which we copied and criticised, it is worthy of a place, unaltered, as a document to serve for historical use, since it shows what may be written in the year of grace 1879 by an university graduate.

"Sir,—Your caustic remarks appended to my article upon '*lightning in cancer*', transferred from the *Yorkshire Post*, admitts, I hope, of reasonable explanation. In the first place, I agree with you in objecting to the publication of scientific matter in provincial newspapers; To meet your charge on this head, I may state, that I sent the report in question to the '*Lancet*', which was not inserted, in proof of which, see that periodical of 22d of November last. In the next place you seem to discredit my statement, to the effect, viz.: that I heard the late Dr. Goldin Bird, assert his belief in the curative effects of electrical sparks drawn from cancerous structurs. In a medical society in Red Lion Court, Fleet street; I was present and heard the Dr. express his views on the subject of cancer. Indeed I labour no misapprehension, as you seem to think, on this part of your critisism. You profess to think that this statement is absurd, and not in accordance with the doctors good sense. I hold myself in no way responsible for the gentlemans theory of cancer; and only repeat the fact, that my patient, seemed to be cured of a diseased lip, soon after he received the lightning strokes as reported in your spirited journal of the 27th ult. My late patients widow is still alive at Langtoft, and his daughter, Mary, resides at Moot Hill, Driffield; both of whom can support the statement which I have advanced; and Dr. Eames, of Driffield, can testify to the extirpation of a malignant tumour from laryx of Ruben Stephensons granddaughter.

"I neglected to state that after old Stephenson was struck down by the lightning, he enjoyed complete freedom from the cancerous lip for many years. The disease, however, eventually reappeared, and proved fatal. When medical editors neglect to publish authenticated articles of scientific interest, the provincial press must be invoked to meet the wants of scribbling aspirants.—I am, sir, yours respectfully.

"A. Allison, M.D."

"Dec. 28th, 1879.

An Empty Cover.—There has been delivered at the office, addressed to the editor, a cover of which the contents have been lost in the post. It bears postal date "Belfast, Jan. 9."

Contracted Colon.

X. U. (member of the British Medical Association) will be glad to receive suggestions, through the medium of the Journal, as to the best means of keeping the fæces soft in a case of contracted colon. The patient is a gentleman aged between 50 and 60.

Mr. Cocking writes to us to say that the specimens of poroplastic jackets, of which Dr. Sayre spoke at University College Hospital, turn out to have been piracies made of spurious material, and he recommends that the poroplastic material should only be purchased of his accredited agents.

Finsbury Square Hospital for Women.

Sir,—I have noticed on the roofs of the North Metropolitan tram-cars an immense placard, about twenty-four inches in length, proclaiming the advantages of this hospital, and announcing the fact that the consultation fee is the moderate sum of 3s. 6d. Do you think such advertisements strictly professional?—Yours, M.D.

Vivisection.

Mr. L. Mackenzie (Tiverton).—The following is the list of papers on the vivisection controversy which would probably be most useful: some at least would be supplied to any one who applied to the Secretary of the Physiological Society, Professor G. F. Yeo, 15, Albemarle Street. Memorandum on the Act (Vict. 39-40), by Teachers of Physiology (Mr. Yeo); The Vivisection Question popularly discussed, by Professor Hermann (Williams and Norgate); What has Experimental Physiology done for the Advancement of Surgery? by Dr. McDonnell (Fannin, Dublin); Man and the Lower Animals: a Sermon, by the Rev. Dr. Coghlan (Cooper, Long Acre); Address to the Section of Anatomy and Physiology of the British Association for the Advancement of Science, by Dr. Pye-Smith (in Annual Report, and in *Nature* for August 1879); the Blue-Book of the Royal Commission, especially the evidence of Dr. Sharpey, Sir William Gull, and Dr. McKendrick.

Dr. De Courcy Morris.—Duly received, and marked for early insertion.

The Treatment of Varicocele by Acupressure of the Spermatic Veins.

Sir,—I beg to offer my congratulations to Mr. Osborn for his success in treating three cases of varicocele by the above named method, which, I believe, was first suggested by myself in the British Medical Journal for March 16th, 1878.

Manchester, January 12th, 1880. S. Messenger Bradley.

Coster's Paste.

Sir,—In answer to your correspondent's inquiry as to the formula of Coster's paste, the usual formula, I believe, used is:

℞ Iodine pigment ʒii; huile de cade or oil of juniper tar ℥i. Misce. Fiat embrocatio.

I find the following formula most effectual:

℞ Pigmenti iodi ʒiii, vel ℥iv; creasoti puri ℥ss; huile de cade ℥ss. M.

In cases of early ringworm, it is an effectual remedy if well brushed into the roots of the hair. The addition of a quantity of iodine makes the preparation more valuable.—I am, yours faithfully, James Startin.

Respectable Chemists.

Sir,—The enclosed recommendation of counter-prescribing I extract from *The Boy's Own Paper* of a recent issue. I think it is strange that it should have been inserted, seeing the editor affixes "M.D." to his name. I enclose my card, and remain, yours truly, Qui facit per alium facit per se.

"I. O. F.—Your swollen finger-joints probably arise from rheumatism. In that case, you should *consult* a medical man or *respectable chemist*, as a remedy which suits one person will not suit another."

Medical Advertising.

We are very sorry to see in the *Teignmouth Gazette*, under the heading "Advertising Trade List and Directory for Teignmouth": "Physicians.—Canny, D. J., 3, Victoria Terrace; Lake, W. C., 2, West Cliff Terrace; Magrath, J., 7, Crescent, Den."

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Undecided.—The diploma of the Faculty of Physicians and Surgeons of Glasgow is a qualification in surgery. A qualification in medicine is required in addition for the medical services of the army and navy.

The letters of Mr. McEwen, Dr. Cameron, Mr. Holmes, Dr. Dick, Mr. Strugnell, and other correspondents, are deferred this week through pressure on space.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Alfred Carpenter, Croydon; Dr. Burney Yeo, London; Dr. Finny, Dublin; Dr. Cameron, Glasgow; Mr. Vincent Jackson, Wolverhampton; Mr. J. Spence, Edinburgh; Mr. G. Field, London; Mr. B. Rigden, Canterbury; Mr. G. B. Baker, London; Mr. F. W. Strugnell, Highgate Hill; Dr. A. Grant, London; Dr. J. Milner Fothergill, London; Messrs. Sampson Low and Co., London; Mr. L. Mackenzie, Tiverton; Dr. Joseph Petit, Letterkenny; Mr. W. Fowler, London; Mr. T. M. Ward, Exmouth; Mr. John E. Neale, London; The Secretary of Apothecaries' Hall; Dr. P. Miller, Dundee; Mr. H. Gramshaw, Lowestoft; Mr. W. Braumüller, Vienna; The Secretary of the Medical Society of London: Mr. Thomas Smith, London; Dr. Mahomed, London; The Registrar-General of England; Mr. John S. Nairne, Glasgow; Dr. Campbell, Liverpool; Our Glasgow Correspondent; Dr. G. Bantock, London; Dr. A. Hughes Bennett, London; The Registrar-General of Ireland; M.D.; Dr. Dowse, London; Dr. Spender, Bath; Dr. Landolt, Paris; Mr. Thurlow, Swansea; Mr. Lewis Mackenzie, Tiverton; Dr. W. C. Wicks, Newcastle-upon-Tyne; Dr. A. Morrison, Melbourne, Anstralia; Mr. J. Whitlock, Linton; Dr. E. Haughton, Norwood; Mr. Burman, Bamburgh; Dr. C. Hilton Fagge, London; Dr. Prosscrow, St. Petersburg; Mr. John M. Hobson, London; Dr. R. Bruce Low, Helmsley; Dr. John Bassett, Birmingham; Dr. Louis Henry, Melbourne; Dr. Wilks, London; Dr. Chaning Pearce, London; Mr. R. Ceely, Aylesbury; Dr. R. de Courcy Morris, Birkenhead; Dr. T. Starkey Smith, Warrington; Mr. J. B. Sincock, Bridgwater; Mr. McEwen, Glasgow; Mr. Harold Lewis, Bath; Mr. M. A. Markham, London; Mr. C. Vipan, Brighton; Dr. G. H. MacSwinney, London; Mr. C. H. Roberts, London; Dr. R. Midgley Cash, Torquay; Mr. M. Foster, Shelford; Our Edinburgh Correspondent; Mr. G. Eastes, London; The Secretary of the Pathological Society; Dr. Norman Kerr, London; Dr. Joseph Rogers, London; Mr. Jackson Gawirth, London; Dr. H. C. Cameron, Glasgow; Mr. S. Murphy, London; Mr. S. Chatwood, London; Dr. A. Wise, London; Mr. S. Benton, London; Mr. J. W. Teale, Scarborough; The Secretary of the Clinical Society; Our Dublin Correspondent; Mr. W. D. Hemming, Bournemouth; Mr. S. Arnold, Leicester; Mr. E. Robinson, Dukinfield; Dr. W. T. Robertson, Brighton; Mr. Nelson Hardy, London; Mr. W. H. Day, Norwich; Mr. J. E. Neale, London; Mr. Flower, Broad Chalk, Salisbury; Mr. J. M. Ryan, Sheffield; Mr. J. F. West, Birmingham; Mr. J. Charlesworth, Hanley; Dr. G. Hoggan, London; Dr. A. Skipton, Hereford; Dr. Gairdner, Glasgow; Mr. F. Arnold Lees, Wetherby; Mr. Arthur Kempe, Exeter; Dr. Semple, London; Mr. J. Farrant Fry, Swansea; Mr. R. N. Craven, Southport; Mr. S. S. Alford, London; Mr. E. Thompson, Omagh; Dr. J. H. Gray, Wandsworth; Mr. J. Knowles, London; J. D. F.; Undecided; etc.

BOOKS, etc., RECEIVED.

Photographic Illustrations of Skin-Diseases. By G. H. Fox, A.M., M.D. Parts 1 to 48. New York: E. B. Treat. 179.

Clinical Researches on the Therapeutic Action of Chloride of Ammonium. By Wm. Stewart, M.D. London: Smith, Elder, and Co. 1879.

A Manual of the Practice of Surgery. By W. Fairlie Clarke, M.D.Lond. Second Edition. London: Henry Renshaw. 1880.

Transactions of the Pathological Society of London. Vol. xiii. London: J. E. Adlard. 1879.

The Last Plague of Egypt; and other Poems. By the Rev. Joseph B. McCaul. London: Longmans, Green, and Co. 1880.

On Loss of Weight, Blood-Spitting, and Lung-Disease. By Horace Dobell, M.D. Second Edition. London: J. and A. Churchill. 1880.

The Medical and Surgical History of the War of the Rebellion. Part II, vol. i. Washington Printing Office. 1879.

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Youth: its Care and Culture. By J. Mortimer Granville, London: D. Bogue. 1880.

The Regional Temperature of the Head. By J. S. Lombard, M.D. London: H. K. Lewis. 1879.

CLINICAL LECTURE
ON A
METHOD OF PERFORMING LITHOTOMY.

By FURNEAUX JORDAN, F.R.C.S.,
Professor of Surgery in Queen's College, Birmingham; Surgeon to the Queen's Hospital; Consulting Surgeon to the Women's and the West Bromwich Hospitals.

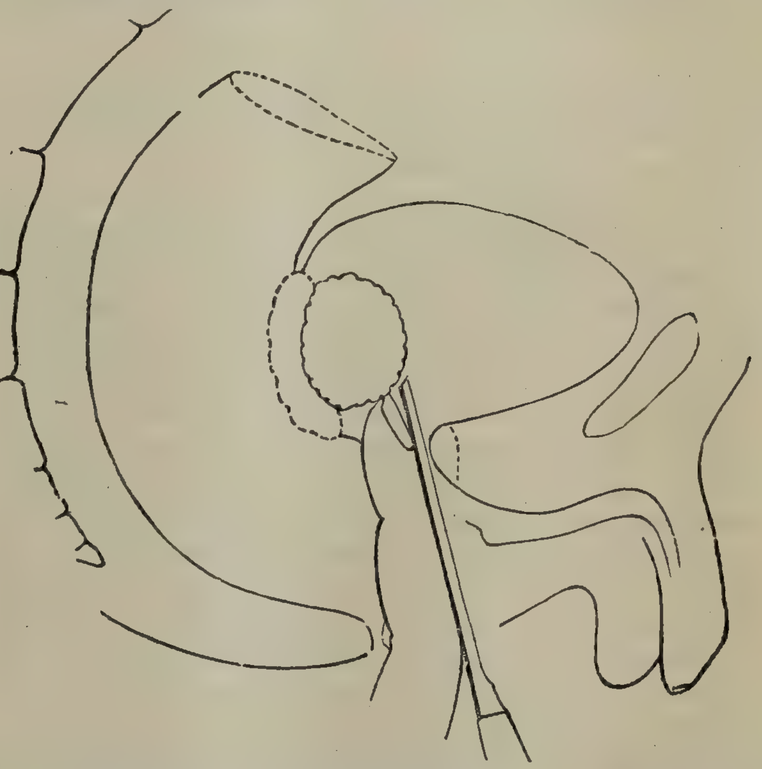
Although the contrivance of the lateral method of cutting for stone was a great step in advance, it cannot be said that there is no room for further improvement. Every detail is a matter of controversy, and some of the details are attended with difficulty. One author has taken the trouble to count the difficulties, and makes them out to be nineteen in number. I must refer you to the text-books for their fuller consideration, and here merely remind you that the mode of holding the knife, the position of the blade in the staff, where the incision should begin and where it should end, and how large it should be, are debated questions. There are dangers to the rectum, to the peritoneum, to vessels, to the genital apparatus. There are difficulties in getting into the bladder, difficulties in getting the stone out of the bladder, and difficulties arising from making a false bladder.

A case of lithotomy probably unique in its character came under my notice several years ago, which, after much reflection, suggested the operation which you have seen me adopt in recent cases of stone in the bladder. A gentleman resolved—perhaps not very wisely—to commence a career of operative surgery at middle life. One of his first operations was a lithotomy in a little boy. I held the staff for him. He opened the membranous urethra properly enough; but, on making the deep incision, his knife passed (as was subsequently found) by the side of the staff, instead of along the groove, through the roof of the urethra into the space in front of the bladder. On putting his finger into the wound, another error was made: feeling the stone indirectly through the anterior wall of the bladder, he believed his finger to be in direct contact with it, and directed the staff to be taken out. The forceps, carried into the artificial bladder, of course failed to seize a stone. After much vain effort, he asked me to examine the parts. I found the condition I have described, and immediately inferred the steps which had led to it. I need scarcely tell you that I advised that the lad should be put to bed, and the operation repeated at some later time. But my friend urgently desired, for special reasons, that the stone should be removed there and then. I found that (using the left hand), by putting my finger into the rectum and my thumb deeply into the wound, I could seize the stone with the bladder around it; my thumb was outside the bladder at the front, and my finger was outside the bladder at the back. Instantly realising the fact that no important vessel or nerve, no peritoneum or rectum, was near, I decided to incise the front of the bladder. I passed a sharp-pointed curved bistoury by the side of my thumb, and carefully cut through the bladder-wall; the point of the instrument quickly coming on to the rough stone. The finger in the rectum pushed the stone through the opening; but a forceps was needed to bring it from the front of the bladder through the perineal wound. The boy's recovery was rapid and unbroken. I have been asked why I have not made known this remarkable case before. My friend was sensitive to criticism. A few months ago, he died. His friends, who were also mine, who were present at the operation, will not now accuse me of impatience or unfairness.

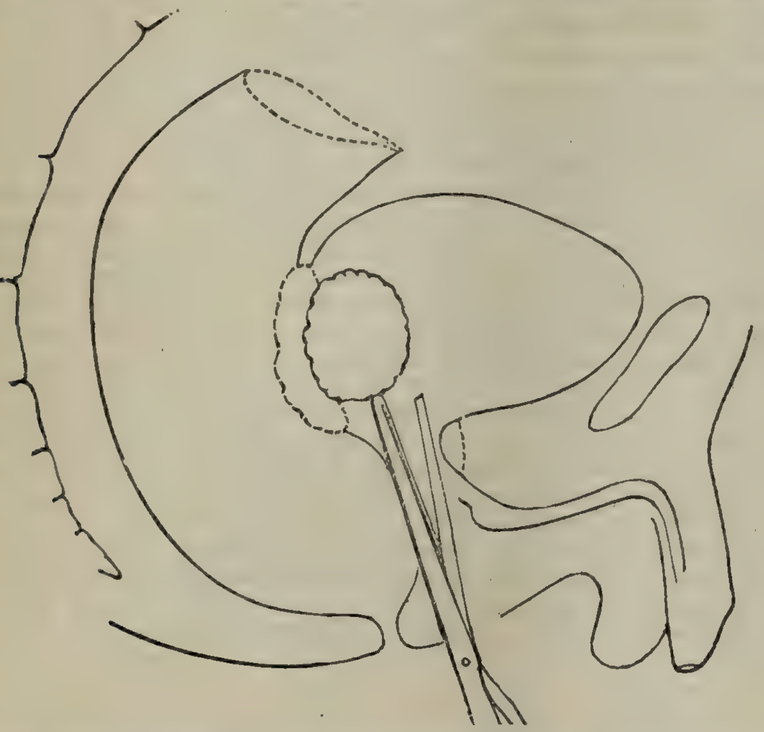
This case has frequently led me to review the principles on which we base our operations on the bladder, and this conclusion has been forced upon me: the front of the bladder is its safest aspect; it is the aspect most sedulously avoided. We prefer to open the apex, which touches the peritoneum; or the base, which touches the rectum. Let us imagine what may seem at first sight a singular group of circumstances. A surgeon is about to cut for stone for the first time in the history of surgery. The patient is a man whose external genital organs and the triangular ligament itself have been swept away—say by an accident. The finger in the membranous and prostate urethra can draw the neck of the bladder well down towards the sacrum. The stone is large; in order that it may be removed, the bladder must be cut somewhere. The smallest, simplest, and safest incision will be one that enlarges the natural orifice in one direction or another. Now, is it conceivable that a surgeon unfettered by habit and tradition would think of cutting in any downward direction—of cutting towards the rectum or the delicate genital apparatus, and in a direction where safe space is most limited? But such a man, devoid of external genitals and of triangular ligament, is practically before us every time we operate for lithotomy through the perinæum. Such a man is *not* like a woman, in whom it may be objected that the upward incision is not generally accepted as the best. Quite otherwise. The urethra and prostate gland are deeper in the pelvis, are close upon the rectum, and, above all, are not held up firmly to the pubic arch by the triangular ligament.

The proposal, then, which I make is this: the membranous urethra being opened behind the triangular ligament, the deep incision—the incision in the prostate gland and the neck of the bladder—shall be made upwards and to an extent suited to the size of the stone. The extent, I believe, need rarely reach the capsule of the prostate. Where the firm fibrous submucous tissue is divided, and the substance of the prostate scored, the dilatability of the parts is singularly great.

Touching the details: the first incision may be made as in the median or in the lateral method. The latter seems to me to give easier access to the apex of the prostate. I put a little angle in the outer wound, so that the concavity is towards the rectum, and all parts of it are more equally distant from the rectum. The membranous urethra should be freely opened. The well-oiled finger should then be gently carried along the staff through the uncut prostatic urethra, and brought into contact with the stone. The staff having been taken out, the finger firmly depresses the neck of the bladder downwards and backwards, while a straight blunt-ended bistoury is passed flatwise along its dorsum until the bladder is reached. The instrument, having its edge turned upwards, is carried by a quick movement a short distance into the bladder, and, with the edge still upwards, withdrawn in contact with the dorsum of the depressed finger. This proceeding gives a fairly uniform diameter to the wound. As a rule, pressure of the knife upwards is not needed; the urethra, being stretched on the finger, is incised to a sufficient degree by a single sawing movement. If the stone be known to be very large, free incision upwards is easily made, and in a direction which readily allows a large stone to be removed. The forceps is next slid along the surface of the still retained and still depressed finger, and the operation is concluded in the usual way, save that all manipulation by finger or instrument is directed downwards to the floor of the neck of the bladder and to the prostatic urethra. The staff in this operation should not be large (especially if the operator's finger be large). A staff large in the membranous urethra, and prolonged probe-like into the bladder, might be partially withdrawn while the finger was insinuated into the bladder; or a probe might be run into the bladder, as in the median operation, prior to the withdrawal of the staff.



A very simple expedient may be adopted where the urethra is small, which is especially useful in children. It is an expedient which some surgeons may prefer in all cases. A concealed bistoury, larger and stronger than the one used for dividing strictures at the meatus, may be easily carried into the bladder, after the membranous urethra is freely opened, along the staff (or even without the staff) in the urethra. A nervous operator may touch the stone with the instrument; the blade is then directed upwards and projected to a measured extent, and the instrument is withdrawn with the sheath pressing back towards the rectum. It seems to me that no lithotomy could be more simply contrived or formulated than this: open the membranous urethra on a grooved staff; put a strong simple concealed bistoury into the bladder; project the blade upwards and draw out the bistoury; put the finger into the bladder, feel the stone, and extract as usual. Much may be done with this bistoury. It may be used as a sound; it may incise the prostatic urethra to any desired extent. After the incision (or before, if the urethra be large enough), the sheathed bistoury flatwise is an excellent guide for the finger to the bladder. All these advantages I experienced in the case of this little boy—my fourth case.



Whether the straight bistoury on the finger, or the concealed bistoury, be used, the instrument should be so held that the upward incision is confined to the prostatic urethra. The floor of the membranous urethra is already divided; its roof need not be cut.

I have found less than usual hæmorrhage by this method; but, if it be at all free, say in adults, the application of a long sponge-tent for an hour or two effectually checks it. The tent may be withdrawn at will, without removing the tube.

I have been asked if there is no danger of urinary infiltration. Urinary infiltration is not a feature of the suprapubic operation, in which there is no downward drain, as there is here. I have had five suprapubic operations: three in little girls, one in a boy with traumatic stricture; all these recovered. One, a man with fatty viscera and with a stone that could not be removed through the perinæum, died. In no case was there urinary infiltration. Here, in fact, the urine drains away from and under the deep cut, not over and into it, as in the lateral method. The upward incision in women, whatever other drawbacks it may have, is not attended with urinary infiltration.

The advantages of the operation seem to me obvious and numerous. The floor of the pathway to the bladder is uninjured, and underneath this floor lie the main dangers. The route to the bladder is more direct, less angular; and its diameter is more uniform. The operation is simple in principle, more definite in detail, more easily performed. In the lateral method, the far end of the deep cut is necessarily an uncertain point. If the knife stop short of the end of the staff, there is uncertainty; the position of the end of the staff itself is a variable one. The floor of the bladder is practically on a level with its neck, and therefore the vesical end of the deep incision is inevitably an unfixed and an unfixable spot. The front of the bladder, on the contrary, is at a sharp angle to the prostatic urethra, and furnishes a natural, definite, and measurable limit, to the vesical cut—a cut which begins at the angle and comes forward. The incision may be made larger at will by definite and clear steps. Where the prostate is enlarged, it is a great gain not to leave large cut surfaces in its substance—surfaces which heal slowly or not at all. It is possible that an upward cicatrix might give unexpected relief in some cases of prostatic difficulty.

I have told you of my first case of several years ago. The next case was in a man near sixty, with enlarged prostate, but spare and temperate. Three years before, I had cut him by the lateral method, and removed a large stone. On the second occasion, I operated by the method I have described—treating the neck of the bladder somewhat after the fashion of the neck of the sac in strangulated hernia, and notching it upwards on the end of the finger. Three calculi, each averaging an inch and a half in diameter, were removed with great ease. The forceps was gently held along the whole tract, and not more at one spot than at another, a new experience to me. A long sponge-tent remained by the side of a tube for a few hours. His recovery was complete and rapid. The third case, which ended unfavourably, was that of a man aged sixty and extremely fat. He stoutly alleged that he lived a temperate life—falsely, as it was afterwards shown. The bladder was the deepest I have met with. Five calculi, all exceeding an inch in diameter, were removed. To my great regret, I found that the too zealous curiosity of some friends who were present had led them to insinuate their fingers upwards between the bladder and the pubes. This reminds me of the one great precaution to be taken: let there be no manipulation or examination in an upward direction. No purpose can be served thereby. After death on the third day, the heart and liver were found to be unusually fat. There was a limited patch of urinary infiltration above the pubes; it was not near the peritoneum, and there was no peritonitis. Probably it had nothing to do with the result.

My last case was in this little fellow eighteen months old. I opened the membranous urethra on a grooved staff, and then carried, without a hitch, a concealed bistoury into the bladder along the staff, but with no anxiety to keep in the groove. An instrument that passes readily in the direction of the bladder cannot go anywhere except into the bladder. Without caring to do so, I felt the stone with the end of the instrument. Turning the blade upwards and projecting it, I incised the neck of the bladder upwards. Keeping the closed instrument on the floor of the entrance to the bladder, my finger passed over it into the bladder with great facility. The forceps, introduced over the finger, seized and brought away two calculi in close contact with each other, and weighing together 185 grains. I never saw so little hæmorrhage. He passed all his urine by the natural channel on the seventh day. He is now in perfect health.

[Since the above left my hands, I have had a fifth case in a boy of five. He left the hospital well in a fortnight.]

CLINICAL LECTURE

ON SOME

VARIETIES OF NERVOUS HEADACHE.

Delivered at the Samaritan Hospital.

By WILLIAM HENRY DAY, M.D.,
Physician to the Hospital.

In a previous lecture (British Medical Journal, November 16th, 1878), I somewhat hurriedly carried you over a wide field of inquiry concerning the nature and causes of headaches. I spoke of anæmia and hyperæmia of the brain as factors in the production of these morbid states; and I incidentally passed in review the remedies in which experience has most justified our confidence. I said I would consider the subject at a future time with fuller detail, and to-day I will try to redeem my promise by making some remarks on *nervous headache*.

Our views regarding the pathology of nervous headache are vague and indefinite. Ask the question of those who have carefully studied the subject, and you will seldom get a satisfactory definition. It is neither precise nor scientific. It does not meet the cases that are constantly before us. A really nervous headache is one that starts *ab initio* in the brain; the sensory tract of the encephalon becomes irritated and over-excited, and pain results. A rheumatic headache, the congestive headache of acute inflammatory affections, or of organic disease, the typical neuralgic headache affecting one side of the cranium, or the headache due to syphilis, are easy of diagnosis, and we can scarcely confound them with any other forms. But there are headaches classified as nervous which do not correctly belong to this category. They originate in various sources of irritation not primarily cerebral, and quickly cease, as a rule, on removal of the exciting cause.

The ordinary meal, which would be digested in a healthy state of the system, indirectly creates disturbance in the brain and invites the evil; though at another time it would fail to provoke it, if the general condition were stronger, and more tolerant of indulgence or change of habit.

And here, by way of introduction to the subject before us, I would fain impress this somewhat melancholy fact upon your attention: that the habitual sufferer from headache scarcely secures common sympathy from his or her friends; its frequency is so universal throughout the world that it passes as of little moment or concern, because, generally speaking, if of functional origin it is transitory in its duration, the patient is none the worse for the seizure, it wards off some other, and, it may be, more formidable affection; and, as the phrase goes, it is unattended with danger, and does not shorten life. Nevertheless, it necessitates care and abstinence in living, and, while it lasts, produces very serious personal discomfort and distress.

But if the man of business, who is subject to periodic nervous headache, could relate what his agony was when compelled to be amid the din and bustle of life; if the professional man, who happens to be a sufferer in the like way, described how many days in the year he was obliged to relinquish his work entirely, and so sacrifice both time and money; if the hard-working needle-woman or dressmaker, who is perhaps the victim of some constitutional disorder which robs the brain of its due supply of arterial blood, told her sad tale of woe, and we could at all realise the agony and distress they severally endure, many who reject the idea that headaches scarcely necessitate special attention, would be convinced that they were worthy of a more serious study; and especially so when they come to understand that some of the most inveterate forms succumb to judicious management, even if they cannot in many instances be altogether averted. Subtle in operation as the mysterious forces of life may be to originate the different types of nervous headache, and I hold that their manifestations are various, there are means of alleviation in most cases, if we could discover them.

A somewhat extensive experience in dealing with functional forms of headache has satisfied me that they often yield easily enough (as I shall afterwards show) to well-directed treatment, when empiricism in every grotesque shape has encountered signal failure.

There are few treatises extant which describe the varieties of headache as they are to be met with in different persons. All headaches are comprised under the comprehensive term nervous or sick headache, and the description of *one* is made to include the *whole*. What to my mind appears as a typical dyspeptic, or congestive headache, is, according to many, only the outcome of the nervous type—a variety of the so-called *megrim*. From these authorities I venture to differ. Some persons never get a headache unless their digestion is at fault—excess of alcohol or stimulating food being the usual cause. I know three instances of members of the same family whose brains are excessively quick in taking offence at the smell of paint. The brain is the *offended* organ; it is not in such a case the *offender*. The pain lasts just so long as the irritation and excitement which the alcohol, or the paint has caused, and no longer. A heavy meal, or dinner, taken just before going to bed, imposes on the digestive organs an amount of duty to perform which they cannot comfortably discharge, and with the morning comes a splitting headache; when perhaps, before retiring to rest, an alkaline draught or an aperient pill might have warded it off. But the mischief is done by the early morning, by which time the patient too often thinks that his remedy may easily be obtained.

There are four forms of nervous headache, the recognition of which is sufficient for all practical purposes: 1. The typical nervous headache, which we will consider to-day; 2. Neuralgic headache; 3. Occipital headache; 4. That form attended with a disturbance of vision; 5. There is another variety accompanied with disordered sensation of the upper and lower extremities; but, I think, this is not entitled to a separate classification, because it often accompanies neuralgic headache. In some cases, it appears to be a sequel to it, the headache, so to speak, makes its escape through the extremities. The first four forms are well-marked and easily to be discriminated from each other, though one person may suffer from the whole at different times, according to the state of his health and constitution. He may experience one variety to-day and another to-morrow. I shall cite one or two instances later on. Thus a gentleman suffered from sick headache periodically till he reached the age of thirty-seven, when great anxiety overtook him, and by day and by night he was continually harassed and distressed. Severe neuralgia of the left leg and thigh followed, compelling rest in bed, and requiring sedatives and large doses of quinine before he could obtain relief. From this time, the headache changed its character and became neuralgic.

1. The premonitory symptoms of a *typical nervous headache*, then, and the course it follows, are subject to variation in different persons. In some, there are disquietude, uneasiness, and irritability for days preceding the storm; an inability to remain placid and coherent, and a tendency to be easily alarmed and apprehensive. The brain is beginning to be disturbed, and mental criticism is carried on through a hazy medium; the verbal expression of passion gains an uncontrolled utterance, though any passion itself may be practically under control. If there have been a grievance, it is distorted and magnified a thousand times, and it cannot be forgotten. It is pondered over and over again, and will not depart. So frequent are these symptoms in some persons, that each recurrent attack is ushered in with this real or fancied sorrow, which up to that time has been in abeyance. The patient cannot escape from it; it excites him, it worries him—he grieves over the inevitable, and can find no consolation in the seasonable advice of Othello:

> "To mourn a mischief that is past and gone
> Is the next way to draw a mischief on!"

This condition of the mind must, however, be looked upon as disease; and, until the brain recovers its healthy tone, reasoning is useless, the thoughts are wild, loose, and ungovernable.

> "There was never yet philosopher
> That could endure the headache patiently."

In other cases, torpor, listlessness, confusion of the mind, and loss of appetite herald the coming outbreak. The last meal has not agreed, and patients complain on waking up next morning that their mouth is dry and uncomfortable; that their rest has been disturbed by dreams; and that, if they wake up, they could not get to sleep again. If they attempt to walk across the room, their legs are unsteady, and there is an indefinable languor and depression about them. They dread the day that is before them, and know from former experience that, before many hours are past, they will be racked by something not very different from torture.

Delicate young women, at or near the time of menstruation, sometimes experience severe pain over the left side of the thorax and cardiac region, accompanied with thumping action of the heart—violent palpitation. At each stroke of the heart, the brain throbs and pulsates as in a severe bilious attack; the attack ending, as it often does, in violent retching and vomiting, pain across the eyes, and inability to face the light—this, too, when the general symptoms are those of anæmia, and the patient is in feeble health.

Another very common cause of nervous headache is poring over papers, books, or manuscripts for hours together, whilst the mind is constantly kept in a state of strain and tension. There is not so much absolute *pain* as absolutely unendurable *discomfort*, the whole head seeming to throb together; while one becomes distressingly conscious of the contact between the brain and the skull. The bony framework seems lifted upwards by the pulsation from within. And this especially results from looking over a gallery of pictures, where the sight is taxed and the mind exerted till the colours at length seem almost to run together, and the observers find themselves at last incapable of deciding on the merits of the work they are examining. They feel that their brain is wearied, overtaxed, confused. It is probable that the varied colours which meet the eye tend to this confusion of ideas, just as passing through the streets, with a desire to leave nothing unnoticed, obscures the senses by so many objects pressing on our notice in rapid succession.

Now, there is a very curious fact with regard to these headaches—namely, perverted sensations. Some persons will complain of great heat of the head, when to another person the surface feels natural, or even colder than usual; while again, when it is said to feel cool, it may to the hand of another feel hot. These abnormal sensations are the physiological outcome of some alteration in the functions of digestion and assimilation, causing cerebral irritation.

Perhaps a sufficient quantity of food has not been taken, and so enough heat to warm the body is not produced. If the vessels convey a too scanty supply of blood through the body to generate heat, the proper chemical changes cannot ensue.

Nothing tends more to aggravate the pain of headache than the force of the circulating blood; indeed, the velocity with which it passes through the arteries, veins, and capillaries, in a given time, is a matter of great importance in the production of headache. Any resistance in the latter set of vessels increases the fulness of the arterial system. The blood goes through all the straight vessels regularly, and with even speed; but, as it winds its course through the twisting ramifications of the brain, where there are so many crossings and branches, all the components of the blood may possibly not pass with the same rapidity, and the finest capillaries hinder or curve the red corpuscles, pressing them out of form; and so a way is prepared for congestion of the tissues in immediate relation to the vessels. "The resistance to the flow of blood, caused by the friction generated in so many minute passages, is one of the most important physical facts in the capillary circulation. In the large arteries, the friction is small; it increases as they divide, and receives a very great addition in the minute arteries and capillaries. It need perhaps hardly be said that this peripheral friction not only opposes the flow of blood through the capillaries themselves, but, working backwards along the whole arterial system, has to be met by the heart at each systole of the ventricle."*

During some attacks of severe nervous headache, the pulse may be but little if at all affected, either in frequency or in force; the heart beats regularly and evenly as in health, and discharges at each ventricular contraction the normal quantity of blood through the aortic orifice. It has often appeared strange to me that in these cases of severe suffering the heart should not be invariably affected through the agency of the nervous system, and the vaso-motor centre. In very many cases it is; and the pulse is slow and feeble, so slow that one might fancy syncope to be at hand. When the headache has continued for any length of time, whether there is uneasiness or oppression about the epigastrium or not, its rate is frequently reduced; that is, a pulse normally of 64 may not exceed 50 when the pain has recurred frequently from time to time. This is probably due to some action upon the inhibitory fibres of the vagus, but this we do know, that the cardiac plexus and the solar plexus of the sympathetic are brought into immediate relationship. This slow pulse, then, is by no means rare in delicate women, the common subjects of nervous headache—women who are overburdened with worry and anxiety of mind, or who are approaching the menopause, and are still much drained at each period. I know two cases in point; both are cases of married women who have had families, and are about the age of fifty. Both have suffered, and still suffer, a larger weight of care and anxiety than falls to the lot of most persons. One has ceased to menstruate, in the other the periods are regular, but too profuse. The pulse of these patients averages, in health, 64; but, when the seizure is on them, neither pulse exceeds 50, sometimes it is as low as 42 in one patient and 46 in the other. This slowness of pulse is probably due to irritation of the pneumogastric, although no diet is ever indulged in to slacken the action of the heart. It occurs among women if they ever drink tea to excess—a habit which decidedly has some influence on the pneumogastric. When, with this slowness of pulse, there is pain over the occiput (*occipital headache*), and upper cervical vertebræ, the medulla oblongata may be the source of irritation. The strain of continual suffering, like the shock of a sudden and heartrending calamity, has an effect in creating this disturbance, and partially paralysing the activity of the nerve. The nerve-centres are stunned, or profoundly shaken for the time being; and both the respiration and circulation partially fail from the changes which have taken place in the vessels and structures regulating these functions.

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* *Text-Book of Physiology.* By Dr. M. Foster. 1878. P. 99.

As to hereditary influences, these are fertile causes of an aching brain —of the type called nervous headache; and, I believe, if family history were traced far enough back, we should be able to discover the reason of many persons so suffering when they can in no way account for their trouble themselves. A headache of hereditary origin at the middle period of life, which has continued from early childhood, is usually very obstinate, and may necessitate such a change in the mode of life, as to render it well nigh impossible to give relief. Thus, a lawyer's clerk, thirty-six years of age, had suffered from maddening headaches from the period of five years old, and at the time he saw me, his calling compelled him to continue an in-door life; the mode and habit of life may be just enough to provoke headache in a person, who, living under different circumstances, might have escaped all his life. Country life shields them; town life brings on the torture, as a rule.

In many instances there is cause enough for this form of headache. Among women (who are marked out as special victims of headache) menorrhagia occupies the first place; and this is more especially the case when headaches have prevailed in early life, and the brain has shown evidence of its susceptibility to this functional disorder as maturity is approached. Bear in mind, however, that some women are drained of blood from uterine hæmorrhage till they are completely blanched, and yet they never experience a headache; just as some nervous people, gouty or otherwise, habitually indulge in alcohol till their internal organs are damaged, and yet never have an aching brain. Severe leucorrhœa is another cause.

It will be well, however, to describe more fully a case of headache arising from menorrhagia. The patient is perhaps the subject of a retroverted or relaxed uterus. She has a large roomy pelvis, and has suffered from excess of the catamenia nearly all her life. Hæmorrhoids and varicose veins of the lower extremities are also of common occurrence in these cases. As the patient approaches the climacteric period, the drain becomes more frequent and profuse, leaving her more and more blanched and unable to get through her duties; for many of these subjects are poor women compelled to remain at a wash-tub, or to labour hard in some other way for the support of a young family, and perhaps a sick or indolent husband. The symptoms that accompany this state are just those we might expect to follow a continual drain of blood. There is great pallor of the face and conjunctiva, the gums are bloodless, and the tongue is large, pale, and flabby.

The mental symptoms are sometimes so severe that the patient is apt to become irascible and violent, a state varying from simple irritability to an entire absence of self-control; she runs the risk of being dangerous to herself and to those about her. When this violence has passed away, and her reason again returns, she is afraid to trust herself with her children, for fear of doing them some bodily injury.

When the uterine loss is excessive, there is felt, in some of these cases, a knocking like a hammer on both sides of the head, through the centre of the parietal bones, due to vibration of the internal carotid arteries on the petrous portions of the temporal in which are placed the auditory apparatus. It does not attack the anterior or posterior lobes of the brain, and those parts are quite easy. The noise is worst at night, and the patient is unable to obtain rest. Sometimes the hammering noise is on one side of the head; and in one case it was felt as though a nail was being driven into the head. The least excitement would bring it on at any time, followed, after an uncertain interval, by great flushing of the features; the patient feels as though the blood had quitted the head, and gone to the face; and it is well to state here that this flushing and headache depend upon some peculiar neurosal condition, so does the menorrhagia also in many cases, and only yields to that treatment which aims at restoring the lost tone of the nervous system.

Ovarian irritation is unquestionably a not uncommon cause of nervous headache, particularly in women who have early ceased to menstruate, and who lead indolent and purposeless lives. The pain may one day fix on the forehead or side of the head, on the vertex or occiput; another day the head is easy, and a similar pain attacks the sacral or lumbar regions. There is a dragging weight felt in the pelvis and groins; the thighs on the inner side ache from irritation of the genito-crural nerves; and the legs are weak and tremulous. Such patients cannot walk any distance without an increase of pain and fatigue; they return home to lie down, and having no appetite, often fly to a stimulant which ultimately makes them worse. We have good reason to suppose that the abdominal and pelvic viscera are in close relation with the occipital lobes of the cerebral hemispheres; a misplaced uterus or an accumulation of scybalæ have been known to produce mental depression and even melancholia; promptly relieved by attention to the exciting cause. The irritation set up in the morbid ovary or ovaries by the act of walking, also, it would seem, may excite this condition of mental depression. Palpitation and uneasy sensations in the cardiac region are complained of, and the pulse may be irregular and intermittent for days together; sleep is disturbed by miserable dreams, and the patient wakes in the morning unrefreshed and unwilling to leave her bed. She will often complain of great suffering over one or other ovary, extending through to the lower lumbar and sacral regions. The discomfort which these patients experience can scarcely be imagined; the face has no ray of cheerfulness, the eyes are heavy, and the areolæ are extremely dark. The world is a complete blank to such persons, and has dealt unusually hard with them. If this circumstance had not happened, and this person had not insisted on that, and this climate was not so changeable; then life would have been endurable. The world ought to mould itself to their wishes and caprice, "now grave, now gay, now lively, now severe". As they ponder over their misfortunes, they become unreasonable and almost uncontrollable; emotional excitement, fits of ill-humour culminating in passionate outbreaks of anger, are common enough; followed now and then by an outburst of hysterical sobbing, which brings temporary relief; and then enough reason returns for a time to induce them to believe their lot in life has some light in it after all. In such patients, loss of appetite, nausea, and not rarely vomiting, are found; not the outcome of primary gastric dyspepsia, so much as reflex disturbance from ovarian irritation.

This leads us to the subject of headache from visceral disturbances, which will occupy our attention at a subsequent lecture.

BARNSLEY.—A considerable increase over the figures for 1877 is noticeable in Dr. Sadler's report for 1878, the death-rate for the latter year being equal to 23.28 per 1,000, or 2.55 above that for 1877. Of the 679 deaths, 243, or 34 per cent. of the whole, were those of infants, and 351, or 49 per cent., were of children under five years of age—a proportion which, we are astonished to learn, is less than the average for the last ten years. Zymotic diseases caused 126 deaths, or 56 more than in 1877. Scarlatina, whooping-cough, typhoid fever, and diarrhœa were the most fatal of these diseases. It is satisfactory to find that the old middens are being rapidly replaced by a new form of "ashpit", the simplicity and effectiveness of which are described as at least equal to anything of the kind that Dr. Sadler has yet seen or heard of. But, in order to secure the full benefit from this change, regular and systematic inspection and more frequent removal of the excreta are essential, and should receive early attention. Some large sewerage works are now in progress, which will further improve the sanitary condition of the town.

SURGICAL STATISTICS.

By JAMES SPENCE, F.R.S.E.,

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DURING the last few weeks, the BRITISH MEDICAL JOURNAL has contained the reports of a discussion on antiseptic surgery, together with editorial leading articles on that discussion. I have been reluctant to make any remarks on the subject, because hitherto any criticisms made on Mr. Lister's system have been characterised as "attacks" due to "envy, malice, and all uncharitableness". I am far from being actuated by such motives; but now that Mr. Lister has so far condescended to statistics, and after the editorial challenge in the JOURNAL to those who practise simpler methods of antiseptic treatment to produce anything like similar results, I feel compelled to make such comparison, and also to remark upon some other points in Mr. Lister's speech, the more so that much of his practice was in the same hospital and under the same hygienic conditions as those under which I carried out a different and simpler mode of treatment.

I have no intention of entering at present upon the general question of Professor Lister's antiseptic system. I have for the last twenty months been engaged in testing that system in comparison with other methods, strictly following it in all its details, apart from theories and controversy, to satisfy my own mind regarding the comparative advantages or disadvantages of the different systems; and, when I have completed the trial, and have all the results before me, I may return to the subject in its general form. In my present communication, I limit myself to show what results are obtainable by simpler methods, by comparing my statistics with those of Mr. Lister in as nearly as possible similar cases, and to notice some statements and some omissions in Professor Lister's speech which I think require explanation.

In the editorial challenge in the JOURNAL, those who practise simpler antiseptic methods are called upon to produce an equally "long series of the most tremendous operations in surgery". This demand staggered me a little; for, though I have performed successfully a good many serious and difficult operations, such as removal of large deep-seated tumours from the neck, excision of the scapula, and amputations at the hip, etc., I doubted how far these were entitled to be considered "most tremendous". But, as the operations referred to by Mr. Lister himself seemed by no means more "tremendous" than those I could produce, I venture on the comparison.

I shall take, first, *Major Amputations.* Professor Lister takes a period of five years and three-quarters; since, as he says, his antiseptic system has been more perfectly carried out. During that period, he had eighty major amputations; and, of these, nine died. Claiming the same right, I take a period before the "antiseptic system" was heard of, when I used the very simplest mode of dressing, merely washing the cut surfaces with tepid water or iodine and water, then uniting the margin with metallic sutures, laying the stump on a mackintosh sheet, and covering it with a veil of muslin or thin cotton—a system to which, with some modifications, I have again returned. During that period, out of sixty-three major amputations for disease, there were three deaths, viz.:

	No.	Recov.	Died.
Hip-joint	1	1	0
Thigh	25	23	2
Leg..	5	5	0
Ankle	22	22	0
Shoulder (injury)	3	3	0
Arm	3	2	1
Forearm	4	4	0
Total	63	60	3

During the same period, I had twenty-three excisions, including shoulder, elbow, and knee-joint, with only one death.

Of the two fatal cases of thigh-amputations, one is recorded as death from pyæmia on the twentieth day; in the other, the stump healed almost entirely by first intention, then albuminuria from scrofulous kidney began, dropsy supervened, and terminated fatally. In the fatal case of amputation of the arm, the patient, a man of intemperate habits, had received an injury on the elbow six days before admission. The forearm and hand were erysipelatous, gangrene appeared on the next morning, and the arm was amputated close to the tuberosities of the humerus; but he gradually sank, and died a week after the operation. In this case, the septic influences were evidently in action before the operation. Mr. Lister, in speaking of a fatal case in his amputations of the thigh, explains that the patient died of diphtheria, "nine months after the operation, when the cicatrix was almost complete". Cicatrix of a stump almost complete nine months after amputation! Surely that is not the primary union often claimed as one of the advantages of Mr. Lister's system.

I come now to Mr. Lister's elimination of certain fatal cases, so as to found a claim that "no patient died from a preventable disease" (cause?), or, as he complacently puts it, "every patient recovered who had a chance of recovery". I take, first, his amputations at the hip-joint; these were three in number; one, a primary, I consider a very proper case to deduct. The operation is warrantable in such cases, as a chance for life and to alleviate suffering, though the chance be infinitesimal. I cannot, however, see on what grounds the other two cases are to be eliminated as non-preventable deaths, unless we are to exclude all unsuccessful cases. Was amputation through the continuity of a bone affected with myeloid disease, thus necessitating amputation at the hip next day, non-preventable? Judging from my own experience, I have little doubt that, had amputation at the hip been performed at first, the result would have been favourable. Or why should a case of large fibroma be specially dangerous? Up to my last statistical reports, I had performed amputation at the hip-joint twelve times, viz., five primary amputations, and seven for disease. Of these, five have been successful; one primary, and four for disease. Of the unsuccessful cases of amputation for disease, two were large medullary sarcomatous tumours of the femur. The fatal primary cases may be summarised thus: 1. Extensive laceration of thigh and scorching of abdomen from explosion of an iron flask of gunpowder in the man's trousers' pocket; patient brought from a distance of fifty-six miles, partly by cart, partly by rail. 2. The patient had both limbs crushed by a railway train passing over them. One thigh was amputated above the knee, the other at the hip-joint. He lived for thirty-six hours. 3. One thigh crushed, and injuries to trunk; and the patient had lost blood before being brought to the hospital from Fife; he never thoroughly rallied, and died next day. 4. A little girl; a heavy cart passed over the thigh, crushing it to a pulp, and there was laceration over the other knee (which had some months before been affected by disease of necrosis of the lower end of the femur). There had also been considerable loss of blood before admission to the hospital. For some time, she went on favourably; a small part of the anterior flap sloughed, but the rest of the stump healed. Albuminuria, which had been present when she was formerly under treatment, reappeared, and she gradually sank.

The fatal cases after amputation for disease were three in number. A young gentleman, twenty years of age, suffering from what was supposed to be hip-joint disease, with intense pain and rapidly increasing cachexy (the disease was malignant malacosteon). The bone was so softened by the lardaceous deposit that the shaft of the femur separated on being depressed, and the head and neck had to be dissected from the acetabulum. He was very weak after the operation. On the second day, severe hæmaturia supervened, and resisted all treatment, and he sank exhausted on the fifth day after the operation. The next case was one of malignant tumour of the soft parts in a powerful young man. I urged him, two years previously, to have the growth removed when it was small, but he refused. When the amputation was at last performed, the growth reached close to Poupart's ligament, the anterior flap was very short, and all muscular tissue was carefully cut away. There was scarcely any blood lost during the operation, and there was no reactionary hæmorrhage. When I saw him some hours afterwards, his pulse was of moderate strength, but he sank suddenly next morning, within twenty hours after operation. The last case was amputation for malignant cystic tumour of the femur, performed as a last chance at the urgent desire of the patient. The details of this case are given in my clinical report of operations in the *Edinburgh Medical Journal* for November and December last, so I need not repeat them here. The operation was all but bloodless, but he died within thirty-six hours. This case was operated on under "the strictest antiseptic precautions, at the patient's request".

Mr. Lister next proceeds to analyse his cases of amputation at the shoulder-joint during the same period. Four of these were primary, of which one died—a railway accident. Anyone with experience of shoulder-joint amputations knows the great difference in the mortality in railway injuries as compared with machine and gun-shot injuries. Out of twenty-one primary amputations at the shoulder in my own practice up to 1875, I find nine cases for gun-shot, machine, and cart accidents, with two deaths; whilst, out of twelve for railway-accidents, there were six deaths; this is evidently due to the complication of railway accidents with other lesions. In one of the fatal results after operation for accident by machinery, the man had been whirled round. There were found effusion of blood in the pleura, and injury of the abdomen; he lived only twenty-four hours. The other fatal case was from hæmorrhage ten days after the operation, due to the patient's own imprudence; the stump had healed pretty firmly; and, fancying himself safe, he sat up. In moving about, bleeding came on; and, being in the country, he died before efficient assistance could be procured. In Mr. Lister's case of fatal result after amputation for malignant tumour, if I recollect aright the description of the case by Mr. Watson Cheyne in his thesis for the Syme Fellowship, the case did not remain aseptic before the bleeding. Besides, surely it is possible, by proper examination of a case, to avoid performing amputation at the shoulder for malignant growth when there exists a similar disease in the thigh. I also think that, under amputations of the shoulder for injury, Mr. Lister must have forgotten a secondary amputation for injury in which hæmorrhage took place. I was called by one of the dressers, and reached the ward just as Mr. Lister came. The stump had been dressed antiseptically, for the special dressings were lying about, but the wound was certainly to my senses of sight and smell not aseptic. I understood the man died soon afterwards. In comparing my results with Mr. Lister's, I have claimed the right which he takes of choosing a period during which I practised a particular mode of treatment of the simplest kind. I would, not, however, wish it to be thought that I consider that the proper mode of studying statistics. I have elsewhere given my statistics of five hundred and three greater amputations in a different and more extended form, as performed for different causes under various modes of treatment. More recently, in my later clinical reports, I have furnished further statistics in such form that all the causes in operation as affecting the mortality may be judged of.

In regard to *Operations for Ununited Fracture*, Mr. Lister seems to have been unusually fortunate in meeting with ununited fractures of the thigh-bone; for, in a much longer experience, I have only met with two cases, and one of these was rather delayed union than non-union; in that case, the method of subcutaneous section of the uniting medium, and scraping the ends of the broken fragments (Professor Miller's method) with proper adjustment, was sufficient to effect a cure without any constitutional symptoms or risk. In the other case, an old man with badly set and imperfectly united fracture, I cut down on the bone, and, with the chisel, separated and cleared the ends of bones, readjusted them, and treated the case by moderate extension by pulleys and lateral splints. His temperature only on one day rose to 100°, and that several weeks after the operation, due to irritation of the skin caused by the adhesive plaster which was applied below the knee. In consequence of my having introduced, in 1854, a particular method of resection in ununited fracture of the upper arm, I have been called to operate on several such cases, and always without serious constitutional disturbance arising, and only in one case with failure of union. In it, the lower fragment was so short as to be bent forcibly towards the forearm, and could not be kept in apposition with the shaft of the humerus. In ununited fracture or delayed union in the bones of the leg, I have very generally found Professor Miller's method quite sufficient to produce a cure. In two or three cases of oblique fracture with imperfect union, I have cut down upon the bones, drilled and pegged the fracture after separating the opposed surfaces with the chisel; and in these cases I never met with constitutional disturbance. I can only recollect operating on one case of non-union in the bones of the forearm, and that did quite well. In regard to the thigh, Mr. Lister does not state especially the results of his operations as regard solid union of the fracture: the object of the operation. I know that, in one case, the operation was repeated either once or twice without union resulting. If such repetitions of the operation be counted as separate operations, that would explain the number of cases met with in five years.

There is one important class of operations on bones of which Mr. Lister gives no examples, viz., resection of the whole thickness of a bone during acute necrosis. I have performed resection of nearly the whole length and thickness of the tibia, leaving the periosteum on three occasions, and of half its length in other two cases; whilst, in my last statistical reports, will be found a case in which I removed the whole length of the ulna from the elbow-joint to the styloid process. In all these cases, the bone was reproduced both as to size and form. In these cases, no spray or special method was used. In all, the result was successful, and the constitutional symptoms improved from the time of the operation.

There is also a class of operations of common occurrence of which Mr. Lister does not give his results. Yet it is a class which has important bearings on his "germ-theory". I mean *Excisions of Tumours.* Take, for example, excision of the mamma. I find, on referring to my last three Clinical Reports, 1875, 1876, and 1877-78, that, out of thirty-eight excisions of the breast, and a recurrent cancerous mass from the axilla, there were only two deaths. How are we to account for the escape of these cases in which there is a large cut surface exposed to the atmosphere during the operation, and whilst arresting hæmorrhage, if the germs floating in the atmosphere be the causes of all the evils attending operations?

I may add that, in private practice during the last six years, I have only lost one case of excision of the breast, though some of my cases have involved division of the great pectoral, and even removal of part of it, and clearing the axilla up to the clavicle. None of these extensive operations proved fatal—nay, more: so generally do such cases heal largely, if not entirely, by primary union under simple treatment, that I have never felt at liberty to test the spray system in this class of operations. What are Mr. Lister's results in excisions of the mamma?

I come now to a statement which, as given in the report, requires some explanation. I mean the statement in reference to the treatment of chronic abscesses. Professor Lister is reported as saying: "When a new principle is propounded, I cannot regard these statistics of individual cases as unimportant. *I say, if a case show new pathological facts, one individual such case is worth as much as a million*" (the italics are mine). "I have published numerous cases, for instance, to show that a great abscess connected with disease of the vertebræ may be opened by free excisions (incisions?), a drainage-tube inserted, and strict antiseptic treatment used; and that from that hour I never had a drop of pus." From what I know of Professor Lister's style of composition, I think he has suffered at the hands of the reporter or printer; but I must assume that his meaning is fairly represented. I will not in this case state the results of my own experience of the Listerian method in chronic abscesses, because the fault might be said to lie with my application of it; but I must ask Mr. Lister to explain his statement in relation to the fact, of which I cannot suppose him to be ignorant, viz., that, when he left the Edinburgh Infirmary, there remained in his wards many cases of chronic abscesses uncured (I believe seventeen cases); and some of these had been upwards of two years under his treatment. Surely, if the cases had been cured and ceased to discharge, he would have dismissed them from a public charity as cured.

During the period I have been trying the Listerian system, I have admitted a larger number than usual of these not very interesting cases. They have done well as regards constitutional symptoms, but not as to cure or arrestment of discharge. I think this (apart from theory), as regards the absence of constitutional symptoms, is one of the best points in the system; but Mr. Lister imperils the chance of its adoption and usefulness by such exaggerated statements. As to Mr. Lister's very peculiar view of the value of isolated facts or supposed facts, he ought to remember the dictum attributed to John Hunter, that "there are more false facts than false theories in medicine". The difficulty is to decide how far the treatment used is the cause of the result. About eighteen months ago, a poor little child, shrivelled, yellow, and dwining,* was admitted to my ward with large lumbar and inguinal abscesses. The child was apparently so exhausted, that I had no hope of successful result; but I opened both abscesses freely, without spray, and distended the cavities with the weak carbolic lotion, and, after the fluid had been pressed out, dressed then simply with oiled lint. After the second dressing, there was no discharge. The little fellow rapidly gained flesh, strength, and colour, and left cured. Am I from the result of this individual case to assume that the same treatment will generally be followed by the same result? Is it not rather an exception to a general rule?

Then, I think, Mr. Lister was also bound to notice a class of operations into the performance of which he must have been led by his peculiar views as to the value of individual cases. I mean his cases of suprapubic lithotomy. His first case was an almost miraculous escape, and, founding on it, he is said to have promulgated very decided views: 1. As to the perfect safety of opening the peritoneal sac if antiseptic precautions were used; 2. As to the naturally bland and unirritating character of the urine upon living tissues, and that it only became irritating from the putrefaction caused by germs introduced by septic or unprotected catheters. Professor Lister knows the results of his subsequent cases, in which the perfect safety obtained by the antiseptic method was put to such a crucial test. I repeat, I think he was bound to notice these cases; many of those who heard his lectures after his first successful case may never hear of the subsequent cases, and thus be led to adopt his views as to the safety of antiseptic suprapubic lithotomy.

I do not enter into the theoretical points in Mr. Lister's speech. As to organisation of blood-clots, whilst I would not like to say with Mr. Lister that effused blood not exposed to air never gives rise to bad consequences, as I have frequently found suppuration occur in such cases, and offensive pus discharged when the collection was opened. Yet I know, and have shown more than thirty years ago from experiments on arteries, that, when present, a limited blood-clot does become organised and incorporated with the walls of the vessels. And, in one case, I even succeeded in showing vascularisation of the blood-clot through the medium of the plastic basis at the point of ligature. As to the organ-sation of carbolised catgut ligature, I am sceptical. Mr. Lister says that any chemist will tell us that it will not dissolve. I reply that I will believe my own eyes rather than "any chemist", for I have seen it soft and jelly-like, even whilst retaining its form; and, in a stump, I have seen the femoral surrounded by catgut ligature on the fourth day after amputation, bleeding whenever compression was removed, showing the catgut had lost its constrictive power; and it was as easily wiped away with the finger as if it had been recent lymph, thin clot, or other semi-fluid matter.

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* A very expressive old English word; though by some considered Scotch.

Two things seem to be admitted by Mr. Lister and his followers in he discussion: that other simpler methods than the spray system may be considered antiseptic, and also that the system is limited in its appli-cation; that, for instance, it could not be carried out, Mr. Lister says, n cases where sinuses had existed in the vicinity of the joints which were excised. How many cases demanding excision or amputation do we meet with where such complications do not exist?

THE TREATMENT OF ACUTE AND OF CHRONIC CATARRHAL LARYNGITIS IN ADULTS:

WITH SOME REMARKS ON THE USE OF THE LARYNGOSCOPE.*

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WHEN the very kind and flattering invitation of my friend the Chairman, to read a paper on some laryngeal subject before this Branch of he British Medical Association, came to my hand about a fortnight ago, at first regretted very much that the shortness of the time did not llow me to prepare a paper for this occasion which possessed the merit f some novelty in its contents. Soon, however, this feeling yielded to he consideration whether a paper on some new discovery relating to he physiology or pathology of the larynx was in itself a suitable or esirable thing for the present occasion. In spite of the short duration f its existence, laryngoscopy, like most of the other physical methods ow in use for medical purposes, has already attained so high a degree f perfection, and most of the questions relating to the pathology of the arynx have been solved in so thorough and satisfactory a manner, that, with but few exceptions, all new additions to our knowledge on this ubject can of necessity be only of a more limited and minor interest to he bulk of the profession, however interesting they may be to the pecialist. But what would be the good, I continued to ask myself, of ommunicating some of such more or less unknown details, if the subect itself on which they are based is so little favoured and known mongst the great majority of the profession, as unfortunately happens o be the case in this country? For, much as it is to be regretted, ndeserved as it is in my firm and sincere conviction, strange as it certainly is in a country which in so many scientific and practical respects marches ahead of the medical science of the world—the fact cannot be enied that laryngoscopy—a method which has been for the last fifteen ears at least a thoroughly acknowledged and respected one throughout Europe and America, has as yet by no means conquered in this country he position which it not only deserves, but which, I venture to predict, will occupy in not too far distant a time.

I am perfectly aware that, whilst thus speaking, I shall encounter the sual half-pitiful, half-distrustful, feeling to which in our profession very man is exposed who ventures to urge the necessity of certain hings which are not yet acknowledged as necessary by the bulk of the rofession. "Oh, he is a specialist; of course he is an enthusiast for his pecialty." Such is the usual phrase by which even well-meaning men requently believe that they have satisfactorily settled this question. ut am I really too enthusiastic? Do I say that there is no good esides the laryngoscope, and that it is infallible? Or do I demand a ecognition of an unknown method, which may perhaps have certain dvantages, but not great enough to justify its being made compulsory or every student of medicine? What I want is simply what is already ranted everywhere except in this country, viz., to see laryngoscopy cknowledged as one of the most important and useful physical methods investigation, and to be thus placed on a par with auscultation, perssion, ophthalmoscopy, otoscopy, and similar methods. It deserves nd will have this position. It is only six weeks since I had the advange of talking this question over with one of the greatest living medical uthorities, whose name is well known and respected in this country as well as in the whole civilised world, viz., with Professor von Ziemssen in Munich. "If I find a man", he told me, "in the final examination, who does not know how to use the laryngoscope, I pluck him just as I would pluck a man who does not know how to percuss and to auscultate; for the importance of the laryngoscope is so great, not only, of course, for laryngeal diseases, but for constitutional ones also, that every medical man must know how to use it; whilst, at the same time, laryngeal diseases form one of the most frequent and most important classes of human pathology." These are his own words; and if I add that the knowledge of the use of the laryngoscope is now compulsory in Germany for every student undergoing his final examination, I hope I have satisfactorily shown that what I heartily wish to see acknowledged in this country also is not an unjustifiable desire of a young and enthusiastic specialist, but that it must have been accepted as a necessity by the authorities of a country which in its turn is always ready to learn from England. I do not know whether the knowledge of the laryngoscopic method is a compulsory subject of the medical education in France and in America; but, having been the reporter on laryngology of the *London Medical Record* for some time, and having thus had the opportunity of seeing almost everything written on this subject in the world, I can conscientiously assure this meeting that it must be almost universally known. The same is to be said even in a higher degree of Austria, where, I believe, it is compulsory.

Turning, now, to this country, in which I have reason to believe the laryngoscope is but very scantily used, it would perhaps not be so very difficult to find some of the reasons for the evident dislike in which, at the present time, so valuable a method is held; but this task is not a very grateful one, and I need not discuss it here in detail. Yet I may point out, amongst other causes, the conservative nature of the English method of teaching, the natural distaste to acquire facility in the employment of a new instrument, and the defective organisation of special departments in many general hospitals. Other controversial aspects of the subject I pass over. However this may be, we must look for improvement. A truly satisfactory change of the present conditions will, I am afraid, not take place until the authorities who have to decide about these questions become themselves aware of the importance of the subject, and make its knowledge compulsory for the final examination. Until this *pium desiderium* be fulfilled, it is the duty of those who devote a great part of their time and studies to this neglected subject never to rest, but to show again and again how important—nay, how indispensable—the laryngoscope is, not only for scientific achievements, but for the practical purposes of the daily life of the general practitioner. It is this reason, in fact, which made me choose the treatment of acute, and especially of chronic, laryngitis as the most suitable subject for this occasion. I may state here, in parenthesis, that I have added the words "in adults" because, if I should also speak of the treatment of acute laryngitis in children, I could not have avoided touching upon the vexed question of the differential diagnosis between croup and acute laryngitis, and because, in the event of a debate following this paper, I did not wish to divert attention in an entirely different direction.

No class of patients comes more frequently in hospital and private practice under the eyes of the laryngoscopist, than those suffering from common catarrhal chronic laryngitis. He comparatively seldom sees cases of acute laryngitis. The great disproportion between the number of cases of either affection, the chronic being, however, in the majority of cases, only the result of the acute form, quite justifies the conclusion that, in this country, patients suffering from acute laryngitis apply comparatively rarely to a specialist, but either altogether neglect the affection in its early stages, or seek the aid of their general medical adviser. But if we should take the opposite view, and believe that patients who have somehow acquired a more chronic form of the affection applied, as a rule, directly to the laryngoscopist, we should commit a great error. On the contrary, in the vast majority of cases, the patient has been under treatment for a considerable time, sometimes for months and longer, and has had a great many different medical advisers. The number of prescriptions which these patients are always ready to show is formidable. It is, in fact, the *British Pharmacopœia*, and a little more, which has been tried on them in the form of mixtures, pills, lozenges, gargles, inhalations, and local applications to the pharynx. I need not say that all these things, instead of benefiting the patient, often not only do not improve the condition of the larynx, but render the treatment a much more tedious one, because they allow the active process in the larynx to progress without let or hindrance during their administration. In not a few cases, they directly do harm. Especially the applications of strong astringent solutions, especially of nitrate of silver, which are frequently used as a last resort, but never applied to the diseased larynx, but always to the innocent pharynx, cannot, in my opinion, be condemned strongly enough. The patient's pharynx, if he apply at last to the laryngoscopist, having been treated for weeks and months without any success, first internally, then by inhalations and lozenges, finally by these unfortunate pharyngeal applications, looks simply dreadful. Sometimes it is quite impossible, in the first sitting, to get a satisfactory view of the larynx, on account of this artificial irritation of the pharynx; and not unfrequently the treatment must be commenced by giving the patient a few days' rest to recover from the results of these applications to his pharynx, stomach, and entire constitution; for it is superfluous to say that the sickness and the efforts at retching which often follow for hours the application of a strong solution of nitrate of silver to the pharynx give a great shock to the whole system. It is unfortunate enough that we sometimes cannot avoid touching a spot in the pharynx whilst introducing strong solutions of nitrate of silver into the larynx; but, with the only exception of syphilitic ulceration of the pharynx, in which affection, by the way, the diseased spots are better touched with the solid stick, such a solution ought never to be applied intentionally to so sensitive a part as the pharynx. In the event of the pharynx being simultaneously diseased, we have, according to the nature of the affection, plenty of remedies at hand to replace the nitrate of silver, and they have the same beneficial results as this remedy, without its disagreeable and noxious effects.

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* Read before the East-Surrey District of the South-Eastern Branch.

I will now try to give a short outline of the treatment of both the acute and the chronic forms of this affection, which, I hope, combines scientific requirements and practical experience. I have but little new matter to bring forward, and many of my statements will be found in more or less different words in the text-books treating of the subject; but the foregoing remarks about my experience with regard to the treatment now in use in this country justify its repetition on this occasion.

"Diseases of the larynx do not differ materially in pathology from diseases of like tissues or tissue-elements elsewhere." This simple commonplace statement, which is the opening phrase of one of the best American text-books on laryngology, that of Solis Cohen, is unfortunately but too frequently neglected by those who have the care of the early stages of catarrhal inflammation of the larynx. An acute inflammation of the laryngeal mucous membrane is characterised, like every other inflammation of mucous membranes, by the cardinal symptoms of heat, swelling, pain, redness, and diminished function, and ends, like every other acute inflammation, either in resolution, or passes into the chronic form, whilst in some very rare cases it may result in œdema. I have refuted elsewhere the attempt to call "acute laryngitis" only that form terminating in œdema. "Œdema of the larynx is but one of the terminations of acute laryngitis, fortunately occurring comparatively rarely, whilst a very acute laryngeal inflammation might quite as readily pass into complete restoration to health or into the chronic form. To consider all inflammations of a recent character not leading to œdema from their very beginning as subacute, is by no means justified, or, as I should have expressed myself, quite contrary to general scientific terminology." I repeat this statement here, because this evidently false terminology seems to have gained ground somehow in this country, so that more than once pupils of mine, to whom I showed patients suffering from this affection, were quite astonished when I used the term "acute laryngitis" alternatively with the synonym "acute laryngeal catarrh" in speaking of the same case.

Acute laryngitis thus being an acute inflammation of the laryngeal mucous membrane, which in adults can hardly be mistaken for any other affection, must accordingly be treated like any ordinary acute inflammation of other mucous membranes, *i.e.*, expectantly. In the overwhelming majority of cases, it is quite sufficient to preserve the patient from the continuation of the influences which have produced the disease; to keep him for a few days at home in an uniformly warm atmosphere, and to let him use warm steam inhalations, to which some compound tincture of benzoin, lupulin, or coniin may advantageously be added.* Antiphlogosis, in the form of a cold-water compress round the neck, and of little pieces of ice to be sucked continually for some time, will often, if administered at the very onset of the affection, check its further progress. If the catarrh be not localised in the larynx alone, but also affects the other parts of the respiratory tract—nose, pharynx, and bronchial tubes—the common diaphoretic treatment of these general "colds" often shortens its duration, especially when administered on the second, third, or fourth evening from the beginning. The most indispensable condition for a complete recovery is of course the same as in all other organs when inflamed, viz., complete rest of the diseased part. I can scarcely sufficiently strongly protest against the absurd advice of many teachers of singing to their pupils when suffering from acute laryngeal catarrh, viz., to sing "through" their hoarseness! Of course it is possible, in these early stages, to overcome, by a great effort and for a short time, the hoarseness; but the great strain thus imposed on the laryngeal muscles, which are nearly always more or less implicated in the process, invariably revenges itself in the form of greater loss of power and greater congestion of the diseased parts, manifested by more or less complete aphonia, pain, and exhaustion. In not a few cases of professional and of amateur singers, the neglect of this most natural rule for the treatment of every acute inflammation has been the cause of the most obstinate forms of chronic laryngitis and loss of voice. The greatest possible restriction in using the voice is, therefore, to be enforced with all possible energy. In Germany, a much favoured remedy, especially if the feeling of irritation in the throat be much developed, and there be a short but painful cough, is to let the patient frequently drink during the day hot milk and seltzer or soda-water, in equal parts. There can be no doubt that the carbonate of soda possesses the power of dissolving the mucous accumulation, and thus its beneficial effect is easily explained. If the irritation and inclination to frequent coughing be very great, opium or morphia may be safely administered in small doses.

It is thus seen that, for the majority of cases of acute catarrhal laryngitis in adults, the treatment recommended is an extremely simple one, and fully in accordance with the general principles of the treatment of acute inflammation. On the other hand, in accordance with these principles, I consider it a duty to warn earnestly against a premature local application of astringents. Scholars in laryngoscopy often connect the laryngoscopic appearance of congestion of the parts with the idea of making astringent applications. This is a fatal error. No surgeon would dream of treating a recent external inflammation with astringents, which in this stage are only likely to increase the intensity of the inflammation. The same rules, which are to be applied to other parts, must also govern the treatment of laryngeal affections; this cannot be too often repeated, and thus the premature use of astringent remedies is to be considered as a decided fault. The local treatment only comes into play when, in consequence of general neglect, newly acquired colds, feeble constitution, predisposition for diseases of the respiratory mucous membranes, undue talking and singing, the acute inflammation, instead of ending in resolution, passes into a more subacute, or directly into the chronic form.

Before, however, passing to these forms, a few words are necessary with regard to the most severe form of acute catarrhal laryngitis, viz., the œdematous. (The limited time does not allow me to touch the hæmorrhagic and the purulent or phlegmonous forms, which are, however, exceedingly rare.) It will have been observed that whilst talking of the common forms of acute catarrhal laryngitis, I did not mention the laryngoscope once. Of course, it would not be correct to infer from this omission that I considered its use for the purposes of diagnosticating and watching the case as superfluous; on the contrary, I quite agree with von Ziemssen that an exhaustive diagnosis and a complete certainty regarding the progress of the pathological process can only be acquired by the aid of the mirror; but I admit that in many cases of common acute laryngitis in adults, the laryngoscope is not indispensable for diagnostical and therapeutical purposes. It is quite a different thing in the most acute form of laryngitis, viz., the œdematous one. All the symptoms of this fortunately very rare termination of an acute laryngitis—rapid increase of the catarrhal phenomena, burning pain in the larynx, difficulties in deglutition, great respiratory dyspnœa, etc.—are neither sufficient to make the diagnosis a conclusive one nor to give a satisfactory indication for the proper moment for surgical interference. All these symptoms can be quite as well produced by the impaction of a foreign body in the larynx, by a retropharyngeal abscess, by laryngeal diphtheria, and any other disease giving rise to laryngeal dyspnœa, and yet the treatment is by no means the same, at least in the earlier stages of the catarrhal disease. Here *early* laryngoscopic examination is of the highest value. Death might ensue within a couple of hours before any authority can be consulted; and even in lighter cases, if the laryngoscopic examination have been too long postponed, it might be impossible, on account of the increasing dyspnœa, to proceed with it afterwards. Therefore, I repeat, as soon as there is the first symptom of stenosis glottidis, a laryngoscopic inspection must be made. It having been ascertained that this symptom is simply due to an inflammatory œdema of the submucous areolar tissue and of the mucous membrane itself, a very active and energetic treatment must be instituted. I advise that too much time should not be lost with internal remedies and external applications. If the administration of an emetic, and ice externally and internally, blisters and mustard poultices round the neck, fail to give relief within a short time, and if, on the contrary, the symptoms of stenosis and carbonic acid poisoning increase, an energetic scarification of the œdematous mucous membrane of the larynx, especially of the ary-epiglottic folds, ought to be tried with the guidance of the laryngoscopic mirror. This little operation is by no means very difficult nor dangerous, inasmuch as there is, under these circumstances, little fear of doing harm to the vocal cords or other important parts of the vocal organ, whilst at the same time it will, in many instances, relieve the practitioner of the necessity of performing tracheotomy. In the very few instances of œdema of the larynx from simple acute catarrhal laryngitis in adults which I have seen, scarification has been, without exception, successful in checking the progress of the obliterative process. If, however, the practitioner for any reason whatsoever should not feel inclined to scarify, or if this operation should not soon be followed by a considerable abatement of the urgent symptoms, tracheotomy should be performed without delay, as this operation will, in all instances, if timely executed, save the patient's life.

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* I am very glad that the discussion following the reading of my paper has given me the opportunity of correcting an evident error of mine, which is, however, I have reason to believe, shared by a good many members of our profession. For years I have prescribed and advised, amongst other drugs, to add some common salt to the hot steam inhalation, in the belief that the construction of the "eclectic inhaler", which I mostly make use of, favoured the entrance of the chloride of sodium into the air-passages. In the class of instruments to which this apparatus belongs, the patient does not only inhale the steam, but a mixture of steam and atmospheric air, which is drawn through the hot solution, and thus becomes "thoroughly impregnated with the active principle of the medicament" (Mackenzie). Now, I always supposed that the current of air thus running through the liquid was strong enough to carry mechanically with it a considerable quantity of minute particles of salt into the respiratory organs of the patient. Thus I have made use of it—though the inhaler is recommended by Dr. Mackenzie for volatile solutions only—for this class of inhalations also: I even thought that I had observed somewhat better results from these inhalations than from the pure steam inhalations, which I explained by the fact that chloride of sodium dissolved mucous accumulations, and thus recommended the salt as an advantageous addition to the steam inhalation in this paper. To this statement exception was taken by Dr. Bowles of Folkestone, to whom I am very much indebted for drawing my attention to the subject. He pointed out in the discussion that, according to the first principles of chemistry, the addition of non-volatile substances, even if dissolved in fluids, could not cause the steam thus arising to become impregnated with them, and he doubted whether the addition of the mechanical principle in the form of the patient's inspiratory efforts and the current of air passing through the liquid would materially alter these conditions: however, he invited me to settle the question by experiment, and this I have done in the following way. A new eclectic inhaler was filled with the usual quantity of pump-water (twenty-seven ounces), to which half-an-ounce of common salt was added (five drops of this solution, when added to two ounces of distilled water and tested by the admixture of one drop of a solution of nitrate of silver, gave ample proof of the presence of chlorides by the formation of a thick white cloud in the pure fluid). The mouthpiece of the inhaler opened by means of an elastic tube into the lid of a second glass vessel, half filled with distilled water (six ounces). A second tube opened into the lid of this vessel, which was, with the exception of these two openings, hermetically closed. The somewhat modified mouthpiece of the inhaler dipped into the water, the second tube led into the air-chamber above the water in the second vessel. A rarefaction of the air above the water in the second vessel, produced by sucking the last named tube in the usual way of deep inspirations (as in a properly conducted inhalation), resulted, of course, in the fact that atmospheric air was drawn and circulated through the entire apparatus thus contrived. This was manifested by the bubbling noises in both the vessels. Having thus secured that the steam mixed with air would pass through the distilled water in the second vessel and here be condensed, I warmed the fluid in the inhaler to the usual temperature of 150° Fahr., and then inhaled through the second tube for five minutes in the proper way. At the end of this time (the usual time for inhalations), the apparatus was taken to pieces, and the distilled water tried by the addition of nitrate of silver-solution, when it was found that it remained perfectly transparent, and that not the slightest trace of a cloud was produced. It is thus conclusively shown that in an ordinary inhalation by means of an inhaler not the slightest trace of chloride of sodium enters the patient's throat; that it is perfectly useless to add salt to fluids inhaled; and that the only artificial way of using salt for the purpose of acting as a local remedy to the pharyngeal and laryngeal mucous membranes is to administer a solution of chloride of sodium in the form of spray. Of course, this will hold good for other non-volatile drugs as well.

So much for the treatment of acute laryngitis. Of course, still more sharply defined rules could be laid down, and much more could be said about the single remedies and methods to be used; but the limited time does not allow of too great an extension of this paper.

In turning to the subacute and chronic forms of laryngitis, I should like to make, in parenthesis, a statement with relation to a fact which has often struck me, and the correctness of which has been corroborated by several other observers whose attention I drew to the subject. Although undeniably, in most cases, chronic laryngitis in this country, as well as elsewhere, is the outcome of a neglected acute laryngitis, still the chronic affection in this country begins, in very numerous instances, *à priori* in a more slow and torpid form; and a true acute laryngitis, manifested not only by greater vivacity of the subjective symptoms, but also by great active congestion of the larynx and lively red colour of the vocal cords, is much less frequent in England than on the continent. I fancy I have observed similar conditions with regard to pneumonia and typhoid fever; but the scarcity of my observations on these diseases in this country does not allow my making any positive statement to this effect. At any rate, it would be a very interesting task to compare the appearance of the same inflammatory diseases under different climatic and geographical conditions.

To return to our subject: two principles I put at the head of this division. 1. No internal treatment whatsoever will ever cure an idiopathic chronic laryngitis. 2. The laryngoscope is indispensable for the diagnosis as well as for the treatment of this affection. It is not difficult to prove the truth of these two statements. In prescribing anything for a patient, we must, of course, be led by some positive idea as to the mode of action of the remedy which we prescribe. Now, what is chronic laryngitis? Of course, like any other chronic inflammation of mucous membranes, a more or less extensive tumefaction of the affected parts, due to hyperplasia or dermoid metamorphosis of the mucous and submucous tissues, increase of the connective tissue, enlargement and tortuosity of the small vessels—in short, a more or less considerable, but always positive, change in the histological configuration of these parts. If this be so, what is the supposed mode of action of any remedy—including the natural mineral waters—if internally administered upon these positively changed structures, and what remedy can be supposed to have any action upon them? I do not think that it is possible to answer this question in any way satisfactorily. But, if so, is it not time at last to discontinue the old practice and to proceed to the new one, which is not only empirically proved to be the more successful one, but which may fairly claim to answer all scientific requirements? This the local treatment does, if rationally employed. Its leading idea is, to change the torpid and slow chronic inflammation by the local application of strong astringent remedies into a reactive one, and to watch the course of this until its natural termination into resolution has been achieved. I do not think that anybody can take exception to the *rationale* of this thought. And if this be so, how can one take exception to its practical application, which is rendered possible by the use of the laryngoscope and by the endolaryngeal treatment? And is not this local method in itself of higher practical worth than the internal treatment? Any transfer of a part of the human body from medical to the direct surgical treatment means a decided therapeutical progress, because we have, instead of a supposed and theoretical mode of action, a positive and real one, the effects of which we can control with certainty. Thus everything combines to corroborate my former statement, of the great value of the laryngoscope, not only for scientific achievements, but for the daily practical use of the general practitioner. In fact, in the disease under question, I positively state that the local treatment, with the aid of the laryngoscope, is the only successful one. Of course, I do not deny that in some few cases of plethoric individuals, in which not only the mucous membranes of the abdominal organs but also those of the throat are the seat of chronic congestion, this state could not be materially improved by a rational internal treatment, by the use of the cold sulphur springs, or of Carlsbad, Marienbad, etc.; nor am I unaware of the fact that other classes of patients also suffering from chronic catarrhal laryngitis are greatly benefited by the use of the waters of Ems, Eaux-Bonnes, by a short stay in Switzerland, etc.; but what I maintain is, that all these things do not *cure* chronic laryngitis. If we could induce a merchant suffering from chronic laryngitis, living here in Croydon, to abstain for a fortnight or three weeks from going daily to the City, from talking excessively, smoking many cigars, and drinking a considerable quantity of alcohol, I venture to say, that we would see exactly the same improvement in his voice which is in the majority of cases the result of a visit to any of the foregoing places; but this improvement is in either case but a temporary one, and, at the slightest exertion, cold, excess, etc., the patient's condition will be the old one. A real cure, I maintain with all the authorities who have written on the subject, can only be effected by a methodical local treatment. I need not enter here into a long discussion of my second statement—viz., that the laryngoscope is indispensable for the diagnosis of chronic laryngitis, because its truth is obvious. Not one of the subjective or objective symptoms is in itself, or combined with others, pathognomonic of the affection. Hoarseness, dysphonia, early fatigue, aphonia, cough, augmented expectoration, sensations of dryness, heat, pricking, soreness, etc., are concomitants of almost every chronic laryngeal affection; of neoplasms, nervous disorders, perichondritis, syphilis, phthisis; and there are no positively distinctive features between these symptoms, if accompanying any of these more severe affections. It is therefore useless to enlarge any longer upon this point: where there is no proper diagnosis, there is no proper treatment. Again, it is superfluous to say, that no endolaryngeal treatment can be executed without the aid of the mirror; and it must be a fundamental law for every one wishing to avail himself of this method never to attempt any endolaryngeal interference without the aid of the mirror. The individual differences are so great in almost every case, especially in consequence of the very varying form of the epiglottis, that even the most skilful specialist can never be sure to have poured the solution into the interior of the larynx unless he was guided by the mirror. A simple look on a transverse section of the parts shows that in all probability the brush or sponge, without the aid of the mirror, will either penetrate into the cavity formed by the base of the tongue and the back of the epiglottis, or directly pass into the œsophagus, and only accidentally reach the interior of the larynx. I therefore strongly warn against this way of practising local treatment, which is a more frequent one than would appear. As to the method which I advise, the following is a short outline of it. After having ascertained the duration of the disease and the positive changes in the larynx, give a doubtful prognosis as to the probability of a complete cure, but tell the patient that the result mainly depends upon his own perseverance. This class of patients—as a rule, men from thirty to sixty—are in the majority of cases extremely careless. As soon as a considerable improvement has followed the treatment—and this takes place even in very old cases comparatively early—they give up attending. Soon, of course, they catch a new cold, the old evil is there as bad as ever, and they go about, and, instead of accusing themselves, ridicule the method and the specialist. I therefore have made it a rule, which I can strongly recommend, to tell these patients at once in plain language what their disease is; what treatment I am going to adopt; that it would be foolish to begin treatment if they did not mean to go on with it; that they must leave it to me to decide when the local treatment can be left off; and that, in the event of their giving up the treatment too early, they must hold themselves solely responsible for the consequences. In answer to the usual question, how long I think the treatment will take, I always mention a somewhat longer period than I myself think it will require. If, notwithstanding this, the patient make up his mind to undergo the treatment, I always, if the progress be a favourable one, tell him after some time that this is the case, and that the treatment will take less time than I thought at first. This diplomatic action has hitherto in my practice always had the desired effect; the patients have remained under treatment as long as it was necessary. I willingly admit that it is a pity that one must thus diplomatise; but, inasmuch as this class of patients, though confiding their health to the physician, seem to take the decision as to the duration of the treatment in their own hands, I believe that this *pia fraus*, which is committed only in their own interest, is quite justifiable. The duration of the treatment itself is so very varying, that I strongly insist upon the importance of being very careful in fixing any definite term for it; whilst, for a sluggish subacute laryngitis, five to ten applications may be quite sufficient, a chronic laryngitis of ten or fifteen years' standing may demand fifty sittings or more. Nor can we fix a certain duration of the treatment in proportion to the duration of the disease; some cases turn out much more obstinate, others much more amenable, than one expected. I have, in one instance, effected a lasting cure in a case of chronic laryngitis of sixteen years' standing in thirty-six sittings, extending over a period of two months; whilst in another case of three months' duration, the same number of applications was necessary before the patient was quite cured. On the whole, I should say, if a patient with chronic laryngitis of several years' standing asked me as to the probable duration of the treatment, that he must be prepared to give about two months to it, but that I could not limit myself as to the exact number of applications. In cases of shorter duration and less developed changes, this time is, of course, to be shortened accordingly; whilst in cases in which there are symptoms of impaired mobility of the vocal cords—either in consequence of concomitant nervous disorders, or of mechanical impediments due to disease of the crico-arytenoid articulation—the prognosis ought to be pronounced as more doubtful, but by no means hopeless.

As to the treatment itself, it must always be borne in mind what its leading idea is. We intend to produce a reactive inflammation and to watch its course. For this purpose, the local application of astringent solutions is necessary, the strength of which must of course vary according to the degree of the pathological changes and to the duration of the disease. In all older and more severe cases, I give, in common with almost all authorities, the preference to solutions of nitrate of silver. This remedy has, in my hands, acted better than anything else. Solutions of 16, 24, 48, 96, 240 grains to the ounce, or, in very old and obstinate cases, even the solid stick, may be used. It is, however, advisable in every case to begin with milder solutions, and only gradually to pass on to the strength which is deemed necessary in the individual case. The sensations produced by strong solutions of the nitrate of silver, especially when the pharynx has been touched by misadventure, are so disagreeable, that the patient is very likely to give up a treatment at the beginning of which he experiences so much inconvenience. In the only case in which I was induced, by the patient's urgent request, to use at once a strong solution (96 grains to the ounce), the patient never appeared again. The irritability of the larynx, however, becomes soon diminished, and stronger solutions may then be safely applied. The event of spasm of the glottis following the application, which seems to be so much dreaded in general, is by no means dangerous. I advise the patient, before making the application, to stop breathing for a second or two altogether, and then to begin again to breathe quite superficially through his nose. His attention being thus diverted, the spasm is almost invariably avoided. Drinking a little cold water relieves, in all instances, the spasm, if it should occur. The applications should be made daily in increasing strength, and of course with the guidance of the mirror, until a lively reactive inflammation is produced. Then gradually longer intervals and weaker solutions must be applied, according to the individual case.

Whilst, as I said before, a great improvement is generally to be observed, even in very old cases, soon after the beginning of the treatment, it is often very difficult to remove the last traces of the thickening and of the chronic congestion. In this stage, it is well to combine the astringent treatment with the use of electricity in both its forms—the constant and the faradic. The employment of the electric current is of the highest value, especially in those cases in which impairment of the mobility of the vocal cords is present. In these cases, it is sometimes necessary to apply it in both forms directly to the affected parts by means of Dr. Mackenzie's laryngeal electrode; but in the majority of cases, the external application of the constant current to the sides of the larynx is sufficient. In more recent and less severe cases, other astringents, such as perchloride of iron, chloride of zinc, tannin, alum, etc., might be used instead of the nitrate of silver; for instance, in cases of subacute laryngitis, the application of a solution of chloride of zinc (fifteen to thirty grains to the ounce) will be found quite sufficient. If, on the other hand, the hyperplastic process should already have resulted in the production of a well defined neoplasm, an astringent treatment is perfectly useless; the attempt to treat it by caustics is even injurious to the neighbouring parts, and the case belongs to the sphere of surgical interference. Strongly, however, as I am of opinion that every general practitioner should treat an ordinary case of chronic laryngitis in the manner described, I warn him against attempting any endolaryngeal operations with cutting instruments without sufficient skill and practice. I am fully convinced that these cases will always belong more or less exclusively to the domain of the specialist, inasmuch as these operations are decidedly dangerous in inexperienced hands.

In the majority of cases of chronic laryngitis, there is a corresponding affection in the pharynx; in fact, in many instances the disease has only spread by propagation to the vocal organ. In these cases, of course, the pharynx must be simultaneously treated, if there should be a general chronic inflammation similar to the laryngeal affections, by astringent lozenges and by applications of tincture of iodine, tannin, carbolic acid, or iodoform; if the granular form be present, the granulations must be individually destroyed, by the solid stick, by caustic pastes, or best by the galvano-cautery. I, however, advise that the pharyngeal treatment should be begun a little later than the laryngeal, in order to accustom the larynx first to the touch of the brush; and later on, in all instances, the laryngeal application should be made before the pharyngeal, because the latter frequently irritates the part to such a degree that it is impossible afterwards to introduce the laryngeal mirror. If the ablation of an elongated uvula should be deemed necessary, it is advisable to leave this to the end of the treatment; because this latter operation often causes a painful acute angina, and would interrupt, in many instances, the treatment for a week; whilst, if performed at the outset, it would make the patient disinclined to continue a treatment at the beginning of which he experienced so much pain.

I am frequently asked whether inhalations are not sufficient to produce a cure of chronic laryngitis. To this I answer with conviction, "No". They may, as von Ziemssen justly remarks, be regarded as merely an aid to the rest of the treatment; but alone they cure the affection as little as any internal medication. I generally order, during the treatment and a little afterwards, hot soothing, not astringent, inhalations to be used twice a day for five minutes. Compound tincture of benzoin, lupulin, coniin, oleum pini sylvestris, may be added to the fluid. Of the inhalations of the natural mineral waters I will speak afterwards.

As regards general prescriptions, diet, and life, I never treat the affection, with the exception of its being a symptom of general plethora, internally. In this class of cases, of course, I try to act through the intestines. I order the regular use of Friedrichshall bitter water or of some other aperient; if possible, I send the patient, before beginning any local treatment, to Marienbad or Kissingen, etc.; but these cases, as I said before, are but rare exceptions, and in the great majority of cases any internal medication is perfectly useless. Of course, I speak only of the catarrhal form of chronic laryngitis. On the other hand, I most forcibly insist on absolute rest of the voice as far as possible; if any patient tell me, at the beginning of the treatment, that he must use his voice in his profession, I tell him in reply that, in this case, I must give a much worse prognosis. I would not undertake at all the local treatment of anyone who has to use his voice professionally, such as officers, barristers, clergymen, singers, actors, teachers, etc., unless he take a holiday during the time of treatment, and, if possible, for a little longer. It is perfectly useless to attempt a cure if the same mischievous conditions which have most likely produced the disease, *i.e.*, excessive use of the voice, continued during the treatment. As to the general conditions of life, I advise the patient to wash his neck and chest in the morning with cold water, not to wrap himself up too much in warm neckties, shawls, etc., but to wear flannel underclothing; to take his usual food, with the exception of strong spices, mixed pickles, etc.; to drink claret in moderate quantity, but to avoid heavy beers, champagne, brandy, whiskey, etc., and never to drink spirits in excess, because this of course augments the congestion. I do not order the patient, if he be accustomed to strong smoking, to give this up all at once, because I find that the sudden leaving off smoking generally brings about dyspepsia, loss of appetite, constipation, and other disagreeable symptoms; but I diminish the quantity to two or three cigars daily, and strongly forbid his staying in a room in which many other people are smoking together, because the inhalation of the cold tobacco-smoke acts decidedly more injuriously than the smoking of a cigar itself.

A very good aid towards a lasting cure is the visit to a suitable watering-place, if used at the proper time. I have stated that the use of the natural mineral waters alone will never cure the affection, but I find that, added to the local treatment, they have a decidedly stimulating effect upon the mucous membranes of the pharynx and larynx, and do excellent services in preserving the patient from a recurrence of the affection, to which this class of diseases is unfortunately so very liable. I can recommend especially the warm soda and chloride of sodium springs of Ems, and the salt-water springs of Reichenhall, Ischl, etc., for the purpose. If the patient leave it to me, to choose the proper time for the treatment, especially in very old cases, in which it does not matter much whether the disease is left a little longer to itself, I like to begin the treatment at the beginning of the spring, and to send the patient immediately after its completion to Ems. There I direct him not only to drink the waters, but also to gargle with them and to inhale them; in other words, to continue the local treatment in a somewhat milder form. If his means and time admit, he may then stay for a few weeks in the Black Forest, in Switzerland, at a moderate height (I find the Engadine not suitable for these chronic laryngeal affections), before returning to this country. Such a line of treatment has, in my hands, hitherto, without any exception, resulted in a perfect success. It is quite true that all this does not give an absolute immunity against the recurrence of the affection if occasioned by some accidental cause, but a repetition of the treatment—which is in such cases invariably much shorter—and a renewed visit to Ems are sure to remove the evil again.

In conclusion, I can say that I have had the pleasure of curing several cases of from ten to sixteen years' standing by one course of local treatment, followed by one or two visits to Ems in the same and in the following year; and as the patients come to see me once or twice a year, I have the opportunity of convincing myself that the effects of the cure are lasting. I can thus conscientiously recommend the line of treatment which has been indicated.

NURSING INSTITUTIONS.

By F. T. PAUL., F.R.C.S., Liverpool.

SINCE the question of nursing has come thoroughly under discussion, it will, I think, be the better settled if the systems which are found to answer best in the more important of our hospitals, provincial as well as metropolitan, are made generally known. The immediate point at issue appears to be the system that shall be adopted at Guy's Hospital. Now, as an old student and house-surgeon at Guy's, I am intimately acquainted with, and thoroughly appreciate, the many good features in its nursing. Still the most partial friend must admit there was room for improvement. The nursing depended almost entirely upon the excellent and well-trained sisters, supported, it is true, by a number of very good nurses, but at the same time by an infinitely greater number of bad ones. The nursing staff in my time was most carelessly recruited. The matron seemed willing to accept a nurse without any regard for her character. As an example—an exceptional one, I admit—I may mention that a sister once complained to me that, of her six nurses, five came from the patients in Patience Ward (venereal), and the sixth had three illegitimate children. The training, too, was quite without method. It is true, I believe, that they had a few lectures from Dr. Steele; but it was an absolute matter of chance what variety of cases they saw, and they were quite dependent upon the goodwill of their sister or fellow-nurse for what teaching they might happen to get. Their position, too, was a very menial one; they had to do all the dirty work of a ward-maid, and to scrub the floors. The old matron had been almost brought up at Guy's, and saw no necessity for a change. A new one comes, no doubt one who has been well trained; she sees these imperfections, and, like the proverbial new broom, immediately upset the whole concern. Had Miss Burt, fortunately for herself and the hospital, consulted with the staff, a result might have been arrived at which would have been equally beneficial to both. Yet, since the matter has been brought before the public, the practical experience of other institutions may help towards a satisfactory settlement.

In Liverpool, connected with the Royal Infirmary, we have not only a medical school, but also a nursing school; and the latter is not so well known as it deserves to be. The Nurses' Home, as it is called, is a large building in the grounds of the Royal Infirmary, containing excellent accommodation for a great number of nurses and the lady-superintendent and her assistants. It is presided over by a special committee—I believe a subcommittee from the Managing Committee of the Royal Infirmary; and its objects are: 1. To teach and qualify nurses in every branch of nursing; 2. To nurse the Infirmary; 3. To nurse the outside public. The relations of the Infirmary to the nursing institution are, that probationers shall be trained in the wards; that the staff, house-surgeons, etc., shall be requested to assist in teaching them; and that, when necessary, the funds of the Infirmary shall be voted for the support of the institution. In return, the Infirmary has the first choice of nurses, and the services of the lady-superintendent and her assistants. The relations with the outside public are, that they pay from one to two guineas a week for a nurse, by which means the institution becomes almost self-supporting, while the public have the advantage of being able to procure at a moment's notice an intelligent, well-educated, and well-trained nurse, suitable for any emergency.

The probationers are required to enter for three years. The first year is spent in hospital training; the last two years usually, for the most part, in private nursing. The main object in requiring three years' attendance is that, having received one year's free training in the Infirmary, during the next two they may become useful and profitable to it. After this, they are entitled to their qualifying certificate, and can either leave to seek their own fortunes, or be placed on the staff of the Infirmary, or become private nurses at a higher rate of wages. The lady-probationers can, by paying fifty guineas to the institution, obtain a certificate at the end of their year's hospital training, and are not required to serve during the two following years like the free probationers.

The medical world have long ago admitted that, from a medical point of view, the services of a well-trained nurse are second only to their own; and, apart from the selfish requirements of any special institution, the best system must be that which diffuses its good services the most widely. As things at present stand, I think there is no better system than that which we have adopted, and which works so well in Liverpool. It offers the fullest opportunities for benefiting the public.

There was a time when at many hospitals, Liverpool among the number, the lay committee would scarcely tolerate students in the wards. Ultimately, they began to see that this was a short-sighted policy; and that they themselves would very likely one day trust their health to the keeping of those whose medical education they were opposing; and it is only now that people are beginning to see that, if they are to be well nursed in their illness, they must make some provision for properly training private nurses. This can only be well done in our large hospitals. The truth of that being admitted, we may justly ask: What greater right has a public institution to refuse to become a nursing school than it has to become a medical school? I do not apply this directly to Guy's; for the question may not have been put to them. But I think that it ought to be put to every important hospital in the country, and, for my own part, I can scarcely see any just ground for refusal.

My intimate knowledge of the working of the Liverpool nursing system is drawn from having held the position of Resident Medical Officer at the Infirmary, and, as far as my experience goes, I consider the Liverpool public, both rich and poor, to be nursed as well as or better than any other section of the community.

What I have said has, I am aware, very little reference to the present deadlock at Guy's Hospital. But such innovations as neglecting the wishes, or ignoring the authority, of the staff; changing the permanent sisters or head-nurses from ward to ward; ordering patients up at five o'clock in the morning, and such things, admit of no discussion, but have only to be known to be condemned by any one who knows anything of hospital management. One can only conceive that Miss Burt, having been very successful in carrying out her ideas at Leicester, and having been greatly patted on the back by such friends as Dr. Marriott, has become a red-hot enthusiast in her own cause. But, that her enthusiasm has so far misled the clear judgment of Dr. Steele, as some of the letters in the JOURNAL infer, I am loath to believe, until he places his view of the question before the public.

Every one must admit that, in the present state of things, an inquiry into the nursing system at Guy's Hospital is called for. If such an inquiry take place and originate a great change, I believe that, if my old Alma

Mater open her doors for the education of nurses, she will confer a great boon upon the public, and upon a number of women who want and like such work; and that the renown that she is sure to attain as a nursing school will only add an increasing lustre to her fame, while she augments the number of those who lovingly cherish her memory.

ABNORMALLY HIGH TEMPERATURES.

By JOHN W. TEALE, F.R.C.S., Scarborough.

THE entire omission of any reference to my case in Dr. Donkin's recent paper (BRITISH MEDICAL JOURNAL, December 20th, 1879) on abnormally high temperatures (an omission which, Dr. Donkin informs me, was due to the amount of scepticism he found amongst scientific men in London as to its reliability), induces me to ask that I may be allowed to draw attention to some of the leading features of the case, and to draw some conclusions thereon.

In February 1875, I brought before the Clinical Society the particulars of a remarkable case which had occurred in my practice. A young lady having received serious spinal injuries from a fall from horseback, had for sixty days a temperature ranging from 108° Fahr. to 122° Fahr. and upwards, and eventually recovered. The great length of time that the high temperatures lasted, enabled me to take my observations with the utmost deliberation, and the greatest care to guard against error or fraud. A great variety of instruments were used by me, seven in all, exclusive of the one used by my brother, Mr. T. Pridgin Teale of Leeds, who saw the case three times with me in consultation. Most of these afterwards received the Kew certificate of accuracy, and all were supplied by Harvey and Reynolds of Leeds. Observations were taken at all sorts of times, both of day and night, by myself. More than once in the night I took the temperature when the patient was asleep, having carefully placed the thermometer in the axilla without rousing her. Observations were repeatedly taken in both axillæ simultaneously, once in the rectum, once in the mouth, and once in both axillæ and between the thighs simultaneously. On these special occasions, the temperatures were also taken by myself. Trained nurses, three different ones during the illness, were constantly in attendance upon her, specially cautioned to watch her. The patient was never made aware of the extraordinary character of her case, and for the greater part of the time was too ill to take any interest in the matter. Hot-water bottles were never in contact with the body, except sometimes to the feet by my special order. I was in the habit of carefully removing the instruments into the adjoining room, and the height was read off in the presence of two or more witnesses.

In July of the same year, 1875, I wrote in the JOURNAL a letter replying to various questions and sceptical criticisms on this extraordinary, and at that time unique, case; and I was able, owing to my patient having had a relapse under the care of another medical man, to give that gentleman's experience of her high temperature. This gentleman, Mr. Hind of Stockton, told me afterwards that on one occasion the heat in the axilla was so great, that the mercury burst the tube at the top of the instrument, the index being found in the broken-off air-space at the top.

This, so far as I knew, was the first case published bearing on these abnormally high temperatures. It was the first which seriously challenged the then accepted view of physiologists, that such temperatures were incompatible with human life. As long as this case stood alone, it was natural that scientific men, whilst cordially acknowledging the care that had been taken in watching it, should suspend their judgment. I was content to wait, feeling confident that, if my case had been carefully watched and faithfully reported, as I knew it had been, a time would arrive when other cases would be discovered to confirm it. As time went on, first one case and then another was published in the medical journals, all proving the occasional occurrence of temperatures, usually considered to be fatal, in persons who not only recovered, but who, at the time of the excessive temperatures, did not appear to be in imminent danger of dying. This series culminated in that of Dr. Roddick of Montreal, quoted by Dr. Donkin in his paper in the BRITISH MEDICAL JOURNAL for December 20th last, with a recorded temperature of 117° Fahr., in which the mercury was lost in the bulb at the top of the thermometer. The temperature reached 117° Fahr., but how much higher it might have gone cannot be known, as the instrument could not record it.

I claim Dr. Donkin's interesting series of cases as a strong corroboration of the truthfulness of mine. The following points seem now to be clearly established: 1. Temperatures above the degree formerly supposed to be necessarily fatal do sometimes occur without a fatal issue; nay, even without extreme peril to life. 2. Such exceptional and excessive temperatures as a rule end in recovery. 3. The conditions of body in these cases of excessive temperature appear to be distinct from the conditions existing in fevers, in which the rule as to the extreme peril of temperatures of 107° and upwards remains unassailed.

What the explanation of these rare and exceptional cases may be it is for physiologists to work out, but it can never be settled if they shut their eyes to facts which contradict their theories, and relegate such cases to oblivion.

ANEURISM OF POSTERIOR TIBIAL ARTERY, LAID OPEN BY MISTAKE: ATTEMPT TO TIE THE ARTERY: AMPUTATION.

By G. H. MAC SWINNEY, M.D., Brook Green, W.

THE interesting and instructive clinical lecture by Mr. T. Holmes on a case of aneurism opened by mistake, which appeared in the JOURNAL of January 10th, recalls to my mind a case which occurred in my practice in Ceylon, three years ago, which was in many respects very similar.

The patient, a Tamil coolie, was admitted to the Dickoya Hospital early in December. He had got a blow with a stick a few months before on the back of his leg, and soon afterwards noticed a swelling just above the heel. This increased and became very painful, and on admission the tumour was of considerable size, the leg being twice its natural width. The dorsal surface of the foot was œdematous, but there was neither bruit nor pulsation in the tumour. There was, however, a distinct sensation of fluctuation, and the limb was very hot. I ordered a poultice, believing the swelling to be an abscess. Two days afterwards, I found the skin over the tumour very thin, elastic, and glistening. The appearance was exactly the same as that of an abscess about to burst. The man complained so much of the pain that I determined to open the tumour. I made an incision about an inch and a half long, when, to my surprise, there was a considerable gush of bright arterial blood. I immediately plugged the wound with lint, steeped in perchloride of iron, which arrested the hæmorrhage for the time. Some time afterwards, there was a good deal of oozing, so I resolved to tie the artery. Chloroform was administered, and a tourniquet and Esmarch's bandage applied, and I then made an incision four inches long over the tumour. At first, there was a good deal of hæmorrhage, but this ceased almost entirely when the sac was cleared of its clots. I now proceeded to look for the ends of the artery, but during an unsuccessful search of ten minutes, I came on the tibia, which was so softened by the pressure of the aneurism, that I could push my finger through it. I found that the bone was diseased for several inches of its length, and therefore saw that it would be useless to attempt to save the limb. Amputating instruments were fortunately at hand, so I at once amputated the leg below the knee. The man had a fairly good pulse after the operation, which lasted about an hour, and I hoped he would make a good recovery. During the night, however, he became very excited, and pulled off the bandages from his stump, and attempted to jump out of bed. The result was that bleeding came on, which was with difficulty checked, and he continued so violent that the bleeding came on again severely, and the man gradually sank and died, two days after the operation.

This case is interesting because aneurism of the posterior tibial is very rare, and I believe there are not many such cases recorded. A surgeon is much more likely to open a fluctuating tumour in such a situation, in which aneurisms are rare, than in one in which they are known to be frequent. It is, therefore, necessary that attention should be called to the possibility of the occurrence of an aneurism on arteries such as the posterior tibial.

Mr. Holmes has entered so fully into this subject, that I shall only, in conclusion, call attention to two very interesting cases, described by Mr. Solly, in which aneurisms were opened by mistake.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The third meeting of the session was held at the Royal Kent Dispensary, Greenwich, on December 5th, 1879: Mr. J. P. Purvis, President, in the chair. Mr. F. B. Jessett of Erith read a paper on Fractures: their Pathology and Treatment. After going fully into the pathology of fractures, he discussed at length the various modes of treatment, especially urging the early application of fixed splints in all simple fractures of the long bones, plaster-of-Paris and starched bandages being especially recommended; and in the treatment of compound fractures, he recommended the same line of treatment, with trap-doors cut over the wounds for dressing.

OBSTETRIC MEMORANDA.

SCARLATINA INDUCING LABOUR WITHOUT PUERPERAL FEVER.

I CAN add another case similar to that noted in the JOURNAL of January 10th by Dr. Charles E. Walker as a "rare exception" to Leishman's opinion "that, although the poison of scarlatina may produce in puerperal women scarlatina and nothing more, this is not the rule, but a rare exception".

Mrs. G., about six months advanced in pregnancy, had four children attacked with scarlatina. The cases were so mild that, with one exception, I was only called in to treat after-consequences. During their convalescence, with but slight previous *malaise*, labour came on, and she was delivered of twins, which did not long survive. All went well for the first four days, when sudden accession of fever occurred, rapid pulse, nervous excitement, and high temperature (106). There was no abdominal tenderness; no suppression of lochia; but slight secretion of milk, as would probably happen from the death of the infants. The feverish symptoms lasted for a few days, and caused me some anxiety; and, though there was but little rash, the characteristic sore-throat warranted the inference that imperfectly developed scarlatina was the cause of her illness. She made a good recovery.

It is curious to note how almost surely premature labour supervenes upon the incubation or development of acute diseases.

WILLIAM H. DAY, Norwich.

THE CLINICAL IMPORT OF ICTERUS IN PREGNANCY.

ICTERUS occurring in the course of pregnancy from acute atrophic hepatic disease may be merely mentioned here and dismissed, as it is met with extremely rarely, and there is moreover always a concomitant train of pathognomonic indications more or less typical and constant. But, under other etiological conditions, jaundice may not uncommonly be present; and it is on that which occurs in these circumstances that I would venture to offer a few remarks.

Great confliction of opinion appears to exist upon the clinical and prognostic significance of icterus in pregnancy. Dr. Playfair gives it as his view, that jaundice may occur during pregnancy without any unfavourable or untoward results. Dr. Frederick Roberts, in his well-known *Handbook of Medicine*, states that it is considered highly dangerous. These different views may be probably accounted for in some measure by taking into consideration the very different etiological conditions in which jaundice may be present, and by the fact that, although jaundice may occur in any given case of pregnancy, it by no means necessarily follows that the pregnant state *per se* is to be looked upon in the light of a causal antecedent. As a slight jaundicing may occur in an individual of either sex, symptomatic of various pathological conditions, so also may it occur during pregnancy as an adventitious and contingent phenomenon so far as the pregnant state itself is concerned, and consequently not in any way to be regarded as of alarming and ominous import. But in those cases where its occurrence is explicable by none of the common causes of jaundice, especially where there has been a prodromal cachectic and anæmic state of health, it should, to say the least of it, be noted with very grave suspicion; and a very guarded prognosis as to the ultimate safety of the patient should be given, although, in contrast to what happens in acute atrophic softening of the liver, there is reasonable hope to be entertained for the life of the child.

The appearance of jaundice in pregnancy is usually explained as being most probably due to the simple circumstance of the enlarged uterus pressing upon the liver and intestines. But why should this symptom be present in so comparatively few cases of pregnancy? Why is it not a more or less constant consequent of all pregnancies? Nor is the supposition of an excessively enlarged uterus as an efficient cause more tenable. A more reasonable hypothesis would seem to be that the vital force of the economy as a whole has not sufficient potentiality for the due performance of the animal functions, under the access of fresh conditions caused by the pregnant state. The liver, owing to its proximity to the disturbing factors, suffering local congestions and other abnormal interferences with its functions, is the organ most likely to yield to the pressure put upon it. We thus have a previously bad state of health rendered worse by the disturbance of function of the hepatic machinery and the consequent imperfect performance of the digestive process, ending in impaired nutrition and a condition of anæmio-chlorosis.

In an interesting case which I attended a short time back, this explanation seemed very possible. The patient, who was thirty years of age and a primipara, besides the one symptom of jaundice, showed no special indication of hepatic lesion, and there was simultaneously considerable dyspeptic disturbance. This patient seemed to improve somewhat under a tonic treatment, but died quite suddenly and unexpectedly from syncope within twenty-four hours after delivery, which latter took place at full time, and presented nothing unusual in its character, with the exception of the pulse being rather slow and feeble, and that there was a very slight after-hæmorrhage. No necropsy was obtainable; but there seemed every ground for presuming that death was due to the shock caused by delivery on a system brought down to a very ataxic condition through the impoverishment of blood consequent on malassimilation. In a similar case occurring in future, one might almost seriously entertain the idea of anticipating the course of nature and inducing labour at an earlier period, as is recommended in persistent and intractable vomiting.

J. J. FREDERICK BARNES, M.R.C.P.Ed., London.

SURGICAL MEMORANDA.

ACUPRESSURE OF VARICOCELE.

MR. BRADLEY seems to think, by his letter in the JOURNAL of January 17th, that he was the first to suggest treating varicocele by acupressure in 1878. When I was dresser to the late Mr. J. D. Hill at the Royal Free Hospital, I had two cases under my care of varicocele operated on by Mr. Hill by acupressure with excellent results. This was as far back as 1870; and I believe Mr. Hill often used this means for the relief of varicocele.

H. PALMER.

Nayland, Colchester, January 18th, 1880.

CLINICAL MEMORANDA.

ARSENICAL CONTAMINATION BY VAPOUR.

THE following group of cases, which I saw a few months ago with Mr. Hatherley of Nottingham, illustrates remarkably one of the modes in which arsenical poisoning by wall-papers takes place.

Mr. and Mrs. R. and family, consisting of two little girls, aged respectively five and three years, and a baby nine months old, together with two maid-servants, went to reside in a newly built, freshly papered house, about to be opened as a hotel in New Basford, at the end of July last. The rooms were papered throughout with papers of two different patterns, both of which were coloured with pigment containing Scheele's green in the proportion of .596 grain and .522 grain per square foot respectively, as was subsequently shown by the analysis of Dr. Truman, the borough analyst. The walls were noticed to be very damp when Mr. and Mrs. R. began to occupy the house; and, the weather at that time being warm, the windows were habitually kept wide open, as it was thought they would dry more rapidly. Five weeks afterwards, it turned colder; and, as they were still damp, Mr. R. then ordered the windows to be kept shut and fires lighted throughout the house. Within a period varying from five to thirteen days of this, every member of the household, with one exception, suffered from symptoms undoubtedly due to arsenical poisoning. The children were affected first. The baby had conjunctivitis and vomiting; the two elder ones had "running at the eyes and nose" so marked that Mr. Hatherley, when he first saw them, attributed the symptoms to a commencing attack of measles. At a subsequent visit, however, he found Mrs. R., who had before complained of headache, suffering as well from sore-throat and epigastric pain. Further inquiry elicited the fact that both the servants had "sore-throats, swollen eyes, and headache"; that one of them had been so ill that her mistress sent her home for a few days. She then rapidly recovered, but on her return suffered again in a similar manner. The only member of the household who did not suffer in an evident manner was Mr. R., and this would be accounted for by the fact that he was a great deal from home at the time.

As soon as suspicions were confirmed by an examination of the papers, the walls were stripped, and in a few days the patients were well.

Whether the poisoning in this instance took place by means of arsenical vapour, or by solid particles of pigment diffused in the atmosphere and mixed in the dust of the room, we cannot say; but the sudden occurrence of illness as soon as the fires were lighted and the walls began to dry is worthy of note.

EDWARD SEATON, M.D., M.R.C.P.,
Medical Officer of Health, and Physician to the General Dispensary,
Nottingham.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 13TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

ECZEMA OF THE NIPPLE FOLLOWED BY CANCER OF THE BREAST.

THE discussion of the papers by Mr. HENRY MORRIS and Dr. THIN on this subject, read at the last meeting of the Society (see BRITISH MEDICAL JOURNAL, December 13th, 1879), was resumed.

Mr. BUTLIN said that Dr. Thin agreed with the opinion which he (Mr. Butlin) had expressed, that the cancerous condition following the so-called eczema of the nipple originated in the ducts, and not in the acini of the mammary gland. He thought, however, that the superficial disease was in most cases not specific, but an inflammation. The cell-proliferation was in almost all cases attributable to causes limited to the cutis, and not affecting the ducts; and the clinical appearances were those of inflammation and not of cancer. In some cases, there was an eczematous condition of the nipple and areola, attended with excoriations and discharge; sometimes also there was considerable destruction by ulceration, but this was due rather to the remedies used—caustics, etc.—than to the disease itself. He was glad to find that Dr. Thin supported the doctrine of the origin of the cancer in the epithelium of the ducts, which he had laid down three or four years ago. But, as regarded the relation between the superficial and the deep diseases, he thought that Dr. Thin's observations were made on breasts in a far too advanced stage of disease to be of any use. Until he had sufficient reasons for adopting another opinion, he could not accept any other view of the relation between the two conditions, than that the superficial was a precursor of the deeper disease.—The PRESIDENT said that the question brought forward was one of much interest, both clinically and therapeutically. As to the nature of the disease of the nipple, Sir James Paget, with characteristic caution, described it as "so-called eczema", declining to offer a decided opinion as to its nature. And, when the results of the minute histological investigations made by Mr. Morris and Dr. Thin were considered, there was room for doubt as to its real character. Whatever was the nature of the eczematous affections of the nipple, they did not partake of the ordinary characters of the skin-cancers; but there was no question that they differed from common eczema. He could not but think that this condition of nipple, when associated with cancer, was something different from any known form of cutaneous disease. It had no doubt often been seen in connection with cancer, but its importance had not been recognised. As attention was first called to it by Sir James Paget, he would suggest for it the name "Paget's disease" of the nipple, as expressing its distinct existence and involving no theory. It was most important to determine its connection with cancer of the breast; whether it was independent of, or an evidence of the presence of, cancer. The great impediment in the surgical treatment of cancer was the difficulty of operating early enough to be sure of removing all the local disease. If "Paget's disease" were a necessary precursor of cancer, the natural inference would be, that every breast in which it appeared should be removed. But, as yet, it was scarcely possible to go so far as this, or to recognise eczema of the nipple as necessarily indicating the existence of cancer in the lacteal ducts. The relation of the so-called eczema to cancer was a subject which required most careful investigation. One other point in one of the papers appeared to him of much clinical interest, viz., the reference to small indolent "adenoid" tumours on the breast, which after a time became cancerous. No doubt many things were included under the term adenoma; but it would be important to show how far many of these adenomata were really cancers in a passive and undeveloped form.—Dr. THIN said that, since the reading of his paper at the last meeting, another tumour, and notes of the case, had been sent to him by Mr. Alan Reeve Manby of East Rudham. There had been bloody discharge from the nipple when the woman was suckling her last two children. A diseased condition of the skin of the nipple supervened; and after it had lasted a year, a tumour formed in the breast under the nipple. The tumour was removed by Mr. Manby. Dr. Thin found the skin of the nipple affected in the same way as in the previous cases. The tumour was a duct-cancer of the breast (so-called adenoma mammæ). The woman died two years after the operation of obscure symptoms without local relapse. The fact that three of the four patients whose cases he had investigated had died showed the grave nature of the disease, and how important it was to determine what was to be done. His investigations had shown him that the disease of the nipple was connected with a cancerous growth of the mamma, which differed from scirrhus in spreading down the ducts instead of arising in the acini. The tumour was usually not so rapidly fatal as the ordinary scirrhus; and, if operation were performed early, it might be predicted that the patient's life would be saved. As to Mr. Butlin's opinion that the so-called eczema was an inflammation, he (Dr. Thin) thought that inflammation was a something which tended to heal on the removing of the exciting cause; whereas Paget's disease (a term which he thought very appropriate) did not tend to heal. The diagnosis from ordinary eczema was a most important matter; for, on the one hand, if a common eczema of the nipple were regarded as indicating the presence of cancer, breasts might be unnecessarily removed; while, if the condition under consideration were treated as mere eczema, a cancer might be allowed to go on unchecked.—Mr. HENRY MORRIS, referring to the remark of the President, that no doubt the so-called eczema had been seen in many cases but its importance had not been recognised, said that the same thing had occurred in regard to the relation of ichthyosis of the tongue to cancer of that organ. He thought that the disease was special, and that "Paget's disease" was a fitting appellation for it. The so-called eczema was limited (or very nearly so) to the nipple and areola, and later on was associated with a condition of tissue that had been described as being, to the feel, like a penny lying under the surface. But that its external appearance enabled one to recognise its special characters, was more than he could say. As to its relation to cancer of the breast, he thought that there was a general agreement of opinion. The question would seem to be, whether the so-called eczema was itself to be regarded as cancerous in its early condition, or only in the later stages. He thought that the latter view must be adopted, just as was the case with regard to ichthyosis of the tongue. In some cases, this condition of the tongue lasted five, ten, or even twenty-five years, without the development of cancer. The so-called eczema of the nipple was almost incurable; but he had heard of one case, under the care of the late Dr. Tilbury Fox, in which recovery had taken place after a year's treatment. He would suggest that the best time for operating was when little diffused hard masses were felt in the breast—care being taken to avoid the production of a deceptive sensation of such masses in the course of palpation. If he found such masses in a case, he would recommend amputation of the breast.

DESCRIPTION OF TWO CASES OF DIRECT DISLOCATION OF THE FEMUR BACKWARDS, WITH FRACTURE OF THE RIM OF THE ACETABULUM: WITH REMARKS ON THE MODE OF PRODUCTION OF DISLOCATIONS BACKWARDS.

BY FREDERIC S. EVE, F.R.C.S.

CASE I.—A middle-aged man threw himself from an upper storey window, and, in addition to fatal injuries to the head, sustained a sciatic dislocation of the right femur, which presented the usual appearances. On dissection, the head of the femur was found on a level with the lesser sciatic notch. The tendon of the obturator internus muscle crossed the upper part of the articular surface, binding the head tightly down, and thus occasioning extreme rigidity of the limb. The posterior portion of the rim of the acetabulum was torn up. Only the posterior segment of the capsule was lacerated. Of the muscles, the gemellus inferior alone was torn. After the dissection was completed, the femur was readily reduced through the cotyloid notch. CASE II.—A man, aged 55, had his left femur dislocated in the neighbourhood of the great sciatic notch by a fall of earth upon his back, while he was stooping at work. The dislocation presented no unusual characters. Reduction was effected by traction on the slightly flexed and adducted thigh, the ordinary manipulation having failed. He died from a rupture of the intestine. On dissection, the head of the femur was found to have passed through the posterior portion of the capsule on a level with the great sciatic notch, and apparently above the obturator internus. The posterior portion of the rim of the acetabulum was torn up in the first case. The pyriformis, gemellus superior, and obturator externus muscles were lacerated. Mr. Eve said that the cases to some extent supported Mr. Henry Morris's view, "that direct dorsal dislocations are always associated with fracture of the acetabulum, or head of the femur, or both". In order to ascertain the absolute correctness of this statement, the author tabulated all the dislocations backwards in the London museums, with the following results: Direct dislocations, 8; Indirect dislocations, 1. A dislocation was described as direct when the head of the femur passed directly backwards through the posterior portion of the capsule; indirect, when by abduction it passed out through the cotyloid notch and was drawn backwards by inversion. In three of the eight dislocations, there was no fracture of the posterior portion of the acetabulum: in four, the acetabulum was fractured, and in the remaining case the head of the femur was fractured. Cases of direct dislocation with fracture of the acetabulum appeared to be comparatively common. Various considerations as to the position in which the two forms of dislocation mentioned occurred rendered it probable that the indirect did not so greatly preponderate in frequency as Mr. Morris maintained. The author found by experiment that the head of the femur could, by manipulation in direct dislocations "above the tendon", be returned to the socket through the opening in the capsule by which it escaped, if in circumduction the thigh were somewhat widely abducted. Therefore the reduction of a direct dislocation by the ordinary manipulation "would not be difficult and destructive". The untorn inferior portion of the capsule further did not obstruct reduction through the cotyloid notch after division of the obturator tendon. A direct dislocation could not be produced experimentally, because it was impossible to apply sufficient force in the right manner. For example, in falling from a height on the outer side of the knee, the thigh would be adducted, and the weight of the falling body thrown in an opposite direction; thus a great strain would be brought to bear on the posterior portion of the capsule, which would either be torn from the acetabulum or tear up the margin with it. With regard to the cases first related, in one the dislocation was above the tendon, in the other beneath and below it. Mr. Wormald's and Mr. William Adams's cases were also instances of direct dislocation below the tendon. The distinction was important, owing to some difference in reduction. In dislocation "above the tendon", reduction was effected either by manipulation, or, if the acetabulum were fractured, more easily by extension, through the opening in the capsule by which it escaped. In dislocation "below the tendon", the femur could be reduced through the cotyloid notch, as in indirect. The principal conclusions arrived at were as follows: 1. Direct dislocation backwards does occur without fracture of the acetabulum; 2. It is probable that direct dislocation backwards is comparatively common; 3. A direct dislocation "above the tendon" can be reduced by manipulation through the opening in the capsule by which the head of the femur escaped; 4. The untorn inferior portion of the capsule is no obstacle to reduction.

Mr. HENRY MORRIS said that when, in a paper read before the Society three years ago, he endeavoured to point out the erroneousness of the common doctrine that direct dislocation of the thigh backwards occurred during adduction of the limb, he was told that the view which he advocated—that the dislocation occurred during abduction—was well known, and was taught at St. Bartholomew's Hospital. But now Mr. Eve said that direct dislocation backwards was not so common as had been stated. Since Mr. Morris read his paper three years ago, many communications had appeared in the medical journals which, though written to controvert his views, in fact, if interpreted rightly, supported them. Mr. Eve said that in the London museums there were eight cases of direct and one of indirect dislocation backwards: and, of the eight, he admitted that in five there was fracture of the acetabulum. As to the three in which no fracture was said to have occurred, the first was Mr. Wormald's case. This was described by Mr. Wormald as a dislocation backwards and downwards, and was referred to by Dr. Bigelow as a secondary dislocation below the obturator tendon. Mr. Morris believed that an examination of Mr. Wormald's specimen would support his view. He had never contended that all the dislocations took place at the cotyloid notch; there was not room here for the head of the bone to pass. A rupture took place at some part of the thin portion of the capsule, and the thin capsule was torn away from the neck of the bone. Mr. Wormald's case was also referred to by Mr. Quain, in the thirty-first volume of the *Medico-Chirurgical Transactions*, in describing a case which is mentioned by Dr. Bigelow as one where the head of the bone had secondarily reached its place on the dorsum of the ilium. The second case was a dry preparation in the museum of St. George's Hospital, of which he was aware when he wrote his former paper; but he could draw no inference from it, in consequence of its condition. Mr. Holmes, however, had told him that it appeared to support his view. The third case was one which had been under the care of Mr. Mac Cormac in St. Thomas's Hospital, in which the injury was caused by the fall of half a ton of iron on a man's back. If the preparation were looked at in the bottle, it appeared to oppose Mr. Morris's view; but, on taking it out and examining it, there was found to be a laceration of the lower portion of the capsule, with integrity of the ischio-femoral ligament, and a rent in the strong part of the capsule; and the neck of the bone was strapped down by the tendon of the obturator internus. He believed that in this case there had been a double dislocation; first, through the lower part of the capsule; then, as the weight shifted its position, through the stronger part of the capsule. Considering the severity of the injury—which was so great as to force a large portion of the man's bowels into a scrotal hernia which he had—it was scarcely fair to bring this case forward as one opposing his view. As regarded the relative frequency of the dislocation backwards, it must be remembered that death had occurred in all the cases to which reference had been made; whereas recovery generally followed dislocations of the thigh.—Mr. EVE having replied, the Society adjourned.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 9TH, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

The Effects of Chloral.—The Committee appointed by the Society to investigate "what deleterious effects follow the prolonged and continuous use of chloral in ordinary doses", reported that seventy special replies and three printed papers had been received in reply to nearly one thousand circulars distributed throughout the profession, followed a few months later by a second appeal, made public through the freely accorded medium of the medical press. Twenty-nine answers stated that, after extensive experience of chloral, in long-continued doses, no ill effects had been observed. Ten of these correspondents had special opportunities for observation afforded by asylum practice; and Mr. Curgenven, Dr. Theodore Williams, Dr. W. Squire, Dr. Buzzard, Dr. Clifford Allbutt, and others, furnished cases in which chloral had been regularly and beneficially taken from periods varying from two to ten years. Before proceeding to analyse the replies received from those who had observed inconvenient effects to follow the use of chloral, the Committee had drawn up a brief summary of what had already been recorded on the subject. Their special information was arranged under the various headings of the schedule. A. *Nervous System.*—Fourteen answers recorded cases in which nervous debility, mental enfeeblement, and convulsive seizures appeared to follow the use of chloral; Dr. Maudsley, Dr. Clouston, and Dr. Lindsay expressing themselves as strongly opposed to its employment in insanity. B. *Circulatory System.*—Two answers, under this heading, noted some cardiac enfeeblement. C. *Digestive System.*—Six replies mentioned digestive disturbance as occasionally following the administration of chloral. D. *Cutaneous System.*—Nine correspondents gave the details of cases in which they observed itching of skin, lichenous eruption, with deep flushing of face and head, following the taking of stimulants. E. *Urinary System.*—Two replies indicated the possibility of urinary irritation being produced by chloral. Inquiry amongst some of the leading druggists of the metropolis had not established the probability that there was any remarkable abuse by the public of the facilities of purchasing any quantity of chloral. The drug was not included by the legislature amongst those the sale of which was guarded by the name and address of the purchaser being required to be registered by the vendor. In conclusion, the Committee expressed their regret that, in spite of repeated appeals to individuals and to the profession by circular and through the medical press, they had failed to obtain any more definite information than that contained in the report; and, although the opinions expressed by numerous gentlemen of experience would doubtless be received with the respect which was their due, the Committee would have been glad if more facts, from which definite conclusions might have been drawn, had been placed at their disposal.—Dr. BRISTOWE drew attention to the absence from the report of any expression of the views on the subject held by members of the Committee, and thought that it would have been much increased in value if it embodied the experience of Dr. Andrew Clark and Sir William Jenner.—Dr. HEWAN had noticed an erythematous condition of the skin following the administration of chloral.—Dr. F. TAYLOR recorded a case in his own experience of a gentleman, aged 84, who had taken nightly doses of twenty-five to fifty grains of chloral with benefit. There were no bad symptoms, and digestion was unimpaired. The patient suffered from enlarged prostate and chronic cystitis. He had, however, noticed that semi-unconsciousness and delirium were present at night. He regretted that the report had not recorded the ages of the patients who had been observed.—Dr. FARQUHARSON said he feared that detailed evidence would unduly increase the bulk of the report, but that the ages of patients would be included in it. Sir William Jenner, he added, had no personal experience to give in relation to the question; but Dr. Andrew Clark had promised the histories of five or six cases which had been under his immediate observation, and these would be incorporated in an appendix to the report.

Case of Acute Rheumatism treated by Salicylic Acid, and terminating fatally.—Dr. JAMES F. GOODHART read notes of this case. A servant-girl, aged 17, was under his care in Guy's Hospital. She had always been healthy, except that she suffered from nasal polypi. She had had scarlatina long ago. She dated her fatal illness in some measure to an operation for the removal of the nasal polypi fourteen days previously, after which she felt very faint and weak, though she managed to work on for a week, when, on getting up on the morning of the 17th of the month, her ankles, knees, and hips were so stiff that she went to bed again. Her back, shoulders, and arms were soon in the same condition, and the joints began to swell. She had headache and loss of appetite, but no rigors or sweating. She was treated for rheumatic fever, and grew better, but relapsed in two days, and then came to the hospital. She was a dark-complexioned girl, with flushed face and bright eyes. Her tongue was red at the edges, with a white fur on the dorsum, and rather dry. The ankles, knees, wrists, and elbows were much swollen, the skin somewhat sodden-looking, and suffused by a pinkish blush. The phalangeal joints were also swollen, and all the joints were immovable from pain. The heart at this time was described thus: Præcordial dulness increased in extent; apex-beat normal; slight pericardial subsultus at the base. Temperature 103°; pulse 120. Bicarbonate of potash was ordered in half-drachm doses in acetate of ammonia every three hours, with five grains of Dover's powder night and morning. Her diet consisted of three pints of milk. The next day, the area of præcordial dulness was increased upwards to the second intercostal space, across from the sternum to the nipple and downwards to the sixth costal cartilage. The impulse was in its normal position; the action was regular; the sounds were very distant and thick at the base, but there was no *bruit*. The lungs were normal; the urine 1021, not albuminous. She appeared to have a good deal of præcordial distress. She was sweating freely, and the joints were still painful. The temperature had gradually fallen from 103° to 100°. The alkaline mixture was continued; but at 6 P.M., as she still seemed in much pain, and the temperature was rising again, though very slightly (100.4°), she was ordered fifteen grains of salicylic acid every three hours in its place. She was seen by Dr. Goodhart at 9 P.M.; and, though she was still in much pain, and restless, the pulse was still at 120, and there were no particularly serious symptoms. But after this the pulse became much accelerated, reaching 160, and the patient died quietly and suddenly at 8.45 A.M. She had taken four doses of salicylic acid, sixty grains in all, the last dose three-quarters of an hour before death. She passed a restless, moaning night, but did not seem unusually ill, and she was seen by the sister of the ward, and also by Mr. Reynolds, house-physician, at midnight, neither of whom saw any change for the worse. Nor did the nurse notice anything unusual till her death. The inspection was made by Dr. Goodhart the same afternoon. The heart weighed nine ounces and a half; there were patches of recent lymph on the pericardium in several places; no fluid. The muscular tissue of the ventricle showed one or two points of fatty degeneration; but, except these, it was healthy, and the ventricle was not dilated. The valves were practically healthy, although a grain or two of lymph occupied one or two points upon the mitral. The right ventricle and pulmonary artery were distended by clots of *post mortem* formation. The clot in the latter had some resemblance to an embolic clot, from being double; but it was continuous with the clot in the ventricle, and was of similar appearance; it had, therefore, in all probability, formed *post mortem*. The small intestine was much ecchymosed and congested, and the joints all contained abundant yellow synovia, with coagula of yellow lymph, the knees and hips being more particularly affected. All the bones were normal, special search being directed to the sphenoidal, ethmoidal, and frontal sinuses in the region of the recent operation. The first appearance of the patient, her dry skin and her restlessness, augured badly for her recovery, and suggested the possible onset of hyperpyrexia; and hence the temperature was watched closely for some hours, but, as it progressively fell and the ordinary rheumatic sweating became established, these apprehensions subsided, and the case assumed the characters of an ordinary attack of acute rheumatism of by no means severe type. Sudden death was therefore unexpected. Was the result to be attributed in any degree to the salicylic acid? Dr. Goodhart thought that this was possible. The several issues which seemed to be suggested by the case were as follows. First, an early pericarditis was present, and the muscular tissue of the left ventricle was fatty at one or two points. It was therefore possible that what, judged by the examination, was not a severe affection, might yet have been sufficient to determine the cessation of the heart's function. Secondly, it was just possible that between the time when she was last seen by any skilled assistant and the time of her death—nearly four hours—the temperature might have risen rapidly, and death have occurred from hyperpyrexia. Thirdly, the clot in the pulmonary artery presented unusual features, and suggested undoubtedly the existence of pulmonary embolism. With regard to the first, it was insisted that the pericarditis and muscular change in the heart did not seem sufficient to explain sudden death; and the absence of any dilatation of the ventricle tended to corroborate this conclusion. Secondly, the temperature-chart was one of almost progressive fall, and therefore in an unlikely condition to rise again rapidly; and thirdly, the similar appearances and the continuousness of the coagula in the right ventricle and the pulmonary artery justified the rejection of any hypothesis of embolism. There then remained to be considered the possibility of death being due to the rheumatic *materies morbi*, or to the sixty grains of salicylic acid which had been administered. Acute rheumatism was no doubt very treacherous, especially in young adults; but, before the introduction of the salicylic acid treatment, his *post mortem* experience led him to the conclusion that death was associated in some cases with hyperpyrexia without obvious tissue-change; in others, with pleuropneumonia, pulmonary œdema, and severe cardiac complications; occasionally and comparatively rarely with acute dilatation of the heart. Since the introduction of salicylic acid, he had seen three cases where death was sudden, and in which the inspection did not discover any changes in the viscera sufficient to cause death. All the three were girls or young women, and in all it was a first attack. The present case was possibly one in which salicylic acid had acted prejudicially in a manner and with a rapidity hitherto unrecognised. The mode of death had no special symptoms attaching to it which pointed decidedly to the drug as a harmful agent; and in similar circumstances, supposing that death was caused by the drug, it was quite possible that the ill result might be attributed wrongly to other causes. Death in such cases must, if ascribed to salicylic acid, be attributed to sudden collapse and failure of the heart's action, symptoms known to be produced by salicylic acid; and some such cases of sudden collapse had already been observed and recorded by others, though perhaps rather in association with a more sudden fall of temperature. Such cases had led to the recommendation of caution in the size of the dose of the drug in cases where there should be any sign of a failing heart, or towards the end of an attack. But, in the case under consideration, there was no such indication for caution, moreover, caution was never overstepped; so that the result, if it were a result, could only be averted, if at all, by commencing with a very small dose and gradually increasing it. Dr. Goodhart thought that, in dealing with a drug which so quickly and so completely saturated the system, which in some cases produced severe nervous symptoms, in others sudden collapse, this was always the wiser plan to adopt, and in many cases the smaller doses seemed to him to be all that were required for the relief of pain.

A Case characterised by Symptoms of Acute Rheumatism which terminated fatally on the Tenth Day.—Dr. BUZZARD read notes of this case. The patient was a previously healthy lady, aged 42, who received a chill coming out of the opera, on July 26th, and four days afterwards was taken with shivering "queerness" in her head, noises in her ears, and sleeplessness. When seen by Dr. Buzzard, on August 3rd, in consultation with her medical attendant, Mr. Airey, she lay in bed complaining of these symptoms, of deafness in the right ear, and imperfect hearing in the left, with constant nausea and aversion from food. The pulse had been at times as low as 56, and there was much prostration. The temperature was normal; there was no paralysis, diplopia, nor change in the fundus oculi; the heart-sounds and breathing were normal. She had never had otorrhœa, and the deafness had only been coincident with her illness. Restorative food and remedies were prescribed. On August 5th, the temperature was 103° Fahr., the pulse 106, the face flushed, the left knee-joint swollen, very painful, and powerless. There had been much sweating. The urine was acid. The heart-sounds were normal. She was ordered fifteen grains of salicylate of soda every three hours. On August 7th, Dr. Buzzard found the temperature 99°, the pulse 108, the respiration 38, the heart-sounds normal; the state of the lungs behind could not be ascertained. The swelling of the left knee was considerably reduced, but the right knee was now greatly swollen and painful, and also one of the finger-joints. Careful inquiry and examination failed to discover any wound or sore. There was great prostration. Brandy in frequent doses was prescribed, and the salicylate ordered to be given at longer intervals. The patient sank next day. Dr. Buzzard saw the patient upon three occasions. On the first, the symptoms were entirely cerebral. On the second, although they pointed strongly in the direction of acute rheumatism, he could not help a strong feeling that the case was one of pyæmia, the cause of which, however, could not be ascertained. All efforts to procure a necropsy were fruitless. He had not the slightest belief that the salicylate had been of injurious influence, as the patient's condition from the first was exceedingly grave. Not more than twelve doses were taken.—Dr. BRISTOWE could recall two cases of sudden death following acute rheumatism. In one of these, the patient suddenly fainted and died in St. Thomas's Hospital, the *post mortem* examination showing the heart to be quite healthy. This took place long before the introduction of the salicylic treatment. The second case was observed a year or two ago, and in it also no salicylate had been administered. The *post mortem* examination revealed deterioration of the muscular tissue of the heart, and death probably ensued from endocarditis, there being no other appearances of cardiac disease. He inclined to the belief that Dr. Buzzard's case was one of pyæmia. Within the last few days, a patient in St. Thomas's

Hospital had died suddenly, in whom the rheumatic odour of the skin, rapid pulse, and acute pain had been noticed. Excision of the shoulder-joint had been performed in this case, and, on *post mortem* examination, pus was found in quantity, together with pericarditis and pulmonary apoplexy.—Mr. Heny Lee thought the cases read to the Society were not examples of acute rheumatism, but of such a kind as usually came within the ken of the surgeon. Frequently some skin-eruption was the first indication afforded; and he remembered one case in which, though it fared well eventually, scarlet fever was diagnosed, whereas the real evil was actual blood-poisoning. He considered Dr. Goodhart's case to be one of blood-poisoning also.—Dr. T. Henry Green did not consider that Dr. Goodhart's notes were conclusive. He had spoken of "contracted heart"; but this did not necessarily imply non-alteration of the cardiac muscular tissue. He (Dr. Green) was of opinion that examination of the tissue after rigor mortis had passed away might reveal considerable degeneration of muscle, in spite of the contraction during the temporary rigid condition, and he could not be certain, from Dr. Goodhart's description, that some such change was not present in his case.—Dr. Glover urged the importance of clearly describing the particular form of the drug (salicylate) employed in these cases; but he demurred to the practice of drawing definite inferences from isolated cases. —Dr. Maclagan believed that the case was one of acute rheumatism. Fatty degeneration must be excited by some predisposing cause. Salicylate had been largely given in febrile and non-febrile conditions, but bad results attended its employment only in acute rheumatism. He had not, however, experienced results so bad as those encountered by Dr. Goodhart. The question to be decided was whether the fatal termination in the latter case must be attributed to the rheumatic poison or to the salicylate. He felt that fatalities were more likely to occur under salicylic acid treatment than during any other. Myocarditis was predisposed to by endocardial inflammations; and, in dealing with them, he saw no reason to exclude the fibrous structures of the heart from participation in these changes, recognising rheumatism of the heart as of the joints. He could not assent to Dr. Goodhart's proposition that salicylates and salicylic acid were identical in action. The influence of the poison and the action of the remedy ought to be considered in their relations to one another.—Dr. Mahomed considered Dr. Goodhart's case to be a typical one of acute rheumatism. In patients recovering from the disease, he had found that the first sound was often absent during convalescence following treatment with salicylate of soda. Recently, on seeing a case of typhoid for which salicylate was being prescribed, he prophesied that serious evils would attend its use; and, in confirmation, the pulse went to 160, was thin and flickering, and all the symptoms of impending death from heart-failure supervened. The administration of salicylate having been discontinued, the pulse fell below 120, and the patient subsequently made a good recovery. He felt certain that one additional dose of the drug would have caused death. He never found the first heart-sound undergo the same change in so short a time in fever.—Dr. Barlow inquired whether, in Dr. Buzzard's case, an examination of the tympanic membrane had been made. He thought the case might be one of internal otitis without rupture of the tympanic membrane, followed by suppuration. The changing situation of effusion did not, he considered, militate against the case being one of pyæmia.—Dr. Down had found salicylate of soda produce depression in many instances, but he had not to record any death through it in his practice. He had often been compelled to discontinue giving salicylic acid, which he administered in large doses repeatedly, but the bad effects he encountered were not noticeable when he employed salicylate of soda. He doubted whether Dr. Goodhart's case was one of true rheumatic fever. In consultation, he recently saw a patient aged 22, who had profuse sweating, with high temperature, but in whom the rheumatic skin-odour was not present. He expressed the opinion that it was not true rheumatism, and the after-history showed him to be right, phlebitis setting in, and ultimate recovery taking place. He insisted on the importance of an accurate diagnosis in such cases.—Dr. Goodhart defended his opinion of the case, and said that a very careful examination of it confirmed him in the belief he had recorded. The patient had been troubled with a nasal polypus, and this led him to look, but in vain, for pyæmic sources. Nevertheless, it might be an instance of obscure blood-poisoning. Replying to Dr. Green, he thought that the heart might fail even when no perceptible structural changes were visible in its tissue. With respect to the varying action of the forms in which the drug under discussion existed, he could find no satisfactory records, the greatest confusion existing thereupon in books, and it was impossible to say anything definite concerning them.—Dr. Buzzard thought Dr. Barlow's suggestion an important one, and deserving consideration. He had inquired at his first visit as to the existence of otorrhœa, but there had been none. He, however, doubted whether otitis would altogether account for the grave cerebral disturbance at first noted, with a very low pulse and a normal temperature. He was disposed to consider the case one of pyæmia, in spite of the obscurity of its causation, and the strong resemblance of the symptoms to those of acute rheumatism.

Mr. Norton exhibited bones taken from a patient whose case was described to the Society on November 14th.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

December 11th, 1879.

Treatment of Laryngitis.—Dr. Semon read a paper on the treatment of acute and chronic laryngitis in adults. He urged the importance of the study of the laryngoscope, the knowledge of which was compulsory in Germany. Cases were often treated wrongly by pharyngeal applications. Diseases of the larynx did not differ materially from diseases of other like tissues. He warned against local remedies in acute laryngitis; the use of the voice must be greatly restricted. In the œdematous form, which was very rare, it was necessary to scarify or perform tracheotomy as soon as possible. No internal treatment would ever cure a chronic laryngitis, and the laryngoscope was essential to its knowledge and treatment. The object of the local treatment was to change the chronic engorgement of the vessels into an acute affection, which was then to be watched carefully to resolution. In chronic cases of several years' standing, a treatment of two months was required. In old cases, nitrate of silver (sixteen to twenty grains to the ounce), and in very obstinate cases solid stick caustic, was applied. This treatment was combined with electricity, with the constant current to the sides of the larynx where the movements of the vocal cords were impaired. Endolaryngeal operations were dangerous in inexperienced hands. The laryngeal application should be made before the pharyngeal, when both were required. Inhalations were not sufficient alone to cure chronic cases. The local treatment was useless if the voice continued to be used professionally. The neck should be washed in cold water, and neck-wraps avoided; living should be moderate, and smoking slight. Ems water, Reichenhall, etc., were good after local treatment, in the form of gargle and inhalations of the water. The patients should go to the Black Forest and Switzerland, not to the Engadine.—Dr. Parsons Smith regretted that in England, where disease of the larynx was common, practitioners were behindhand with the use of the laryngoscope.—Dr. Bowles asked whether non-volatile substances, such as salt, etc., were carried in vapour from their solutions.—Mr. Bryant thought the salt remained behind.—Dr. Lanchester said that plain salt in water at 150° would not decompose, so that nothing would be given off.—Dr. Bowles thought the absolute necessity of local treatment open to question; as a matter of fact we did cure without, and instanced granular laryngitis cured by Friederichshall water and general attention to the system.—Dr. Carpenter took it as a positive fact that saline water would not rise with steam. He had generally seen these cases recover with rest and general treatment.—Dr. Lanchester said that Dr. Semon had attached secondary importance to inhalation. In bad cases, he had found great benefit from local treatment, and thought that we neglected our duty in not using the laryngoscope.—Dr. Semon said that recent experiments in Germany showed that non-volatile substances, such as colouring matter, penetrated below the glottis into the alveoli. He instanced the different physiological effects following the use of different substances, and the recent success of inhalations of benzoate of soda in phthisis. [It will be seen, in Dr. Semon's paper, that he has greatly modified his opinion on the subject of inhalation of saline substances.] He thought that no proper cure could be effected without the laryngoscope; and that it would be proper to extend the term of study in England so as to make practitioners acquainted with the special instruments.

Double Splint for Disease and Injury of the Hip-joint.—Mr. Bryant demonstrated the advantages of his double splint in diseases and injury of the hip-joint. Its great use was to maintain parallelism. In nine-tenths of the cases of deformity of the hip, it was due to adduction with flexion, and shortening was only apparent and due to the adduction, as apparent elongation was due to abduction. One great advantage of the splint was in turning over children easily. Thirty cases of fractured necks of the thigh, with an average age of 74, had walked out of the hospital with united bone; and, of forty fractured thighs, in only four was there any shortening to mention—not more than one-half to one-third of an inch.—Dr. Walters compared the splint with Hamilton's, well-known and described in his *Surgery*. He thought Thomas's splint, which extended down the back and leg and allowed the patient to move about upon crutches, preferable for chronic cases.—Mr. Bryant had been much disappointed in the use of Thomas's splint.—Mr. Maylard had seen the advantage of the bracket at the side of the trochanter in cases of excision of the hip.

Suppuration of the Knee after Gout.—Dr. Roper read a case of suppuration of the knee-joint following an attack of gout. On May 7th, alkali and colchicum were used for an attack of gout, with relief. In one week, swelling and pain in the right knee, with abscess in the leg, came on. The joint was distended till the middle of June. On June 29th, it was opened at the lower angle, and treated antiseptically; abundance of pus was discharged. On July 5th, a drainage-tube was inserted. On July 8th, the leg and knee were bandaged, and Condy's fluid solution injected. On the 25th, the splint was removed. The patient could now walk, and had some movement in the joint. At no period was any albumen present in the urine.—Dr. Carpenter thought the case commenced as gout, and that the patient contracted typhoid fever, indicated by high evening temperatures for more than a month, and that suppuration followed.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

Wednesday, November 5th, 1879.

Papilloma of Legs.—Dr. Walter G. Smith exhibited a patient, an elderly man, who had been for some months the subject of a peculiar framboesoid eruption on both legs. The enormous cork-like masses on the right leg were vascular, doughy to the feel, and gave an indistinct sensation of fluctuation. Dr. Smith looked upon the case as one of multiple diffuse papilloma of the skin. The patient was also affected with slight ichthyosis on the knees, legs, and feet.

Cases of Favus.—Dr. Walter G. Smith reported a series of five cases of favus, and exhibited a specimen of favus from the cat, detailing an interesting history of contagion in connection with it. Dr. Smith stated that within the past ten years he had seen thirteen cases of favus in a total of about seven thousand—that is, only about one case in five hundred. The majority of the cases occurred in females, namely, nine out of thirteen. He had met only one case of favus engaging the nails (onychomycosis), and four cases in which the disease was limited to the non-hairy parts of the body. He exhibited portions of the skin of a cat affected with favus, which communicated the disease to a young child. Microscopic examination of crusts on the cat's skin showed that they were composed of the mycelium and conidia of the achorion fungus.—Drs. M'Veagh and Grimshaw alluded to some cases of favus they had seen.—Dr. Walter Smith said they could not be too careful about diagnosing favus without the use of the microscope. In the cases which he had related, he did not use any internal treatment.—Dr. C. F. Moore mentioned an instance which occurred some years ago of a cat catching mice, on the bodies of which were spots of favus. The cat got the favus on the paws. She had a kitten, which also got the disease, became blind, and died. The cat recovered. There were two children in the house, who also had the favus.

Case of Bright's Disease, in which Mercury was given with Benefit.—Dr. Henry Kennedy reported a case of what he regarded as granular kidney in a lady aged 51, supplementing the clinical history with remarks on the treatment of this disease, including the question of the use of mercury in certain stages of the affection. He began the mercurial course with extreme caution, but was agreeably surprised to find the drug well borne. From the moment it showed its specific effects on the system, the convulsions and coma ceased, and the patient recovered for the time being; serous effusions, which were present, also disappeared. Where the blood was seriously deteriorated, of course, one would not be justified in giving mercury; but, on the other hand, there were cases of kidney-disease in which this drug was undoubtedly of use—such were cases of post-scarlatinal nephritis, for example.—The Chairman said an important question as to the advisability of the administration of mercury in renal disease had been raised by Dr. Kennedy's paper.—Dr. Purser asked what was the condition of the heart in Dr. Kennedy's case. Another point was, as to the quantity of urine passed. He thought there was some doubt as to whether the present was a case of granular disease of the kidneys or not.—Dr. Walter Smith asked whether any observations had been made as to the condition of the patient's eyes.—Dr. Fitzgerald said that observations with the ophthalmoscope were valuable as a means of diagnosing Bright's disease, even at an early stage; but the instrument would not detect anything that would show the particular form of disease of the kidneys under which the patient laboured.—Dr. J. W. Moore was not satisfied as to the diagnosis of granular kidney in this case, both from the absence of any mention of the symptoms to which Dr. Purser had alluded, and from the presence of certain other symptoms. In the case described by Dr. Kennedy, the presence of considerable anasarca, the pallor of the patient, the puffiness under her eyes, and the absence of any history of constipation, polyuria, or hypertrophy of the heart, led him to think that the form of renal disease under which she suffered was at least open to question. Dr. Moore detailed a case which he regarded as a typical one of chronic interstitial nephritis.—Dr. Duffey observed that Dr. Kennedy had spoken of the variations in the quantity of albumen in the urine in his case, and had also spoken of placing the patient on dry diet. What did he mean by dry diet? Diet, no doubt, had a very important influence on the amount of albumen found in the urine in cases of Bright's disease. Dr. Duffey had observed patients suffering from Bright's disease in whom the amount of albumen in the urine could be altered by the diet. Under a strict milk diet, the albumen would disappear from the urine. But if the patient got meat, or a nitrogenous diet, the albumen would probably reappear.—Dr. Kennedy having replied, the Society adjourned.

REVIEWS AND NOTICES.

Pay-Hospitals and Paying-Wards throughout the World: Facts in support of a rearrangement of the English System of Medical Relief. By Henry C. Burdett, Honorary Secretary Home Hospitals Association for Paying Patients; Secretary Seamen's Hospital Society; late General Superintendent and Registrar of the Queen's Hospital, Birmingham; etc. Pp. 176. London: J. and A. Churchill. 1879.

Mr. Burdett is well known to the medical profession as an advocate of provident dispensaries and cottage hospitals, and as the originator of the Home Hospitals Association. All who are interested in these subjects will be gratified by the volume before us. In it the author deals with the whole question of pay-hospitals and dispensaries in a large and comprehensive spirit. The early part of the work is devoted to the consideration of out-patient abuse, and the remedies that have been proposed for it. Mr. Burdett then passes on to discuss the various modes by which in-patient treatment can be provided for those who are willing to pay for it. In doing this, he takes a wide survey of the pay-hospitals of the world. He carries our thoughts from Milan to Montreal, from Christiania in Sweden to Kimberley in Griqualand West. Indeed, there are no civilised countries, except Russia and England, in which pay-hospitals have not been established. The author shows how our American cousins have opened them in Boston, New York, and other cities; and how small colonies of resident Englishmen have promoted their formation in Buenos Ayres and elsewhere. If this have been done, if home hospitals have met the wants of Englishmen abroad, why should there be any difficulty in establishing them in London and other large cities at home? Thus, by a survey of the world, Mr. Burdett leads up to the main subject of his book, and then introduces his reader to the Home Hospitals Association, gives a sketch of its origin, mentions some of the difficulties it has had to overcome, and explains its present position. Incidentally, he refers to the fact that one of the blocks of St. Thomas's Hospital was offered to the Association at a rental of £300, and explains the reasons why it was declined, and why the Association preferred to rent a separate house in the centre of London. This opens up the question of the relative advantages of pay-wards or pay-beds in general hospitals and of separate pay-hospitals. Mr. Burdett evidently holds that the latter are far the most likely to be acceptable to Englishmen. The concluding chapter of the book deals with the convalescent hotels which the Association proposes to establish at a later date. It is easy to point out how unsuited an ordinary seaside lodging is to an invalid or a convalescent; and yet we are inclined to think it would be well to wait until home hospitals are thoroughly naturalised in this country before a convalescent hotel is opened. It appears to us that the home hospital is much more likely to be acceptable to the English public, and to become a substantial success, than the convalescent hotel.

In the midst of these proposed changes, the profession may rest assured that their interests will not be forgotten in Mr. Burdett's hands. The position which he occupies gives him a great advantage in dealing with his subject. He is not a medical man himself, and yet the office which he holds as Secretary to the Seamen's Hospital, and the experience which he has gained at this and at other large hospitals, has made him familiar with the internal arrangements of the profession. Thus, he sees at a glance what proposals are, and what are not, likely to be acceptable to medical men. He appreciates the delicate relations between general practitioners and consultants; and everywhere he insists upon those two leading principles which ought to be borne in mind in all our attempts at reform—namely, that charitable medical relief should be carefully limited; and that, where money is accepted from the patients, proportionate fees should be paid to the doctors.

We commend Mr. Burdett's book to all who are interested in the improvement of medical relief—and which of us is not? It is clearly and pleasantly written; it is full of facts; and it contains many valuable suggestions. It is a work which cannot fail to stimulate the reforming movements which have been gathering strength in this country during the last few years.

NOTES ON BOOKS.

The Irish Medical Directory for the Year 1880. Dublin: Offices of the *Medical Press and Circular*.—We can strongly recommend this Directory to our associates practising in Ireland, and to all persons requiring information on Irish medical affairs. It increases yearly in comprehensiveness and consequent value, and its able editor is to be congratulated on the high standard to which he has succeeded in raising it. A large part of the Directory—one hundred and forty pages—is occupied by the Acts of Parliament, *verbatim* and in abstract, generally as well as specially affecting the profession in Ireland. The new Army Medical Warrant, the official regulations of the public medical services and those of the Irish licensing bodies, are given in full. We also notice with pleasure a list of those gallant "non-combatant" army medical officers—ten in number—to whom the Victoria Cross has been awarded "for valour"; together with a copy of the official notification of the deed of valour for which the Cross was in each case awarded. The Directory likewise contains a large amount of statistical information accurately compiled, and is altogether a most useful work of reference.

Photographic Illustrations of Skin-Diseases. By GEORGE HENRY FOX, A.M., M.D., Clinical Professor of Dermatology, Starling Medical College, Columbus, Ohio. (New York: E. B. Treat.) These very excellent photographs carry the art of photographic representation of pathological appearances further and higher than any which we have yet seen. The subjects are well selected; the photographs are excellent; and the colouring lifelike and restrained from excess of violence in tone. They are very successful, and will undoubtedly be popular. Dr. Fox is a highly educated dermatologist, and his text is excellent.

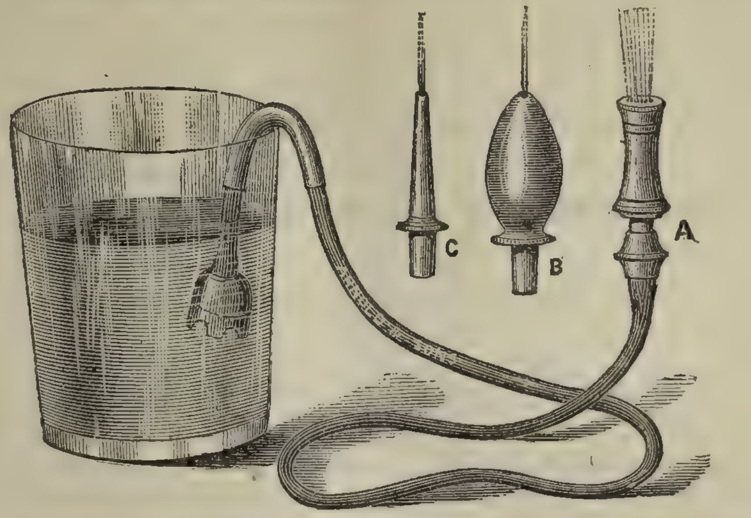
The Duplicate Prescription-Book (George Carlyle, 11, Waterloo Buildings, Liverpool) is a very handy form of duplicate book, by which the physician retains always a copy of the prescription which he gives to his patient without the trouble of writing it specially for his own record. Similar books are much used by many physicians in their consulting-rooms.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN IMPROVED UNIVERSAL DOUCHE.

By SAMUEL BENTON, L.R.C.P., M.R.C.S.

MESSRS. ARNOLD AND SONS of Smithfield have made, at my suggestion, a modification of the syphon-douche now in general use; and I have found the little instrument so very useful in practice, that I wish to call the attention of the profession to it. There is nothing new in a syphon-douche; it has been used in various departments of medicine and surgery for many years. The instrument, as shown in the woodcut, consists of a metallic inlet-valve, attached to an India-rubber tube, with a small metallic sheath or covering to prevent the tube from collapsing over the edge of the glass, and a metallic mount, on which can be fixed an eye-rose, a nasal or an ear douche. In cases of ophthalmia, children over four years of age look upon the rose-douche as an amusing toy, and will get out of bed and use the douche themselves, whilst a nurse is elevating the tumbler of water. The advantage of this arrangement over the old-fashioned method of holding children down by main force, and cruelly syringing the eye with a squirt, is at once apparent. The force of the water coming out of the douche can of course be regulated to a nicety by raising or lowering the tumbler. The rose-douche (marked A) is also very useful for irrigating wounds, and assists in the removal of dressings. The rose-douche (B) may be employed to apply an antiseptic or an hæmostatic solution. No harm can be done, even to such a delicate organ as the ear, by using this kind of douche (fig. C), as the water issues from the nozzle in a continuous stream, and is far more efficacious than an interrupted one. I have seen the membrana tympani rendered concave outwards, and deafness increased, by a person having carelessly used an ordinary syringe. The metal nozzles are much more cleanly, and do not so soon get out of order as India-rubber; it has also been tried, but it does not answer, to have the hose made of vulcanite.

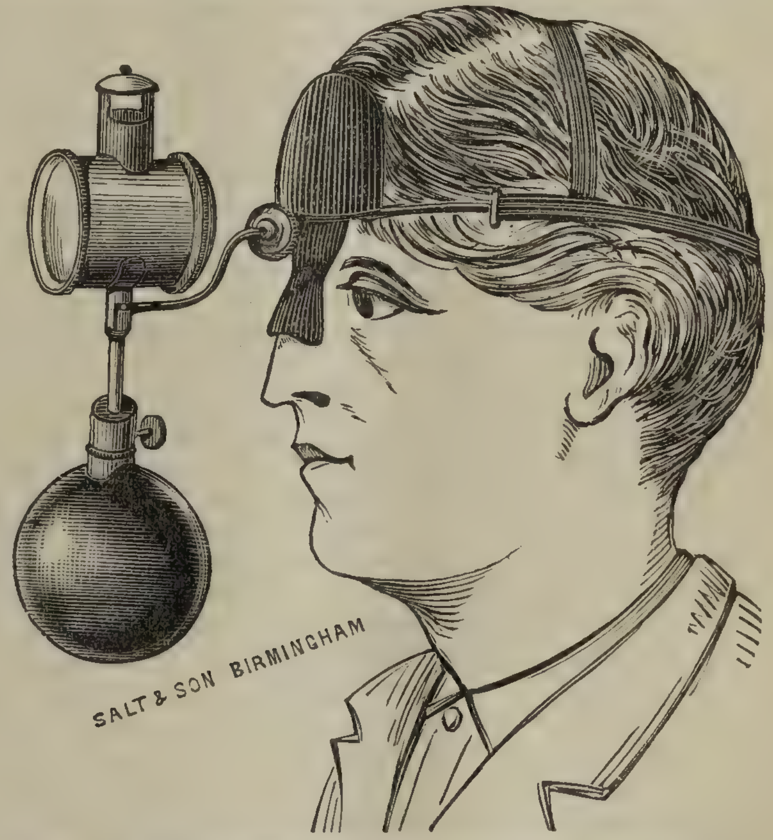


This simple and useful instrument can be carried in the waistcoat pocket, and is very durable and cheap.

Dr. Thudichum's syphon-douche, described and figured in his little treatise on *Polypus of the Nose*, published by Longmans, is a good instrument for hospital use, but its size makes it inconvenient for general practice. His invention has been modified by surgeons, and now supersedes enema and vaginal syringes.

NEW FRONTAL ILLUMINATING LAMP FOR MEDICAL PURPOSES.

THE Frontal Lamp, of which an illustration is annexed, was contrived by Salt and Son of Birmingham for Mr. Lycett of Wolverhampton. Its object is to enable the practitioner, more especially the obstetric physician, to illuminate the vagina, rectum, etc., without the aid of an assistant, and at the same time to have both hands free for any operative procedure. This is accomplished by securing the lamp, which is very light, to the observer's forehead in such a manner that it shal accommodate itself to all his movements and automatically direct its rays in whatever direction he may for the moment be looking. The lamp is fed by benzoline absorbed by a sponge contained in a small receptacle, and will burn for half an hour. As no free spirit is employed, all risk of accident is avoided, and the lamp may be carried with its reservoir filled and perfectly ready for use.



BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 24TH, 1880.

THE ARMY MEDICAL SERVICE OF INDIA.

WE have before us a Letter to the Secretary of State for India, by a "Surgeon-Major", on the Past, Present, and Future of the Indian Medical Service. It is an open secret that the "Surgeon-Major" is Mr. Cornish, Sanitary Commissioner to the Government of Madras. Those who are acquainted with the able reports of Mr. Cornish on every question relating to public health in Southern India, who remember his ill-requited services in the late famine, and the fearless way in which he exposed the fallacies of Sir Richard Temple on "famine diet", will be prepared to find in this remarkable letter fresh proof of his capacity for dealing with difficult administrative questions, and the same courage he has always shown when giving advice to his Government on matters more directly coming within the scope of his official duties.

Mr. Cornish gives a brief history of the Medical Service of India, and does it justice. "I do not forget", he says, "what the Indian Medical Service has been in the past, nor the long roll of illustrious men who have done honour to themselves and to the service they have adorned. For nearly a century, the Indian Medical Service has been conspicuous for the number of its officers who have distinguished themselves in various branches of science; and, from the days of Hamilton and Broughton until now, the services of its members have been of vast political importance to the State, in helping to reconcile the people of newly-annexed countries to British rule, and in other ways." And, again, when referring to the educational work of his service in the three Presidencies: "Whatever fate may be reserved for the Indian Medical Service, this much must be acknowledged on all sides, that it has not been content to leave the country and the people as it found them in the matter of scientific knowledge and acquirements. A long roll of eminent men have laboured patiently, in the special education of the natives of India as physicians and surgeons; while the results of their labours have borne this practical test, that their pupils have crossed the seas in large numbers, have entered into open competition with the men of our British universities and schools for the higher appointments in the Indian Medical Service, and have been successful in a very high proportion of instances. There can be no question as to the character and soundness of the teaching that will stand such a test."

After giving a brief summary of the history of the department, from its foundation in the year 1786, and the way in which its members, from being in the first instance solely employed as military surgeons, came in considerable and yearly increasing numbers to be detached for civil duties, in charge of civil stations, hospitals, great prisons, both in administrative and medical capacities; in educational work, as professors in the colleges at the Presidency centres of government and in the provinces; the author comes to the changes brought about by the convulsion of the mutiny of the Bengal sepoys. While regiment after regiment of the old Bengal army disappeared, the strength of the European troops rose, from an average of about 25,000, to at one time 80,000 men, and remains now at a figure oscillating between 60,000 and 70,000. The European infantry and artillery of the local army of India were incorporated with the British service, carrying with them all their combatant but none of their medical officers. Under this new state of affairs, the Medical Department of the British Army complained that they had not a fair share of the administrative appointments. This claim was conceded; the effect of this was at once to reduce the number of administrative officers in the Madras Presidency from *thirteen* to *seven*, thus diminishing a medical officer's chances of promotion by nearly 50 per cent. Similar reductions were made in Bengal and Bombay. Between the years 1860 and 1864, the Secretary for India made an effort to bring about an amalgamation of the two services, with as little injury as possible to the interests of both: but in vain. The then Director-General of the Medical Department of the Army, the late Sir James Gibson, an honourable and estimable man, but a narrow-minded and prejudiced official, was bitterly opposed to a measure that, if it had been carried out at the time on the just and liberal terms proposed by Sir Charles Wood, would have saved a very large sum of money to the finances of India, have promoted the interests of both services, and for ever have extinguished paltry jealousies, which, very little to their credit, were encouraged by some who put service interests first and the public weal nowhere. It unfortunately happened also that very influential people, who at that time had the ear of the Secretary for War, took the same narrow view and successfully opposed Sir Charles Wood's wiser and, we take leave to add, more patriotic scheme. And so it came about that, instead of amalgamation, we had the stupid and reckless one of the double administration—a scheme which, we do not hesitate to say, if it had affected the finances of England as it affected those of India, would have been ignominiously kicked out of the House of Commons the night it was tabled. It is now no secret that this absurdity of double administration is doomed. Mr. Cornish justly ridicules it in the following telling passage. "The double medical staff, as your Lordship is aware, involved a complete separation of the duties pertaining to European troops, on the one hand, and of Indian troops and civil medical duties, on the other. Each service had its own independent administrative officers; and in an army division, where the General in command was content with one adjutant-general and one quartermaster-general, this new arrangement gave him two heads to the medical branch of the force, one for Europeans and the other for natives. The absurdity of the arrangement is sufficiently obvious, when it is pointed out that a special regulation provides that, for an army in the *field*, there shall be only one administrative officer; and it is a fact that, in every campaign, the duties in connection with both native and European troops are discharged by one administrative officer, irrespective of the branch of the service to which he belongs. In times of peace, the representatives of the double medical staff tread on each other's heels in their tours of inspection; going to the same stations at the public expense, the one to look after Europeans, the other after natives, just as if the ills of humanity were not common to all, irrespective of race and creed!"

To the scheme for abolishing this ludicrously costly system, we shall shortly return.

RECENT RESEARCHES ON PYÆMIA AND SEPTICÆMIA.

SIR FRANCIS BACON charged the medical profession of his period with having discontinued "the ancient and serious diligence of Hippocrates, which used to set down a narrative of the special cases of his patients, and how they proceeded and how they were judged by recovery or death". He notes, as a favourable contrast, "the wisdom of the lawyers, who are careful to report new cases and decisions for the direction of future judgments". Medicine proved late in taking the hint; but the reproach year by year applies to it less and less. A most valuable scientific summary of clinical reports and pathological research will be found in the new volume of the *Transactions of the Pathological Society*. We refer to the report of the Committee appointed by the Society to investigate the nature and causes of pyæmia, septicæmia, and purulent infection. It consists of statistics collected from 1869 to 1878, in the London hospitals; of one hundred and fifty-six detailed reports of cases, arranged according to their clinical and pathological features, and compared with diseases produced artificially in animals; and of observations on the blood, urine, and microscopical appearances of organs in typical cases.

The greatest mortality from pyæmia, during these ten years, was in 1874-5. The early spring of 1874 was very warm, but the month of May very cold; severe winter set in on November 20th; and the rainfall for the whole year was much below the average. The last half of the succeeding year was cold and damp. The monthly death-rate is greatest, according to this report, in February and March. The Committee invite inquiry as to the significance of these meteorological facts. The undue closing of ward windows during east winds, or at a sudden fall of temperature after a run of fine early spring weather, or the great space of time from the last annual hospital cleaning, may explain the meaning of these two bad years and months.

The difficulty of defining the term "septicæmia" is dwelt upon, and, after quotations of the definitions of Burdon Sanderson, Billroth, and other authorities, reference is made to Koch's well-known experiments, which had the practical result of distinguishing a "septic or putrid intoxication" from a "septic or putrid infection". A heavy dose of putrid fluid, injected under the skin of a mouse, killed it in a few hours by pure chemical poisoning, leaving no signs of inflammation; nor could any bacteria be found in the animal's blood, which fluid produced no ill effects when injected into another mouse. But, when a small amount of the same putrid matter was injected, the mouse in some instances recovered; but in others, after about twenty-four hours of immunity, fatal symptoms of acute blood-poisoning set in; the blood, which was charged with bacilli, became highly infective to other animals, and œdema was found around the injection-puncture. The first condition —septic intoxication—to occur in man, must presume the admission of a considerable amount of putrid blood; so that it may be expected only after operations involving large irregular wounds, or serous and synovial cavities which have rapid powers of absorption, or in a case of acute abscess opened externally by an insufficient aperture, leaving septic matter pent up at a sufficiently high degree of pressure to allow absorption through the granulation-tissue of the walls. In twenty-eight cases of fatal blood-poisoning, without formation of secondary centres of inflammation, only two seem entitled to be classed as "septic intoxication", but on evidence admitted not to be conclusive. It is much to be regretted that cases of ovariotomy were not recorded, as, after that operation, the conditions of septic intoxication are all present; and hence that complication often appears, or at least did so before drainage and antiseptic precautions came into vogue.

The clinical distinction of septic infection from septic intoxication is beset with difficulties, though the former must be the more common disease. It may be suspected to exist in its pure form when a wound is too small to allow the rapid entrance of a dose of poison sufficient to produce septic intoxication. A large wound may, of course, involve septic infection; but, as it might be then associated with septic intoxication, the former could not, in such a case, be studied in its purest form. Evidence of infection from patient to patient is conclusive as a distinction, when it exists, as it cannot occur in pure septic intoxication; but absence of such evidence does not prove the contrary. Out of twenty-eight cases of blood-poisoning, in which death occurred without the formation of secondary abscesses, the Committee could find only two arising from wounds too small to admit enough septic matter to produce direct septic intoxication. Contrary to Billroth's assertion, rigors were frequently observed in the reported cases of pure septicæmia. In many instances, the period of invasion was very late, yet no secondary centres of inflammation could be detected after death. In other words, septicæmia is not a mere early form of pyæmia.

As to pyæmia itself, the Committee prefer to understand the term in the sense in which it is defined by the College of Physicians. The effects of injection of pus experimentally are described, according to the experience of various authorities. Inoculation of an animal with the blood or discharges from a case of pyæmia in man has never resulted in the precise reproduction of that disease; but, on referring to Appendix III of this report, we find a record of Birch-Hirschfeld's experiments, which show that the injection of healthy pus produces nothing beyond transient fever; whilst pus containing micrococci caused severe fever, suppuration around the seat of injection, and, in a few cases, metastatic abscesses. The Committee have classified cases of pyæmia in groups, according to the presence, association, or absence of each and of all of the well-known pathological features of the complaint—such as visceral abscesses, thrombosis, embolism, etc. Separate classes are also made for cases of pyæmic symptoms following acute necrosis and infective endocarditis; also for "spontaneous" septic disease; and for the "infective myositis" of Nicaise, of which one case is given in the statistics.

The blood was minutely examined in eighteen cases. The white corpuscles were nearly always greatly in excess, both absolutely and relatively, to the red, without the changes in their characters as seen in leucocythæmia; the amœboid movements remained natural, or were unusually active. The proportional increase ranged from one white among one hundred red corpuscles to one white among eighteen red. As to the absolute increase, whereas, under the usual method of inspection and calculation, 2.5 white corpuscles were found on the field when healthy blood was examined, the lowest average on the field in pyæmia was twelve, and more than seventy cases sometimes seen. The evident diminution of red cells must be taken into account.

The examination of the blood for bacteria yielded very different results in many cases. As to the statement that micrococci may be found in large quantities in the white corpuscles, the Committee could not recognise such a condition in any case; the difficulty of distinguishing these germs in the liquor sanguinis is dwelt upon. Half-a-dozen varieties of bacteria were found; and, in conclusion, so far as these observations go, it is shown that "no one form of bacteria is peculiar to any one kind of disease".

No special characteristic could be found distinguishing the urine in cases of blood-poisoning from that of any acute form of pyrexia. It was generally acid, very soon becoming ammoniacal, and was about normal in quantity in the majority of cases. Albumen, never in excessive proportions, was nearly always present; urea was excreted about one-fourth above the normal average; and uric acid in double the amount of the healthy excretion. The inorganic constituents, especially the earthy phosphates, were diminished in quantity. Although the red corpuscles are diminished or destroyed, no potash is thereby set free in pyæmic urine; for that base is found below its normal proportions. Possibly, it is remarked, the increase of white corpuscles may account for the potash not being present in greater quantity in the urine after the destruction of the red. In scurvy, there is likewise diminution of the number of red corpuscles and diminished excretion of potash in the urine, that base being possibly retained in the blood to maintain its alkalinity, lessened by the withdrawal of the alkaline carbonates of the food.

On microscopical examination of different organs, micrococci were found in all, or at least in some, of the viscera, and their distribution is very unequal. They were nearly all in the blood-vessels, completely plugging capillaries; in masses which sometimes produced varicosities, or even ruptured the vessels, and extended into the contiguous tissues. Great pathological changes were often found in structures infected with micrococci, yet sometimes the immediate surroundings of these organisms presented little, if any, alteration from the normal condition. In larger vessels, the micrococci may line the walls as an even layer, or project from them as papillæ, which occasionally break off, and in all cases may involve coagulation of the blood passing by them. Bacteria were found in three cases, but in two there was evidence of their origin being *post mortem;* in the third, a case of acute infective myositis, rod-shaped bacteria were present in large areas within the wall of the left ventricle, within and around the vessels, and between the muscular bundles, but hardly any could be found within the sarcolemma. This appearance is represented in one of Dr. Greenfield's beautiful microscopic drawings, which, together with an equally fine series illustrating Mr. McCarthy's observations, accompany the report.

The obliterative endoarteritis was very frequent in arterioles in all the tissues; thrombi were commonly found in the vesicles. The walls of veins containing thrombi were often surrounded by minute abscesses, and partially destroyed, so as to be indistinguishable, except by the proximity of the corresponding arterioles found alongside the abscesses. The connective tissue had in all organs undergone changes—such as hypertrophy, increase of nuclei, swelling of the fibrous bundles or miliary abscesses.

Micrococci were seen in the liver, but not so frequently as in the kidney. They were mostly in the capillaries. Owing probably to embolism, certain acini were found to be in a very degenerate condition; whilst others, near them, remained almost unchanged. In all cases there was some exudation in the portal spaces. The hepatic cells showed signs of more or less fatty degeneration, and in one instance there was a remarkable segmentation of their protoplasm. In the kidney, micrococci were almost constant; their favourite seat was in the capillaries surrounding the straight tubules in the upper part of the Malpighian pyramids. The glomeruli undergo great changes, described very minutely in the report, together with some original observations on peculiarities in the epithelial lining of the uriniferous tubules. Micrococci were found in the substance of the valves of the heart, and in vegetations from those valves, in two cases of ulcerative endocarditis. In the lung, thrombi, plugging the veins and filled with micrococci, were observed; and in one instance, the wall of the vessel being ruptured, blood had become extravasated with micrococci into surrounding structures.

To this report are added two valuable statistical appendices, and two, consisting of "notes", or rather of records *in extenso*, of the microscopical examination of the blood during life, and the pathological histology of blood-poisoning. Drs. Ralfe and Greenfield, Messrs. Beck and McCarthy, deserve the thanks of the profession for having brought together such a mass of valuable facts in relation to one of the gravest classes of diseases with which the surgeon has to deal. We must continue to sympathise with these gentlemen, as we have done before, in lamenting, as they do, the absence of an uniform methodical system of registration throughout the various metropolitan hospitals. Until this is effected, the profession will not be perfectly free from Bacon's reproach. "The direction of future judgments", as he would have said, is not promoted by the neglect, at some institutions, of recording details which, at others, are carefully saved from oblivion.

THE MEDICAL INSPECTION OF SCHOOLS.

A DECREE organising medical inspection of schools in the department of the Seine, in pursuance of a ministerial circular on the subject, has just been promulgated. Article 1 provides that every medical inspector, on his appointment, shall lodge with the mayor of the district a memorandum showing his domicile where he can be consulted, and the days and hours he devotes to consultation. This information will be transmitted by the mayor to the establishments comprised in the circuit of the medical inspector, who, in case of change of domicile, or alterations in the days and hours of his consultation, must immediately give notice to the mayor, whose duty it is to forward the information to the establishments concerned. In the municipal districts of Sceaux and Saint Denis, the information concerning the dwelling and the consultation days of the medical inspector will be forwarded to the president of the cantonal delegation, who will communicate it to the mayor of the communes whom it concerns.

The first article provides that a register will be placed in every school or charitable institution, in which the medical inspector shall register the result of his inspections. The superintendent of the establishment will place at the head of this register the name of the medical inspector, his dwelling-place, and the days and hours for consulting him. The register of medical inspection will be constantly at the disposal of the authorities appointed to superintend the schools, who are authorised to see it at every visit.

It is further provided that every school and charitable institution shall be visited twice a-month by the medical inspector. The medical inspector should likewise pay supplementary visits to the establishments in his district, whenever he is called on to do so by the mayor. In the districts of Sceaux and Saint Denis, requisitions arising out of these supplementary visits will be addressed to the medical inspector, at the request of the mayor of the commune, by the president of the cantonal delegation.

The medical inspector is required, when he visits the different establishments, to commence by an examination of the entire premises besides the schoolrooms, such as the vestibule, the covered playground, recreation-ground, water-closets, urinals, etc. In this visit, he will be accompanied by the head of the establishment, to whom he will address any remarks or recommendations suggested to him by the condition in which he finds these places. He will afterwards visit all the class-rooms. After having taken note of the hygienic conditions of the schoolroom in reference to lighting, heating, and ventilation, the arrangement of the furniture, etc., he will proceed to the examination of the children, and especially of such as are pointed out to him by the head of the school as showing symptoms of illness.

At the end of the visit, the medical inspector is called upon to record on the special register intended for the purpose, the result of his observations. He will reply to the various questions propounded in this register with regard to the cleanliness of the premises, the lighting, heating, and ventilation of the class-rooms. He will afterwards write, in the columns reserved for that purpose, the names of those pupils in whom he has noted sufficiently serious symptoms of illness to warrant their being sent home. When indicating the nature of the illness, he will be careful to make known if it be of a contagious nature. Finally, he will state the number of children absent from the establishment on account of illness at the time of his visit, indicating at the same time, from the information furnished to him by the head master or mistress, the diseases which seem chiefly to prevail amongst the children.

Finally, after every inspection, and with a delay of, at the longest, twenty-four hours, the medical inspector will forward to the mayor of the district a report showing the sanitary condition of the establishment inspected. Printed report-forms, setting forth the various questions to which the inspector should give answers, will be placed at the disposal of every medical inspector. In the districts of Sceaux and Saint Denis, two copies of the report should be sent simultaneously to the president of the cantonal delegation and to the mayor of the commune under inspection.

It is ordered that the mayors of the districts shall have made an abstract of the propositions contained in the reports of the medical inspectors, and they shall immediately proceed to act on those which appear to them of an urgent character. They will reserve, in order to submit them to a more thorough examination, and, if necessary, to communicate them to the cantonal delegation, those which allow a decision of a general character, or imply important alterations in the arrangement of the premises.

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DR. HIRSCHBERG, *privat-docent* of Ophthalmology in the University of Berlin, has been appointed an extraordinary professor of that subject in the same University; and *privat-docents* Krönlein and Küster, in the surgical department, have been appointed extraordinary professors.

WE regret to announce the death of Mr. Denis DcDonnell, M.R.C.S., which took place at King's College Hospital, on Friday, January 9th. Mr. McDonnell was Assistant House-Physician at that hospital; and, unfortunately, inoculated himself with scarlet fever whilst performing a *post mortem* examination on a patient who had died of that disease. The scarlet fever appeared in a mild form; but great anxiety was entertained on account of the previous existence of diabetes. On the fifth day of his illness, symptoms of blood-poisoning set in, and he sank rapidly. Mr. McDonnell was a scholar and prizeman of his College; and had taken honours at the University of London on more than one occasion.

Dr. Wilhelm Erb, hitherto Extraordinary Professor of Neuropathology in the University of Heidelberg, has been appointed an Ordinary Professor and Director of the Polyclinic in the University of Leipsic.

Mr. Baker of Kingscote writes us to explain that he would not have attended the Medical Conference on Vaccination, recently summoned by the Parliamentary Bills Committee, if he had not believed that the printed card of invitation had been designedly addressed to him.

THE GILBERT BLANE MEDAL.

The Presidents of the Royal Colleges of Physicians and Surgeons, Dr. Bennett and Mr. Holden, with the Director-General of the Medical Department of the Royal Navy, Sir Alexander Armstrong, have awarded this honourable distinction to Staff-Surgeon Henry Frederick Norbury, C.B., M.R.C.S.Eng. and L.S.A., of H.M.S. *Active*, and to Staff-Surgeon William Digby Longfield, L.R.C.P.Ireland, of H.M.S. *Tenedos*, for the high character of their respective journals.

THE HABITUAL DRUNKARDS' ACT.

On Monday, February 2nd, Mr. Stephen Alford will read a paper before the Social Science Association, at its room in Adam Street, Adelphi, on The Habitual Drunkards' Act of 1879, the class of persons for whom it is intended, and how it may be administered; with an account of a recent visit to the American Inebriate Homes. Lord Shaftesbury has consented to preside. The paper is likely to be one of much interest.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

The first dinner of this Association will be held at the Langham Hotel, Regent Street, on Wednesday evening, January 28th, at 7 o'clock, on which occasion Samuel Cartwright, Esq., has consented to preside. The annual meeting for the election of officers and Council, and for transacting the usual business, will be held previously at the Society's rooms, 11, Chandos Street, at 4.30 P.M.

THE UNIVERSITY IN LONDON.

The letter of an influential provincial physician, which we publish in another column, indicates very clearly the direction in which practical pressure and natural selection are likely to operate slowly, but we trust surely, in bringing about the reforms which we have of late years urged upon the University of London, and which are now in course of commencement. The teachers of London will find that students, and especially the intelligent middle-class of students, not possessed of high pretensions or soaring ambition, but desirous of honourable status and conscious of industry, will gravitate towards Edinburgh, Dublin, Glasgow, Aberdeen—places where they can get an excellent education and high-class diploma, and where they find graduating facilities such as are denied to students coming to London. The London schools must suffer from the continued denial of facilities for graduation on reasonable terms to London students. The Medical Act, which brings M.D.s of all British Universities into practice in England, side by side with the members and licentiates of the London "Royal Colleges", is of comparatively recent date, and its operation, in bringing University graduates into competition with our London "Misters" is only beginning to make itself felt. But, slowly and surely, it will certainly happen that the present unjust disadvantages of English students and practitioners in respect to facilities for University graduation in medicine will make themselves felt above any minor corporate interests, or the prepossessions of *cliques*, however intelligent and respectable. Meantime, the University of London is favourably situated for considering this problem, and has its own special opportunities of solving it. It is somewhat unfortunately constituted, inasmuch as the schools or colleges which it affiliates and governs, and to which it holds the University relation, are not directly represented on it. Hence it is more rigidly conservative, less directly sensitive to the needs and developmental changes of the bodies of which it affects to be "the University", than if, like all other bodies of the kind, its Colleges supplied delegates to the Senate. It lies with the individual members of the Senate to remedy this defect, either by considering suitable means of altering the constitution, if this should be judged necessary, or by the more immediate and direct course of accepting the very special responsibility which falls upon them in the matter, and considering these questions in the double function, not only of members of the Senate, but of representatives of the Colleges and Schools affected and governed by their votes; they are not representatives in a technical sense, but they are so in fact, and, we think, ought to be in form.

MORTALITY STATISTICS AND SANITARY CONDITION.

The main object of mortality statistics in the reports of medical officers of health should be to throw light upon what is broadly signified by the term sanitary condition. Numerous attempts, from various standpoints, have been made to discredit the value of gross death-rates as trustworthy indications of the health or sanitary condition of a population. It is needless to say that such attempts have signally failed, and that death-rates, within certain limits, are firmly established in public favour as trustworthy standards of sanitary condition. It is beyond doubt that death-rates have been, and may easily be, misused; but it is always dangerous to ignore a high death-rate as evidence of unsatisfactory sanitary condition, for we have never known an instance of a high gross death-rate which, on analysis, did not also disclose an excess of zymotic fatality and of infant and child mortality. Much, however, still remains to be learned as to the true relations between mortality statistics and sanitary condition. Such reports as that just issued by Dr. Tatham on the health of Salford during the ten years 1869-78 will afford valuable assistance in elucidating this problem. Notwithstanding the extenuating circumstances pleaded by former medical officers of health, all who understood the true significance of death-rates were convinced that the health of Salford was far from satisfactory. Dr. Tatham's report, however, for the first time analyses the mortality statistics of the borough in a thoroughly scientific manner. This analysis proves conclusively that the crude death-rate in the borough understates the true excess of mortality due to unsatisfactory sanitary condition; it proves that the true excess is greater than it appears to be, but it affords evidence that in recent years, especially in the last two years of the decade under notice, the death-rate has declined. Still, the unpleasant fact remains, that the death-rate in the borough during the ten years averaged 27.1 per 1000, which signifies a terrible waste of life. In order to analyse an excessive death-rate, it is necessary to consider not only the causes assigned for the deaths, but also the ages at which they occur. Dr. Tatham has completed his analysis with a completeness which leaves nothing to be desired, and which is the more valuable since it relates to a series of ten years. It appears that by far the larger portion of the excess of deaths in Salford occurs among infants and children aged under five years. The mortality at all ages in Salford in 1877 and 1878, for instance, exceeded the normal death-rate based upon the English Life-Table by 18.5 per cent.; while among children under five years of age the excess of mortality was no less than 42.8 per cent. Dr. Tatham is justified in asserting that the rate of mortality under five years of age affords the surest test of sanitary condition. It may be hoped that the Town Council of Salford will realise the importance of this sad waste of infant life within their sanitary district. Compared with the rates prevailing in other large towns, the proportional excess of female mortality is exceptionally large in Salford; this subject also calls for serious consideration. Among the mass of valuable and suggestive statistics which abound in Dr. Tatham's report, perhaps the most practically useful are those which show the varying rates of mortality in the twelve wards of the borough. The borough of Salford is situated in four registration subdistricts; but, in order satisfactorily to localise the unquestionable excess of mortality, it was necessary to divide the town into smaller divisions for statistical purposes. Dr. Tatham has wisely adopted the twelve municipal wards as his statistical subdivisions. The value of this mode of analysing the death-rate is proved by the wide divergence of the death-rates in the several wards. During the year 1878, for instance, it ranged from 20.2 and 20.8 in St. John's and Kusal, to 31.8 and 33.8 in Grimgate and Trinity. We may have occasion again to refer to one or two of the public health topics discussed by Dr. Tatham in his report, which is a monument of industry and careful manipulation of the mortality statistics of the ten years 1869-78. In the meantime, we cordially recommend this report to all those who are interested in the construction of mortality statistics, and in the true estimation of their value as a test of sanitary condition.

THE NEW MEDICAL DIRECTOR-GENERAL.

DEPUTY INSPECTOR-GENERAL J. W. REID, whose nomination as Director-General we last week announced, enters on his duties at the Admiralty on February 1st. As he has not completed the requisite five years' service ere promotion to Inspector-General, he will at first be borne on the books of H.M.S. *President* as Deputy Inspector-General for service at the Admiralty; when qualified for promotion to Inspector-General, he will be appointed Medical Director-General. Until he is so qualified, there will be really no Medical Director-General. Such is another consequence of the five years' service demanded of Deputy Inspector-General before promotion. Dr. J. W. Reid is still in charge of Haslar Hospital, there being no Inspector-General on the list at present to fill that appointment. When he proceeds on the 1st proximo to his duties at the Admiralty, the navy will be without a Medical Director-General, and Haslar, the chief naval hospital, without an Inspector-General. Can stronger evidence be given of the present faulty regulations to which we refer in detail elsewhere? We feel satisfied, from recent and most reliable information, that there is no present prospect of a Naval Medical Warrant; and we are glad to see even writers supposed to have official proclivities warning candidates to avoid the Naval Service until it is improved by a suitable Warrant. The "Director-General nominate" is an officer of large and recent experience of the Naval Medical Service ashore and afloat, at home and abroad, and consequently one fully acquainted with the necessity of reform and improvement in the department. He is popular with all branches of the service; and we have great confidence in his being able ultimately to impress on the Lords of the Admiralty the necessity of reform. It is only fair in this connection, however, to state that we understand that a scheme for improving the pay and position of naval medical officers was some time ago submitted by the present Director-General, Sir Alexander Armstrong, to the Board of Admiralty. We are informed that the scheme was of a very comprehensive character, and dealt in a liberal spirit with the difficulties and disadvantages which have lately exercised an unfavourable influence on the service. It professed to remedy the evils of the half-pay system and the grievances as to cabin accommodation; and it provided for the establishment of a Naval Hospital Corps for general service in the navy, both afloat, and in the naval hospitals, of which the want has been long and urgently felt. These good intentions have never thus far gone beyond the stage of an official paper; it will be for Dr. Reid to endeavour to induce the Admiralty to carry them further.

ALUM IN BREAD.

THE great case of the Norwich Baking Powder, which it seems is a mixture of alum and bicarbonate of soda, has been decided against the manufacturers, and appealed. The *Analyst* observes that its readers who perused the report will doubtless watch with interest the evidence to be given on appeal. Mr. Sutton was actually, and Dr. Tidy is, it seems, expected to be, called for the defence, both having given certificates that it was not injurious. Supposing an inspector in either of their districts bought some bread, and they, not knowing that this powder had been used in making it, certified to the article containing 118 grains of alum per 4-lb. loaf (which it was stated in court that a loaf made with the article would contain), what an amusing scene might be made in the witness-box when it was proved that the alumina got in through the employment of the very compound they had previously declared perfectly allowable. It is evident that if this appeal succeed, there is an end to any prosecution for adding alum to bread, as the baker would only need to say he did not use alum, but Norwich Baking Powder. We think that public analysts would be wiser (even at the cost of sometimes losing good fees) to decline giving evidence in any disputed cases. It is suggested that there are plenty of men, not public analysts, who would only be too thankful to get employed in such affairs, and the individual action of any public man would not be thus cramped. "If really consistent in their views, then the public in certain districts must be content to eat what is elsewhere deemed undesirable, merely because the analyst has publicly bound himself to an opinion on the subject which might be afterwards used to impair the efficiency of his evidence in official prosecutions."

A REPLY TO THE ANTI-VACCINATORS.

MR. ERNEST HART, Chairman of the Council of the National Health Society, will deliver a lecture on Small-pox and Vaccination — an Answer to Anti-vaccinators, on behalf of the Society, at the rooms of the Society of Arts, John Street, Adelphi, on Tuesday, January 27th, at 3 P.M., to which admission will be free. The intention is to discuss in detail the various objections persistently urged by the anti-vaccinators, to analyse the statistics on which they rely, and to furnish a substantial but popular reply to these mischievous agitators.

THE SULTAN'S SISTER.

THE sister of the present Sultan, and daughter of the late Sultan Abdul Medjid, has died at the age of 38 of ovarian disease. The Princess was made acquainted some time ago with the nature of her malady, and had reluctantly made up her mind to undergo the operation of ovariotomy, but continued to postpone the date, and to undergo repeated tappings, after the twelfth of which she sank rapidly. The postponement of the operation of ovariotomy was contrary to the advice of her medical attendants.

A RAPID CURE FOR COLD.

R. RUDOLF reports, in the *Gazzetta Medica Italiana*, the following observation made on himself. Being seized with a severe coryza, he happened to chew one or two twigs of the eucalyptus, at the same time swallowing the saliva secreted, which had a bitter and aromatic flavour. To his surprise, he found that, in the course of half an hour, the nasal catarrh had disappeared. Some days latter, he was seized with another attack from a fresh exposure to cold, when the same treatment was followed by an equally fortunate result. He then prescribed the remedy to several of his patients, all of whom were benefited in the same way. He believes that this treatment is only suitable in acute cases.

THE CINCHONA FEBRIFUGE.

SIR A. EDEN has, we read in the *Indian Medical Gazette*, ordered another advance in the important project of a local supply of febrifuges in India. Notwithstanding that many medical officers of large practical experience testify to the therapeutical value of the cinchona febrifuge, yet it is generally admitted that the remedy, as commonly prescribed, has serious drawbacks. It is extremely nauseating, and, if taken rudely, as must often happen when it has to be widely distributed in rural districts, it causes gastralgia, headache, and vomiting. On this account, its use has not been acceptable either among private European patients or in the hospitals for British troops. The Government Quinologist considers that the irritation which follows the use of the crude febrifuge is due to 17 per cent. of an amorphous alkaloid; that, with improved machinery, this could be easily and entirely separated; so that the remaining sulphates of quinine, cinchonidine, and cinchonine would be more efficacious, and at the same time more agreeable. This is the form which the future antiperiodic is to take; and, if the expectations of the committee are realised, it will no doubt "almost entirely displace quinine in all Indian hospitals". The new mixed alkaloid cannot be manufactured pure without proper machinery and some expense of establishment. Hitherto, the Quinologist has been doubled up with the Chemical Examiner to Government. But there will be in future a special officer, selected by the Secretary of State, appointed solely as superintendent. His salary is suggested by the committee to commence at 400 to 500 rupees *per mensem*, and rise to 800, with 100 rupees a month as house-rent; engagement for ten years, and passage from and to England. The site of the new factory, after some discussion of the value and economy of carriage of the bark, labour, fuel, and land, is decided to be near Calcutta, and its estimated cost 50,000 rupees. With these appliances, it is hoped the medicine will be successfully prepared and its cost materially reduced. The present cost of the mixed sulphate, obtained from England, is nearly thirty rupees a pound; and Dr. King hopes the factory sulphates will not exceed one rupee four annas an ounce.

THE REPRESENTATION OF THE LONDON UNIVERSITY.

THE approaching dissolution has naturally brought into prominence the question of the representation of the University of London in Parliament. Mr. Lowe will again be a candidate. On the other hand, the Conservative party have brought forward an opponent in the person of Mr. Arthur Charles, Q.C., who is a successful lawyer, and has been appointed Recorder of Bath. The leading members of this party had made efforts to procure a medical candidate, and we believe that, had Mr. Lowe not been a candidate, Dr. Quain, waiving the objections of an overwhelming pressure of professional work, and of engagements in connection with the many important professional bodies with which he is identified, would have made the sacrifice which would have been involved in accepting the nomination. It would be difficult to name any man in the profession who would fill such an office with greater credit to the University and usefulness to the country. We have not always agreed with the opinions which Dr. Quain has maintained on the subject of the constitution of the Medical Council; on the other hand, his views—and not only his views, but his work in all the directions of medical reform; his unwearied labours in behalf of conjoint examining boards; his laborious and skilful direction of the London University in such matters as the foundation of the Brown Institute; his services on the General Medical Council; his active share in the reforms of late years at the College of Physicians; his unfailing sympathy with, and cheerful aid of every movement for promoting the highest public and professional interests—point him out as a representative in Parliament of whom the medical graduates of the London University might well be proud. Personal considerations of allegiance to Mr. Lowe have, however, prevented him from accepting the very pressing overtures which have been made. We regret this decision, for we should have been glad to see a medical graduate representing this University, which owes so much to its medical members; and there is confessedly a great dearth in the House of Commons of members competent to discuss questions of medical education and sanitary legislation. Mr. Lowe has rendered great services to the profession in Parliament. He made a bold, firm, and able stand on the vivisection question; on factory legislation, he, with Dr. Lyon Playfair, manfully fought the battles of the factory-surgeons, and opposed the "base fee" of sixpence, which Mr. Cross insisted on fixing. He has, above other members of the House, shown himself possessed of scientific and professional sympathies. We hope that whoever is chosen to represent the University, will always consider himself bound to give weight to such considerations.

THE TELEGRAPH SERVICE.

WE see with great satisfaction, in the interests of patients and their doctors—that is to say, of people at large, at some time or other of their mortal career—that a move is likely to be made to induce the postal authorities to reconsider their present arbitrary and inconvenient management of their telegraph monopoly. Telegraphy is an inseparable part of modern arrangements of life. Accustomed to facilities of rapid communications at a distance, we now select our residences and model our habits in reference to the privileges which the rail and telegraph are supposed to offer in instantly summoning aid, or in rapidly reaching, by message or in person, distant places. The invalid, who suddenly and urgently needs to communicate his wants or emergent suffering, finds, however, that for twelve hours out of every twenty-four the telegraph-wires in England are closed. He can telegraph at any moment to New York or to California; but there are only twelve hours during which he can wire to Chelsea or to Bedford, or to or from any suburb or any other than twelve towns in Great Britain. This is a great wrong, and a frequent source or great suffering and inconvenience. It would, we are assured, be easy, by attaching call-bells to the postal telegraphic instruments, to remedy this distressing hiatus in the arrangements of civilised life in England; and we trust that this subject will be pressingly urged upon Government. The desire to make a revenue of this branch of the public service should not lead those who control the monopoly which has been established to disregard the public obligation. All the arrangements should serve as completely as possible the public convenience and welfare.

SCARLATINA AND MILK.

WITH reference to the report on this subject which we printed last week, the following particulars, from the last annual report of Mr. E. L. Jacob, Medical Officer of Health of the East Surrey Combination, may prove interesting. In the middle of 1878, there was a small but alarming outbreak of scarlatina at High Ashurst, in Surrey: a total of twenty cases in seven houses, with two deaths, being reported. The first case appeared in a very mild form, on May 26th, in the family of a cowman, some of whose children had lately had the disease in another part of the county, and had recently returned home. On May 29th, an infant next door took it from contact with the sick child of the cowman. Between June 1st and 7th, there were fifteen cases in three other (distant) houses, the inmates of which had not had any communication with the infected houses or persons. They were all supplied with milk, however, from the dairy where the cowman worked. The latter did not himself have the fever, and the milk was not taken into his cottage, but he had continued milking the cows during the child's illness. On the whole, Mr. Jacob thought it probable that the specific poison of the disease had thus found its way into the milk, and had given rise to the earliest cases in these three houses. Several families escaped who consumed only the scalded skim-milk from this dairy. About the same time (June 1878), thirteen cases of scarlatina occurred at Headly, in the Reigate Rural Sanitary District. In this case, there were good grounds for supposing that the outbreak was due to specific infection of the milk from a private dairy. Unknown to his employers, the cowman at this dairy had recently had some cases of scarlatina amongst his children, and he continued to milk the cows during the illness of one child. In addition to these cases and the Fallowfield epidemic, the only other outbreaks of scarlatina due to infected milk that have been recorded are: at Penrith (1867), by Dr. Michael Taylor; St. Andrew's (1870), by the late Professor Bell; Leeds (1872), by Dr. M. K. Robinson; South Kensington (1875), by Dr. George Buchanan; Handsworth (1876), by Mr. J. B. Welch; and East Barnet (1877), by Dr. C. E. Saunders.

RURAL MUNICIPALITIES.

UNDER this title, Mr. E. O. Smith, the clerk to the Solihull (Warwickshire) Rural Sanitary Authority, has published, in pamphlet form, a letter addressed by him to Mr. Henley, the Local Government Inspector of the district, detailing the action taken by the authority during the seven years of its existence. From this statement, it would appear that, for a rural authority, the Solihull board has been most abnormally active, draining several places at great expense, and generally using its powers to the utmost. Not the least of its achievements has been the establishment, in 1877, of a hospital for cases of infectious disease occurring in the district. This hospital is constructed to hold about twelve patients at a time, but it could easily be enlarged at a trifling cost. It has a resident master and matron, and all infectious cases are promptly removed thither in an ambulance belonging to the authority. Dr. Page of Solihull, one of the Poor-law medical officers of the union, is medical officer of the hospital, and is responsible for all its arrangements. Between October 1877 and December 1879, fifty-seven cases of scarlet fever, small-pox, typhoid, and diphtheria have been admitted and treated in this hospital. Only three deaths have occurred, and these were in infants under three years of age, who were all in a sinking condition when admitted. This very low mortality must be peculiarly gratifying to Mr. Page, as well as to the sanitary authority, who appear indeed to be well officered in every department. What makes this activity in sanitary matters the more gratifying, is the fact that the Poor-law administration has not suffered; and that the school attendance committee of the guardians are also satisfactorily performing their duties, is obvious from the fact that not a single school board has been found necessary in this large and populous district.

MANCHESTER MEDICAL SOCIETY.

THE annual meeting of the Society was held on January 14th, when the following office-bearers and committee were elected for 1880. Those marked thus (*) did not hold the same office the previous year. *President:* *David Little, M.D. *Vice-Presidents:* D. J. Leech, M.D.; H. Simpson, M.D.; J. Thorburn. M.D.; and *W. Whitehead. *Treasurer:* *F. A. Heath. *Secretary:* C. J. Cullingworth. *Honorary Librarian:* T. Windsor. *Other Members of Committee:* J. Broadbent; *W. Crosby; J. Dreschfeld, M.D.; *C. E. Glascott, M.D.; *E. Gumpert, M.D.; J. Hardie, M.D.; *W. H. Hughes (Ashton-under-Lyne); *H. Humphreys, M.D.; T. Jones, M.B.; *J. C. Peatson, M.D.; D. Lloyd Roberts, M.D.; and James Ross, M.D. (The above, with the past Presidents of the Society and two representatives of the Council of Owens College, form the Committee.) There were also appointed—*Auditors:* *J. D. Mann; and *W. Yeats, M.D. *Librarian:* William Dykes. The report stated that the Society now numbered two hundred and eight members, an increase of ten as compared with the previous year; and that the library, which is now said to contain 23,895 volumes, has been enriched by the addition of 1,272 volumes during the past year.

THE NECESSITY OF FIREGUARDS AS A PROTECTION TO CHILDREN.

AT a series of coroners' investigations held some days ago at Guy's Hospital, before Mr. W. J. Payne, on the bodies of young children, Mr. Poland, the senior house-surgeon, called attention to the fearful mortality amongst children arising through the culpable negligence of parents in not providing fireguards. He regretted to say that the medical staff in nearly all the hospitals were much overworked in consequence of the immense number of burned and scalded children who were daily brought to the institutions. He thought that some steps should be taken with a view of abating the evil. The coroner endorsed all that had been said; and from his experience, he was sorry to add, he found that the evil increased yearly. He had expressed an opinion over and over again, and juries had coincided with his view, that, in flagrant cases, a coroner should be empowered to inflict a pecuniary fine upon the parents. If this course were adopted, he felt sure that many lives would be saved, and the duties of hospital surgeons lessened.

SMALL-POX IN LONDON.

THE deaths from small-pox in London, which had been 2, 4, and 8 in the three preceding weeks, were 4 last week, of which 2 occurred in the Metropolitan Asylum Hospitals at Fulham and Deptford. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 48, 56, and 77 in the three preceding weeks, were 75 on Saturday last. Eight new cases of small-pox were admitted to these hospitals during the week, against 22 and 30 in the two previous weeks. During last year, 458 deaths from small-pox were registered in London, against 2,544 and 1,416 in the two preceding years. After distributing the hospital cases, it appears that 93 of the 458 deceased small-pox patients in 1879 had resided in Greenwich, 80 in Camberwell, 52 in Southwark and Newington, 39 in Fulham, 25 in Kensington, and 25 in Wandsworth. The death-rate from small-pox in London last year was equal to 126 per million of the population, against an average annual rate of 410 per million in the forty-two years 1838-79. During the sixteen years 1838-53, the death-rate from small-pox in London averaged 512 per million; whereas in the twenty-six years 1854-79, since the first Compulsory Vaccination Act was passed, the annual rate has not averaged more than 348 per million.

DR. WILLIAM FARR.

AT a meeting of the South London District of the Metropolitan Counties Branch, held on Wednesday evening, Dr. Alfred Carpenter in the chair, the following resolution was proposed by Dr. Joseph Rogers, who gave an able summary of Dr. Farr's work from the time of his appointment to the Registration Office in 1838:

"That this meeting desires to express its regret at the retirement of Dr. W. Farr, F.R.S., from the office of Superintendent of the Statistical Department of the General Register Office, under circumstances which seem to disregard the exercise of singular ability, fidelity, and zeal in a long public service; and this meeting, therefore, earnestly hopes that the Government will advise the Crown to confer upon Dr. Farr a suitable distinction, in recognition of his rare and distinguished services, not only to this country, but to the cause of sanitary knowledge and vital statistics throughout the world. That this meeting records its regret that the opportunity has not been taken in England, as in Ireland, of filling the office of Registrar-General, which requires eminently the combination of medical and statistical knowledge, by a medical man combining the two acquirements."

The resolution was seconded by Dr. Mahomed, and supported by Dr. Walter Dickson and Mr. Mac Cormac; and, after some remarks from the Chairman, who stated that the Committee of Council of the Association had had the subject under consideration, and had appointed a subcommittee to draw up a remonstrance to be sent to the Government, it was put to the vote and carried unanimously. It was further decided that copies of the resolution should be sent to Lord Beaconsfield and Mr. Sclater-Booth.

PRIVATE ASYLUMS.

AT the same meeting, Dr. Bucknill read a paper on Private Asylums, in which he expounded his views on the necessity of a reform in the administration of the Laws. The reading of the paper was followed by a discussion, in which the Chairman, Dr. Newington, Dr. Bodington, Dr. H. Hicks, Mr. Balfour, and Mr. Nelson Hardy, took part; after which, on the motion of Dr. Wood, seconded by Dr. Bodington, the discussion was adjourned.

DEATH OF DR. E. C. SEATON.

WE record with much sorrow the death of Dr. Seaton, the late Medical Officer of the Local Government Board, who expired at Notting Hill on Wednesday evening last, at the house of his son-in-law. Dr. Seaton's health had been more or less unsatisfactory ever since his assumption of office in 1876; and the wear and tear of official life affected him so greatly that, at the end of 1878, after consultation with Sir William Jenner, he absented himself from his duties for a prolonged period of time. Just as he was starting on a tour in Southern Europe, he received intelligence of the sudden death of his favourite son, a youth of great promise, who, after passing brilliantly the examinations for the Indian Civil Service, met with his death in India, on Christmas Day 1878, by being thrown from his horse. This tragic event made a profound impression upon Dr. Seaton, and he was never afterwards quite the same. On his resuming work in Midsummer last, his friends fancied they detected an improvement in him; but this would appear to have been only of a transient kind, for in October last, when on a visit to a friend in the country, he was seized with an attack of hemiplegia, from which he never rallied. He was brought up to London as soon as practicable after his attack, and has since lingered on until a second seizure, on Monday last, ended fatally.

THE FRENCH ACADEMY ON ANIMAL VACCINATION.

THE following is the report of the Academy on this subject, to which Dr. Crisp referred at the recent conference.—The Academy, after having heard the report of the commission charged to inquire into the subject of animal vaccination, came to the conclusion that animal vaccination, in its character and progress, presents great analogies to human vaccination, but also some differences. 1. As regards animal lymph, its preservative power is not so great; but time and experience alone can give a positive answer to this question. 2. Human vaccine, the efficacy of which has been fully proved, appears only to lose its efficacy in consequence of certain rules on the part of the vaccinator, such as the want of care in selecting proper lymph, and the complication, which very rarely happens, of the introduction of impure matter. 3. In consequence, the Academy suggests that the greatest liberty should be given to the demonstration of its properties and of its value; but that this liberty cannot in any way exercise a detrimental influence on human vaccination, which should possess the confidence of science, of the public, and of the administrations.

REAPPEARANCE OF SMALL-POX IN THE UNITED STATES.

THE official journal of the National Board of Health announces the reappearance of small-pox in the United States. From November 15th to the end of the year, deaths from this disease have been reported in the cities of New York, Philadelphia, Washington, and San Antonio. No details are yet forthcoming as to the circumstances of any of these outbreaks, except that at Washington. Here, on November 28th, a negro, who had been six weeks in Providence Hospital, and who had come there from a country district in Virginia in the last stages of consumption, was attacked with confluent small-pox, and died on December 6th. It is stated that the most careful investigation in this case failed to reveal any history of communication by contact. Nothing further was heard of the disease until December 18th, when a case was reported at the United States Jail, in a coloured boy sixteen years of age, who had been eight months a prisoner in the institution, which is an entirely new structure. In this case, again, the contagion could not be traced to its source. On the day following the report of this case, three others were reported by physicians in different portions of the south-eastern section of the city, and here again the most careful investigation and inquiry failed to reveal any history of contagion. Indeed, the short time elapsing between them all would preclude the possibility of adopting the theory of communication from one to another. This is a most singular history, and we shall await its further development with much curiosity.

SAFETY BOTTLES WANTED.

AN inquiry was lately held at Doncaster as to the death of Leonora Hattersley, who was supposed to have died from the effects of narcotic poisoning. The analysis disclosed that there were between four and five grains of morphia in each draught (two tablespoonfuls) of a mixture which she had obtained at a local druggist's, and the medical testimony was that death was caused by morphia poisoning. The jury returned a verdict accordingly, adding that the druggist was guilty of negligence, though not so culpable as to amount to manslaughter. The coroner censured the druggist, and advised him to place full directions, with proper labels, upon bottles containing such deadly poison.

UNQUALIFIED ASSISTANTS AND CERTIFICATES OF DEATH.

AT the Lambeth Police Court, on the 17th instant, Mr. James Bilham was charged with unlawfully making a false certificate or declaration under the Births and Deaths Registration Act, 1874, concerning the death of Mary Anne Bowtell. Mr. C. J. C. Pridham prosecuted for the Medical Defence Association. The defendant's address in the *Medical Register* was given as in Johnson Place, Harrow Road, for some time, but afterwards in Frankfort Terrace, Harrow Road. His address was also in a house in Milkwood Road, and in Saltoun Road, Brixton. In the last-named house, a gentleman named Ransdon resided, who saw the deceased woman, and who was unqualified. The certificate, given by the defendant, stated that the deceased, Mary Anne Bowtell, aged 75, died on December 9th, and that he last saw her on December 8th. This was signed by the defendant, who gave his address, 12, Saltoun Road, Brixton. Mary Henshaw, daughter of the deceased, stated that her mother was ill, and she sent for Mr. Bilham. The gentleman whom she saw in court, and who she was told now was Mr. Ransdon, came and attended her mother. She always thought he was Mr. Bilham. He had frequently attended her and her children, and she believed him fully qualified. She had seen the defendant in company with Mr. Ransdon before her mother's death, and he had expressed an opinion that she was suffering from disease of the heart. He also said it was a case of senile decay. Mr. Ransdon said he was an assistant to the defendant. The defendant saw the deceased before her death. The defendant lived at Paddington; and, during the two years he had been his assistant, the surgery in Saltoun Road had been carried on. He saw the defendant sign the certificate of death. Mr. Ellison said, in deciding the case, that it was no doubt one in which a false certificate had been given, but it was not one of those extreme cases in which a certificate was given and a false cause of death entered. There was no doubt the defendant had, on one or two occasions, attended the deceased, and had a certain knowledge of the case. He would not convict the defendant to the full extent the Act gave him power to do—viz., £10—but ordered him to pay a penalty of £5, and £5 5s. costs.

OUGHT HOSPITALS TO BE SELF-SUPPORTING?

ON this interesting subject, Mr. John Carr writes: The Saturday Hospital Fund makes it a principle not to devote any of its money to hospitals that are in any sense self-supporting. Is not this a great mistake? Have not those who are trying to help themselves the greatest claim on our assistance? To him, it appears to be of great importance that those who can contribute should do so, even in ordinary hospitals; while in those devoted to special diseases, this is still more important, and for this reason: a general practitioner has but little opportunity of studying special cases, and if patients suffering, for example, from eye or ear disease apply to him, he advises them to go to an oculist or aurist as the case may be. How many people, he asks, without being really poor, can ill afford to pay the guinea fee, and yet may be able and willing to give something? It is, of course, a difficult matter to decide how far payment should be demanded; but in the Royal Ear Hospital the following plan is found very successful. The Secretary sees all the patients as they enter, and makes inquiries into their occupation, etc. The really poor are then given free tickets of admission, while those who can afford it are charged one shilling a visit. Those who are sent by the Charity Organisation Society or by subscribers are admitted free. This simple plan is quite practical; and that it does not impede the usefulness of the work is shown by the fact that last year there were nearly 7,000 attendances by 2,300 separate patients, and that, while the whole expenditure did not amount to more than £420, over £300 was paid by the patients. There is but one drawback. Where the sum required is small, people do not care to give. The old adage is quite true about throwing an apple where there is an orchard; and therefore, although for the last year the governors have been trying to open an in-patient department, a lack of funds has hitherto prevented it. They mean, however, to attempt to do so this year, for the want of it has compelled the surgeons to stop most important work, for many operations would be unwise unless the patient can be under their immediate care for a few days. From the above, it appears that charitable institutions can be well carried out on a partially provident system.

THE HABITUAL DRUNKARDS' ACT.

IN the Marylebone Police Court, on Tuesday last, an application was made to Mr. De Rutzen, by a person stated to be a licensed victualler, with a view of getting his wife, who was an habitual drunkard, into a home or retreat. For days together, he said, she would be under the influence of drink, and this had been going on for twelve years, and she had almost ruined him. On Saturday last, she fell into the fire, and would have been burned had not assistance been rendered. She had attempted to commit suicide, and, in trying to throw herself out of window, she cut her hand very much with the glass. The applicant's wife was not willing to go into a retreat. Mr. De Rutzen said the case was governed by the 10th section of the Act of 1879, which enacted that: "Any habitual drunkard desirous of being admitted into a retreat may make application in writing to the licensee of a retreat for admission into such retreat, and such application shall be in the form No. 3 in the second schedule hereto, and shall state the time during which such applicant undertakes to remain in such retreat. Such application shall be accompanied by the statutory declaration of two persons, to the effect that the applicant is an habitual drunkard within the meaning of this Act." If, Mr. De Rutzen observed, the applicant's wife were willing to go into a retreat, it could be done. But if she were not, he could not help the applicant. He suggested that, when she was in a state free from these fits, the applicant should advise her to go into a retreat, which would be the best way to cure herself. Her consent must be obtained. The applicant thanked his worship, observing that he did not think his wife would ever consent to go into a retreat.

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SCOTLAND.

REGISTRAR-GENERAL'S RETURNS.

FROM the weekly returns of the Registrar-General just issued for the week ending January 10th, it appears that the death-rate in the eight principal towns was 22.1 per thousand of estimated population. This rate is 6.2 under that for the corresponding week of last year, and nearly the same as that for the previous week of the present year. The lowest mortality was recorded in Leith—viz., 13.3—and the highest in Paisley—viz., 28.7. The mortality from the seven most familiar zymotic diseases was at the rate of 2.9 per thousand. There were fewer deaths from whooping-cough than during the previous week; but the number of deaths from fever was greater. Acute diseases of the chest caused 142 deaths, being 27 less than the number for the last week. The mean temperature was 42.6, as in the preceding week.

GLASGOW ROYAL LUNATIC ASYLUM.

THE annual general meeting of the contributors to this institution was held on the 15th instant, when the sixty-sixth annual report was read and approved. It stated that the asylum contained 532 patients of all classes at the commencement of the year. There had been 180 admissions, 136 discharges, of which 57 were recoveries, and 47 deaths; so that the number at the end of the year was 529. Of this total, 226 were private patients, and 303 were chargeable to parishes. The report also gave the very gratifying intimation that the heritable debt, which had so long burdened and hampered the institution, was now extinguished; and it contained, also, a very suitable allusion to the long services of the late Dr. Fleming, who had held the office of Surgeon to the Asylum since the year 1839. The following is an extract from the report of the Visiting Commissioner in Lunacy as to the management and present condition of the institution. "The state of the asylum was, as usual, highly satisfactory. Great attention was paid to cleanliness, both as regards the apartments, the beds, and the persons of the patients. The clothing was exceptionally satisfactory, and the food is of excellent quality—well cooked and neatly served. The general management and the medical treatment of all classes again attracted very favourable notice. The general impression left by the visit was in all respects pleasing; and it was felt that the institution was discharging its various functions with rare efficiency."

SICK CHILDREN'S HOSPITAL IN GLASGOW.

IT has long been a subject of complaint in Glasgow that, among the charitable institutions of the city, there is no sick children's hospital; and it is satisfactory to find that steps have been taken to meet the want. Funds for the purpose have been available for some time, and we understand that premises have now been secured in a suitable locality in the town, and that the hospital will soon be in active operation. The promoters of this institution are to be congratulated on their endeavours to meet a want which has long been felt, and no doubt the Sick Children's Hospital will be liberally supported, and every encouragement given to it.

CHILDREN'S HOSPITAL, EDINBURGH.

ACCORDING to the report of the directors of Chalmers' Hospital submitted to the Faculty of Advocates, Edinburgh, it appears that, during the past year, 160 patients have been treated in the non-paying wards, and the number treated in the paying wards was 42, in all 202. Of those, 152 were surgical cases, and 50 medical cases. The number treated in the out-door department was 1,806. There were 69 surgical operations during the year. The expenditure for maintenance was £1,753 1s. 11d., which included £73 7s. for painting, and £64 10s. for sheeting and blankets. In addition to the sum of £1,300 voted by the trustees, the directors had received £434 5s. for board of patients on the upper or paying wards. Various donations of small sums of money were received. Of the 202 cases treated in the wards, 118 were dismissed as cured or recovered, 49 were relieved, 7 died, and there remained in the hospital on December 31st, 1879, 28 patients. The deaths in surgical cases were 4, or 1 in 38; and, in medical cases, 3, or 1 in 16.7.

ROYAL MATERNITY HOSPITAL, EDINBURGH.

PROFESSOR SIMPSON'S term of three months' duty at the Royal Maternity and Simpson Memorial Hospital, Edinburgh, having expired, he is succeeded by Dr. Angus Macdonald as acting medical officer. J. Milner Helme, M.D., and Stanley M'Rendall, M.B., have been appointed resident medical officers in place of A. Murray Oram, M.B., and C. A. McLean, M.B., whose term of office has expired.

ROYAL EDINBURGH INFIRMARY AND THE QUESTION OF FEMALE MANAGERS.

AT the adjourned meeting of the Court of Contributors to the Royal Infirmary, Edinburgh, held on Monday, the final report of the scrutineers on the votes given for six managers at the previous meeting was submitted and approved. The voting was as follows: for Mr. Bryson, 263; Mr. Ford, 263; Dr. Littlejohn, 273; Mr. Baxter, 258; Mr. Blyth, 264; Mr. Gillies Smith, 244; Mrs. Russel, 208; Miss Wigham, 204. It will thus be seen that the ladies have failed to be elected, so that the vexed question is settled for another year at least. At the same meeting, it was stated in a report that the fees received from medical students in 1878 amounted to £2,384; while, in 1879, the amount received from the same source was £2,543, an increase of £159. It was also stated that the accommodation provided for students attending the university class of clinical medicine was quite inadequate for the purpose, as there are nearly 190 members in the class, this being many more than the lecture-room is seated for. There are 85 nurses in the institution, and their accommodation and comfort in the new buildings has been well attended to. It was agreed to take means to secure a larger amount of subscriptions, as the new premises will necessarily entail an enhanced expenditure. The managers entertain no doubt that the question of the Fever Hospital at present pending between them and the municipal authorities will soon be satisfactorily arranged.

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IRELAND.

SANITARY WORKS IN DUBLIN.

THE Corporation have decided on a contract for £26,000 for sewer works in the city. These works are to be commenced forthwith; and by giving employment to a large number of labourers will afford much present relief to the distress existing amongst the poor, and be of great future benefit to the health of the city.

STEEVENS' HOSPITAL.

THE unusual circumstance of all the medical appointments of a large hospital, both as regards its consulting and visiting staff, being vacant at the same time, is now in existence in this institution. Since the death, in August last, of the late Registrar-General for Ireland, Dr. W. Malachy Burke, the appointment of Consulting Physician to the Hospital, which that lamented gentleman held, has been vacant. We recorded, a fortnight ago, the death of Dr. Bookey, Junior Physician of the Hospital; and now it is announced that Dr. Grimshaw, Senior Physician, and the recently appointed Registrar-General, has resigned. The election to these appointments, which is in the hands of the Board of Governors of the Hospital, will take place on the 5th of February. In recognition of his long connection with the Hospital and the valuable services he has given to it, Dr. Grimshaw will doubtless be appointed Consulting Physician. His successor in the Hospital will most probably be also appointed to the Lectureship on Medicine in the Medical School attached to the Hospital, which Dr. Grimshaw has held since Dr. Freke's resignation of the chair in 1878. Dr. Reuben J. Harvey, Physician to Cork Street Fever Hospital, Assistant-Physician to the House of Industry Hospitals, and Lecturer on Physiology in the Carmichael College of Medicine and Surgery; and Drs. Tweedy, Warren, and R. A. Hayes, who are connected with the Dr. Steevens' Hospital Medical College, are, we understand, candidates for the other vacancies.

DR. CHARLES BENSON.

It is with much regret that we have to announce the death, on Wednesday last, of this veteran member of the profession. It is but a few weeks since we published an account of the presentation made him at the hospital of which he was one of the original staff; and on yesterday week, we had the pleasure of seeing him at the meeting of the Surgical Society of Ireland, in which Society, as one of its original members and a past honorary secretary and president, he always, notwithstanding his advanced age, took the liveliest interest. Dr. Benson was, we believe, in his eighty-third year, and succumbed after but a few hours' illness. Having recently referred to the leading features in the life of this most estimable physician, it is but necessary now to again express the universal appreciation and regard in which he was held by all who knew him.

THE REGISTRAR-GENERAL'S REPORTS.

With the commencement of the new year, Dr. Grimshaw, the recently appointed Registrar-General for Ireland, has appropriately made some important alterations in and additions to his returns, which add much to their value. "The weekly return of births and deaths in Dublin" includes now that of fifteen other town districts in Ireland, with an abstract of the meteorological observations in each district. In addition to the tables formerly given, two new ones are now supplied. Table VIII shows the occupation or social position of the persons whose deaths were registered in the Dublin registration district during the week, with the number of deaths in the several age-groups, and the number from each of the principal causes of death. Table IX—another new one—gives the births and deaths and rate of mortality in fifteen foreign cities, having an estimated aggregate population of 6,413,379 persons, as well as the deaths from epidemic diseases in each. It will thus be seen that the usefulness of these returns has been much increased; and we doubt not but that Dr. Grimshaw will in time add still more to their importance.

HEALTH OF IRISH TOWNS.

The average annual death-rate in the sixteen principal town districts in Ireland for the week ending the 10th instant amounted to 34.1 per 1000 of the population. The lowest in the scale of mortality was Sligo at 15.0 per 1000, and the two highest Londonderry and Lurgan, being respectively 60.6 and 77.4. The deaths from the seven principal zymotic diseases in the sixteen districts were equal to an annual rate of 5.3 per 1000. No case of small-pox is reported from any of the provincial towns.

CLONMEL DISTRICT LUNATIC ASYLUM.

Dr. W. H. Garner, resident medical superintendent, in a recent monthly report, states that although the health of the inmates is good, the asylum cannot be expected to be in a satisfactory state, in consequence of its overcrowded condition. Dr. Nugent, one of the Inspectors of Lunatic Asylums in Ireland, has recently examined the institution, and he also believes that an increase of accommodation is absolutely necessary. The cost of the alterations he recommends will be about £6,000; and the Governors have adopted a resolution to the effect that the existing accommodation is deficient, and that provision for fifty or sixty patients is urgently required. They will apply that the usual steps be taken to carry out these alterations and improvements, but desire to limit the expenditure to a sum not exceeding £8,000.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A notice respecting the pathological requirements of the museum has been issued by the conservator, Professor Flower. It will be shortly distributed to all medical gentlemen in a position to obligingly meet its requirements.

A new and thoroughly revised catalogue of the pathological specimens in the museum is at present in progress, its preparation having been entrusted by the Council to Sir James Paget, Dr. Goodhart, and Mr. A. Doran. The opportunity has thus been afforded of ascertaining the deficiencies in the series, which it is considered desirable, if possible, to fill up, so as to make the collection a complete exposition of the principal facts of pathological anatomy which are demonstrable by preserved specimens. The College, having none of the facilities for obtaining and selecting specimens possessed by the museums attached to hospitals, where operations and *post mortem* examinations are of constant occurrence, is entirely dependent upon the contributions of individual members of the profession.

In the following list, those desiderata are indicated which are most required for the completion of the series described in the first two volumes of the catalogue, viz., those relating to General Pathology, and to the Injuries and Diseases of the Organs of Locomotion: Blood-vessels enlarged for Collateral Circulation; Parts enlarged or otherwise altered in consequence of Nerve-disturbance; Parts wasted through excessive use; Fatty Degeneration of Muscles during Fever; Fatty Degeneration of Hypertrophied Heart; Any well-marked Colloid Degenerations; Acute Atrophy of Liver or other organs; Illustrations of Healing by Grafting; Illustrations of Inflammatory Softening of parts; Specimens of Elephantiasis Mutilans; Specimens of Noma or Cancrum Oris; Specimens of simple Hyperæmia, passive or active; Cystic Distension of Veins or Lymphatics; Cystic Nævus; Diffuse Fatty Growth, *e.g.*, on the nape or under the jaw; Nævous Fatty Tumour; Pharyngeal Fibrous Polypus; Painful Subcutaneous Tumour; Keloids of all kinds; Arterial Angioma (Aneurisma per anastomosin); Lymphatic Angioma; Fibrous Tumours *in* Nerves; Sarcomata of all kinds, if authenticated or capable of authentication by microscopic examination; Cylinder-celled Epithelial Cancer; Clots of Blood showing Pigmental or Calcareous Change; Clots of Blood softened or with suppuration; Atrophy of Muscles in Infantile Paralysis; Atrophy of Muscles in Pseudo-hypertrophy; Atrophy of Muscles in Progressive Muscular Atrophy; Effects of Inflammation of Muscles; Syphilitic Gummata in Muscles; Sloughing and other effects of Inflammation of Tendons or their Sheaths; Incomplete Fractures ("Green-stick" or others); Enlarged Condyles from cases of Genu Valgum or the like; Elongated and Curved Tibiæ; Soft Ribs or other Bones from Insane Persons; Inflammatory Exudation in Bone; Bones affected by Arsenic; Thickening or Overgrowth of Articular Cartilage; Any diseases of Fasciæ; Osteomyelitis; Congenital and Infantile Syphilis of Skull, etc.; Puerperal Osteophyte of Skull; Necrosis of Epiphyses; Joint distended with Synovial Fluid (Hydarthrosis); Joints showing effects of Acute Rheumatism, of Pyæmial Disease, of Exanthematic Febrile, or of Gonorrhœal Disease; Capsular (Extra-Articular) Ankylosis; Dislocations (recent or old) at Wrist or Ankle or in Hand or Foot; Anterior Curvature (Lordosis) of Spine; Spondylitis Deformans; Diseases of Joints in cases of Locomotor Ataxy.

It is earnestly to be desired that this appeal may be well responded to, not only in the interests of the College, but also for the sake of the numbers of students who make use of the museum for the purposes of study. To them, specimens illustrating the principles of pathology not only lighten the study of that science from manuals, and impart the only true basis of pathological knowledge, but are also of far higher interest than preparations demonstrating feats of surgical dexterity and daring, such as large fractions of body removed for malignant disease; nor are the familiar examples of destruction of extensive parts of the face by large morbid growths so useful for the student's contemplation as embola in cerebral vessels or thrombosed veins.

Those who desire the pathological specimens they present to this or to any other museum to be fit for mounting, should remember that, after the removal of any portion of tissue for microscopical purposes, the fresh specimen should be immersed in cold water for about twenty-four hours, and then placed in equal parts of methylated spirit and water. All cysts should be stuffed with wool or rag soaked in alcohol before immersion in spirit. Bones intended to be preserved in the dry state should be macerated from the first; when ready, they may be made white by the addition of a little solution of chlorinated soda to the water in which they have been placed.

DISABILITIES OF THE NAVAL MEDICAL SERVICE.

THE following further notes on this subject are submitted to our readers in the service for their critical suggestions.

Inspectorial Ranks.—The Order in Council of August 9th, 1872, confirms and supports the Order in Council of August 7th, 1869, demanding from deputy inspectors-general five years' service (during three years of which period they shall have been in charge of a foreign hospital, fleet, etc.) before promotion to the rank of inspector-general. By Order in Council, July 6th, 1866, the age for retirement of inspectors and deputy inspectors-general was fixed at sixty-five years, and this was the age to which officers could serve when five years' qualifying service as deputy inspector-general was demanded ere promotion to inspector-general. By Order in Council, February 4th, 1875, the age for retirement of inspectors and deputy inspectors-general was fixed at sixty years, viz., six years earlier than in 1869, when five years' service as deputy inspector-general was demanded before promotion to inspector-general. Now, to complete five years' service as deputy inspector-general, including three years' foreign service, requires more than five years, as half-pay time does not count, or can continuous service be obtained.

The consequence of the enforcement of the claim of five years' service from deputy inspectors-general who are retired at sixty years of age at the present time is this, that, with a list of inspectors-general fixed by Order in Council, February 22nd, 1870, at four, there is but one inspector-general on the list; and of the twelve deputy inspectors-general, but two are nearly qualified for promotion (one of these has been nominated for the office of director-general of the naval medical department on promotion). When the two deputy inspectors-general nearly qualified are promoted, though two vacancies will still remain on the list of inspectors-general, no deputy inspector-general will be qualified for two years under the existing regulations; and it is more than possible we may again see, as at present, the Royal Hospital at Haslar without an inspector-general at its head, as there is no officer available.

Under present claim of service as deputy inspectors-general, many who may ultimately attain the rank of inspector-general will only do so at an age which will preclude their serving as such.

Inspectors and deputy inspectors-general receive full, half, and retired pay according to rank and service, and at all times much less than their corresponding rank in the Army Medical Service. In the army, by Order in Council, November 27th, 1879, deputy surgeons-general are promoted "for ability and merit", by selection to the rank of surgeon-general; no qualifying service is required. Surgeons and deputy surgeons-general receive full, half, and retired pay according to rank only. Retirement in the army in these ranks corresponds to that in the navy as regards age, viz., at sixty years of age.

Fleet-surgeons rank equivalent to surgeons-major over twenty years' service. Twenty years' full-pay service is required in the navy for promotion to fleet-surgeon (save in cases of special promotion for war, arctic service, etc.) All half-pay time is lost, as regards increase of full pay and consequent promotion. The full pay of fleet-surgeon is apparently higher than of the army medical officer; but this is more than counterbalanced by loss of time and service on half-pay. The half and retired pay of fleet-surgeons is now much less than the corresponding rank in the army. It is in the rank of fleet-surgeon that the discomforts of the Naval Medical Service reach their climax; and among others may be mentioned the non-recognition in an honest manner of their relative rank; their bad cabin accommodation in the majority of ships; the want of consideration as regards ships' boats, leave of absence, etc. Retirement of fleet-surgeons is fixed, by Order of Council, February 22nd, 1870, at sixty years of age; while in the army the surgeon-major is retired at fifty-five years, and with a higher scale of retired pay.

Brigade-surgeons, though at present unrepresented in the navy, might well be so; and fleet-surgeons could then qualify by "merit and ability" for a grade which would carry higher full, half, and retired pay than that which they can now obtain. The naval medical officer to correspond to brigade-surgeon might be termed flag-surgeon, with at least the corresponding full, half, and retired pay of brigade-surgeon. Flag-surgeons should be appointed to the flag-ships of commanders-in-chief, to naval hospitals, marine infirmaries, the Admiralty, and from these should the deputy inspectors-general be selected, as at present they are from fleet-surgeons; thus, at an early date comparatively, naval medical officers would not only reap the reward of professional zeal and ability, but have assurance of promotion to the inspectorial ranks by continued good service. Retirement of flag-surgeons, as of brigade-surgeons, should be at fifty-five years of age.

Staff-surgeons now require to complete twenty years' full-pay service ere promotion to fleet-surgeon; but time is, as a rule, lost by compulsory half-pay. This time, lost by no fault of the officer, should not delay promotion, which should take place twenty years from entry into service, if the half-pay time loss did not arise from the voluntary act or misconduct of the officer.

Surgeons' pay should at least be equal to that of the corresponding rank in the army.

It is recommended from the foregoing statement of facts and opinions that—

Promotion in the inspectorial ranks should be for "merit and ability" when vacancies arise; no qualifying service of any definite period should be demanded; and full, half, and retired pay should be in accordance with rank and not service.

In future, flag-surgeons should be appointed, corresponding to brigade-surgeons, with at least similar full, half, and retired pay, and from them should deputy inspectors-general be selected.

The position of fleet-surgeons on board ship should be improved as regards cabin, boat-accommodation, leave, etc. The pay—full, half, and retired—of fleet-surgeons should at least equal that of surgeons-major in the army.

Staff-surgeons should be promoted, with due allowance made for half-pay time and their pay; full, half, and retired pay be at least equal to that of the corresponding rank in the Army Medical Service.

Surgeons' full pay should be at least equal to that of the Army Medical Department, and no professional examination should be required after entry into the service.

January 19th, 1880.

CHRISTMAS AND THE NEW YEAR IN THE METROPOLITAN HOSPITALS.

THE patients in the various hospitals of the metropolis were as usual regaled, during the recent festive season, with many extra visible tokens of the goodwill and kindness with which they are habitually surrounded. The following notes from some of the hospitals of their Christmas and New Year's doings will be read with interest by those whom they concern.

CHARING CROSS HOSPITAL.

The wards were tastefully decorated by the sisters; and those of the patients who could partake of it were supplied with the usual Christmas fare, roast-beef and plum-pudding. Each of the patients received a Christmas card, with an useful or amusing present; and, in the afternoon, as many as could sat up around the tables and partook of dessert; after which the men were supplied with tobacco and pipes and the children with bonbons and toys. They all expressed their satisfaction at having passed a very happy Christmas-day. A dramatic and musical entertainment for the amusement of the convalescent patients, organised by the students and their friends, took place on the 13th instant, in the board-room of the hospital.

GUY'S HOSPITAL.

Considering the cloud of uncertainty and anxiety under which Guy's Hospital now stands, it was hardly to be expected that the Christmas festivities this year would be on a par with those of former times. In several wards, which once took the foremost place for the excellence of their decorations, the "sisters" were either under immediate orders to leave, or were so overwhelmed by the work which the loss of the old tried nurses had thrown on them, that they had neither the time nor the inclination requisite for carrying out elaborate and artistic designs. Consequently, while some few wards aimed at a more complete form of decoration, many were content with the simple device of placing bunches of evergreens over beds and in other suitable places. The cheerful brightness thus produced, together with the excellent Christmas fare provided by the hospital authorities and students, and the judicious relaxation of the more rigid rules in force as to smoking, early hours, etc., did not fail to bring to the patients on Christmas-day the desired feeling of seasonable enjoyment. In many wards, Christmas trees stood, prettily laden with their cheerful burdens; while music, vocal and (in those wards whose "sisters" happily possess pianos) instrumental, enlivened many an evening, and helped, as far as possible, to prevent the patients from being affected by that uneasy feeling of discomfort which, as already remarked, possesses so large a section of the inmates of the hospital.

MIDDLESEX HOSPITAL.

The patients of this institution were provided with an entertainment on Christmas-day. In the afternoon, a sumptuous tea, with cakes, fruit, etc., was laid out in the various wards, and all those whose health allowed them to do so thoroughly enjoyed the good things provided. In the evening, a large tree, provided mainly by the kind exertions of the lady-superintendent and the liberality of other friends, was placed, laden with toys and other gifts, in the board-room and brilliantly illuminated with different-coloured tapers. During the day, every patient in the hospital had drawn a certain number which corresponded to a ticket attached to some article on the tree. About seven o'clock, all those who possibly could came into the room. Of course, the children were given the best places, and, as most of these little ones came from the surgical wards and had to be carried in, they were either laid down in some comfortable place or nursed on the laps of their nurses; the room was well filled with grown-up patients, nurses, servants, and others, and several visitors who kindly came and rendered assistance. The drawing then commenced, and gave rise to much amusement as each recipient received his special gift from the tree. In addition, many patients received a gift of warm clothing; and, in fact, every one in the hospital received something in remembrance of the glad season. Altogether, upwards of five hundred gifts were distributed.

ST. MARY'S HOSPITAL.

The festivities at this hospital to celebrate Christmas consisted of a series of four entertainments, on different nights, in the various sets of wards, which had been most tastefully and highly decorated for the occasion. Roast-beef and plum-pudding having been given to those in a condition to receive it, the sense of sight was gratified by the appearance of spruce firs laden with numerous useful and ornamental presents, which being distributed caused further gratification. Then followed a Punch and Judy show, which greatly delighted both patients and those visitors who honoured the hospital with their presence. A conjurer then displayed his tricks to an appreciative audience; while at intervals songs were sung by gentlemen connected with the hospital and ladies who were kind enough to assist. There was a further dramatic and musical entertainment for the patients, in the board-room, on January 13th.

WESTMINSTER HOSPITAL.

On Monday evening, January 12th, an entertainment was given to the patients of Westminster Hospital in the Board Room, consisting of a selection of vocal music, recitation, and the well known farce of *Box and Cox*. On the previous Friday, by the kindness of Dr. Dawson Turner and friends, a Christmas-tree was provided in the High Street Ward for the younger patients. On both occasions the inmates expressed themselves much pleased by the efforts made for their amusement.

THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

The annual treat and Christmas tree for the little patients in this hospital was held on Twelfth Night. Many kind friends of the hospital assisted with presents of toys, etc., for the tree, and by providing a magic-lantern for the amusement of the children. The tree itself was decked out and ornamented by a party of ladies in the course of the day. The entertainment was held in one of the beautiful wards of the hospital, and commenced about half-past four in the afternoon. It was attended by a large company of ladies and gentlemen, including most of the honorary medical staff and some of the governors with their friends. Those children who were not well enough to be dressed had their cots arranged in rows in the middle of the ward; but some, whom it would have been dangerous to move, or who were too ill to be likely to take an interest in the performance, remained in their own wards, and several presents for each were taken to them immediately the distribution commenced; and, at the end of the proceedings, each patient in the hospital received a larger and more valuable toy, which from its bulk could not be included with those on the tree. The magic-lantern was highly appreciated by the juvenile assembly. It was most amusing to hear the little creatures explaining to each other what the different pictures were meant to represent. We think the amusement might have been increased had the exhibitor of the lantern, or some coadjutor, accompanied the exhibition with a description. At seven o'clock, the proceedings were brought to an end, and the little patients taken back to their own wards. The influence of such a treat, with its accompanying slight excitement, would most likely have a beneficial effect upon their several ailments, as the greatest care was taken to exclude those to whom it might prove prejudicial. One little girl was seen to sleep through all the noise and commotion, most likely worn out beforehand by pleasant anticipations.

BELGRAVE HOSPITAL FOR CHILDREN.

The Christmas festivities at this hospital consisted of a Christmas tree, given by one of the lady subscribers, which was holden on Saturday, January 3rd. The proceedings commenced at 4 P.M. with a tea, consisting of the usual cakes and bread and butter, provided for the in-patients, and also for some of the old patients who have been in the hospital during the past year, numbering from twenty to thirty. After tea, all were invited to the largest ward to view the tree, which had been gaily and profusely decorated by some young ladies. Each girl received "a doll"; the boys "a box of soldiers" or "a puzzle" each. Sweets and Christmas cards in great varieties were distributed. Articles of wearing apparel were likewise given away, these being principally of a woollen texture, comprising shirts, small jerseys, socks, and stockings. There were a great many visitors present, principally ladies, who greatly aided in helping the children to spend a pleasant evening. At 7.30, the happy time came to an end, the children returning to their respective homes and to their cots much pleased and delighted.

THE NORTH-EASTERN HOSPITAL FOR CHILDREN.

On Christmas Eve, some young ladies from the Ladies' School, Hackney, came over, and acted two scenes from "Alice in Wonderland", to the delight and wonder of the children and the no small entertainment of the spectators of larger growth. On Christmas-day, the small folk were all brought into Barclay Ward to have their plum-pudding and such like orthodoxies. After dinner, there was telling of fairy tales and playing of games. Then, when evening drew on, came the great event of the day. While a carol was being sung, the Christmas tree was lit up and the distribution of presents began. Each child received a new article of dress and two large playthings; the boys getting such things as puzzles, balls, tops, or hammers; the girls each a doll, as well as a set of tea-things or a doll's bedstead, or some other treasure. Both days passed off most enjoyably to all concerned, and no one was any the worse, as far as we have been able to learn. New Year's Day was distinguished by each child having at least a bit of plum-pudding, and by researches into the composition of a "wedding-cake".

EVELINA HOSPITAL FOR CHILDREN.

As usual, the wards of this hospital were prettily decorated with holly, evergreens, and festoons for Christmas Day, although the customary Christmas-trees and festivities for the children and nurses were not held until Wednesday, January 7th. This year, the presents generously made by the numerous patrons and friends of the institution have been unusually abundant; while the subscriptions of the resident officials were supplemented by a large collection from Beckenham friends. Owing to these two causes, the trees were more than ordinarily brilliant and pretty, while the wards were especially to be noticed for the good taste and elaborateness of the decorations, which had been renewed for the occasion. Where all were pretty, it would be invidious to single out especial wards for praise, but the decorations of the three small wards—Charlotte, Gladstone, and Meyer Amschel wards—were perhaps the most effective, owing to their size allowing them to be done more fully. In the middle of each of the five wards was a large tree brilliantly lighted and decorated with toys, etc., for the children, with a few more useful presents for the nurses. All the children received several presents of toys and were greatly delighted at the proceedings. The trees in the two large wards (Evelina and Lionel) were especially large and beautifully decorated. On the one in the Evelina were two presents which ought to be specially noted; one a beautifully embossed silver case fitted up with morphia-injecting syringes, a present from the nurses to Mr. W. E. Paley, who, a few months ago, left this institution after being for five years its resident medical officer; the other, a nice clinical thermometer in a pretty silver case, which the nurses had determined to give Miss Wray, the lady-ward-superintendent, in order to show their appreciation of the kind way in which she manages the nursing department. At 3.30 P.M., many members of the managing committee and the hospital staff, with a large number of friends who had been invited for the occasion, collected in the wards. Tea and other light refreshments were provided for the visitors; and it was not until 6 P.M. that the wards began to empty. In the evening, many friends of the matron and ward-superintendent stayed to assist in entertaining the nurses. Music, games, etc., were provided in one of the empty wards until a little after ten o'clock; and in this way a most agreeable day was brought to a close.

SOCIETY OF PUBLIC ANALYSTS.—The annual meeting of this Society was held on January 14th, at Burlington House, the President, Dr. Muter, in the chair. A ballot took place for the election of officers, when the following were elected. *President:* Dr. Muter. *Vice-Presidents:* Dr. Dupré; Dr. Tripe; and Mr. A. Wynter Blyth. *Treasurer:* Mr. C. W. Heaton. *Secretaries:* Mr. C. Heisch and Mr. G. W. Wigner; and Messrs. Carter Bell, Campbell Brown, C. A. Cameron, Bernard Dyer, Otto Hehner, W. Morgan, and W. Wallace in place of the outgoing members of Council. After the President had delivered his annual address, Mr. Wigner read a paper by himself and Professor Church, on Two Ancient Samples of Butter. Papers on the Composition of Unfermented Wines of Commerce, by Mr. Carter Bell, and on the Estimation of Fat in Milk, by Mr. W. M. Hamlet, were also read. The members and several friends afterwards dined together at the Café Royal.

ASSOCIATION INTELLIGENCE.

DUBLIN BRANCH.

THE third annual general meeting of this Branch will be held in the Hall of the King and Queen's College of Physicians in Ireland, Kildare Street, on Thursday, January 29th, 1880, at 4 P.M.: Dr. GORDON, President of the Branch, will deliver an address; and the Officers and Council for the ensuing year be elected.

The subject of the Compulsory Notification of Infectious Diseases will be brought forward by Dr. J. W. MOORE, and a discussion is invited thereon.

By the kind permission also of the President and Fellows, the annual dinner will be at the College of Physicians at 7 P.M. on the day of the meeting; the incoming President of the Branch, Dr. ROBERT MCDONNELL, F.R.S., in the Chair. Dinner tickets for members who purchase their tickets on or before the 27th instant, 17s. 6d.; for members purchasing their tickets after that date, and for guests, £1.

GEORGE F. DUFFEY, M.D., *Honorary Secretary.*

30, Fitzwilliam Place, Dublin, January 22nd, 1880.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of the District was held at the Myddelton Hall, Islington, on Thursday, December 18th.

Dr. NORMAN KERR read a paper on *Post Partum* Hæmorrhage, commending specially ergot with injections of hot water, and enforcing the necessity for extreme caution in the administration of stimulants. A discussion followed, in which Surgeon-General Francis, Drs. Cree, Dowse, Ridge, and Brailey took part.

Dr. BRAILEY explained and illustrated Holmgren's Test for Colour-Blindness.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the offices of the Association, 161A, Strand, on Wednesday, January 14th, 1880—Present: Dr. CARPENTER (President of the Council) in the Chair; Dr. G. M. Humphry, F.R.S., President-elect; Dr. T. C. Allbutt, Dr. B. Anningson, Dr. J. T. Arlidge, Dr. T. W. Barron, Dr. L. Borchardt, Dr. J. B. Bradbury, Dr. C. Chadwick, Dr. A. Davidson, Dr. R. W. Falconer, Dr. B. Foster, Dr. E. Long Fox, Dr. W. C. Grigg, Mr. Arthur Jackson, Mr. F. E. Manby, Dr. E. Malins, Mr. F. Mason, Dr. E. Morris, Mr. R. H. B. Nicholson, Dr. C. Parsons, Dr. G. H. Philipson, Dr. R. C. Shettle, Dr. E. H. Sieveking, Mr. H. Stear, Dr. A. P. Stewart, Dr. W. F. Wade, Dr. E. Waters, Mr. C. G. Wheelhouse:

The minutes of the last meeting were read.

Read letters of apology for non-attendance from Mr. W. D. Husband, Treasurer, Mr. Alfred Baker, Dr. Duffey, and Mr. Vincent Jackson.

The President of the Council reported that since the last meeting, on October 15th last, one of the members of the Committee of Council, Mr. Callender, F.R.S., had died; and, as there was some time before the next meeting, he had written a letter, on behalf of the Committee of Council, sympathising with the family.

Read circular letter from the President of the College of Physicians and the President of the College of Surgeons, respecting a proposal to invite the International Medical Congress to hold the meeting of 1881 in London.

Resolved: That the President of the Council, the President-elect, and the Editor be a Subcommittee to meet the President of the College of Physicians and the President of the College of Surgeons to consider the matter, and report to a future meeting of this Committee how the Association may best assist in the movement.

Read letter from the Editor stating that it had been proposed to establish Branches of the Association at Worcester and in India.

Resolved: That the matter be left in the hands of the President of the Council to report upon to a future meeting of this Committee.

Read letter from Dr. Alexander Ogston, Honorary Secretary of the Aberdeen Branch.

Resolved: That the President of the Council and Dr. Stewart be requested to draw up a resolution to be forwarded to Government, expressive of the feeling of the Association and the profession on the cause of the resignation of Dr. Farr.

Read letter from Mr. Vincent Jackson, Honorary Secretary to the Staffordshire Branch, forwarding a resolution of the Branch which was passed on the 27th February last at a meeting held at Stafford, to which the Branch had not received any reply from the Committee of Council, viz.:

> That this meeting is of opinion that it is expedient that representatives of Branches in the Committee of Council should afford due information to their Branches of the proceedings of the Committee of Council, and that it is injurious to the Association at large that the minutes of the Committee of Council furnished to each member should be directed to be held as private and confidential.

Resolved: That the attention of the Council of the Staffordshire Branch be called to a resolution passed at a Special General Meeting of members held at Birmingham on Tuesday, April 2nd, 1878, of which the following is a copy.

> That it is necessary for the successful transaction of the business of the Association, that the publication of reports of meetings of the Committee should be left to the discretion of the Committee of Council.

It was proposed—

That a slip of the abstract of the proceedings of the Committee of Council published in the JOURNAL be furnished to the Branch Secretaries for the use of their respective Councils.

The motion having been put from the chair, the same was declared to be lost.

Read letter from Dr. Bushell Anningson of Cambridge, of which the following is an abstract.

> There are several workers in the Physiological Laboratory here who would like to take a part in the business of the Physiological Section at the Annual Meeting of the British Medical Association, but not being members of the medical profession, cannot join the Association. I would like to bring their case under the notice of the Committee of Council at its next meeting, or to move that special cards of admission be granted them.

Resolved: That the Executive Committee be empowered to issue at their discretion cards of admission to the Addresses and Sectional Meetings of the Association at Cambridge, to persons who may be interested in medical science. The names of persons so admitted to be submitted to the Committee of Council for approbation.

Read minutes of Arrangement Committee.

Resolved: That the minutes of the Arrangement Committee of today's date be received and approved, and the recommendations carried into effect.

The President of the Council then read report upon Minute 463, passed at the last meeting of the Committee of Council, of which the following is a copy.

> To the Committee of Council.—Gentlemen,—In accordance with the resolution 463 which was passed at the last meeting, I have the honour to report that I nominated Dr. Sieveking and the President of the Metropolitan Counties Branch (Mr. John Wood) to act with myself as a Committee to arrange the details for the dinner, to which we were instructed to invite Surgeon-Major Reynolds, V.C. The entertainment was provided at Willis's Rooms, King Street, St. James's, and was attended by our distinguished guest, who was supported by a large number of his brother medical officers and other members of the Association. We have to thank our General Secretary for the ability and energy which he gave to the matter, and which assisted to render the meeting as we hope a satisfactory one to all concerned.—I have the honour to be, gentlemen, your obedient servant,
>
> ALFRED CARPENTER, President of the Council.
>
> Croydon, December 29th, 1879.

Read letter from Dr. Henry, Honorary Secretary to the Metropolitan Counties Branch, forwarding resolutions on Medical Education, of which the following are copies.

> 57, Doughty Street, W.C., 13th January, 1880.
>
> Dear Sir,—Enclosed herewith I send you a copy of resolutions regarding medical education adopted at a meeting of the Metropolitan Counties Branch.—Yours faithfully,
>
> ALEXANDER HENRY, Honorary Secretary Metropolitan Counties Branch.

MEDICAL EDUCATION.

Copy of Resolutions passed at a General Meeting of the Metropolitan Counties Branch, held 6th December, 1879.

1. Intending medical students should pass an examination in the elements of botany, physics, biology, and inorganic chemistry, prior to admission to the regular medical curriculum.
2. Every student of medicine, before going up for his final examination, should produce a certificate of having studied for a period of not less than six months with a general practitioner who dispenses his own medicines, or of having dispensed for six months at a public dispensary.
3. The age of twenty-two years should be attained before a student is permitted to receive a licence to practise medicine and surgery.
4. An examination in elementary anatomy and physiology, at which every student must appear, should be instituted at the end of the first year of professional studies.
5. After passing the "primary" professional examination, every student should be compelled to devote at least two full years to the study of clinical medicine, surgery, and obstetrics, at a recognised hospital, prior to being allowed to present himself for his final or qualifying examination.

Resolved: That the Report on Medical Education of the Metropolitan Counties Branch be sent to the Secretary of each Branch, with the request that the same be submitted by them to the Branches and reported on.

Read letter from Editor, regarding a proposal to form a Paris Branch of the Association.

Resolved: That the consideration of the proposal to form a Paris

Branch of the Association be postponed to the next meeting of the Committee of Council.

Resolved: That the ninety-three gentlemen whose names appear on the circular convening the meeting, and the seventeen whose names appear on the supplementary list issued to each member of the Committee of Council subsequently, be and they are hereby elected members of the British Medical Association.

The minutes of the Journal and Finance Committee, and of the Printing and Office Subcommittee, both of to-day's date, were read.

Resolved: That the minutes of the Journal and Finance Committee, together with the minutes of the Office and Printing Subcommittee, of to-day's date, be received, approved, and the recommendations carried into effect.

The minutes of the Journal and Finance Committee contain a recommendation to pay the accounts which remained unpaid at the end of the year, amounting to £584 12s. 10d.; the examination of the quarterly accounts and receipts; and a recommendation that £2000 be invested in 3 per cent. Consols.

Dr. Chadwick, Chairman of the Trust Funds Sub-Committee, brought up the Trust Deeds, as approved by the Sub-Committee.

Resolved: That the draft Trust Deeds of the Stewart and Middlemore Funds Committee be approved, and that they be engrossed, and the Seal of the Association affixed at the next meeting of the Committee of Council.

The Committee of Council then considered the proposed regulations for the conduct of Annual Meetings, paragraph by paragraph.

Resolved: That the regulations for the conduct of Annual Meetings, as amended, be approved, and notice of the proposal for adoption at the Annual Meeting be given in accordance with the by-laws.

Proposed Regulations with regard to the Conduct of Annual General Meetings of the British Medical Association.

General Control of Meeting.—1. The programme of the Annual General Meeting shall be under the control of the Committee of Council. The following regulations shall guide the Committee of Arrangement and any local committee that may be formed.

Necessity of Limiting the Expenditure.—2. The gradual and constant increase of the members of the British Medical Association renders it expedient to express the strong opinion of the Committee of Council, that the medical men of the locality at which the Association holds its meeting should not deem it necessary to incur a large expenditure; as, otherwise, the choice of a place of meeting must be more and more limited to the larger towns of the kingdom.

Annual Dinner.—3. The Annual Dinner shall be under the control of the Committee of Council.

Papers to be Read at Meeting.—4. All papers intended to be read at the Annual Meeting shall be forwarded, together with an abstract, to the secretaries of Sections, ten days before the Annual Meeting takes place, excepting the addresses of the presidents of Sections, or the addresses to be delivered in general meeting.

Directions for Sections.—5. The president, vice-presidents, and secretaries of Sections shall form a Committee of Reference, with power to accept, decline, postpone any paper, and to arrange the order in which the papers shall be read.

Grouping of Papers for Discussion.—6. The papers in each Section shall, as far as possible, be grouped together, so as to ensure a general discussion on kindred subjects.

Length of Time to be Occupied by Papers or Speeches.—7. No communication shall occupy more than fifteen minutes, and no person shall be permitted to speak more than once, or for more than ten minutes, during the discussion thereon.

Resolutions at Annual Meetings.—8. No motion shall be brought forward at the Annual Meeting, unless it has been proposed by the Committee of Council or a Committee of the Association, or notice of the same shall have been given on the previous day, in writing, to the General Secretary, to be entered on the agenda of the day, and printed in the Daily Journal. This does not apply to amendments moved in due form.

Meeting of Committee of Council: Meeting of Council.—9. The Committee of Council shall meet on the first day of the Annual Meeting, in the afternoon. The Council of the Association shall meet subsequently, and the first general meeting of the Association shall be held in the evening.

Reports of Committees.—10. All reports of committees of the Association shall be printed in the Journal before the Annual Meeting.

Police Surgeons.—A memorandum has been issued from Scotland Yard to all the police-stations in the metropolitan districts, stating that two officers from each division are to be selected to attend an "advanced" surgical class (in connection with the Society of St. John of Jerusalem), which is to commence next week at the Westminster Hospital. Preference will be given to those officers who took certificates of proficiency in the former classes.

Vaccination.—Mr. D. Protheroe Saer, Public Vaccinator to No. 1 district of the Pembroke Union, has received a Government gratuity for efficient vaccination in his district.—Mr. J. T. Griffith, Medical Officer for the Llandwrog district of the Carnarvon Union, has received the grant of £13:3:4 from the Local Government Board for successful vaccination.

CORRESPONDENCE.

ANIMAL VACCINATION.

Sir,—I cannot refrain from expressing my astonishment at the mistake Sir Thomas Watson has made in his communication to the Journal last week. He states: "That the attempts made forty years ago to procure fresh lymph for vaccination purposes by inoculating the cow with the virus of human small-pox, were a mistake; that the cow so treated underwent no fever or constitutional disturbance, and presented no local affection beyond some pimples containing no fluid around the incised spot; that the ensuing so-called vaccination was, therefore, performed by taking matter from the original incision in the cow, and inserting it into the vaccinated person, who, in fact, was not *vaccinated* at all, but *inoculated with small-pox*, the very process which, in years gone by, was voluntarily submitted to by thousands of unprotected persons, whereby they obtained great individual advantage and safety, while the community at large was seriously injured in consequence of the introduction of the poison of small-pox into multitudes of places to which it might never have gone. There must have been—there probably still is—a vast amount of mitigated small-pox thus spread about; and hence some of the strange apparent anomalies of our vaccination statistics."

With much respect, I beg to assure Sir Thomas Watson that no such egregious blunder was then and there committed as he states and apprehends. On the contrary, such abortive pimples as he describes, when they did occur, were left untouched, being deemed a failure in the operation. It was only when decided vesicles appeared, exhibiting the normal type of those casually developed in the animal, that lymph could be or was abstracted. This lymph, when transferred to the human subject, exhibited all the phenomena in its course and effect of that obtained from the casual vesicles of the disease now so rarely met with. It proved to be as active as any primary lymph I had ever seen, and was unattended by any abnormal secondary eruptions. And no proof to the contrary has ever been produced, or ever will be.

For further information and fuller details, I must beg to refer to the eighth and tenth volumes of the *Transactions of the Provincial Medical and Surgical Association*, to Mr. Simon's invaluable and exhaustive *Papers relating to the History and Practice of Vaccination*, to Dr. Seaton's admirable and comprehensive *Handbook of Vaccination*, and also to Dr. Ballard's *Prize Essay on Vaccination*, as well as to Dr. Cory's paper in the ninth volume of *St. Thomas's Hospital Reports*. On a future occasion, I shall have much pleasure in referring to the many successful experiments of Mr. Badcock of Brighton in the production of this variola vaccinæ lymph, still in use by the public vaccinators at Brighton.—Yours truly, Robert Ceely.

Aylesbury, January 21st, 1880.

ANNUITIES FOR WIDOWS AND CHILDREN OF MEDICAL MEN.

Sir,—I shall be happy to forward a copy of the proposed rules of the Medical Provident Fund to any of your subscribers who may be interested in the matter.—I remain, etc.,

Charles R. Straton.

West Lodge, Wilton, Salisbury, January 19th, 1880.

CEREBRAL PNEUMONIA.

Sir,—In your Journal of January 3rd, 1880, there is described by Dr. James Russell of Birmingham a species of pneumonia to which he gives the name of cerebral pneumonia. If Dr. Russell will take the trouble to look over the *Zeitschrift für Therapie und Pharmocodynamik*, drittes Heft, page 191 (Freiburg, 1844), he will find that this species of pneumonia was first described by me. I gave to it the name of *pneumonia sine tussi atque dyspnœa*.—I am, sir, your obedient servant, Henry Dick.

59, Wimpole Street, W., January 5th, 1880.

STATISTICS OF THE GLASGOW ROYAL INFIRMARY.

Sir,—I am very unwilling to trespass on your space, but Dr. Morton, in his letter of the 15th ult., charged me deliberately with using "figures based on a false statement" and "which I knew not to be correct". I think he is bound either to substantiate this or to withdraw it. In his letter in your last number, he does neither; and as it now stands, he is placed in a position evident to all and not creditable to himself.

I do not presume to discuss the professional elements of the controversy: the substance of these, however, resolves itself, in my mind, into a very simple matter. Here we have a professional gentleman adopting and persevering in a system of treatment peculiar to himself and different from that pursued by other four surgeons, all exactly similarly situated. His treatment results, in four years, in a greater mortality every year than any of the others; and by the statistics shown, he had actually two deaths to one. Why does Dr. Morton not explain this most damaging fact?

The hospital is established and maintained for curative purposes' not for mere "passing" cases quickly through; and though quantity may show Dr. Morton's dexterity, I am afraid the patients would rather have more cure and less speed.

The title of President which you, in ignorance of our constitution, applied to me, I never claimed or used; and in my letter of the 29th I indirectly put this right by stating I was Chairman of the House Committee.

When Dr. Morton held the anomalous position of Surgeon and Manager of the Infirmary, he gave notice that he would move for a return to show the number of patients treated by each surgeon and the duration of treatment. This he first postponed, and then absented himself, and so the matter dropped. I, having formed an erroneous opinion of the advantage of the antiseptic treatment, got permission to have the statistics made up, which resulted in convincing me that my theory of pure air in the wards being more favourable to recovery than an atmosphere redolent with carbolic acid was erroneous.

I shall not again trouble you, and thanking you in anticipation.—I am, sir, your obedient servant, William McEwen.

Glasgow, January 12th, 1880.

Sir,—I am very unwilling to continue a correspondence which promises to be productive of little further result; still I feel compelled to reply to one or two statements in Dr. Morton's last letter.

1. Dr. Morton writes: "The deaths which occur in hospital do not comprehend all those who die either from operations or from those conditions which necessitate operations; for, if they are removed (expelled is a harsh word) from the hospital before death, then such deaths do not appear in the medical and surgical records of the institution. The following is a case in point, to which very recently my attention was called by a country surgeon, whom I had met in consultation, who complained of the fact that the patient was sent away in such a condition. A woman was subjected to a severe operation in the Royal Infirmary here, which was almost immediately followed by paralysis; she was without much delay transferred to the medical wards, and thence, after the formation of a very large bedsore, sent or taken home in a dying state. For aught I know, this may yet appear as a successful operation; in any case, the death will not figure in the statistics of the Royal Infirmary. It is not unknown to my boastful challenger, Dr. Cameron." The real facts of this case are the following. Elizabeth Dunn, aged 26, was admitted into my female ward, on the 19th November last, on account of a rapidly growing sarcoma of the left superior maxilla. She also complained of a pain in the lower dorsal region of the spine, where, however, there was no particular tenderness. Her urine was examined, and found to contain neither albumen nor tube-casts. On the 21st, the pain in her back entirely ceased, and was never again complained of. In consultation with my colleague (Dr. Dunlop), it was agreed that I should remove without delay the entire superior maxilla, with the tumour involving it. This I accomplished satisfactorily, on the 22nd, with the kind assistance of Dr. Morton. The wound of the cheek, as often happens, healed securely by first intention from end to end; while the patient appeared to be in a very satisfactory state and continued free from pain. On the 25th, she was unable to pass urine, and the nurse employed the catheter. On the 26th, I removed all the stitches, leaving a firm and complete cicatrix throughout the extent of the wound. On the 27th, she was found to be palsied in her lower limbs. Subsequently, I asked Dr. Morton to see her. He saw the condition of her face; examined the state of her limbs and back; expressed the opinion that some inflammatory ailment of the cord or its membranes was present, and advised me to administer bichloride of mercury. About the same time, she was seen by one of the physicians of the hospital. He recommended that a little blood should be extracted from the lower dorsal region by cupping, and this was done by my house-surgeon to the extent of eight ounces. She continued in precisely the same state up till December 3rd, when, the wound of her cheek continuing absolutely sound and the cavity inside having almost fully contracted, she was transferred, according to the usual practice of the Infirmary, to the wards of the physician who had already seen and prescribed for her. My care, as well as my knowledge, of her ceased at that date. I learn, however, on inquiry, that she made no progress in reference to her condition of paraplegia, and, as it was explained to her relatives that her case was a very hopeless one for treatment, they took her home on December 16th, her face and mouth being in a perfectly satisfactory condition. I am sure she was most carefully treated by our medical colleague, and, if a bedsore did form over the sacrum, it is an occurrence not unheard-of in even skilfully nursed cases of palsy of the lower limbs, whether in private or in hospital practice. How far this "is a case in point", or, in other words, how far it bears out Dr. Morton's statement that "the deaths which occur in hospital do not comprehend all those who die either from operation, or from those conditions which necessitate operations", I leave your readers to judge.

2. Dr. Morton confuses the subject by mixing up references to the statistics quoted by you with reference to the "Annual Report of the Royal Infirmary for 1878", and some reports of his own for 1871 and 1872. I wish, therefore, to place the real issue plainly and fairly before your readers. In a leader of your paper of December 13th, you quote from the statistics of our Infirmary the results of the practice of two of the surgeons, one of whom treated his cases antiseptically, the other non-antiseptically. In the three wards of the former, "the mortality—eliminating, of course, the number of those who died within forty-eight hours of admission—in 1875 was 3.29 per cent.; in 1876, 3.28 per cent.; in 1877, 3.68 per cent.; in 1878, 1.78 per cent.; making an average of 2.93 per cent. Of the cases treated non-antiseptically, the mortality was, in 1875, 7.63 per cent.; in 1876, 6.91 per cent.; in 1877, 5.13 per cent.; in 1878, 3.96 per cent.; making an average of 5.84 per cent. The result, therefore, proves that, under antiseptic treatment, the mortality was, under apparently strictly comparable circumstances, much smaller than under the ordinary mode." Dr. Morton at once evidently recognised the results of the non-antiseptic treatment given as those of his wards, while I equally saw that the figures of antiseptic treatment referred to my practice. In your issue of December 27th, Dr. Morton published a letter, objecting to any deductions being drawn from these figures; but stating that "very lately a fair comparison was demanded of the managers, case against case of a similar kind, but it has not yet been accorded". On January 3rd, you published a letter from me, demurring to some of his statements regarding the statistical figures, and accepting the demand or challenge for a fair comparison of cases; at the same time, giving Dr. Morton the choice of either amputations or compound fractures as test-cases. Last week, he writes declining to accede to my request. He suggests that "a beginning be now made; let competent and unbiassed parties be appointed to take accurate notes of the cases in all important particulars, and let the results be compared either annually or otherwise, as may seem best". To this course I am not unwilling to agree, provided the practical difficulties can be overcome; but I still think that it is more pertinent to the elucidation of the statistics to which he takes exception to have the results of such cases as the amputations of the last five years compared, case by case. Sufficient data for the purpose can surely be obtained in the operation-books.

3. The fact that, in four years, Dr. Morton has treated one hundred and seventy-eight cases more than I have, in wards of much the same size—a fact to which he refers with evident pride—is one not difficult of explanation, so far at least as sixty of these is concerned, since it appears that there were one hundred and ten deaths in his wards, during that period, against fifty in mine; and surgical beds in the Glasgow Royal Infirmary are generally filled as soon as emptied.

This difference in our results, I willingly admit, is one of measures and not of men.—I am, sir, your obedient servant,

Hector C. Cameron.

27, Elmbank Crescent, January 12th, 1880.

⁂ The correspondence appears to have exhausted the subject at present, without modifying Mr. McEwen's original figures.

STATISTICS OF ANTISEPTIC SURGERY.

Sir,—The error with which Mr. Spencer Wells charges me in respect to his statistics appears (as well as I can understand) to be simply that I represented him as saying that the death-rate of his latest cases of ovariotomy before adopting antiseptic precautions, *hospital and private*, was about 10 per cent.; whereas the fact was that the cases were all in hospital. This correction of course strengthens my argument. Let the reader observe that I am not in any way arguing for or against Mr.

Spencer Wells's impression, that ovariotomy is safer with than without antiseptic precautions. I am merely illustrating, by a comparison which I contend is perfectly fair and logical, the utter untrustworthiness of such "statistics" when used (as Sir J. Y. Simpson and others have used them, and as they were used in the recent debate) as a basis of reasoning. Mr. Wells states again in his letter that the mortality of a certain series of his hospital cases had been less than 10 per cent., and the mortality of another similar series of cases in private practice 25 per cent.; viz., seven deaths in seventy-one cases in hospital, twenty-one deaths in eighty-four cases in private. Figures precisely analogous to these (only showing the contrast on the opposite side) were produced by Sir J. Y. Simpson to prove that private practice was safer than hospital practice. By parity of reasoning (if, indeed, that term be applicable), Mr. Wells's figures might be used to show that hospital practice is safer than private. If there be any flaw in this argument, I confess I am still too stupid to see it. But in fact, as far as I see, such figures can be made to prove almost anything. A change is made in some point of practice; a change follows in the death-rate; therefore it is argued that the change of death-rate depends on the change of practice. But do not similar variations constantly occur without any change of practice? Do not the operation-lists of all great hospitals furnish examples? Of two series of eighty-four ovariotomies, fifteen more die in one series than in the other; how are we to know that the fifteen persons in question died from the want of antiseptic precautions, unless we know the causes of their deaths?

Mr. Wells himself tells us in his letter that the totals of his practice in public and in private up to the year 1877 gave death-rates differing only by 0.22 per cent. It is clear, therefore, that the great discrepancy between the death-rates of the eighty-four private cases (which occurred previously to January 1878) and the seventy-one public cases, which also occurred previously to the end of 1877, must be balanced by opposite fluctuations in another part of the series. How are we to know that the diminished death-rate in the eighty-four recent cases will not be reversed at a later period? In other words, unless the causes of death are given, how are we to know that fluctuations in the death-rate are not merely accidental—*i. e.*, dependent on previous circumstances in the case, on visceral disease or weakness in the patient, and on numerous other causes quite unconnected with the dressing of the wound?

Mr. Wells's opinion, founded on his vast experience, that antiseptic ovariotomy is safer than ovariotomy without antiseptic precautions, is in itself a fact of the greatest importance in the controversy with regard to antisepticism; but I still contend that the question between Mr. Lister's system, founded on the germ-theory, and the simpler antiseptic method generally adopted in our hospitals, is quite unaffected by the death-rates produced at the recent debate, and cannot be settled by any evidence of that kind. If it can be decided by anything less cogent than physical demonstration, it must be by the evidence of cases carefully observed and fully stated.—Yours, etc., T. HOLMES.

January 12th, 1880.

DOCTORS AND NURSES.

SIR,—To my thinking, the sister or superior nurse of each ward, or set of wards, should be chosen by the surgeons or physicians, just as they would choose a nurse in a private case. The sisters should be a superior class, highly trained and well cultured, and, if possible, of good social position. They should select their subordinate nurses, and the lady-superintendent should be replaced by a plain housekeeper, who should have nothing to do with the nursing. A good man of business, a genial, kindly, and wise manager, should reside in, and have the general control of, the hospital. The nursing is not a matter to be directed by lay folk, even if they are good nurses themselves, but by those under whose professional care the sick are placed, and who surely must be the best judges whether the nursing is done as they desire or not. To set another superior over her besides her natural director, is to worry and hamper the action of the responsible sister. It is quite possible that the views of the two superiors may clash—*e. g.*, in the matter of ventilation—and then which is she to obey? If wise in her generation, she will be inclined to obey the one who has most power over her, for if loyal to her doctor she runs the risk of dismissal. From such or much more trivial causes, the physician or surgeon, who has been working satisfactorily with his ward-sister, may find himself all at once deprived of a most valuable aid, not only to his own great annoyance, but certainly to the disadvantage of his patients. This is no mere anticipation.—I remain, yours very truly, C. HANDFIELD JONES.

P.S.—Let me add that the sisters appear to me to constitute the very back-bone of the nursing. If they are zealous and efficient, the work will be done well; if they are not, no superintendent can make it so.

London, January 20th, 1880.

NURSES AND DOCTORS: THE CHILDREN'S HOSPITAL AT PENDLEBURY.

SIR,—In your issue of January 17th, you insert an article on nurses and doctors, in which you refer to a recent incident at the Children's Hospital, Manchester. In introducing a memorial, influentially signed by hospital physicians and surgeons in this town, you give a history of Dr. Humphreys' connection with the Children's Hospital and the termination of that connection, which, though you say you have it on good authority, is not correct. Dr. Humphreys, your informant states, "who had a fair chance of getting on the staff of one of the hospitals with which he had been connected in London, was induced to join the Children's Hospital in Pendlebury". From the juxtaposition of these two sentences, it might be inferred that Dr. Humphreys had been induced by some one interested or connected with the Children's Hospital at Pendlebury to join it. Such was not the case. When the board of governors advertised for candidates to fill the office of assistant-physician, Dr. Humphreys, unknown to any one of us at the hospital, applied like many others for the post, and was very anxious to get it. I was induced to give his candidature my warmest support, because I received recommendatory letters on his behalf from Dr. West and Dr. Thomas Barlow of London, and from my friend and former colleague at the hospital Dr. James Gwyther of Torquay; in consequence of which Dr. Humphreys was elected assistant-physician. The board of governors hoped that they had strengthened their power by adding Dr. Humphreys to their staff. When, twelve months after his appointment, I resigned my post as directing physician to the hospital, the board, instead of advancing Dr. Humphreys to the post vacated by me, thought it better to advertise in the medical papers for a successor. The board did not succeed in their endeavour to fill my place; and therefore, to suit the existing circumstances, they rearranged the constitution of the hospital. They formed a subcommittee of five, called the house-committee, to take supervision of the internal administration of the hospital; and entrusted Dr. Humphreys, who had become physician, with the *medical* administration. The board, by this arrangement, threw increased labour and anxiety on some of its own members, to avoid a change in its medical staff. The arrangement was carried out for twelve months, with such results that the board came to the conviction that, in the interests of the institution, it could not be allowed to be continued. Some influential members of the board considered it their duty to think of Dr. Humphreys' dismissal. When I heard of a step like this, I thought it my duty, in Dr. Humphreys' and the hospital's interests, to interfere, and, with the assistance of Mr. Thomas Jones, the house-surgeon, it was arranged by the staff that Dr. Ashby, who had joined the medical staff only four months previously, should assume the post of *medical* administrator, instead of his senior. In this arrangement, I was informed by my friend Mr. Jones, Dr. Humphreys concurred. This arrangement the board accepted, hoping that Dr. Humphreys, in his restricted sphere as ward-physician, might be made useful to the hospital. This hope was soon blighted, as some of the nurses in the wards under his charge complained to the chairman of the house-committee that they did not receive clear and strict instructions from Dr. Humphreys with regard to his patients. Many hints on this point were given privately to Dr. Humphreys by the chairman of the house-committee, but he did not seem to take them, or was not inclined to alter his mode of acting. Whilst thus the position of Dr. Humphreys with the board had grown to be one which he describes in a communication to the board in the following words—"I could not but feel that my footing with the board was unsatisfactory. In illustration of this, I may add that on two occasions, in the early part of the year (1879), I felt my position so painful that I wished to resign it, and was only prevented from carrying out my intention by the reassuring words of the president"—the incident occurred which led to Dr. Humphreys' separation from the hospital in Pendlebury. A dispute had arisen between the lady-superintendent and one of the lady sisters, on a point *neither affecting the patients nor the medical staff*, in consequence of which the sister had sent in her resignation to the lady-superintendent, who had accepted it. Dr. Humphreys, two or three days afterwards, sought a private interview with the lady-superintendent, which, according to his own statement, assumed a "warm tone"; according to the lady-superintendent's statement, it was designated in stronger terms; and, after that interview, went to the sister and reported the substance of the interview to her. The sister, in consequence of Dr. Humphreys' communication, went to the superintendent, and another "warm discussion" took place. The lady-superintendent reported this to the house committee, and, as Dr. Humphreys did not deny the fact that he had had the conversation with the lady-superintendent, and that not only had he reported the substance of his conversation to the sister, but that he had promised her, before he sought the interview with the lady-superintendent, that he would do so, the house-committee, charged with the internal administration, felt it their duty, to prevent a repetition of "warm discussion" and a continuation of gossip between nurses and their senior physician, which could only have the effect of destroying the necessary discipline, to suspend Dr. Humphreys from his duties, until the next meeting of the board, to whose decision the whole case would then be submitted. The meeting of the house-committee took place on November 25th; the meeting of the board was fixed for December 6th. Dr. Humphreys sent in his resignation to the chairman of the board on November 26th, and it was laid before the board at their meeting, along with a letter from him, dated December 5th, reviewing his past connection with the hospital. The board accepted the resignation, and granted Dr. Humphreys three months' salary; and, as Dr. Humphreys had on his own accord ceased to be an officer of the hospital, they did not see the necessity nor the benefit which could arise to the interests of the hospital, or to Dr. Humphreys, by entering into a correspondence with him.

These are the facts in connection with Dr. Humphreys' tenure of office at the Children's Hospital as assistant-physician, physician, and medical administrator; whether, with the knowledge of them, you will still maintain that Dr. Humphreys, during the time of his office, had every reason to believe that his position was a permanent one, I must leave to your judgment and sense of fairness.

With regard to the memorial, most influentially signed, I shall say very little. The board of governors will, I have no doubt, take it into the consideration it deserves. To me, it is a sign that the sympathy with the adversity of a medical brother has blinded the judgment of the signers of the memorial; they have passed a censure on a body of gentlemen, whose names and reputation ought to have prevented them from taking such action on a one-sided statement. If they had retained the calmness of judgment which many of the signers of the memorial possess in a high degree, they ought to have hesitated before they rushed into print. They might have supposed that, as the other members of the medical staff, Mr. Thomas Jones and Dr. Ashby, continued the work under the board of governors at Pendlebury, the action of the board could not have been so "extremely arbitrary and unwarranted" as it appeared to them on an *ex parte* statement, and that there might have existed reasons others than they suppose why the board did not enter into public correspondence. Perhaps the board may have had the same feeling, which has prevented me till now from speaking publicly, and which even now makes it a painful task to do so, and to say what I have had to say in this letter about a medical brother in adversity. I could, however, not keep silent any longer, when an important and widely circulated organ, misguided by the insufficiency of knowledge of the facts before it, pronounces in a leading article that "no respectable member of the profession should become a candidate for the appointment vacated by Dr. Humphreys". I have taken active honorary office again for twelve months at the Children's Hospital since Dr. Humphreys' resignation, and I think I may still claim that I have been, during forty-two years of professional life, not only a respectable member of the profession, but as jealous as any other member of our profession of its dignity and independence.

In the general remarks of your leader about the relative position of doctors and nurses in hospitals, I, as well as the board of governors at Pendlebury, heartily concur. We think with you that the doctor, and not the nurses, is responsible for the patients, and therefore we insist "that the nursing shall be carried out according to his orders". We do not approve of the patients being left to the discretion of the nurses. Dr. Humphreys seems to have differed from us on this point, and left the nurses in many cases without strict orders, and thereby lost the confidence of the board.—I am, sir, your obedient servant,

Louis Borchardt, M.D.,
Consulting Physician, and for the next twelve months Directing Physician, to the Children's Hospital at Pendlebury.

Manchester, January 20th, 1880.

THE UNIVERSITY IN LONDON.

Sir,—I think the profession owes you a debt of gratitude for the series of articles that have appeared in your Journal, in which you have protested against the absurd attitude of the so-called University of London. The voice of the profession is with you. I am attached to the staff of a provincial hospital which annually sends a certain number of pupils to complete their studies in London; but I intend, in future, to advise them all to proceed to Edinburgh, Glasgow, or Aberdeen, and to avoid London, until some steps be taken by which the same reasonable facilities are afforded for graduation as obtain in the best continental universities.

I trust also that you will again wield your powerful pen in favour of granting to the University of Manchester the power of granting degrees in medicine. This step in the right direction was abandoned, in consequence of the misrepresentations contained in a petition emanating from the London teachers and others, who raised the alarm that it would add one more to the nineteen examining bodies in the kingdom! Now, sir, nothing can be more absurd than this way of putting the case; for, the giving the power of granting degrees to the University of Manchester, instead of increasing the number of examining bodies, would have extinguished half-a-dozen of them at once, to the great advantage of the profession and of the public.—I am, sir, yours truly,

January 20th, 1880. F.R.C.P.

THE LATE SURGEON-MAJOR PORTER.

Sir,—There is one passage in the obituary notice of the late much lamented Surgeon-Major Porter, in the Journal of the 17th instant, which appears to require correction. It is stated that he volunteered for service with the British ambulance which was sent to France by the National Aid Society at the time of the Franco-German war. This is not exactly true. He was specially asked to go with it; and, although he could not have been ordered to go on service in a war in which his own country took no part, it was intimated to him that it would be pleasing to the then Director-General of the Army Medical Department if he acceded to this request. He accordingly accepted the service, and went with the ambulance. It seems important to furnish this explanation, as it was his frequent habit to say: "Wherever duty calls me I am ready to go; but I don't volunteer."—I am, yours, etc.,

January 19th, 1880. F.R.C.S.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on January 12th; and, when eligible, will be admitted to the pass-examination.

Messrs. John H. Cuolahan, Segid A. Evans, and Walter B. Skelton, of Guy's Hospital; James D. Bluett, Philip Vincent, and John H. Walker, of University College; Charles J. Stansby and Samuel G. Milner, of St. Bartholomew's Hospital; John H. T. Walsh, of the Westminster Hospital; Richard D. Pedley, of St. Thomas's Hospital; Walter H. Goddard, of St. Mary's Hospital; Bertram Spencer, of the Toronto School; Cecil W. Cunnington, of King's College; York T. G. Moore, of St. George's Hospital: and Herbert E. Cree, of the Middlesex Hospital.

Nine candidates were rejected, including one for six months.

The following passed on January 13th.

Messrs. Charles L. Stow, Richard N. Jones, James Hodges, and Albert Morris, of King's College; William D. J. Morris, James B. Howell, and Theophilus F. Jeyes, of Guy's Hospital; Henry E. Haycock and George H. Bennett, of St. Bartholomew's Hospital; Griffith C. Wilkin and Isaiah H. Jones, of University College; James O. Lane, of St. George's Hospital; John T. Reynolds, of the Charing Cross Hospital; and William H. Burton, of the Ontario School.

Ten candidates were rejected, including one who had an additional three months.

The following passed on January 14th.

Messrs. Thomas R. Morse, Walter E. Walter, William H. Bean, and Harry Appleton, of the Charing Cross Hospital; Robert B. Mole and Henry Harratt, of the Middlesex Hospital; Henry E. Richardson and Quinten R. Veitch, of Guy's Hospital; Charles D. Hoar, of University College; Hugh M. Davidson, of King's College Hospital; Robert H. Hodgson, of St. Bartholomew's Hospital; and Richard H. Cowan, of the London Hospital.

Twelve candidates were rejected, including six who each had an additional three months.

The following passed on January 15th.

Messrs. Herbert H. McDougall, James J. Short, and James H. Breach, students of King's College; John A. Coutts and Francis W. Humphery, of St. George's Hospital; Americ E. Flaxman, of the Middlesex Hospital; Richard S. Wright, of St. Mary's Hospital; Wm. J. Hill, of St. Bartholomew's Hospital; William Growse, of Guy's Hospital; Harry Gravely, of University College; and Edward Mattei, of St. Thomas's Hospital.

Sixty-three candidates out of the one hundred and forty examined, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including nine who had an additional three months. With this meeting, the primary examinations were brought to a close.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 19th.

Bothamley, William P., Donnington, Spalding (Guy's Hospital)
Davis, Arthur R., Langport, Somerset (Middlesex Hospital)
Fagg, Thomas W., Alkham, Dover (St. Bartholomew's Hospital)
Favell, Richard, Sheffield (St. Bartholomew's Hospital)

Greensill, Joseph M., Witley, Starport (Middlesex Hospital)
Heaven, John, Bristol (Bristol School)
Heygate, Frederick N., West Haddon (St. Thomas's Hospital)
Irvin, Joseph H., Preston (Manchester School)
Mulroney, Thomas R., Bombay (Bombay School)
Pegge, William J., Newton Heath (Manchester School)
Scale, Thomas W., Aberdare (Middlesex Hospital)
Todd, George D., Leeds (Leeds School)
Wigg, Alfred E., Adelaide, South Australia (University College)
Williams, William, Aberdare (St. Thomas's Hospital)
Webb, William W., Uxbridge (Charing Cross Hospital)
Wood, James, Wigan (Manchester School)

Eight candidates were rejected.

The following gentlemen passed on January 20th.

Allen, Francis E., Upton-on-Severn (St. Bartholomew's Hospital)
Armitage, Joseph, Springfield Road, N.W. (St. Bartholomew's Hospital)
Boulter, Walter E., Manchester (Manchester School)
Brooke, George A. G., Kennington Park (Manchester School)
Chipperfield, Thomas J. B. P., Twickenham (St. Bartholomew's Hospital)
Fowler, Charles H., East Kirby (St. Bartholomew's Hospital)
Hagyard, Robert, Leeds (Leeds School)
Jones, William H. P. Jones, Euston Road (London Hospital)
Lewis, George S., Hobart Town (Guy's Hospital)
Mead, Charles, Falmouth (St. Bartholomew's Hospital)
McKee, Gerard M. E., Hammersmith (St. Bartholomew's Hospital)
Oglesby, Joseph W., York (Leeds School)
Parish, Frank, Erith (University College)
Reynolds, James J., Appledore, Devon (Guy's Hospital)
Richardson, James N., Leeds (Leeds School)
Rich, Evelyn A., Winchester (St. George's Hospital)
Roberts, Oswald, Richmond, Yorkshire (St. Thomas's Hospital)
Theed, Stanley E., St. Ives (Guy's Hospital)
Warren, Henry G. S., Orange, New South Wales (St. Bartholomew's Hospital)
Webber, William W., Crewkerne (St. Thomas's Hospital)
Whitehouse, John, Birmingham (University College)
Withers, Oliver, Sale, Lancashire (Manchester School)

Ten candidates were rejected.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BIRMINGHAM GENERAL HOSPITAL—Resident Registrar and Pathologist. Salary, £130 per annum, with board and residence. Applications on or before the 26th instant.

*BOOTLE BOROUGH HOSPITAL—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications on or before the 31st instant.

BRIGHTON AND HOVE DISPENSARY—Resident House-Surgeon. Salary, £140 per annum, with apartments, gas, etc. Applications on or before February 2nd.

*BRISTOL ROYAL INFIRMARY—House-Physician. Salary, £100 per annum, with furnished apartments, board, and washing. Applications on or before February 2nd.

*CITY OF DUBLIN HOSPITAL—House-Surgeon. Salary, £100 per annum, with apartments, light, fuel, and attendance. Applications on or before the 26th instant.

*EVELINA HOSPITAL FOR SICK CHILDREN.—Registrar and Chloroformist. Salary, £30 per annum. Applications not later than February 5th.

*HUNTINGDON COUNTY HOSPITAL—House-Surgeon. Salary, £60 per annum, with board and lodging. Applications on or before February 6th.

*KING'S COLLEGE—Professorship of Ophthalmic Surgery, also Ophthalmic Surgeon. Applications to the Secretary.

*LONDON FEVER HOSPITAL—Physician and Assistant-Physician. Applications, with testimonials, to the Secretary, not later than February 7th.

NEW WINCHESTER UNION—Medical Officer and Public Vaccinator for the No. 3 Micheldever District. Salary, £100 per annum. Applications, with testimonials and qualifications, on or before January 30th.

*NORTH KENSINGTON AND KENSAL TOWN PROVIDENT DISPENSARY—Medical Officer. Applications, with testimonials, to the Secretary on or before January 28th.

OUGHTERARD UNION—Medical Officer for Lettermore Dispensary District. Salary, £100 per annum, with £10 a year as Medical Officer of Health. Registration and Vaccination Fees. Election on the 24th instant.

PENZANCE UNION—Medical Officer of the Third District. Salary, £26 per annum.

ROSCREA UNION—Medical Officer for Roscrea No. 1 Dispensary District, at a salary of £100 per annum, £10 as Medical Officer of Health, with Registration and Vaccination Fees. Election on February 2nd.

ROSCREA UNION—Medical Officer for Workhouse, at a salary of £80 per annum. Election on February 5th.

SHIPTON-ON-STOUR UNION—Medical Officer for the Halford District. Salary, £47 per annum.

TAVISTOCK UNION—Medical Officer for the Tavistock District and the Workhouse. Salary, £90 per annum.

WEST KENT GENERAL HOSPITAL, Maidstone—House-Surgeon. Salary, £120 per annum, with lodgings, attendance, etc. Applications on or before the 31st instant.

*WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY AND DISPENSARY—Surgeon. Applications on or before February 7th.

*WILLITON UNION, Somerset—Medical Officer for the Porlock District of the Union. Salary, £50 per annum, with extra fees for operations, etc. Applications, with testimonials and qualifications, on or before February 9th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BURMAN, C. Clark, L.R.C.P. & S.Ed., appointed Medical Officer of the Fern Island Light Establishments, *vice* L. G. Broadbent, M.D., resigned.

*CURETON, Edward, L.F.P.S., appointed Surgeon to the Shrewsbury Borough Police Force, *vice* W. Eddowes, M.R.C.S.Eng., resigned.

DEWAR, John, L.R.C.P.Ed., appointed Physician to the Hospital for Women and Children, Vincent Square.

*HELME, J. Milner, M.D., C.M., appointed House-Surgeon to the Royal Maternity and Simpson Memorial Hospital, Edinburgh.

JONES, A. Lloyd, M.R.C.S., appointed House-Surgeon to the London Hospital.

WELCH, Henry, M.B., appointed House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* *J. Milner Helme, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

WOODS.—On January 18th, at Killarney Asylum, the wife of Oscar T. Woods, M.D., of a daughter.

DEATHS.

CORBIN.—On the 14th instant, at No. 9, Saumarez Street, St. Peter Port, after a long and painful illness, borne with unmurmuring resignation, Margaret Lukis, second daughter of M. A. B. Corbin, F.R.C.S., Inspector-General, Militia Medical Department, Guernsey.—R.I.P.

OSMOND, Thomas E., M.R.C.S.Eng., at Thorpe-le-Soken, Essex, aged 60, on January 9th.

SCOTT.—On January 2nd, at Clifton House, Beeston Hill, Holbech, aged 57, William Scott, M.R.C.S.Eng.

NAVAL MEDICAL SERVICE.—The following appointments have been made: Staff-Surgeon J. Robertson to the *Audacious;* Surgeons T. E. K. Williams to the *Wivern* and the *Kestrel;* J. F. Donovan to the *Forester;* G. J. Fogerty to the *Revenge;* H. J. M. C. Todd to the *Jackal;* W. C. Breton to Sheerness Dockyard.

BARRINGTON'S HOSPITAL, LIMERICK.—At the annual meeting of the governors, which was held last week, the financial report for the past year showed that the institution was £92 in debt, a sum which will be shortly paid off by the incoming subscriptions and the grant of £100 from the Corporation. Dr. O'Sullivan referred to the fever wards, which have been opened in connection with the hospital, in favourable terms; and a vote of thanks to Dr. Holmes for the efficient manner in which he had performed the duties of medical officer during the past year terminated the proceedings.

PUBLIC HEALTH.—During last week, being the second week of the year, 4,064 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 25 deaths annually in every 1,000 persons living. The annual death-rate was 18 in Edinburgh, 24 in Glasgow, and 38 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Brighton 16, Bristol 17, Leeds 17, Leicester 18, Portsmouth 19, Bradford 20, Oldham 23, Norwich 23, Salford 24, Wolverhampton 24, London 25, Nottingham 25, Birmingham 25, Sunderland 26, Newcastle-upon-Tyne 27, Plymouth 27, Hull 27, and the highest rate 28 both in Manchester and Liverpool. The annual death-rates from the seven principal zymotic diseases averaged 3.6 per 1,000 in the twenty towns, and ranged from 0.4 and 0.5 in Leicester and Brighton to 7.7 and 9.0 in Hull and Plymouth. Measles showed exceptional fatality in Plymouth, Hull, and Nottingham. In London, 1,730 deaths were registered, being 30 below the average, and giving an annual death-rate of 24.6. During the past three weeks, the death-rate has averaged 27.0, against 26.4 and 27.4 in the corresponding periods of 1877-8 and 1878-9. The 1,730 deaths included 4 from small-pox, 40 from measles, 89 from scarlet fever, 10 from diphtheria, 114 from whooping-cough, 17 from different forms of fever, and 9 from diarrhœa; altogether 283 deaths, which were 25 above the average, and were equal to an annual rate of 4.0 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 672 and 455 in the two preceding weeks, were 512 last week, and exceeded the corrected weekly average by 42. Different forms of violence caused 45 deaths; 41 were the result of negligence or accident, including 16 from fractures and contusions, 8 from burns and scalds, 3 from drowning, and 11 infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 33.1°, and 5.2° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 8.1 miles per hour, which was 5.3 below the average. Rain fell on three days of the week, to the aggregate amount of 0.20 of an inch. The duration of registered bright sunshine in the week was equal to 9 per cent. of its possible duration.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S,. 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30 Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Cockle (the President) will bring forward a Case of Obstructive Aortic Disease, and a Case of "Double Ptosis"; Dr. Carpenter (Croydon), "On the Treatment of Leucocythæmia".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Christopher Heath, "On a Case of Aneurism of the Subclavian Artery treated by Amputation of the Shoulder-joint, and the introduction of Needles into the Sac"; Dr. Vandyke Carter, "Contributions to the Experimental Pathology of Spirillum Fever".

WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Braxton Hicks will read a paper on "Obliquity of the Pregnant Uterus"; Mr. Clement Lucas will show a Case of "Aneurism by Anastomosis of Half the Face"

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

AN APPEAL.

SIR,—At the end of last year, your were kind enough to insert an appeal from myself and Mr. Fernie of Macclesfield on behalf of the widow and five children (one a cripple) of a medical man cut off by fever in the prime of life; her total income being £46 *per annum*, the proceeds of his life-insurance. In answer to this appeal, will you allow me to acknowledge, with many thanks, the following kind donations. W. M. K., £3; Mr. Langston, Westminster, £1 1s.; W. Thorn, Esq., 87, Harrow Road, £1 1s.; H. Stear, Esq., Saffron Walden, £1; W. Tomlinson, Esq., Malta, £1. Received by H. Fernie, Esq.:—J. B. Hughes, Esq., Macclesfield, £1 1s.; J. Somerville, Esq., Macclesfield, £1 1s.; G. Bland, Esq., Macclesfield, £1 1s.; D. H. Fernie, Esq., Macclesfield, £1 1s. Our object is to raise a sum of £30 to place one of the boys at school; and we, still being anxious to accomplish this, with your kind permission repeat our appeal, in the hope that others of the medical profession may lend a helping hand to the widow and children of their brother medical man.—Believe me, sir, yours faithfully and obliged,

January 1880. J. P. BARKETT, Rector of Exbury.

CARRIAGES.

SIR,—"General Practitioner", in your impression of the 29th ultimo, broaches an interesting subject.—the most suitable and convenient form of vehicle for the medical man's daily use. Having devoted considerable attention and thought to the subject, it would only be doing him a kindness to give him the benefit of my experience. Shelter from the weather, lightness, strength, and economy in construction of a carriage, are primary considerations. Thoroughly tired years ago of the ordinary two-wheeled open doctor's gig, with its faults of letting the inmate get wet through, laying the foundation of rheumatism, heart-disease, pneumonia, bronchitis, Bright's kidney, and being really little if any better than sitting in an open chair in the public road on a cold bitter or a pouring wet day, and affording every facility in addition for sitting hours in wet clothes, I determined to have a close carriage. The expense seemed great under ordinary circumstances, for, beyond the original outlay of possibly £100 for primary purchase of horse and carriage to begin with, there would be a like sum annually for maintenance of horse, groom, etc. I could hear of nothing cheaper, so determined to be my own architect, and the pioneer of a form of cheaper covered conveyances, which should have all the advantages of the larger and more expensive ones. A small light two-wheeled pony-carriage, weighing two to three hundred weight perhaps, and adapted for a pony of eleven, twelve, or thirteen hands, standing only a few inches from the ground, with or without a cranked axle, was the starting-point of my new vehicle. To this I added an ordinary leather hood, precisely as in the larger carriages, to open or shut in two or three seconds, with curtains or storm-apron in front to protect the face. Thus I had an open or a closed carriage as the day and weather or my wants might require, and convertible into either wherever I might be. I drove myself from inside, had no coachman behind or upon the box getting wet through on a wet day, or annoying me upon a dry one. I can have a companion or groom or not as I may choose—the latter generally more pleasant; one's thoughts are not interrupted; there is less wear and tear, fewer accidents and breakages. A little drawer under the seat is fitted up as a miniature surgery, containing everything likely to be wanted upon an emergency, and changeable according to personal requirements or the wants of the neighbourhood: it has saved me immense trouble, delay, and the expense of keeping a dispenser at home. Wherever I might be, there I had in a condensed and concentrated form everything likely to be wanted in a hurry.

This kind of carriage can be built, with any modification, for a pony as small as eleven hands high, without looking odd, or to any intermediate size up to a horse of sixteen or seventeen hands. It is within a trifle as comfortable and as snug as a brougham, and costs less than a quarter of the annual expenditure; the smaller the pony the less the grooming required, and the less the expense; a boy at a trifle a week is enough, or even a woman, with a little training, does better still. My present pony is about twelve hands and a half high, and an elegant carriage to suit it has just been supplied to me by Mr. W. Beddoes Moore, of Oldswinford, Stourbridge, who can reproduce others, subject to any modification, for £40 or upwards; open two-wheeled gig, £25; leather hood, £15. The leather hood can be made to take on and off the carriage at pleasure, so that it can be left at home when lightness is required, or it can be a permanent fixture.—I am, sir, your obedient servant,

December 1879. NE ACCIDAT PROVIDEBO.

F.R.C.S.—We think the suggestion inopportune.

HOW LONG MAY THE CIRCULATION IN A LIMB BE ARRESTED?

SIR,—I have read with much interest the clinical lecture by Mr. T. Holmes on femoro-popliteal aneurism reported in last week's JOURNAL. I should like to ask, as a point of practical importance, whether any experiments have been made to show the utmost limit of time, compatible with safety, that the circulation in a limb may be completely arrested by means of Esmarch's bandage? In the above case, the bandage was applied for "about an hour". As in all probability no such experiment has been made—at any rate on the human body—it would be interesting and valuable to know the longest time that the bandage has been applied to a limb without interfering with the establishment of the circulation.—I am, sir, your obedient servant, J. BAIN SINCOCK.

Bridgwater January 12th, 1880.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. **Francis Fowke**, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Slow Pulse.

A case exhibiting this phenomenon has come under my observation, in a patient of Dr. Samuels', at the Liverpool Hospital for Diseases of the Chest, by whose kindness I was enabled on several occasions to note the condition of affairs, and with whose assistance I subsequently made the *post mortem* examination. It was a case of total obliteration of the superior vena cava, occurring in a woman about thirty years of age. On three occasions on which I examined the patient, I found the pulse to be 34, 37, and 38 per minute. Dr. Samuels assures me it never exceeded, and but seldom reached, that figure. The woman died apparently in an attack of syncope; and at the necropsy we discovered a totally obliterated superior vena cava running through an indurated mass of connective tissue. Whether the slow pulse was (*a*) congenital, (*b*) depended on inhibitory action owing to irritation of the vagus nerve by the indurated connective tissue, or (*c*) was the result of slow access of blood to the right side of the heart, thus retarding the circulation generally, I have not been able quite to clear up in my own mind. In the absence of a congenital origin for the phenomena, I think it quite possible that one or other of these causes, or perhaps a combination of them, may have contributed to it. The vagus of the right side was found running through the indurated connective tissue; and it is certain the entire volume of venous blood from the head and neck and both upper extremities must have found its way to the right auricle by anastomosing branches with the inferior cava, as there was not a vestige of a canal through the superior cava.

Robt. S. Archer, A.B., M.B.

Liverpool, December 15th, 1879.

I attended an old gentleman from time to time for two years for frequent attacks of rheumatic gout of the atonic type. He had atrophy of the heart and atheroma of the cerebral arteries. He was neither a smoker nor a drinker, but was of a very passionate temperament. He married a second time in his sixty-sixth year, and had two healthy children. In the last year of his life, he suffered from atrophy of the nervous centres. He died in his seventy-fourth year. I attended him for six weeks previously to his death for frequent attacks of syncope. The pulse during that period was never above 30, and the average was 26. It fell before his death to 23: it was weak and extremely intermittent. He died in convulsions, due to anæmia of the brain.

J. J. Murphy.

Mexican Hair-Renewer.

The following is given by the *Chemist and Druggist* as the formula for renewing and restoring the hair (H. C. Gallup, London):—Sugar of lead, 1 gramme; milk of sulphur, 3 grammes; glycerine, 32 grammes; water, 165 grammes, 4s. 6d.—*Hager.*

Open Spaces and Out-door Amusement.

The "common places" of sanitarians become at last the watchwords of politicians. This is a hopeful sign; but the political personages might be a little more graceful in their plagiarism, and more frank in their acknowledgments. Speaking at Sheffield lately, Mr. Mundella said one of the great wants of England was outdoor amusement for the people. The country was becoming a vast workshop, and whatever they could do to give the people a closer acquaintance with fresh air and pleasant relaxation would do more to elevate them than many of the remedies he constantly heard proposed. This is to put into general phrases the figures of Dr. Farr.

The New Burials Act.

The Milton-next-Sittingbourne Rural Sanitary Authority appear to be the first rural authority who have taken definite action under the new Interments (Public Health) Act. They recently instructed their medical officer of health to report on the condition of the burial grounds in the sixteen parishes comprised in their district. He has reported. In twelve parishes, ample accommodation still exists for burials, but in the remainder there is need for further accommodation. The consideration of the report is deferred.

Ship-Surgeon.—The terms vary very much. Our correspondent had better inquire for himself at the offices of the leading ship-brokers owning lines of vessels to the port named, and also at one or other of the medical agents who especially concern themselves with vacancies in the commercial marine. He can make these inquiries by letter as well as personally. If we can give any further assistance in the matter later on, we shall be pleased to do so.

Chemist, Druggist, and Doctor.

The following announcement appears in the *Annandale Observer* of Friday, January 9th:—"Intimation. The executrix of the late John Williamson, chemist and druggist, High Street, Annan, begs to intimate that the business as carried on by her late husband has been acquired by Dr. Mackenzie, Maryfield.—Dr. Mackenzie, Maryfield, Annan, respectfully intimates that he will hold professional consultations daily at the above address. Hours: 9 to 10 A.M., and 6 to 8 P.M. Messages may be left either at the surgery in High Street or at Maryfield."

Dr. Joseph Byrne (Londonderry).—We hope Dr. Diamond can explain his letter to the Secretary of the Catholic Benefit Club. To underbid a brother practitioner who is satisfactorily discharging a club appointment, and at the same time to offer to restrict the midwifery fee to 10s., would be to adopt a course destructive of the best interests of the profession. In many parts of the country efforts are now being made to raise the capitation fee paid by clubs to their medical officers; but such proposals as this of Dr. Diamond appear to be calculated to make the task a difficult one. It is hopeless to expect to obtain good terms if medical men are not united in their demands.

No Vaccinator.—The statement made is entirely without foundation, and absolutely contrary to facts. Should "No Vaccinator", if he really believe the ridiculous statement which he makes, communicate with the military authorities in Paris, they will at once set him right.

An Anagram.

S. A. L. sends us an "anagram", which he contributed to a weekly paper, in competition for a prize "for the best anagram on the name of any well known newpaper or magazine".

"British Medical Journal:—Mr. Hart's cue: I bid all join".

He received "honourable mention". The anagram seems to be correctly constructed. The prize appears to have been awarded for an anagram on the *Weekly Dispatch*: "Thy pet, Chas. W. Dilke." Mr. Ashton Dilke is, we believe, however, the editor of the *Dispatch*.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Bacteric Influences in Phthisis.

Sir,—I see that in the last issue of the British Medical Journal the attention of the profession is drawn to the very interesting experiments of Dr. Max Schüller upon the bacteric origin of tuberculosis, and upon an antiseptic treatment of artificially infected animals by benzoate of soda. Dr. Schüller's theory has been held for years by many Continental practitioners, and an analogous treatment has long been pursued with a large measure of success—at any rate, so far as tubercle of the respiratory organs is concerned. A common method, but, so far as I have seen, a dangerous one, consists in the inhalation of air charged with sulphuretted hydrogen. A far more useful agent is the oleum pini sylvestris, a pleasant smelling drug, which may be readily inhaled upon boiling water, and the vapour of which may be diffused through the invalid's room, if it be desirable to prolong its action during the night. The use of this remedy is said to have been suggested by the benefit often derived by phthisical persons from a residence amongst pine-forests, and its effects in checking expectoration and hæmaturia are very marked in all but exceedingly advanced cases. The antiseptic quality of this agent depends, no doubt, in part upon its action as a promoter of the formation of ozone; still, its own local action, both when inhaled and administered internally, must be considerable. The main difficulty in applying any antiseptic agent in tuberculosis lies, however, not so much in removing the local malady of the respiratory organs, as in allaying the disease in the other organs of the body, and in providing a permanent remedy for the cachectic condition which has rendered the patient's tissues a fitting nidus for Dr. Schüller's bacteria. As an example of what I mean, I may mention that I have seen several phthisical cases in which the malady of the lungs has become entirely healed under this treatment, in conjunction with favourable climatic influences; but the tuberculous affection of the digestive organs has continued unimpeded, or has even become aggravated. In some such cases, more particularly those where there was much vomiting and but little diarrhœa, I have used the oil of pine internally with advantage; but the most useful measures for restoring the general tone of the health have undoubtedly been the hypophosphites, combined with a warm dry climate and exceedingly careful diet. Too much hope seems often to be placed upon the discovery of some means which will remove existent tubercles from some poor fleshless feeble creature, who, immediately upon the cessation of his cough, is to resume his place amongst the active contingent of his fellow men. Such an individual must contrive to gain a new constitution by change of climate and careful regimen. If he fail in this attempt, antiseptics will never do more than patch him up for a few months, to become the prey of the first bacteria that cross his path after he relinquishes his treatment.

With an apology for trespassing so far upon your space, I remain, yours truly,

Grand Hotel, Bordighera, Dec. 27th, 1879. J. A. Goodchild.

John Keats, L.S.A.

Sir,—This is an age of memorials. Within the profession, as without, we are not slow to recognise the worth of the mighty dead. The immortality of Harvey, Hunter, and Jenner has been publicly acknowledged. The most brilliant meteor, I believe, which has appeared in connection with British medicine is Keats the poet, whose genius was unfortunately blighted when only just developed. A year or two since, you accused the London surgeons of being, in too many instances, lacking in general culture. That there is a great want of *cultus* among us it would be vain to deny; still we have undoubtedly in our ranks a fair sprinkling of men versed in letters, and others possessing at any rate an appreciation of literature in its widest sense. To such, to all who rightly estimate the value of poetry, I address myself.

John Keats was educated at Guy's Hospital, and became a Licentiate of the Apothecaries' Hall. He stepped aside from medicine in order to give full play to his brilliant imagination. Guy's Hospital in these days is not inappreciative of the muses, as a volume of poetry, edited by Dr. Pye-Smith, bears witness. It is not necessary for me to speak in praise of the poetry of Keats, as its worth is attested by the nation. On a wall near his grave in Rome, a marble relief of his head appears, with a suitable epitaph in verse beneath; but I believe I am correct in stating that in Keats' own country nothing has been done by his admirers to perpetuate his memory, excepting, of course, the well known lines written by Shelley on the death of his friend, and, one should add, his life by Lord Houghton. What I would suggest is, that some suitable monument be erected: a bust, or, perhaps, a church-window. The former would no doubt be appropriate; the latter, again, would appear a fitting way to commemorate the life of a gentle poet, distinguished for his domestic affections. In such a work the lay friends of Keats would of course be invited to share with us the honour; but the memorial, whatever form it might take, should distinctly emanate from the medical profession. Perhaps some of those gentlemen who are more competent to write on such a subject than I am will kindly state their views; and if, sir, the idea of a Keats memorial should meet with your approval, perhaps you will have the goodness to further the object, should you deem the British Medical Journal a fitting medium.—I have the honour to be, sir, your obedient servant,

Thomas Leeds.

Balham, S.W., January 1880.

Mr. Henry Osborn (Southampton) is thanked for his suggestions, which shall have due attention. The subject of the compulsory closing of schools during the prevalence of scarlatina is one of some complexity; but we believe it is receiving consideration in the proper quarter.

Animal Vaccination.

Sir,—In your report of my speech at the concluding meeting of the Conference on Animal Vaccination, your reporter has completely misunderstood my quotation from Sir Thomas Watson's letter to the *Pall Mall Gazette*. In this Sir Thomas, so far from recommending inoculation of calves with variolous matter, strongly protests against the practice; for he says "in this way a prodigious amount of mitigated small-pox must have been unconsciously scattered about and kept up, and the otherwise mysterious vaccination statistics of this country become capable of explanation". From this it will be perceived that he at all events is not satisfied of the identity of variolous "lymph" and Jenner's original stock. What I said about Jenner was, that he advocated using the discharge from the heels of horses affected (according to his opinion) with "grease" as the proper virus wherewith to inoculate cows, and that this alone gave reliable "protection". There is at least one living witness to prove that this was his practice, and, moreover, that he pronounced the spontaneous vaccine to be non-protective.

Trusting you may be able to find room for these corrections, I am, your obedient servant,

Edward Haughton, M.D.

Spring Grove House, Upper Norwood, S.E., January 10th, 1880.

Guaiacum Resin.

Sir,—In reply to Mr. Morris's remarks as to the difficulty of administering guaiacum in solution, I have for some years used a mixture composed of equal parts of liquor potassæ and tinctura guaiaci composita in the earlier stage of acute tonsillitis, lumbago, etc. It mixes well with water, and makes a perfectly clear mixture, without any sediment. I think few people are aware of the power liquor potassæ possesses of keeping in solution almost all the tinctures of the gum resins, and also compound tincture of cinchona, copaiba, and other articles of the *Pharmacopœia*.

F. J. Flower, M.R.C.S.E. & L.S.A.

Broad Chalke, January 1879.

Political Organisation.

Sir,—The last number of the Journal refers, in the article on the Habitual Drunkards' Act, to the necessity which exists for the medical profession so to organise themselves as to increase their political power. In the present day, almost every class, save our own, is duly provided with a working organisation for this purpose. The incalculable advantage that would accrue to the medical profession is evident; for though in the country our forces might be too scattered, yet in London and other large towns we could exercise a most powerful influence; but unless such an organisation is originated by the authorities of the Association, who is to take the lead? Had we once a political organisation in working order, the "will-o'-the-wisp-like good time coming" would seem to be in sight at last. I should be pleased to contribute my mite of £5 *per annum* towards working expenses; and remain, sir, your obedient servant,

C. Vipan, M.R.C.S.

Brighton, January 12th, 1880.

Temperaments.

Sir,—If "G. H." turn up Neale's *Medical Digest*, he will find reference to Drs. Laycock and Southey on the temperaments, and in the *Cyclopædia of Practical Medicine*; and the article "Levy on Hygiene", in vol. xix of the *British and Foreign Medical Review*, they are very fully treated.—I am, etc.,

A. Stewart.

112, Cheapside, January 17th, 1880.

Contraction of the Colon.

Sir,—Will any of your practical readers kindly suggest to me some method of keeping the fæces soft in a case of contracted colon of dysenteric origin? The use of the mildest purgatives is followed by small scybala, with much mucus and pain, and even vegetables or fruit cannot be taken without the production of great intestinal flatus. In fact, nothing but farinaceous food can be borne by the irritated mucous surface of the bowel, and the purgative which it is necessary to give occasionally is constantly rendering this condition of the intestine more difficult to endure. I may mention that belladonna cannot be borne.—I enclose my card, and remain, yours faithfully,

M.R.C.S.

Sir,—I have a relative, a medical man advanced in life, who for some years has considered that he has a contraction of the colon at the sigmoid flexure. The plan he has adopted is to take a small portion of lenitive electuary (confectio sennæ, *P.B.*), procured from Apothecaries' Hall, every night. He has tried the electuary from other places, but does not find any so agreeable to take or so efficacious as that obtained from "the Hall". He continues in very fair health.—I am, sir, yours truly,

Francis Toulmin.

Upper Clapton, January 17th, 1880.

Novel Aids to Diagnosis.

Sir,—The novel "aid to diagnosis" advanced by your correspondent in the British Medical Journal of the 11th January, on the subject of intemperate habits, deserves some criticism. I cannot but think that the inspection of the "scratches and scars of the keyhole face of the watch", like many other doubtful evidences of disease, cannot be of much value when taken alone, and is only an atom of testimony, pointing—as it may or may not—to the probability of the owner being addicted to habits of intemperance. One fact seems clear, that these scratches demonstrate to the observer that clumsiness or difficulty has been the cause of so many erratic scrambles of the watch-key. Such apparent indecision and awkwardness as these whimsical lines of meshwork exhibit may, I think, with consistency be attributed principally to two or three causes—namely, an improperly fitting key, or the habit of the winder to carry on the operation in the dark; much depends, also, on the age of the watch.

Taking into consideration the shortness of the days during the English festive season, I think we should scarcely be justified in accusing the owner of a scratched keyhole of keeping late hours without some strong corroborative evidence; much less should we consider the scratches of any diagnostic value in the affection of alcoholism, either acute or chronic. On examination of my own timekeeper, I am somewhat alarmed at the grave diagnosis at which I conclude your correspondent would arrive if I sent it to him for examination. After inspecting my own watch, I have been reassured by looking at those belonging to several of my intimate friends, against whom, on matters of sobriety and decorum, never a word has been whispered: these I find, by their rude disfigurements, to be of a decided bacchanalian type, judging from the standpoint of your correspondent. Perhaps he is right in the observation . . . "leaving it to individual discretion to obtain the information thereby afforded in such a manner as not to rouse the suspicion of a patient unwilling to admit of alcoholic excess". Cautiously asking a patient of mine, with becoming solemnity—of whose addiction to the flowing bowl I am well aware—to show me the keyhole of his watch, I was abashed and shocked at his suggestion that I might be suffering from the same affliction as himself. His watch, I may mention, was free from any exuberance of scars.

In conclusion, I would remark that the evidence afforded by the "scarring and scratching of the keyhole-face" appears to me to be of doubtful value, even as an "aid" to diagnosis in alcoholism. To some patients, the request of a physician to look at their watches would savour of the ridiculous, or perhaps create an unfounded suspicion.—I am, sir, your obedient servant,

W.

Chinese Opinions concerning Milk.

The following translation of a Chinese placard regarding the highly immoral practice of consuming cow's milk is quoted by *Nature* from the *Foochow Herald*. "Strictly refrain from eating cow's milk! Man should not rob the beasts of their food. Moreover, of all beasts the cow is the most useful and meritorious. Men who do not discriminate between mankind and beasts are worse than senseless. Those who sell milk darken their consciences for gain, and those who eat cow's milk foolishly think they are benefiting their bodies. Men who take medicine should first carefully investigate and find out its nature. Why do not those who eat cow's milk consider and inquire into its origin? For instance, men beget children, and while the children are small they depend upon the milk for their nourishment: so it is also with beasts. But when men buy milk to eat, do they not do injury to the life of the calf? And is there not bitter hatred and distress in the minds of both cow and calf? Beasts cannot speak: how, then, are they able to tell the man that, in eating the milk of beasts, his body becomes like that of birds and beasts? But if men wish to take strengthening medicine, there are numberless other articles in the world that are beneficial. What necessity, then, is there for taking cow's milk? Besides this, the death and life of men have their fixed number and limit, and this cow's milk cannot lengthen out and continue the life of man. Since, then, all know the truth, that it cannot do this, all ought to act with loving and benevolent spirit: especially all who receive this exhortation should keep from eating milk. The children of those who cause their families to refrain from eating milk will be preserved to grow up: they also will thus lengthen out their own lives, and will escape from evil in time of fatal epidemics. If such persons be able also to exhort others, who are ignorant of the first principles, to leave off the eating of milk, their descendants shall surely prosper. Published by the Hall of Good Exhortations. The xylographic blocks are deposited in the Ung Ling Kóh."

Dr. Chambers on Oöphorectomy.

Sir,—I have so fully and freely expressed my opinion against vaginal section elsewhere, that I did not think it necessary to restate my views; similarly Dr. Meredith evidently did not think it worth while to take up your space by saying that I had previously dilated and explored the uterus, because doubtless he assumed that the veriest tyro in gynæcology would take that for granted. Dr. Chambers might just as well assume that I operated without an anæsthetic because it is not stated that ether was administered. Really life is too short, and the space of the Journal too valuable, for such commonplace details.—I am, etc.,

Lawson Tait.

Q. E. D.—Duly received, and shall have attention.

Epistaxis.

Sir,—Since my letter to you on the subject of epistaxis was published, I have had another case quite as satisfactory; but being aware of it beforehand, I went provided with a Higginson's enema apparatus, which answers the purpose very well indeed. The patient was a little girl, aged five, who had been troubled with frequent, though not severe, attacks of epistaxis, having had no less than five the day before. On the day of my visit, however, an attack of a serious nature, both as regards duration and quantity, necessitated medical assistance. On my arrival, it had just ceased; but on removing some clots which filled the nostril, it began again as violent as ever, and I at once injected up the nostril a mixture of vinegar and water (in about the proportion of three of the latter to one of the former), with as much success as in the case already reported.—I remain, dear sir, yours truly,

C. Clark Burman, L.R.C.S.Ed.

Bamburgh, January 1880.

We have sent the copy of Madame Frances Brown's pamphlet to Mr. R. H. S. Carpenter. The case is, we think, one which calls for the intervention of that useful society the Medical Defence Association, of which he is the honorary secretary.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

*** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. T. Holmes, London; Dr. J. Hughlings Jackson, London; Dr. Gairdner, Glasgow; Dr. Burney Yeo, London; Dr. Landolt, Paris; Dr. Wilks, London; Mr. J. S. Nairne, Glasgow; Dr. Campbell, Liverpool; Dr. Norman Kerr, London; Mr. J. Spence, Edinburgh; Dr. Mahomed, London; Mr. Furneaux Jordan, Birmingham; Dr. Felix Semon, London; The Rev. J. P. Barkett, Exbury; Mr. John Lambert, Inverness; Mr. Norman Dallin, London; Mr. H. Butler, London; Mr. J. Davis, London; Messrs. Fraser and Co., London; Messrs. Robert Boyle and Son, Glasgow; Dr. Heywood Smith, London; Mr. J. Mackenzie, Tiverton; Dr. Edward Seaton, Nottingham; Mr. W. H. Day, Norwich; M.B., M.A.; An Associate; The Secretary of Apothecaries' Hall; Mr. G. W. Wigner, London; Mrs. Fitzgerald, Bath; Mr. J. L. Green, Salisbury; Mr. C. J. Cullingworth Manchester; Mr. Fergus M. Brown, Wansford; The Secretary of the Medica Society of London; Mr. Robert Bell, Hyde; F.R.C.S.; Dr. A. Collie, Homerton The Registrar-General of England; Dr. E. Crisp, Chelsea; Dr. Leech, Manchester; The Registrar-General of Ireland; Mr. R. Clement Lucas, London; Dr. Hector C. Cameron, Glasgow; Mr. T. Lettis, Yarmouth; Mr. G. Jackson, Plymouth; Mr. J. E. Brooks, Colwyn Bay; Dr. C. H. Penny, Oakham; Mr. J. Smith, Bristol; Mr. W. F. Murray, Forfar; Mr. E. Cureton, Shrewsbury; Mr. F. Baker, Wokingham; Mr. G. H. Cable, Greenwich; Dr. M. Harmer, Hawkhurst; Mr. F. T. Paul, Liverpool; Mr. S. D. Wells, Plymouth; Dr. C. R. Woods, Liverpool; Mr. A. Beadles, London; Dr. G. Hoggan, London; Mr. C. L. Kemp, London; Mr. G. Whittle, Liverpool; Dr. W. A. Satchell, Tunbridge Wells; Dr. L. P. Yandell, Louisville; Our Paris Correspondent: Mr. C. Arnison, Darlington; Mr. J. Court, Chesterfield; Mr. Turnour, Market Rasen; Dr. Gairdner, Crieff; Dr. J. Jamieson, Melbourne; Our Dublin Correspondent; Mr. S. Benton, London; Mr. R. P. Oglesby, Leeds; Our Edinburgh Correspondent; Dr. J. Sawyer, Birmingham; The Secretary of the Hunterian Society; Mr. C. H. Roberts London; Mr. D. R. Ryder, London; Mr. S. Alford, London; Mr. A. MacLean Latheron; F.R.C.P.; Our Glasgow Correspondent; Dr. H. Barnes, Carlisle; Mr William Gandy, Norwood; Mr. J. T. Griffiths, Penygroes; Dr. Litton Forbes, London; Mr. W. Trenerry, Bristol; Dr. Handfield Jones, London; Mr. J. L. Miller, London; Mr. C. R. Straton, Salisbury; Mr. E. Stephens, Ilminster; Mr. C. C. Burman, Bamburgh; Dr. John McVail, Kilmarnock; Mr. E. Casper, London; Dr. Borchardt, Manchester; Dr. MacSwinney, London; Mr. A. T. Duncan, Carmarthen; Dr. J. W. Miller, Dundee; Mr. R. Ceely, Aylesbury; Mr. H. Scott, Leeds; Mr. W. M. Clarke, Clifton; Dr. A. Wilson, London; Mr. John W. Davies, Clun; Mr. R. M. Hoggan, Cathel; Mr. Buckley, Manchester; Mr. C. Bradford, Birmingham; Mr. G. Eastes, London; Mr. Teevan, London; Mr. Brown, Ealing; Dr. Tilt, London; Mr. G. W. Homan, Lichfield; Dr. A. S. Taylor, London; Mr. J. Mann, London; etc.

ADDRESS

ON

SOME OF THE CONDITIONS INCLUDED UNDER THE GENERAL TERM "RHEUMATOID ARTHRITIS".*

By WILLIAM M. ORD, M.D.Lond., F.R.C.P.,
Physician to St. Thomas's Hospital.

WHEN a disease is found to be treated of under many different names, when each successive student of it finds reason to give a new descriptive term to the assemblage of phenomena as he is led to see them, we may safely conclude either that, in fact, more than one form of morbid process, or more than one kind of clinical history, is involved. In other words, a plurality of genera has been taken for one, or one genus comprehending several species has so far only received an imperfect analysis.

The joint-affection to which I propose to direct your attention to-day appears to me certainly to come under the second category, not improbably under the first. For I find that the disease called by Dr. Garrod "Rheumatoid Arthritis" has been called "Digitorum nodi" (Heberden, 1788), "Nodosity of the Joints" (Haygarth, 1805), "Usure des Cartilages articulaires" (Cruveilhier: *Anat. Pathologique*), "Rheumatic Gout" (Brodie, Fuller, Aitken), "Chronic Rheumatism of the Joints" (Todd), "Chronic Rheumatic Arthritis" (Adams of Dublin), "Rhumatisme Noueux" (Trousseau and other French writers), "Arthrite sèche ou déformante" (Follin and Duplay, and others), "Arthritis Myelitica" (Remak); while a variety of it has received from Smith of Dublin the name of "Morbus Coxæ Senilis". At the present time, the term generally recognised by the public is "Rheumatic Gout"; and, though "Rheumatoid Arthritis" is a nearer approach to accurate naming, the former term is perhaps most commonly used by the medical profession in speaking of the disease to their patients.

A definition of rheumatoid arthritis being required, may be stated as follows: a persistent or progressive inflammation of one or more joints, in origin neither rheumatic, nor gouty, nor scrofulous, nor in any way specific; which has for results atrophic changes in articular cartilages and articular ends of bone, and hypertrophic changes in synovial membrane and adjoining periosteum and cartilage.

The present paper having for its object a discussion of rheumatoid arthritis from a clinical standpoint, I shall refer to the morbid anatomy of the disease only so far as is necessary to ensure a distinct understanding between me and my audience as to the identity of the condition to be so discussed.

The painful, swollen, hardened, knotted, and, in various degrees, stiffened or partially dislocated joints, standing in prominent contrast with the unaffected shafts of the limbs, and unaccompanied by tophaceous deposits, form, when their chronic and progressive history is learned, the first means of identification. With these external appearances are associated, internally, successive stages of softening, fibration, and absorption of the cartilage tipping the articular ends of the bone; of wearing-down and eburnation of the denuded bone; of effusion within the synovial capsule; of thickening of synovial membrane and its fringes, with the formation of floating bodies; of hypertrophy of the cartilage around the margins of the articulation and of the adjoining periosteum, giving rise to new bony formations, which broaden the articular surface in a remarkable way, at the same time that the central portion of that surface is being worn down, the dislocations tending to ensue on the loss of tissue in the centre being to a great extent averted by this extension of the periphery. The condition thus briefly epitomised is held to be distinguished from chronic rheumatism by the fact that very little obvious morbid change accompanies that process; from gout by the absence of deposits of urates, either within the joint or in other parts of the body. The actual morbid condition is common to several diseases which, as well as receiving distinct names, are held to be of distinct nature. It is common to the "arthropathie des ataxiques" of Charcot, to gonorrhœal rheumatism, to urethral rheumatism, and to what is called rheumatic arthritis, including both the polyarthroses and the monarthroses (such as the morbus coxæ senilis) of that disease, while it forms a part of the changes induced in joints by morbid growths and deposits. And, admitting the separate existence both of Charcot's arthropathie and of urethral rheumatism, while regarding gonorrhœal rheumatism as a subordinate variety of the latter, I wish to separate from the remaining group a class of cases having a marked common causal relation, to which I propose to give the name of hystero-arthritis. Subsequently, I shall propose a modification of the nomenclature of the comprehensions of "rheumatoid arthritis". Before reaching this point, I must ask you to follow me in a short examination of Charcot's "arthropathie des ataxiques". That distinguished clinical observer has demonstrated that, in at least ten per cent. of his cases of locomotor ataxy, an affection of joints has occurred, usually of the knee in early stages, of the shoulder in later stages, of the disease; that, in the beginning, enormous, not painful, swelling of the joint occurs; that, in a certain number of cases, this passes off, and therefore has existence, so to speak, only as a harbinger of the greater malady; that however, in a certain proportion of the cases, the joint continues swollen, at the same time that the muscles of the corresponding limb undergo some amount of wasting; and that, finally, the joint thus chronicly affected is subject to spontaneous dislocation. The morbid anatomy of the joints is, in its elements, that of chronic rheumatoid arthritis, but with the atrophic processes intensified, and the hypertrophic processes much diminished. I here exhibit a preparation of Professor Charcot's in comparison with a specimen from the museum of St. Thomas's Hospital—one of those which formed the basis of Mr. William Adams's admirable analysis of the morbid anatomy of rheumatic arthritis, contained in the third volume of the *Transactions of the Pathological Society of London* (1851). It will, I contend, be readily seen that the processes are identical in character, though differing in quantity.

M. Charcot, as is well known, first connects the arthropathy with the ataxy; and, secondly, traces its occurrence to extension of the spinal affection from the posterior columns to the grey matter, in particular the grey matter of the anterior horns. Observing that the conclusion is now generally accepted, I may further remind you that joint-affections of both chronic and acute kinds have been observed frequently among the results of nerve-lesion, more particularly of lesions involving the grey motor tracts, in company with sloughings of skin, herpes, smooth skin, rapid muscular atrophy, and other like trophic troubles (Charcot, Weir Mitchell).

Upon this basis, I take the first step in my analysis of relations: that local lesions, identical in their nature with those of rheumatoid arthritis, may occur as temporary phenomena in the early stage of locomotor ataxy, apparently in relation with temporary affection of the grey matter of the cord forming a part of the prodromata of that disease; that such lesions may become permanent, progressive, and rapidly destructive in connection with spread of sclerosis from the posterior columns to the anterior horns of the grey matter.

The next step rests upon the relations of arthritis to gonorrhœa and urethritis. An arthritis having the local morbid anatomy of that which we are discussing is sometimes found in association with gonorrhœa. The joint-affection comes on usually at a certain period of the urethral affection, often in company with ophthalmia or sclerotitis; it usually slowly resolves after a single attack of gonorrhœa, but is afterwards easily provoked afresh by new attacks of gonorrhœa or by simple urethritis (Elliotson, Brodie, Fuller). The joint-affection sometimes alternates with the gonorrhœal flow, sometimes both go on together. It tends to localise itself, particularly in the knee and ankles. It is especially persistent and obstinate when thus localised, leading often to white swelling or ankylosis. The affection is only seen in males. Ricord, who calls it "blennorrhagic arthritis", says that the only real difference between this form of arthritis and all the others is to be found in the cause which gives rise to it.

Gonorrhœal rheumatism thus characterised has generally been attributed to some specific infection of the system from the part. Fuller, after having produced evidence to show that such a rheumatism may be associated with urethral discharges not venereal, declares gonorrhœal rheumatism to be "a disease *sui generis*, engendered by a specific poison, and requiring a special mode of treatment".

It appears to me, after returning frequently to the consideration of the circumstances, that gonorrhœal rheumatism, instead of being a matter of infection of the blood, is produced by reflex nervous influence. That it is not a matter of infection, is to be argued from its occurrence in relation to non-specific or simple urethritis. Dr. Fuller, whose writings are strongly tinctured with the doctrines of the humoral pathology, is an authority in favour of such a relation. He cites, in particular, a case in which a rheumatoid arthritis was established "shortly after the appearance of a slight gleety discharge, which, as far as I could ascertain, was excited solely by excessive sexual intercourse, and an undue amount of alcoholic stimulants". Dr. Elliotson (*Medical Times and Gazette*, vol. i, 1860, p. 642) has given evidence to the same effect, with citation of cases. He gives, as he says, excellent "reasons for regarding as simple urethral rheumatism, ophthalmia, and sclerotitis what are usually regarded as gonorrhœal rheumatism, ophthalmia, and sclerotitis".

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* Read before the East Surrey District of the South-Eastern Branch.

Sir Benjamin Brodie, in his work on *Diseases of the Joints* (5th edition, 1850, p. 42, *et seq.*), relates one or two cases of gonorrhœal rheumatism, and also cases of rheumatism accompanying simple urethritis, purulent ophthalmia, and sclerotitis. He also gives an account of a patient labouring under stricture of the urethra, who had four attacks of rheumatic inflammation and ophthalmia. Two of the attacks were attributed by the patient to gonorrhœal infection, two to the use of the bougie.

It is clear that, in proportion as simple urethritis is admitted to be a cause of such arthritis as may be produced by a specific urethritis, the idea of the production of the gonorrhœal arthritis by a specific poison acting through the blood loses value. If, for the quantity thus diminished, reflex nervous influence be substituted, the explanation, as I would submit, is much more agreeable with the facts.

Here I must ask you to stop for a moment and contemplate another phenomenon of undoubted urethral causation—that of reflex paraplegia, as named by Brown-Séquard. An urethral irritation, most often dependent on a stricture, is so joined with a paraplegia or paresis of the lower limbs, as to make it probable that the stricture is a cause of which the paralysis is an effect. The paralysis can sometimes be traced to a myelitis of the lower dorsal part of the cord, sometimes to affections of nerves; but, in the most typical cases, signs of myelitis are wanting, and the *post mortem* examinations in such instances have failed to demonstrate any lesion of the cord. The condition was recognised originally by Stanley, and has since been discussed by Brown-Séquard, Gull, Leroy d'Étiolles, and Charcot, the latter of whom asserts that the conjunction of paraplegia with urethral irritation was known to Troja in the last century (1780). The reflex paraplegia sets in usually a short time after the beginning of the urethral excitement, is subject to many fluctuations, and is cured by the cure of the urethral mischief.

We now have before us urethral irritation in the male producing, just as we have before found spinal affection producing, in certain cases and under certain not as yet well defined conditions, either a paralysis or an arthritis. The urethral irritations give rise, by reflex action, to what the spinal affection appears to induce by direct action. The lesion of the joints is essentially the same in both cases, and cannot be anatomically separated from the lesions of rheumatoid arthritis.

I have mentioned that gonorrhœal rheumatism is an affection of males. Elliotson has tried to explain this by comparing the frequency of gonorrhœa in males with its much inferior frequency in females, loose females being infinitely fewer than loose males, and one infected female being certain to infect a disproportionately large number of males. This argument does not commend itself to my judgment. I recognise in the difference of the parts affected in the two cases a much more acceptable explanation. The extent, importance, and sensitiveness of the surfaces and structures involved by general urethritis in the male overbalance so immeasurably the gravity of the conditions in general urethritis of the female, that, if gonorrhœa in the female is an urethritis, as it sometimes is, no one need wonder that it does not produce similar severe remote effects. And granting that ordinary gonorrhœa affects the lower part of the vagina, or even the whole of that passage, no structures like those in the prostatic urethra are concerned. It is, in my opinion, the excitement of the prostatic urethra, endowed to receive and respond to nervous sensations at once voluminous and intense, related with the occurrence of vivid reflex actions in gland-tubes and vessels, that throws upon the spinal cord those powerful impulses whose reflections we are considering. And it is only when we deal with the uterus, and, perhaps, the ovaries, that we find in the female structures of equal—here, perhaps, of greater—power of perturbancy. As physiologists, we may, indeed, be reminded that, in the uterus and Fallopian tubes, we have the anatomical homologues of the vesicula prostatica.

The immediate object of my argument to-day is to show that the uterine organs do very commonly produce an arthritis comparable to the arthritis associated with the gonorrhœa or simple urethritis of males, though mostly different in its distribution. This argument has been suggested to me by the clinical consideration of a number of cases of rheumatoid arthritis occurring in women. In a case which was under my care ten years ago, the association of severe arthritis with severe dysmenorrhœa was indicated so pointedly as to put it out of the class of coincidences. The affection of the joints, although persistent, was regularly developed in paroxysms immediately before, throughout, and for a short time after, each menstruation, and as regularly remitted in the intervals. The first idea—that a common rheumatic inflammation affected joints and ovario-uterine organs—failed to account for the paroxysmal character of the arthritic attacks, and for their coincidence with menstruation. After much treatment had been ineffectually applied on the primary rheumatic hypothesis, the uterine conditions were carefully and steadily attacked for a twelvemonth. At the end of that time, the dysmenorrhœa was overcome, and the rheumatic paroxysms soon afterwards ceased to occur. The patient, whose life had become a burden, who was wasted, sallow, anæmic, and hysterical, is now an active, happy, and decidedly well-nourished member of society, though of coure retaining some deformity of the joints.

Haygarth, in his *Clinical History of the Nodosity of the Joints* (1805), states that he had seen thirty-three cases of that condition, all in women. He regards the affection as peculiar to women, and as belonging to the climacteric and subsequent periods of their life. Only three out of his thirty-three cases had the "nodes" during the period of regular menstruation. Of these, two appeared to be between thirty and forty years of age; the third had suffered twelve abortions. In all, the fingers were chiefly affected. Haygarth separated this affection as "nodosity of joints" from "rheumatic gout", a term already in use when he wrote; and he considered it to be chiefly a disease of the middle and higher classes.

Curiously enough, when I analyse my note-book, I find records of just the same number of cases, not of nodosity of the joints simply, but of rheumatoid arthritis combined with decided symptoms of uterine disorder or irritation. I exclude from the list cases in which there was evidence of uratic deposits, and cases in which no known uterine complication existed, though both classes must be discussed later on, as forming chapters of the history of arthritis.

Of the thirty-three, twenty-six belonged to the middle and upper classes, most to the former, the remaining nine to the poorer classes; seventeen were unmarried, thirteen were married, three were widows.

As regards age, ten were between 20 and 30 years; eleven were between 30 and 40; nine were between 40 and 50; and three were between 50 and 60.

The indications of ovario-uterine complication in the several cases were, marked irregularity of catamenia in two; catamenial flow simply in excess in one; catamenial flow very scanty in one; catamenia irregular, with excess in two; catamenia recently disappeared in four; catamenia recently reappeared after apparent cessation, the reappearance coinciding with arthritic attack, in two; dysmenorrhœa with excess in eight; dysmenorrhœa with deficiency in four; constitutional symptoms of climacteric present in two; fibroid of uterus, with menorrhagia, but not dysmenorrhœa in one; catamenia regular, relieving pain present at other times in sacral region, in one; catamenia excessive with leucorrhœa in one; profuse leucorrhœa in woman married several years without pregnancy, one; woman married several years without pregnancy, one; case in which arthritis occurred on two occasions a week before parturition, these being the only pregnancies, one; climacteric long passed, arthritis began then and has since continued, one.

In four of the above cases, ovaritis existed; and it is important to notice, first, that amenorrhœa is not noted in any case; second, that the conditions are mainly such as would involve hyperæmia of the internal genital organs; third, that marked dysmenorrhœa is noted in twelve, or more than one-third of the total number.

The seat of arthritis was various. It affected the hands alone in thirteen cases; the hands and wrists in three; the hands, wrists, and elbows in three; the upper extremities in one; the right hand only in one; the right hand and wrist in one; the hands and feet in one; the hands, feet, and knees, in one; the knees and ankles in one; both extremities in six; both extremities on one side in one; the ankle and tendo Achillis in one.

From this, it appears that the hands were more often affected than any other parts; the metacarpo-phalangeal joints, being of all joints the most obnoxious to this form of arthritis. The hands, besides being alone attacked in the cases, shared the affection with other joints, and principally with other joints of the upper extremity, the wrists especially, in all the rest of the cases, except two. In three of the cases, where the affection was limited to one side of the body, or, having begun, continued excessive on one side, there were ovarian pain and tenderness on the same side, and a distinct frequency of neuralgia on the same side.

An inspection of the cases brings out further most interesting relations. Not only did the arthritis coincide with ovario-uterine affection, but, in a considerable proportion of the cases, paroxysms of arthritis coincided with menstrual periods. This sort of parallel march was noted in fourteen cases, in one of which arthritis preceded menstruation as its regular herald; in seven, arthritis regularly accompanied; in two, it followed; in two, it both accompanied and followed; and in two, arthritis occurring in the intervals was relieved by menstruation. Now, if these had been so many cases of dysmenorrhœa, the occurrence might perhaps have been accepted as an argument for believing the dysmenorrhœa to be a part of a general rheumatic process. But though the conjunction is reported in seven, it is conspicuously absent in as many cases; and these are precisely the instances which do most to prove that the arthritis is a product of the uterine hyperæmia. With this simpler question we will deal for a moment, leaving the *modus operandi* to be discussed later on.

Among the seven cases referred to as not accompanied by dysmenorrhœa, is that of a lady now fifty-two years of age. She has had a large family, in all twelve, and it is as much as five years ago that she began to suffer from arthritis. Before the arthritis troubled her, she had begun to experience excessive menstrual loss. She consulted for this a distinguished gynæcologist, who found the uterus enormously engorged, but otherwise free from disease. The engorgement was lessened by treatment, but not by any means cured, and the menorrhagia went on. The arthritis first came in the form of sharp inflammation and swelling of the knuckles of both hands, rendering them completely useless. It began usually on the second or third day of the menstrual flow, and continued as long after its cessation. The periods becoming more frequent, and lasting longer as time went on, she became reduced to a very pitiable state. She was anæmic, exceedingly feeble, was crippled in hands, wrists, and knees, and lost her rest by reason of what she called "fidgets"—uneasy but indefinable sensations in her limbs and abdomen, unaccompanied by pain or spasm. Change of air and of scene, baths, tonics, alteratives, were all used in addition to local remedies, but no relief was obtained till, in the course of time, as she reached the age of fifty years, the periods began to be less frequent. At length, intervals of two or three months occurred, and allowed her to gain strength, when she lost her arthritis and her fidgets, and appeared perfectly healthy. Of late, the periods have been still further apart, but still, whenever the catamenia appear, she is once more crippled. The association of the arthritis with this painless menorrhagia began clearly at a time when she was weakened and drained of blood. The fidgets illustrate the irritability of the spinal cord related with imperfect nutrition, and the arthritis comes out as a resultant of two conditions, uterine irritation and spinal sensitiveness. I have another and very similar case under observation.

A lady aged 51, the mother of six children, came to me recently with a gouty-looking inflammation in the elbows, wrists, hands, and knees. This had occurred a day after the return of the catamenia, previously absent for twelve months. She had no signs of gout in the shape of deposits, and her own expression was, that she felt the attack to be really "in the nerves". The period was short, and the arthritis disappeared. But the catamenia having since returned with unusual freedom and duration on two occasions, she has each time had the arthritis severely enough to cripple her. The arthritis comes on at the end of the periods, the last of which was accompanied by abdominal pain, a circumstance hitherto unknown to her.

In a third case, an unmarried lady aged 37 has a large uterine fibroid of some years' existence. She is anæmic, and, being of an extremely sensitive disposition, is much depressed and anxious. She has typical nodosity of the finger-joints, paroxysmally painful at the periods. The catamenial flow is excessive, but there is no dysmenorrhœa.

I will only relate one more case of my own, before proceeding to quote from a few authors of importance. But this at more length.

E. S., aged 41, widow, was admitted into the Alice ward, St. Thomas's Hospital, under my care, in September 1877, having previously been under me as an out-patient. Her family history was not unfavourable. She was said to have had "brain-fever" and inflammation of the kidneys when a young woman. Ten years ago, she had an attack of "rheumatic fever", since which she has never been free from pain in the joints. The pain and stiffness had so increased of late, that she had been obliged to give up her occupation of housekeeper, and seek admission.

When she was admitted, all the joints of the limbs were swollen and painful. The metacarpo-phalangeal joints in particular were much enlarged, and the fingers bent on the palm; the ulnar side of the dorsum of the hand was much wasted. She said that all the joints cracked, and felt as though the bones were being rubbed together when she moved them. The knees, ankles, elbows, and shoulders were all swollen and misshapen, and she said that the hips were also painful on movement, although no swelling existed. The right arm was very stiff at the elbow. There were no uratic deposits to be found. There was no affection of the heart, and no change in the size of the liver; the urine was normal; there was no fever; the catamenia had been absent for three months. She was not anæmic. After admission, she had occasional exacerbations of pain in different joints at different times, together with some rise of temperature, to 102.8 one evening, when the right shoulder was the seat of attack.

On October 11th, she had severe right facial neuralgia and sharp pain in the right wrist. Towards the end of the month, she began to uffer from diarrhœa, and when this prevailed, the joints were easier. She had now ovarian tenderness on both sides.

On December 4th, she had pain across the sacral region, and a continual desire to pass urine, micturition being followed by burning pain in the urethra. There was no vaginal discharge. Her manner was excited and hysterical.

On the 9th, she complained of severe pain in the vertex, followed by vertigo and double vision, with slight internal strabismus, more marked in the right eye.

The next day, she was delirious, and noisy to violence; declared that she could not see at all; and had still strabismus when at rest, though able to move the eyes freely if she pleased. The pupils were equal, were not dilated, and acted naturally; the optic discs appeared normal. There was no rise of temperature. The symptoms were soon fully declared as those of hysterical mania; and when this was developed, the arthritis completely disappeared, leaving, of course, much swelling of the articular ends of bones. Joints which had been stiff and exquisitely tender, were now abnormally relaxed, and could be moved briskly without eliciting a sign of pain. It is to be remarked that, otherwise, there was no analgesia. The loss of substance at the articular surface was well seen in the looseness.

On January 18th, the catamenia made their appearance. On the 22nd, she was almost sane again, and fed herself naturally for the first time for nearly six weeks. She speedily improved in health, and on February 10th, the catamenia again appeared. After this, she was perfectly rational. But on the 26th, both ankles were swollen, painful, and tender, and the arthritis was gradually re-established.

On April 3rd, the following note was made: "Still has slight stiffness in right arm, especially in the shoulder; the little finger stiff, middle joint enlarged and a little painful; there is swelling of the right ankle, especially on the outer side; no redness, but pain, especially at night, and tenderness on pressure. Appetite good. Bowels regular. Sleeps well. No delirium or aberration. Does work and makes herself very useful in the ward. Catamenia absent since February 18th. For last fourteen days has suffered from flushes of face, vertex-headache, etc. Otherwise feels quite well.' She was then discharged.

From the first, I regarded this arthritis as of ovario-uterine provocation. When the ovarian tenderness appeared in November, I treated her with ergot, Indian hemp, and cold compresses over the lower abdomen. It was just as the arthritis began to relax that the mania broke out. When, later, the mania was fully developed, the arthritis as an active process ceased altogether. If we apply the term "reflection" to the propagation of excitory impulses from uterus to joints by the way of the spinal cord, we may perhaps apply the term "refraction" to the transmission of the impulses through the cord to the brain. The strabismus, and loss of vision without affection of the retinæ, are points in favour of the supposition that the excitement affected the convolutions of the cerebrum. The resumption of arthritis on the cessation of the emotional and intellectual disturbance, and the coincidence of these changes with the return of the catamenia, appear to show that the mania, severe as it was, marked a lower degree of the local congestion than the arthritis. The excitement, when reaching a certain degree of severity, causes more response in the cord than transmission; makes the cord, so to speak, opaque, and therefore a reflector; just as, in many cases, convulsion or spasm takes the place of pain. The appeal is, as it were, too violent for delay, and the cord sends out at once trophic or muscular impulses, as the case may be, without reference to the higher centres.

I have assumed, you will observe, that this arthritis was of reflex causation. This is, in fact, the only conclusion to which I can come, though no doubt great authorities have taken a different view; and, before going further, we may with advantage refer to some of them.

So great a clinical observer as the late Dr. Todd was not likely to miss the relation of which I am treating, if it existed. And he did make the observation. In his Croonian Lectures, 1843, he wrote: "It is remarkable how frequently this affection" (the symmetrical nodosities of the hands, called by him "chronic rheumatism of the joints") "occurs in women, and how rarely in men; and there are many facts which indicate that, in the former, it may have an uterine origin, either connected with the puerperal state, or from a defective or difficult catamenial action." He was inclined to believe that "the unhealthy secretions of the uterus afford material for the production of rheumatic matter". In these lectures, he quotes Sir Henry Holland, Sir Charles Locock, and Dr. Rigby as authorities in favour of the opinion that there is some connection between the sexual functions and the causes and course of gout and rheumatism. The idea of a morbific matter ran through all these opinions and through his well known theory as to the causation of acute rheumatism by uterine disorder and pregnancy. In his lectures, several cases are narrated to support his ideas, and illustrate excellently the clinical relation I have sought to establish, although a different inference is drawn as to the mode of causation.

Haygarth I have already quoted. Fuller speaks decidedly as to the fact that "rheumatic gout attacks women rather than men". "It fixes", he says, "upon the girl just arriving at puberty, whose menstrual functions are ill-performed", and it occurs frequently at the "cessation of menstruation", or during the debility which follows a miscarriage or a difficult or protracted labour, more particularly when accompanied by flooding".

After reading this, it is somewhat perplexing to find, on reference to Adams of Dublin, that, in his experience, Haygarth's statements are not confirmed; that he finds men to be as subject to "chronic rheumatic arthritis" as women. But then he says further that men suffer most in the hips, women most in the hands and wrists. And if, instead of crossing St. George's, we cross the British, Channel, we find an equal discrepancy among French authors; for, while Trousseau regards this arthritis as more common in women, Follin and Duplay say that it is more common in men. Here again the attention of the observers has evidently been bestowed on different classes of affections. Trousseau speaks of the polyarthroses, Follin and Duplay of the monarthroses, typified in morbus coxæ senilis. It is evident that differences of individual practice, of climate, of social position, and of occupation, will bring very different groups of ailments under different observers; but it is also clear that the testimony of the excellent clinicists here referred to confirms the first proposition that there is a definite relation between uterine affections, particularly when they involve congestion, and chronic rheumatoid arthritis, particularly with that form of it which affects the finger-joints and wrists.

The assumption that any specific poison is at the root of this and other rheumatic or rheumatoid affections, rests upon very slender evidence. Even the great authority of Prout has not led to the acceptance of the lactic acid theory. The idea, no doubt, affords a very plausible explanation of many of the phenomena, but it is quite inapplicable to many. Thus, the arthropathy of spinal affection, and the arthritis of traumatic origin, would clearly be outside it; and the steps by which these are connected with other forms of arthritis are so much in favour of a source in common, that, without further argument, I shall put aside the *materies morbi* idea, and go on to the consideration of the nervous relations.

The existence of what one may call a middle term, in the shape of exalted susceptibility or reflex activity of the spinal cord, must enter into the comprehension of our subject. All writers have attached importance to enfeebling influences in the causation of rheumatoid arthritis. Anæmia, however arising, all drains on the system, all sorts of wear and tear, have had their share in the total effect estimated. One of the most notable effects of such causes is undue excitability of the central nervous system. In all organs, excitability increases as nutrition is impaired. The ratio of excitability to poverty reaches the highest development in the organs devoted to reception and response. We find, therefore, an over-sensitive spinal cord co-operating with an excited uterine system to induce, by reflex agency, lesions in the joints, just as we may find a similar alliance of irritated prostatic urethra and spinal weakness leading to arthritis or paralysis. The part played by the spinal cord may, however, be here a direct one, and not a reflex one. The opinion that a myelitis by extension is the true cause of the joint-affection is extensively held on the continent.

We have now seen rheumatoid arthritis as a lesion common to several kinds of ailment; we have seen it as a product of mischief in the spinal cord, as an effect of gonorrhœa and simple urethritis in the male, and of ovario-uterine irritations in the female. We find it next a result of direct injury to the joint affected (as in morbus coxæ senilis); and from a joint thus affected, it may spread to the rest, in a way only explicable by reflex nervous influence. The setting up of rheumatoid arthritis in one joint by an injury; its extension to a symmetrical joint soon afterwards, and its further symmetrical invasion of a large proportion of the joints, has been described in a case reported by me elsewhere. I may here adduce another case in which nervous intermediation offers the best, if not the only, explanation. A single lady aged 47 had, at the age of forty, cut the end of the index finger of her left hand. The cut was exceedingly painful, and healed imperfectly. Before it healed, the last joint of the same finger became inflamed and swollen. Soon afterwards, the rest of the knuckles of that hand were all involved. Three years later, the left foot was attacked, then the right foot, and at last the right hand. There were no gouty concretions anywhere; no lead-poisoning, and no catamenial disorder. Later on, the catamenia ceased without giving trouble. We may find also a rheumatoid arthritis, according to the observations of P. Berger, produced in the knee-joint by fracture of the femur near the hip. Further, although it is generally held that chronic rheumatism is not attended with the local changes of rheumatoid arthritis, and a distinction is thereby held to be established between rheumatism generally and rheumatoid arthritis, there are not wanting cases in which a true rheumatoid arthritis has its beginning in an attack of acute rheumatism. I have lately had a case in which the lesions of rheumatoid arthritis were present in a typical form in a patient who had mitral disease as a result of acute rheumatism, the arthritis having begun as a continuation of the acute attack. The nature of the affections in the heart and joints was in this case verified by *post mortem* examination. And lastly, the lesions of rheumatoid arthritis are found in conjunction with foreign growths in joints, and with chronic gout. The natural inference is surely that "rheumatoid arthritis" is not justly separable as a disease of independent character; that the lesions are those of a chronic arthritis, which may be variously produced, in the same way as a neuralgia may be variously produced. I should propose, therefore, to drop the word rheumatoid altogether in the general classifications of arthritis, and to refer the condition to its proper cause, local or remote. Accordingly, in nosology, I should retain such terms as "blennorrhagic arthritis", "urethral arthritis", "rheumatic arthritis", and "arthropathée des ataxiques", and introduce new terms, such as "hystero-arthritis", "myelo-arthritis", "traumatic arthritis", and others that may be necessary; while, for the popular designation of the local malady, I should still use the expression "rheumatic gout". This distinction, I beg to urge, is a thoroughly practical one. As long as we give one name in our own minds to a variety of conditions, we tend to treat them alike. We can only be successful in our treatment of the conditions when we sift our cases, when we single out the particular agent in the production of each arthritis, and take measures to oppose, abolish, or control that agent.

REMARKS

ON THE

COMPULSORY NOTIFICATION AND REGISTRATION OF INFECTIOUS DISEASES.*

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MANY years have passed since the late Dr. Henry W. Rumsey of Cheltenham, one of the most distinguished of the founders of State Medicine, wrote the following words:—"There are literally no published records of the cases of sickness attended at the cost of the community. The sanitary state of the people is, therefore, inferred solely from the number of deaths—that is, from only one of the results of sickness—no public account being taken of the number and duration of the attacks which shorten the effective lifetime of the population." He continued:—"Facts are accumulating to prove that the mere number of deaths occurring in any locality bears no constant or even approximate ratio to the real amount of unhealthiness existing there. As a necessary result of improvement in domestic management and medical treatment, and owing to the removal or absence of those more virulent agents of destruction which prematurely sever the threads of life, its duration has been lengthened in our great cities, but at the same time the sickly and infirm period of existence has been prolonged, probably in a greater degree than even life itself. Chronic diseases, or, at least, functional disorders, have increased, vital force is lowered, man's work is arrested, his duties are unperformed, his objects fail, though he still lives. Weakly diseased children are now mercifully helped, as they never were in olden time, to grow up into weakly, ailing adults, whose children inherit their unsoundness. Is this true sanitary progress? Does it deserve the ostentatious parade of a decreasing death-rate?"

When these eloquent words were penned, only a few far-sighted thinkers like Rumsey, Acland, Farr, and Stokes, had turned their attention to the registration of disease; and in this connection I would particularly allude to a thoughtful paper by Dr. Arthur Ransome "On the Need of Combined Medical Observation", which was published in the BRITISH MEDICAL JOURNAL of October 8th, 1864. At the present day, however, it seems to be generally acknowledged that statistics of deaths, although founded on a more or less complete system of registration, are to a large extent wanting in precision and in scientific value. But, nevertheless, the advantages which have ever resulted from an approximative knowledge of the variations in the death-rate from season to season, and of the probable cause of the same, more than counterbalance the defects of the registration system as at present organised. How far these shortcomings may be obviated is a question which has yet to be answered. But even granting that our registration system may be perfected, we may well ask whether there is not a further step to be taken—whether it would not be politic to extend the principle of registration, which has hitherto been restricted to *mortality*, to *disease* also. Nor should it be forgotten that even in the United Kingdom the registration of epizootic infectious diseases is already in force, a fact which cannot but be regarded as a strong argument in support of the necessity for, and the practicability of, a registration of infectious diseases affecting mankind.

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* Read before the annual meeting of the Dublin Branch

Viewed as a problem in political economy, there can be no doubt regarding the paramount importance of ascertaining the actual sanitary state of a population at any given time.

Death is one thing—disease is essentially another. An epidemic of influenza or of rötheln, characterised perhaps by a very low percentage of mortality, may, notwithstanding, by its mere excessive prevalence, paralyse a community to a far greater degree than a very fatal, yet limited, outbreak of cholera. Sir Thomas Watson states (*Lectures on the Principles and Practice of Physic.* Third Edition, vol. ii, page 41) on the authority of the Transactions of the College of Physicians, that on the 2nd of May, 1782, Admiral Kempenfelt sailed from Spithead with a squadron, of which the *Goliath* was one. The crew of that vessel were attacked with influenza—"la grippe", as the French expressively term it—on the 29th of May, and the crews of the other vessels were at different times affected, so many of the men being rendered incapable of duty by this prevailing sickness that the whole squadron was obliged to return into port within a few days. Mercatus asserts that before the beginning of autumn, in the year 1557, influenza attacked all parts of Spain *at once*, so that the greatest part of the population in that kingdom were seized with the disease almost on the same day. At St. Petersburg, in the epidemic of 1782, Maertens says that on a cold night the thermometer rose 30 deg. Fahrenheit, and next morning 40,000 people were taken ill with the influenza. We can readily imagine what serious consequences might possibly attend outbreaks of sickness such as these, although they would not necessarily leave their mark upon the statistics of mortality.

Again, under ordinary circumstances the prevalence, or otherwise, of an endemic disease stands in no direct relation to the published returns of mortality attributed to it. The argument in favour of registration of disease deducible from this fact applies *à fortiori* in the instance of an epidemic, where the ratio of cases to deaths is of a most varying and uncertain character.

Difficulties, no doubt stand in the way of carrying out an effective system of disease registration, but they are not insurmountable, and the fact that several European governments have long since inaugurated and prosecuted such a system should encourage us in essaying to follow their example. In the vanguard of progress in this direction the Scandinavian nations occupy the place of honour.

For many years back, the College of Health at Stockholm has received monthly and annual reports of the sanitary state of the country, including an account of the prevailing endemic and epidemic diseases, from a corps of officially appointed medical men, styled provincial and district physicians, subsidised by the State. The monthly reports furnished by these physicians are published from time to time in the Swedish medical periodical *Hygiea*, while the annual returns are compiled and arranged by an official whom we may call the Swedish Registrar-General, and are finally presented to the king in the form of a "blue-book", or volume of official reports and tables.

A similar organisation exists in both Norway and Denmark—so far, at all events, as relates to the registration of epidemic diseases. In the "Weekly Report of Diseases, Deaths, and Births in Copenhagen", communicated by Dr. P. A. Schleisner, Medical Officer of Health, and published by authority of the Municipal Council, the first table gives the cases of epidemic and contagious (infectious) diseases reported to him by the medical men practising in the Danish capital. The notification of these affections is compulsory.

Our American cousins have also adopted a system of registration of disease in some of their large cities, and the authorities of some of the Swiss cantons are following their example. (See BRITISH MEDICAL JOURNAL, December 27th, 1879, page 1030.)

Before I proceed to sketch the progress already made in establishing a registration of disease in our own country, it may not be amiss to state that the powerful Association of which we—the Dublin branch—form a by no means unimportant integral part, have, for fifteen years, at least, consistently and constantly promoted the registration of disease. Dr. Grimshaw, the present able Registrar-General for Ireland, stated, in his recent address to the section of Public Medicine at the Annual Meeting of the British Medical Association in Cork, that at the Leamington meeting of the Association, in 1865, a committee was appointed to promote the registration of disease. (*The Public Work of the British Medical Association.* Dublin: Fannin and Co. 1879. Page 10 *et seq.*) This committee attempted to establish a voluntary registration of sickness in public practice, but the attempt ultimately failed. Unsuccessful, but not discouraged, the committee never ceased urging upon the Government the importance of the systematic registration of disease, and suggested it as a fit subject for the consideration of the Royal Sanitary Commissioners. A national system of registration of disease in general unfortunately still remains a thing of the future.

There is, however, one class of affections which, in the interests of the community, should be registered with as little delay as possible—at least in all large towns. I allude to epidemic infectious diseases. Instances are constantly coming under the notice of hospital physicians in which scarlatina, small-pox, measles, and fever have spread far and wide, because the first case of illness, either through wanton neglect or ignorance, was not isolated in due time. Some weeks ago several cases of scarlatina were admitted into Cork Street Hospital from a tenement house in which a child died of this disease and was waked. No medical man had been called in to see the patient, nor was any report made to the sanitary authorities until other children in the house had been attacked. At least two lives were lost in this instance, which is only one of many which might be adduced.

Two things would seem to be necessary in the case of outbreaks of epidemic infectious diseases—first, *the immediate compulsory notification of such outbreaks to the sanitary authorities*; secondly, *the early registration of all cases of these affections, and the publication of the tabulated results at frequent intervals by the General Registration Offices* of each division of the United Kingdom. Towards securing the second object but little has yet been done. As regards the notification of infectious disease, on the contrary, Parliamentary powers have already been sought and obtained by fifteen towns in England and Scotland—viz., Huddersfield, Bolton, Greenock, Burton-on-Trent, Nottingham, Jarrow, Llandudno, Warrington, Blackburn, Norwich, Edinburgh, Rotherham, Blackpool, Leicester, and Derby.

Mr. Ernest Hart, the chairman of the Parliamentary Bills Committee of this Association, in an admirable report "On the Recent Progress of Legislation with regard to the Notification to Sanitary Authorities of the Occurrence of Cases of Infectious Disease" (see BRITISH MEDICAL JOURNAL, November 22nd, 1879, page 830) gives a synopsis of the clauses in the local Acts of Parliament relating to such notification in the towns mentioned above. From this synopsis, it appears that by the Bolton Act, and by the Jarrow, Llandudno, Warrington, Blackpool, Rotherham, Leicester, and Derby Acts, founded more or less upon it, the duty of making this notification is imposed alike on the occupier and on the medical attendant—the *primâ facie* duty of complying with the statute is cast upon the occupier, and a fee of half-a-crown in most cases, but only one shilling in the case of Jarrow, is payable to the medical man for his certificate. The Burton-on-Trent and Blackburn Acts require the occupier to give notice only when a medical man is not called in, and, as Mr. Hart says, thus obviously offer a premium to delay in seeking for medical advice in cases of infectious disease. The Edinburgh Act, again, by imposing no duty at all upon the occupier, is likely to lead to the employment of quacks and unregistered practitioners to even a greater extent than at present. At Greenock, the notification, to be given by the householder to the sanitary inspector within twenty-four hours, is required only on its being certified by the medical officer of health that "epidemic, contagious or infectious disease", exists within the limits of the town. At Nottingham and Norwich, as well as, to a less extent, at Huddersfield, the plan proposed by the committee of this Association has been adopted. "By the Nottingham plan", Mr. Hart observes, "the medical attendant is required to fill up, sign, and deliver to the occupier or person having the management or control of the building, or, in case such person is suffering from infectious disease, to the person in charge of the patient, a certificate, which must be forthwith delivered *by the person to whom it is given* by the medical practitioner, at the town hall, to a clerk or servant of the corporation. If no medical attendant be called in, the occupier or other person is, so soon as he becomes aware of the existence of the disease, to give notice to the Corporation forthwith. In the event of the sufferer not being a member of the occupier's family, the head of the family (resident in such building) to which the patient belongs, or, if there be no head, the patient himself (unless prevented by such disease, or by youth) is to give notice of the existence of the disease to the occupier or other person as above."

In the Report of the Committee on the Registration of Disease, adopted by the British Medical Association in 1876, the position of the medical profession in regard to the notification of infectious diseases is thus ably summed up: "The authoritative declaration of the nature of the disease must necessarily come, in the first instance, from the medical attendant. On the other hand, to be obliged to furnish information to a public official with regard to sickness occurring in a family, might reasonably be resented by the medical profession. It would be regarded by many not merely as an unnecessary addition to their work, but as an inquisitorial test of the extent of their practice, and as leading to a breach of professional confidence that might cause annoyance both to doctor and patient............No such objections apply to the proposal to make the householder responsible for the declaration of the presence in his house of diseases likely to be injurious to the community."

It is sincerely to be hoped that an effort will be made, without delay, to secure for Dublin the advantages of some such system of notification and registration of infectious diseases. Any system of this kind should be carried out not merely within the municipal boundary, the limits of which are now more than ever artificial, but also in the adjacent townships. For registration purposes, the Dublin Registration District would seem to be a suitable area for the application of an Act of Parliament. I feel sure that the Registrar-General for Ireland would gladly afford every facility for the organisation of an efficient system of disease registration once the necessary Parliamentary powers have been obtained.

As to the nature and scope of those powers, I cannot do better than conclude this brief *résumé* with a model clause for an Act of Parliament, drafted by Mr. Ernest Hart, and based partly upon the Nottingham Act, already referred to, and partly upon general experience of the working of the system of disease registration.

"In order to secure that due notice be given to the sanitary authority of any inmate of any building used for human habitation in the district who is suffering from small-pox; cholera; typhus, typhoid, scarlet, puerperal, or relapsing fever; diphtheria, measles, or erysipelas, the following provision shall have effect; that is to say:

"1. If any such inmate be suffering from any such disease, and no medical practitioner be attending on, or have been called in to visit, such inmate, the occupier or other person having the management or control of such building, or, if such occupier or other person be prevented by disease or otherwise, the person in charge of such inmate shall, so soon as he shall become aware of the existence in any such inmate of any such disease, forthwith cause notice thereof to be given to the sanitary authority at their office.

"2. If the person suffering from the disease be not a member of the family of such occupier or person, the head of the family (resident in such building) to which such inmate belongs, or, if there be no such head, then such inmate (unless prevented by reason of such disease or of youth) shall, on becoming aware of the existence in such inmate or in his own person, as the case may be, of such disease, forthwith give notice thereof to such occupier or person.

"3. Every medical practitioner attending on or called in to visit such inmate shall, on becoming aware that such inmate is suffering from any such disease as aforesaid, forthwith fill up, sign, and deliver to the occupier or person having the management or control of the building, or, in case such person is suffering from such disease, to the person in charge of such inmate, a certificate stating, according to the forms prescribed and supplied to him by the Corporation, the name of such inmate, the situation of such building, and the name of such occupier or person, and the nature of the disease from which such inmate is suffering.

"4. The person to whom such certificate shall be given by the medical practitioner shall forthwith deliver the same, or cause the same to be delivered, at the office of the sanitary authority [to a clerk or servant of the authority in attendance there].

"5. The sanitary authority shall supply gratuitously to every registered medical practitioner, resident or practising in the district, forms for the certificate by such medical practitioner of the particulars hereinbefore mentioned of cases of infectious disease attended by him; and the authority shall pay to every medical practitioner who shall, in pursuance of this section, duly give any such certificate, a fee of two shillings and sixpence in respect of the same; provided that more than one fee shall not become payable under this section within an interval of thirty days to the same medical practitioner, for certificates given by him in respect of the same disease occurring in the same building.

["6. The sanitary authority may from time to time, by resolution, order that, subject to the approval of the Local Government Board, any acute infectious disease, other than those above mentioned, shall be deemed to be within and subject to the provisions of this section.]

"7. Any such order of the sanitary authority may be permanent or temporary only; and, if temporary, the period during which it is to continue in force shall be specified therein; and when the Local Government Board have approved of any such order, the sanitary authority shall give public notice of the order by causing a copy thereof to be affixed to the principal door of every church and chapel in the district to which notices are usually affixed, and by publishing the same by advertisement in some one or more of the local newspapers circulated in the district; and, after such public notice has been given, the provisions of this section shall, so long as the order continues in force, apply to the acute infectious disease specified therein, in like manner in all respects as if the disease were mentioned in this section."

With regard to the preamble to this model clause, it would seem desirable that the infectious diseases should in each case be scheduled, and that the Act should give power to the Local Government Board to alter or add to the list of such diseases. In sub-clause 3, it would be well to insert after the word "certificate" the words "according to the schedule to this Act". In sub-clause 4, and in the proposed certificate hereto appended, the words "to a clerk or servant of the authority in attendance there" might very well be omitted. Sub-clause 6 should also be omitted, for it gives to the Sanitary Authority a discretion in the matter which is not expedient. For the same reason, sub-clause 7 would require alteration.

I append also a model form of the certificate to be given by medical attendant to the occupier for transmission by the latter to the Sanitary Authority.

"——— Improvement Act, ——— Section ———.

"Pursuant to the above-mentioned Act, I hereby certify and declare that, in my opinion, the undermentioned person is suffering from a disease within the terms of the said Act.

"Dated the day of 18 .

"(Signed) Medical Practitioner duly Registered.

"1. Name of person suffering from the disease.

"2. Situation of the building wherein such person is.

"3. Name of occupier or other person having the management or control of the building.

"4. Nature of the disease.

"To Mr. of

"Take notice, that this certificate must be forthwith delivered at the office of the Sanitary Authority [to the clerk or servant of the authority in attendance there], under a penalty not exceeding pounds."

For the Registration of Infectious Diseases, a somewhat different machinery will be required. It does not appear just or expedient to inflict upon the relatives of the persons attacked with illness the duty of *registering* the disease. For my own part, I do not see why medical practitioners could not as easily fill up disease certificates as they do death certificates, blank forms and addressed envelopes to the General Registration Office being supplied them for the purpose. Intentionally I say "addressed envelopes to the General Registration Office"; for medical men might reasonably object to the extent of their practice being scrutinised by the Deputy Registrars throughout Dublin, whereas no reasonable exception could be taken to the confidential and direct transmission of the requisite information to the Registrar-General, either at stated periods or as the cases of disease came under observation.

Doctors in the Kitchen.—At a recent meeting of the Plymouth Mechanics' Institute, Mr. W. J. Square delivered a lecture on "Cooking from a Doctor's Point of View", which was as quaintly and humorously delivered as it was full of practical and valuable suggestions. Mr. Square commenced by showing how wasteful was the generality of domestic cooking, in comparison with the style adopted in continental homes; and how the great bugbear of this life, indigestion, was to be avoided in the preparation of food for the stomach. He traced the absorption of food into the human frame, and suggested the most nutritious and easily digestible foods for mankind, whom he divided into three classes: the infant, the growing, and the aged. Almost all the indigestion from which they suffered in after-life was attributable to the mistake made by mothers in feeding their children upon corn-flour and soaked bread, which were beyond the digestive powers of infants, milk being the necessary and natural food. Dividing the population into three classes—the artisan and working classes, the middle, and the luxurious classes—he described a scale of dietary for each, embracing the most nutritious foods at a minimum cost, and threw in a couple of bottles of wine at dinner for four persons costing about five shillings. Regarding the use of alcoholic drinks, little, if anything (he remarked), was known about their actual effects upon the stomach; but his experience was that a glass of ale, or a bottle of wine, added to many persons' appreciation of a good dinner; and, upon the matter of cost, it made little difference, inasmuch as, if he took away the wine and the beer, he must add to the amount of beef. Finally, he illustrated by experiments how fish, soups, and meat could be cooked in the most attractive forms. The lecture was listened to and heartily appreciated by a large audience.

CLINICAL LECTURES
ON
NERVOUS DISEASES.

By A. HUGHES BENNETT, M.D., M.R.C.P.,
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LECTURE III *(continued from page 48).*

ELECTRICITY AS A METHOD OF PHYSICAL DIAGNOSIS IN DISEASES OF THE NERVOUS SYSTEM.

II. *The Actions of Faradism and Galvanism upon Injured and Diseased Living Tissues.*—We have seen that in healthy living tissues electricity produces definite and almost constant effects; that its general action, in moderate doses, is to stimulate into action the different functions peculiar to each; and this it does in a manner proportionate to the functional activity of the structure and to the intensity of the current. When such tissues are injured or diseased, and their function consequently augmented, diminished, or annihilated, the electrical reactions are modified in a corresponding manner. It is by a study of the anatomical and histological changes in health and disease, as compared to their varied reactions to faradism and galvanism under different circumstances, that we are enabled to arrive at valuable information in diagnosis and prognosis. It may be said, in general terms, that, if an organ or structure be diseased, its function will be altered, and that electricity will fail to induce the normal reactions; if there be only partial disorganisation, function may to some extent remain, accompanied by modified electrical changes; but if there be complete destruction, all electrical, as well as all functional, activity will be abolished. Our knowledge of the whole subject is still in its infancy; but we shall endeavour to describe in detail the reactions of electricity, as far as we know them, in various abnormal conditions of the nervous system.

The Brain.—If any portion of the brain be injured or diseased, its function will be proportionately destroyed and its response to electricity lost. If, for example, the centre on the surface of the cerebral convolution which regulates the movements of certain muscles be completely diseased, the voluntary actions of these parts will be absent, and direct stimulation by electricity of their nucleus will fail to produce the natural contractions. Also, if any portions of the motor or sensory tracts be injured, electricity will be unable to convey to and from the centres its natural influences. In paralysis from brain-disease, it is found that, as a rule, the electrical reactions of the spinal cord, nerve, and muscle, remain normal. If the injury or disease produce local irritation, they are sometimes exaggerated, and these structures respond to a more feeble stimulus than ordinary, showing them to be more sensitive than natural. Another explanation of this increased electrical action in such cases is this: owing to the lesion, the inhibitory influences of the brain upon the spinal cord and nerves are interrupted, and thus as a result of external stimulus, motor activity is augmented below the seat of the disease. In very chronic cases of brain-paralysis, when the limbs have been long out of use, there may be slight diminution of electrical excitability; and in very advanced instances, secondary anatomical changes may take place, which would be accompanied by modification in the irritability of the cord, nerve, and muscle. These we shall subsequently discuss when treating of each in turn. It may, however, be again stated that, in paralysis from cerebral disease, the general rule is for the electrical conditions to be normal, and this, as we shall afterwards see, is a fact of great diagnostic value. Typical examples of these negative reactions may be seen in hæmorrhage, softening, tumour, etc.

Spinal Cord.—Experiments on animals have shown that, if the spinal cord be divided at any point, there is paralysis below the section; and if electricity be applied to the upper portion, there are contractions of all the muscles supplied from that segment, but those receiving their influence from the lower part remain unaffected. The same takes place if the inferior segment be irritated, only then the lower limbs are convulsed and the upper portion of the body is not influenced. The same phenomena ensue, although the divided edges be brought into contact, showing that the functional activity of a portion of the cord has been interfered with by the section, as when the ends are joined there is no interference with the conductive power of the nerve-structures, which remain as before. In such a case, the paralysed limbs would not undergo any disorganisation, and their nerves and muscles would give normal or increased electrical reactions. If a portion of the whole thickness of the cord were destroyed, say, for an inch or two in length, above the lumbar region, there would be somewhat different reactions. The symptoms would be loss of motion in the lower part of the body. After some time, muscular wasting and loss of reflex action would ensue in that portion of the paralysed part supplied from the diseased segment of cord, but no wasting or loss of reflex action in the lower limbs. The electrical conditions would be as follows. If electricity were applied to the part of the cord diseased, no reaction of any kind would ensue. The nerves and muscles derived from the injured portion would exhibit the characteristic changes of nerve and muscle degeneration, which will subsequently be described. Electricity applied to the healthy portion of the cord below the disease would cause natural or increased contractions in the lower and paralysed limbs, and these would also take place when the nerves and muscles were similarly treated. If the whole spinal cord were artificially destroyed, there would be loss of motion and of reflex action throughout the trunk and limbs. If the animal lived, there would subsequently be wasting of the nerves and muscles. Electrical irritation of the cord itself would induce no contractions, and there would be the reaction of general muscular and nervous degeneration. These phenomena indicate that, if the cord be injured at the origin of a motor nerve, the latter rapidly loses its healthy structure and functional activity, its nutrition is cut off, it degenerates, and with it the muscle it supplies; both atrophy, and both lose electrical as well as voluntary excitability. They also indicate that so long as a motor nerve is attached to a healthy centre, such as the lower portion of the cord, even although it may be separated from the brain, and consequently voluntary motion lost, the nerves and muscles retain their electric excitability.

In man, the same general sequence of events ensues after injury or disease of the spinal cord, although, owing to the nature of the lesion, we have rarely opportunities of observing such typical symptoms as in experiments on the lower animals. When a thin section of the cord is injured, as when divided by a dagger, the voluntary motor power is lost, and reflex action, if affected, is increased. The electrical reactions are normal to the parts supplied from the upper segment, and are increased to those deriving their influence from the lower portion. There is no degeneration of the cord, nerve, or muscle. When the injury affects the whole thickness of the cord for some extent, as from the pressure of a fractured vertebra, the symptoms and reactions are at first the same as those just mentioned, except that reflex action is arrested in those nerves deriving their influence from the injured portion. After a time, degenerative changes not only ensue in the diseased portion of the cord, but would extend to the nerves and muscles supplied from it. When fully developed, the symptoms and electrical actions are loss of voluntary power from and below the injured part, loss of reflex action to the upper parts of the paralysed portion, with degeneration of nerve and atrophy of muscle. In the parts supplied from that segment of the cord below the diseased portion, there is loss of voluntary power, but reflex action is retained, and there is no degeneration of nerve or wasting of muscle, as, when attached to healthy centres, these long retain their bulk and irritability. In the first instance, there are the typical electrical reactions of degenerated nerve and muscle; in the latter, the electric excitability is either not affected or is increased.

In disease, the same physical conditions of the cord may exist. In so-called myelitis transversa, when a portion of the whole thickness of the cord is diseased, the symptoms and electrical reactions are the same as those just described. If the anterior or antero-lateral columns of the cord only be diseased, as in lateral sclerosis, there is motor paralysis, no loss of reflex action, and no atrophy of nerve or muscle. The electrical reactions are normal, and sometimes the response is increased. If the posterior columns of the cord be diseased, as in locomotor ataxy, there is disturbance of motor power, reflex action is generally normal, and there is no degeneration of nerve or of muscle. Electrical reactions to nerve and muscle are normal. If the whole of the grey matter of the cord be diseased, as in myelitis centralis, there are paralysis, loss of reflex action, and trophic degenerative changes in nerve and muscle. The electrical reactions are the characteristic phenomena occurring with the last. There may be disease of the lateral columns combined with a lesion of the anterior horns of the grey matter, as is seen in amyotrophic lateral sclerosis. In such a case, there is motor paralysis, no loss of reflex action or degeneration of nerve, but there is marked atrophy of the muscle. Electrically, there are the usual typical reactions to the latter, the nerves remaining normal. If the posterior horns of the grey matter be diseased, as well as the posterior columns, as in some cases of multiple sclerosis or chronic myelitis, superadded to the symptoms of ataxy there are weakness of motor power and loss of reflex action, but no modification in the structure of nerve and muscle. The electrical conditions are usually normal. The disease may be situated only in the anterior horns of the grey matter, as in infantile paralysis, where it is found that the large multipolar cells are those affected. In such a case, there are motor paralysis, loss of reflex action, loss of function in nerve, and atrophy and degeneration of muscle. The electrical reactions are total loss of response to irritation of nerve, and typical degenerative action in muscle.

Changes are found in the anterior cornua of the grey matter in other diseases, which, however, are so different from the above as to give rise to the view that different elements must be affected. Here there is no paralysis properly so called, no loss of reflex action, no degeneration of the nerves; but there is atrophy of the muscles. This is seen in progressive muscular atrophy, pseudo-hypertrophic paralysis, bulbar paralysis, etc. The electrical reactions are normal as regards nerve, but exhibit fully the conditions of muscular wasting.

Disease of the anterior cornua of the grey matter thus gives rise to several affections, which differ in their clinical and electrical aspects, such as amyotrophic lateral sclerosis, poliomyelitis anterior, progressive muscular atrophy, pseudo-hypertrophic paralysis, bulbar paralysis, etc. The distinctive histological differences of these have not yet been demonstrated, but the various phenomena have given rise to the probable theory that, in the anterior cornua, there are separate cellular elements presiding, some over motion, others over the nutrition of the nerve, and others over the nutrition of the muscles. As these centres are diseased either singly or combined, so are there corresponding symptoms and electrical reactions.

If the whole thickness and length of the cord be diseased, as in myelitis universalis, there is complete loss of motion, reflex action, and electrical reactions to both nerve and muscle, with atrophy of the latter, throughout the trunk and limbs.

Hitherto we have discussed the effects of destructive diseases of the cord; but, if there be irritative lesions, such as hyperæmia, inflammation, etc., the electrical reactions to nerve and muscle are in proportion to the symptoms, as, accompanying the pain, spasm, muscular contractions, increase of reflex action, etc., their excitability is augmented to both the faradic and the galvanic stimulus.

All those cited above are more or less typical examples of definite local disorders in the spinal cord; and, although such frequently occur, still more often the conditions are much more complicated. The destructive disease may not be complete; it may invade several centres, or parts of centres; it may be complicated with irritative lesions, in which case the electrical responses may be imperfect or mixed; so much so that, in many instances, it may be almost impossible to obtain definite or reliable reactions. This, indeed, constitutes the great difficulty in the science of electro-diagnosis, which requires care, patience, and knowledge to eliminate sources of error.

Motor Nerve.—If a motor nerve be divided, or sufficiently injured or diseased, its structure undergoes marked and definite anatomical changes, which it is necessary to consider in order thoroughly to appreciate the electrical reactions which ensue; for it has been ascertained that these bear a distinct relation to the histological processes. This is typically seen in traumatic injury, the case of which we shall take as an example. During the first few days after the accident, the medullary sheath of the nerve coagulates, and gradually breaks up into longer or shorter masses, this process taking place, like all the others, near the seat of injury, and rapidly spreading to the periphery. These bodies continue to disintegrate, and, at the end of the first week, are partially converted into a mass of fine fat-globules. At this time, the degenerating fibres appear broader than before, having become infiltrated with fatty matter. At the expiration of the third or fourth week, there is a considerable diminution of the medullary masses through absorption, and also by their becoming converted into a homogeneous mass, which fills the still remaining sheath of Schwann. The fibres become slender, and ultimately remain as delicate pale bands, containing fat and increase of nuclei. In slight traumatic cases, where the nerve has not been completely divided, the axis-cylinder retains its structure till the power of conduction is re-established between the central and peripheral portions of nerve. In serious injury, where the nerve has been entirely severed, the axis-cylinder is completely destroyed in the later stages of the process of degeneration, but even then it possesses great power of resistance. Accompanying atrophy of the fibres are increased growth and hypertrophy of the neurolemma; and, finally, true cirrhosis of the nerve is established. After a time, if there have not been complete division of the nerve, regenerative processes commence. Pale bands extend themselves from the central into the degenerated peripheral portion. These become surrounded by a medullary sheath, which slowly develops, and return of motility is observed. If the nerve have been entirely severed, the two ends are joined by fibres of new formation, commencing from the central, and afterwards proceeding from the peripheral, segment. If the nerve be only partially divided, recovery is rapid and complete. It takes place more slowly and imperfectly if it be entirely separated, according to the distance between the divided ends.

This sequence of histological changes is accompanied by definite electrical reactions. Although paralysed, the irritability of the injured nerve to both faradism and galvanism is sometimes slightly increased for the first few days; but, after this time, there is a continuous diminution of excitability to both currents. Greater intensity is required to obtain a minimum amount of contraction. From the seventh to the twelfth day, the response to both forms of electricity disappears. This diminution commences at the portion of the nerve nearest the lesion, and very rapidly spreads to the periphery. The extinction of excitability may be lost for a variable period, and, in incurable cases, remains permanent. When regeneration in the nerve has reached a certain point, excitability to electricity recommences, the response to both currents appearing about the same period. It slowly augments, but remains a long time below the normal standard, even after voluntary movement is apparently restored; indicating that, although the young nerve-fibres are capable of conveying voluntary impulses, they are not excited by the electric stimulus. The fact that the response to electricity remains long diminished after voluntary movement is completely re-established, is most probably explained by the thickening and induration of the previously diseased neurolemma acting as a bad conductor.

Besides traumatic injury, these conditions and reactions are typically seen in the so-called rheumatic paralysis of the facial nerve. Rapidly, after loss of motion has occurred, the nerve loses its response to both the faradic and the galvanic stimulus, and, in the course of about ten days, the excitability of the nerve is completely lost to both currents. The muscles soon waste, and exhibit the electrical reactions of degeneration which will subsequently be described. The process either of continued paralysis or of complete or partial recovery has already been detailed.

These electrical reactions are frequently not so typically marked as the above, indicating that the nerve-structure is not so completely disorganised. There may be only diminution, and not total loss of electric excitability, and the muscles may develop only traces of degenerative reaction, and yet there may be complete paralysis of voluntary and reflex motion, as is seen in the slight and middle forms of facial paralysis.

The same general conditions apply to all the nerves of the body if disorganised from injury or disease, and the electrical reactions vary from the slightest diminution to complete annihilation, depending entirely on the histological changes in the nerve-tissue, to which they always bear a constant relation. Not only from degeneration of the nerve itself, but, as has already been pointed out, these histological and electrical changes ensue when the centre (the spinal cord), from which the nerves take their origin, is diseased. If the nerves of the lower limbs be paralysed from affection of the brain, or of the upper portion of the cord, no abnormal electrical reactions are induced.

A portion of the nerve may be so diseased that, although it is capable of transmitting voluntary motor impulses, direct electrical applications are followed by negative results. Again, in such a case, if a healthy portion of the nerve above be stimulated, there are muscular contractions, showing that, when irritated, it is capable of originating an influence and transmitting it through the diseased part, while the latter, when directly excited, generates no function.

Voluntary Muscle.—The electrical reactions of diseased muscle differ greatly from those of diseased nerve. When the nerve supplying a muscle is injured, degeneration invariably attacks the latter, and certain anatomical changes ensue, at each stage of which there are special electrical conditions. When the functions of the nerve are thus destroyed, atrophic changes commence in the muscle during the second week, and afterwards steadily advance. In the course of five or six weeks, the fibres gradually break down, and their breadth is diminished to about one half. In slight cases, regeneration of tissue then begins to take place, mobility returns, atrophy is arrested, and the muscle slowly recovers in bulk and function. In more severe cases, in addition to the atrophy, about the second week, the transverse striæ become gradually obliterated. The fibres become cloudy in appearance, the nuclei exhibit notable multiplication in their number, chemical changes take place in the form of amyloid degeneration, and the interstitial tissue becomes infiltrated with an accumulation of cell-elements. About the sixth week, these cells become fusiform and transformed into connective tissue, which gradually increases, so that the muscle becomes dense and firm. This new structure continues to augment and undergo cicatricial contraction. This cirrhosis of the muscle, consisting of hypertrophy of the connective tissue and atrophy of the true muscular fibre, may, after a long time, be modified, and regeneration may take place, in which case new fibres gradually form, and the abnormal elements undergo degeneration, and be absorbed. Recovery only takes place after many months or years. In cases which do not recover, the destructive action continues, the hypertrophied connective tissue increases, the fibres disappear, and ultimately the muscle is converted into a flattened cord of simple connective tissue, which may finally be converted into fat.

The electrical reactions which accompany these anatomical changes in the muscle are definite and characteristic. If the intramuscular nerve-branches be affected, faradism applied directly acts precisely as it does on degenerated nerve; that is, towards the end of the first week there is gradual and progressive diminution of excitability, which ends about the conclusion of the second week in complete extinction, after which the faradic current produces no effect. If the peripheral nerves remain intact, the muscles continue to contract with faradism, but slowly lose this power in proportion to the amount of muscular fibre which remains healthy, and the power is only completely lost when none of this is left.

The action of the galvanic current is quite different; during the first week, if the nerve be also affected, like faradism, its power of producing contraction falls uniformly. In the course of the second week, there commences augmentation of galvanic excitability, which continues to increase during the following weeks. The affected muscle now contracts with currents which do not affect the normal ones. The character of the contractions is also altered, for, instead of being short and sharp, they are slow and protracted, requiring a longer application of the current to produce any result. The muscular tonus also continues during the whole passage of the current. Coincident with this increased excitability and different character of contraction, there are qualitative changes. This is manifested by the gradual and strong increase of the A. C. C., so that it equals or even exceeds in force the C. C. C. An opposite reaction at the opening of the current also takes place, the C. O. C. relatively increases as compared to the A. O. C., and thus the normal conditions are reversed. This sequence of events Erb has termed the "reaction of degeneration". As the muscular atrophy advances, the opening contractions disappear in the same proportion as the slowness of the contractions increases, and their capacity to currents of short duration diminishes. These reactions remain for from four to eight weeks, after which there is a gradual diminution of the galvanic excitability, but the qualitative changes persist. This continues, and, if the case be an incurable one with complete atrophy, all response is gradually lost, the A. C. C. being the last contraction obtainable. If regeneration and recovery take place, the normal mode of reaction is slowly re-established, galvanic excitability remaining below the normal standard.

After all these phenomena have run their course, and the voluntary motion and the bulk of the muscles have returned, the reaction to both the faradic and galvanic currents remains depressed; and this may continue for a long time, due probably to the abnormal thickening of the connective tissue in nerve and muscle.

To sum up, the sequence of events, occurring in disease of nerve and muscle, in a case which ultimately recovers, is briefly as follows. Injury or disease of nerve is followed by sudden loss of voluntary motion. During the first week, there are commencing histological changes in the nerve, and no appreciable alteration in the muscle; the excitability of the nerve diminishes to both faradism and galvanism; the excitability of the muscle diminishes to faradism in the same ratio as of the nerve, and to galvanism somewhat less. During the second week, the changes in the nerve continue, and changes commence in the muscle; excitability to both currents continues to diminish in the nerve; the muscle also exhibits continued diminution to the faradic stimulus, but to galvanism an increase of action with commencing qualitative changes. During the third week, the nerve becomes completely disorganised, and exhibits no reactions whatever to either current; the histological changes continue in the muscle whose response to faradism is lost, and to galvanism has increased, and the reaction of degeneration is fully developed. For many weeks following this condition remains, only, as atrophy advances in the muscle, the excess of galvanic excitability slowly diminishes, and the response to this with qualitative reactions is the only electrical condition to be obtained. At a varying period, from six to eight months, regeneration begins to take place, and voluntary motion commences to return. Some weeks later, faradic and galvanic stimuli applied to the nerve elicit a faint response, but as yet, faradism applied directly to the muscle is without effect, and response to galvanism is below the normal standard, although qualitative changes continue well marked. Some weeks afterwards, the regeneration having advanced in both nerve and muscle, the excitability of the nerve to both currents has increased, faradism now begins to induce contractions when applied directly to the muscle, galvanism producing the same effects as before. Finally, at the end of a year or eighteen months, the nerve and muscles have regained their normal structure, with the exception of traces of the hypertrophied connective tissue, and voluntary motion has completely returned. The actions of both currents to nerve and muscle have nearly regained their quantitive and qualitative reactions, but still remain, and continue to do so for a long time, in a state of diminished excitability.

The above is a case of moderate duration, but in some instances recovery is much more rapid, the anatomical changes being less extensive, and the electrical reactions correspondingly less marked. In others, recovery does not take place at all, when the actions to every form of the current, applied either to nerve or muscle, are ultimately annihilated.

Such cases of muscular degeneration as a result of nerve-disease are seen clinically in traumatic injuries or in compression. They occur in affections of the nerve, as neuritis, rheumatic inflammation, tumour, etc.; also from diseases of the spinal cord, from which the affected nerves take their origin.

There may be profound muscular degeneration without any abnormal condition of the nerve, in which case there are no disturbed electrical changes in the latter, but a high degree of galvanic excitability and qualitative changes in the former, as is seen in progressive muscular atrophy and other diseases. In these cases, there is no paralysis proper, the motor nerves give normal reactions, the muscle contracts to faradism in proportion to its bulk, and to galvanism exhibits the typical reaction of degeneration.

There is no evidence that muscle is ever diseased primarily; but its nutrition may be modified either by disease of its nutrient centres in the cord, or by interruption of their influence by disease of the nerve. In the former case, there is no paralysis, no abnormal condition of nerve, but only degeneration of muscle; in the latter, there are paralysis, loss of excitability, and degeneration of nerve, and muscular disorganisation.

Sensory Nerves.—In health, the sensibility of different individuals to electricity varies greatly. In diseases, it may be briefly stated that, in those characterised by hyperæsthesia of the sensory nerves, the sensation to both faradism and galvanism is increased in exact proportion to the extent of the affection. In the same way, when there is anæsthesia, the feeling to electricity is diminished according to the completeness of that condition, and it may be entirely lost. Sometimes the sensation to faradism and galvanism may be destroyed without interference with the tactile sense, and this is observed in some cases of hysteria. The skin may indicate total loss of sensation, and the electromuscular sensibility remain intact.

[*To be concluded.*]

WILLIAM BUDD, M.D., F.R.S.*

"IN MEMORIAM."

By W. MICHELL CLARKE, M.R.C.S., L.S.A.,
Consulting Surgeon to the Bristol General Hospital; formerly Lecturer on Medical Jurisprudence at Bristol Medical School, etc.

SIX and a half years have passed away since Dr. William Budd, smitten by severe disease, ceased to appear at our meetings; nearly seven years, during which, oblivious of the great subjects that he was accustomed to bring before us, he has suffered more than, happily, it often falls to our lot to witness, accustomed though we be to the multiform phases of disease and sickness. Even the most devoted nursing, and the most unwearying affection, were powerless to remove his suffering. Now, at last, the end has come, and the weary is at rest. During those years, it has often occurred to me—and I have no doubt the same thought has struck many other members of this Branch, that it is much to be regretted that Dr. Budd should have so finally ceased his labours amongst us without some memorial of his valuable work and genial association with us. We have had many men amongst us who have ranked high in our profession, many who have been famous for their scientific acquirements and for their general culture; but I may safely assert that of all these men, great and worthy as they have been, none will have left a richer memory behind them of successful labours in behalf of suffering humanity, of impassioned eloquence, and of great literary accomplishment, than Dr. William Budd.

On these accounts, and greatly also because of his friendship for myself, and of the great affection that I have for his memory, I am very glad, although too well aware how much better this tribute might have been paid by many others who are now present, that his friends have put it into my power to occupy your time for a brief space this evening with an account of his life and works.

Except to our youngest members, the recollection of Dr. Budd will still be vivid, but to very many, even already—for younger members rapidly multiply among us, older quickly disappear—his appearance and manner will be unfamiliar. He was, however, in intellect a giant amongst us, and eloquent more than even the most gifted. In a strong-looking robust body, which told of the invigorating air of the Dartmoor hills amongst which he had been born and reared, he carried a mind that was sensitive and emotional to a fault. No one who had looked carelessly at him, or who had received the firm grip of his powerful hand, would have supposed that the strong hardy-looking man before him was possessed of a heart tender as a woman's and gentle as a child's. Of good height, well made, and of a brave presence, Dr. Budd never looked to more advantage, than when, with his wonderful eloquence, he was impressing upon his audience the views which it had been the labour of his life to work out and make clear. If I were to select any particular time at which to bring him before my mind's eye with all his powers in full expansion, it would be in the year 1863, the year when the annual meeting of the Association was held in Bristol, and when for more than an hour he held an overflowing audience entranced with his picturesque account of the variola ovina—a subject which, many had said, was a strange one for the Address in Medicine, but which, by the manner in which he dealt with it, proved to be a remarkable success, a success the more surprising because the reading of the Address followed close upon that of the accomplished and eloquent President, Dr. Symonds, of which I have frequently heard it said that a more excellent one has never been read before our Association.

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* Read before the Bath and Bristol Branch, January 22nd, 1880.

Dr. Budd was a most regular attendant at our meetings, notwithstanding that of late years his work, literary and practical, was almost overwhelming; and he always joined heartily in the discussions, affording most valuable information, and imparting life and spirit by his earnest and energetic eloquence. But, of course, the most important part of his work amongst us was the reading of his original papers. Here were ventilated his various conclusions on the subject of cholera and typhoid fever, of scarlet fever, and the cattle-plague—conclusions which have become famous throughout the civilised world, and in connection with which his name will live in the history of Medicine. Whilst he was thus engaged in our immediate circle, he was in his daily occupation carrying on a very large practice—a practice which, in his later years, became immense. It was to be expected that he would attain a great reputation as a skilled physician, for his mind must almost of necessity have become stored with practical medical knowledge, with everything that could in any way offer a just claim to be a cure of disease; he must, from almost his earliest years, have taken in medical knowledge "as we do air", for he was reared in circumstances in which medical matters must have been discussed at almost every hour of the day.

Dr. William Budd was the son of a general practitioner of great repute at North Tawton, a town on the borders of the beautiful and well known Dartmoor; there were no fewer than seven sons, who entered the medical profession, and all became leading practitioners. One of them, well known to all of you, attained a very distinguished position and high reputation—Dr. George Budd, author of the great work on *Diseases of the Liver*, and formerly physician to King's College Hospital. As evidence of the great talents of this family, I may state that five of Dr. William Budd's brothers graduated at Cambridge, and were all wranglers, and four of them fellows of their respective colleges; and that four of his nephews likewise became fellows of colleges in the same university. Both Dr. George Budd and the subject of this memoir were Fellows of the Royal Society.

Dr. W. Budd, as to scholastic learning, was entirely self educated. In 1827, he went to Paris, where he studied under Louis, Andral, Cruveilhier, and Broussais. It was under the tuition of the latter that he first became acquainted with the ulcerations of the intestine in typhoid fever, which were attributed by Broussais to simple inflammation of the mucous membrane. Here he took the fever, and was leeched and starved to such a degree that he was unable to pursue his studies for several years. Notwithstanding, I think he did not underrate the importance of bleeding in the early part of his career. He was next a pupil of Dr. Watson at the Middlesex Hospital; and took his M.D. degree at Edinburgh in 1838, obtaining the gold medal for his essay on Rheumatism. In this, I believe, were foreshadowed his views on the Symmetry of Disease. In 1839 (whilst staying with his brother, Dr. Richard Budd of Barnstaple) he competed for the Warneford prize of £50 for the best essay on Fever. The prize was not awarded to him, because, in the opinion of the judges—of whom Sir John Forbes was umpire—the ideas enunciated in his essay were too novel and startling. He was for some time physician to the *Dreadnought*. Here, he nearly died of typhus fever.

About the year 1841, he settled in Bristol. Thenceforward, his career is pretty well known to you. Well known to all of us are the daily cares of the medical life, the constant anxiety, the monotony of the daily round, and the disappointments in contending with disease we cannot cure; but we are supported by the thought that we are trying to do the work appointed unto us.

Dr. Budd was married to Miss Hilton, a member of a well known family in Kent, and had many children, by some of whom and by his most devoted wife he was tenderly nursed until his death.

His illness was most probably the result of an overwrought brain; for two or three years before he finally broke down, he showed symptoms of failing health. Two years before he was quite knocked up, but after a long and successful holiday in Germany and Switzerland, he came back apparently recovered, and went to work in his old excessive fashion. By the following summer, he was as bad as ever, but went away to North Devon, and there again recovered, and cheerfully told me, upon his return, how he could outwalk the best of them. On each of these two occasions, I saw and helped to persuade him to go away; he was suffering from most agonising headaches, and I remember that the night before he went to the Continent, I gave him chloroform, as the only promising means of affording a temporary relief. The next day, he was off; and the rest and change put him right. The year that he finally gave up, I did not see him before he went away; I think he avoided me, for he knew what I thought of his intense work and of the certainty that he would sink under it. He went into Devonshire to try to give the finishing stroke to his work on Typhoid Fever, which he was just able to complete; and then was hurried away to France in the hope that change and rest would do for him what they had done before; but the hope was vain. This time, he came back much worse; and when I next heard of him, he had gone to Dartmouth, where for two or three years he remained. When I next saw him, he was at Clevedon, partially hemiplegic, and there he remained until his death.

Dr. Budd was for a very long period an active member of the British Medical Association, one of the Council, and formerly President of the Bath and Bristol Branch. I believe that he took an active part in the discussions as to the change of name from Provincial to British Medical Association. It would be impossible, in the time at my disposal, to give a complete digest of Dr. William Budd's valuable writings; and I am afraid that, if I gave my opinion of their importance, I might be thought to exaggerate. By any one, however, who thinks out the matter carefully, it will, I feel sure, be conceded that none in our times have had more influence and importance in the direction of Preventive Medicine; and it will be found that the measures now generally adopted for the arrest of cholera and typhoid fever can be clearly traced to Dr. Budd's work. Supposing that time and further experience should prove what Dr. Budd has claimed for these measures to be just, only consider what that would mean—the power of arresting two such deadly epidemic diseases as cholera and typhoid fever. With regard to the latter, I think it may safely be said that the adoption of the plan drawn out by Dr. Budd will, so far as human measures can go, succeed in isolating and stopping the increase of the disease; and, with regard to cholera, although, probably owing chiefly to the rules which Dr. Budd has laid down, our experience of their power is limited, yet such experience as we have goes entirely to confirm Dr. Budd's views. This was Dr. Budd's own estimate of the present state of the evidence that is forthcoming as to the power of his rules for the prevention and arrest of cholera; for, although his nature was highly enthusiastic, he was not unreasonable as to the proofs upon which he required his views to be accepted; for in the preface to his pamphlet on cholera in 1866, published in 1871, he says: "I speak still in the interrogative mood, because, however strong the evidence may seem, one is almost afraid to believe in so great a triumph as this, until it is assured by more extended experience. In exact proportion to the importance and magnitude of any given conclusion, the true philosopher, strong though his own conviction may be, is exacting of proof."

What the triumph referred to in the foregoing sentence, quoted from Dr. Budd's pamphlet, was, may be best learned from the pamphlet in which it occurs. Suffice it to say here that, under Providence, the means suggested by Dr. Budd, and carried out in the most thorough manner by our excellent Medical Officer of Health, appear, upon evidence clear almost to demonstration, to have checked a most threatening onslaught of cholera, and to have reduced to mild proportions a mortality which might otherwise have been as terrible as it was in former epidemics. From July 21st to November 12th, the disease made its appearance in twenty-four distinct localities, which, with others where it had occurred previously in the same year, made twenty-six infected spots; but, notwithstanding the widely separated localities in which these occurred, the whole number of cases amounted only to forty-nine, the deaths being twenty-nine; and this notwithstanding that, in several instances a second, and in other instances more than a second, case showed the disposition of the disease to spread; and that the attack was not of a mild but of a virulent character is shown by the high rate of mortality. Dr. Budd says of this epidemic: "Whatever the light by which we view the events, we are thus unavoidably led to the belief that this city owes its exemption from an epidemic of cholera, in the summer of this year (1866), to the specific measures taken to prevent the spread of the malady. Had the principle on which these measures are founded been purely empirical, the facts would have left us no reasonable alternative. But, as we know, the case is far otherwise. By an induction, which, for commanding clearness and logical severity, is rare indeed in physic, we have arrived at the conclusion that Asiatic cholera is propagated extensively, as I believe, by the rice-water discharges. To destroy these discharges is, therefore, to destroy the seed by which the disease is sown, and, by the very act, to prevent the possibility of a future crop. In Bristol, the seed has been destroyed and the crop has failed. What was expected has exactly come to pass. The accordance between theory and fact is not general merely, but very nearly perfect."

If cholera can be arrested by the means detailed in Dr. Budd's writings, the achievement must be ranked amongst the greatest in medicine; and, in my opinion, although his labours have been shared by others, this good work was chiefly accomplished by our lamented associate. His efforts in this field were unwearied, and no one but those who were most intimate with him knows how they exhausted him. It has often been asserted that the credit of all this work belongs to Dr. Snow; but a study of the subject will easily settle the relative claims; and no one was more ready to acknowledge what was due to Dr. Snow in the matter of cholera than Dr. Budd, and he has done so more than once and in the most generous manner. Thus, in the pamphlet referred to: "That the cholera-germ is often transmitted through drinking-water, the late Dr. Snow, by his admirable researches, long ago proved. That thus distributed, it may now and then give rise to a wide-spread infection, is equally true. I could myself add, from my own observation, more than one to the many decisive examples of the fact already recorded." And again, in a letter to the BRITISH MEDICAL JOURNAL for August 23rd, 1856: "The object I had in addressing the meeting" (annual meeting of the Association, at Birmingham, in 1856) "was to add, in terms as emphatic as I could command, my protest to that of Dr. Richardson, against any credit being taken for the recent report of the Board of Health, on the connection between cholera and the use of tainted drinking-water, to the prejudice of Dr. Snow's admirable, long prior, and entirely original researches on the same subject. In these remarks, I made no allusions to my own observations on cholera. The outbreaks of cholera whose history I have endeavoured to record relate, in fact, exclusively to other modes of dissemination of this subtle poison."

In point of fact, the true state of the case was this. Dr. Snow had, by his remarks, which, as he says, "were conducted with great labour, and very much to the detriment of my more immediate interests", succeeded in proving that cholera was frequently propagated by drinking-water, the importance of which demonstration can scarcely be overestimated; but Dr. Budd had shown how, by the destruction of the discharges, the isolation of the sick, the disinfection of the drains and sewers, and by other means, all of which he had worked out with the greatest precision, the pollution of the drinking-water, and probably the spread of the disease in every other way, could be prevented.

What cholera is, what dismay it spreads, how terrible in the aspect of the individual case, how frightful in the view of its fearful mortality, can scarcely be realised by those who have not witnessed its ravages.

It was my fate to serve the office of clinical clerk to Dr.—now Sir George—Burrows during the cholera epidemic of 1849, and I was in the cholera-wards all day long. The rapid change of the living for the dead—so rapid that I have found myself reading the notes of a case recently dead and removed for those of one only just brought in, so alike were the dreadful features of coldness and lividity, of agonising spasm, or fatal collapse—made an impression upon me that I can never forget.

But if Dr. Budd's labours were great and unwearied, and successful, on the subject of cholera, they were still more so on that of typhoid fever. Here we get on ground that is peculiarly his own, and have to do with discoveries and practical deductions that are universally recognised to be his. Briefly, what he has done for this fever is to have established its specific character, and to place it on the same footing as typhus, scarlet fever, small-pox, and the like, having a poison *sui generis*. I think he had come to the decided conclusion that this poison was of the nature of organic germs; he has often expressed such an opinion to me; in his work on *Typhoid Fever*, he says (p. 99): "There is a growing belief that the specific germs which cause contagious fevers are, in reality, so many living species." Besides these views, he held that the glandular enlargements and ulcerations of the small intestine represented the eruptions of other diseases; and, what was the most practical conclusion of all, that the discharges from the intestines were the chief media of communicating the disease, which he held against many high authorities to be eminently contagious.

Before the year 1846, typhus fever and typhoid were in this country usually treated as if they were one disease; they were generally discussed under the name of continued fever; they were, so far as I can learn, considered highly contagious. In the year 1846, by a series of laborious investigations, which were given to the medical world in writings of great clearness and interesting style, Sir William Jenner (Aitken's *Practice of Medicine*, vol. i, p. 378), succeeded in establishing the fact that the fevers that we usually called continued, were, in truth, several; and that the chief and most important of the group were typhus and typhoid. No doubt the original discovery of this distinction is not due to Jenner, for there were foreshadowings of it from as long ago as the year 1836; but to Jenner belongs the credit, in my opinion, of making it a firmly established medical fact. However this may be, one of the most important results of the division was to show that, in the mode of propagation of the two, there were marked differences; that, whilst typhus was obviously and by general consent contagious, there were peculiarities about typhoid which caused some persons to doubt its contagious properties, and others to deny them altogether. To settle that it was contagious, and to discover measures for preventing the spread of it, may be said to have been the great work of Dr. William Budd's life. He missed no opportunity of studying the epidemics of it that came within his range; and with what earnest labour and indefatigable zeal he worked at the subject, those only knew who were of his family, or were intimate with him. I believe that he has fully established the fact for which he so long contended, and he certainly lived long enough to see, in some measure, the fruit of his labours; for his rules for the prevention of the spread of typhoid have been adopted by most sanitary boards, and are well-known and generally used throughout the country. Dr. Aitken says, in the edition of his valuable work on *Medicine*, published in 1864: "The Privy Council have now made the principle of this method an integral part of their general memorandum in proceedings advisable to be taken in places attacked or threatened by epidemic disease." The importance of Budd's work on this subject may be best estimated by remembering that, at the time when he wrote, the deaths in this country from typhoid fever were twenty thousand, and that one hundred and forty thousand more were laid prostrate by it (Aitken, p. 410).

I need not extend my remarks on this subject further in a place where Budd's views are so well known, and in which he and his work will be so well remembered. But I will conclude this part of my subject by clearing up a point upon which I find there is often error.

Aitken says (p. 225): "Mr. Simon makes the important remark, however, that these bowel-discharges may not be the sole means of multiplying and disseminating these diseases." But Dr. Budd did not hold that they were; he was always teaching the contrary. In his work on *Typhoid Fever*, he says (p. 38): "The question of contagion settled, the next that arises is—in what form, and from what surface or surfaces is the specific poison cast off by which the disease is propagated? Now, I have no difficulty in at once giving my opinion that all the emanations from the sick are in a certain degree infectious. At the same time, it is one of the principal objects of this work to show that what is cast off from the intestine is incomparably more virulent than anything else."

I have a list before me, more or less complete, but certainly not perfect, of Dr. Budd's various writings. A large number of them are on the subjects of which I have been treating; these were those at which he worked most constantly, but there are others which would have made the reputation of any man. Foremost among them is the well-known paper on Symmetry of Disease; this paper was read before the Royal Medical and Chirurgical Society, and was communicated by his brother, Dr. George Budd, on December 14th, 1841. From the influence that this has had on various writings on blood-diseases, it must have produced a great impression. Dr. Watson says: "Some speculations still more lately put forth by Dr. William Budd, in a communication to the Royal Medical and Chirurgical Society, throw a strong light upon this perplexed subject, and bring the phenomena, not only of gout, but also of many other important complaints, within the operation of one general, comprehensive, and intelligible law" (Watson, *Principles and Practice of Physic*, 3rd edition, p. 694).

It is interesting to look down the list of the members of the Royal Medical and Chirurgical Society at that time, and to see the illustrious names that figure there, and curious that, by one who has since become foremost amongst them all, a paper was read on the same evening on the "Relation between Symmetry and Disease". This, no less than Dr. Budd's, was a highly philosophical paper, and the author was Sir James Paget.

Merely to read the long list of contributions to various papers, most of which conveyed something new and valuable, would weary you; and I am warned that I must draw this address to a conclusion. There is a paper on "Bacteria and Malignant Pustule", in which there would, no doubt, be something interesting; but, as yet, I have been unable to find the paper.

Next to Dr. Budd's works upon cholera and typhoid, his communications and his pamphlet on scarlet fever and on cattle-plague and its prevention will perhaps be considered most important; and I have a reference to a paper published on cattle-plague in the *Medical Times and Gazette* for 1865. He was undoubtedly the originator of the plan that was, after long discussion and much severe criticism of the author of it, adopted all through the country, and made compulsory by an Act of the Privy Council. He was a member of the Commission of the Privy Council on the Cattle-Plague. His views on cattle-plague were largely discussed in one society, and for a long time he was connected with the pole-axe and the lime-pit in the minds of many.

For this, and for much other work of a public character, which will continue to confer immense benefits upon mankind, I have long been of opinion, and I have often heard the same opinion expressed by others, that Dr. Budd more than earned one of those pensions which are given by a grateful country to unusual services. But Dr. Budd died without any public honour to testify to his work. Had he lived to enjoy more leisure, he would, I doubt not, have gradually reproduced his work in a more tangible form; and it is extremely likely that his services would, in some way or other, have been recognised. As it was, he lived long enough to know that his views were gradually, but steadily, taking firm hold of the profession, and that they were being acted upon to the great prevention of disease and misery throughout the land. He died undoubtedly a martyr to his work, of which the greatest part and the most exhausting was done for the public good. What he desired to accomplish, that he bravely dared; and what he bravely dared, he nobly won; and let us hope that, in the time to come, when a nation is scared by the alarm of cholera, or a household by that of typhoid fever, and the preventive measures so fully insisted upon by the associate whose loss we mourn to-night have been put in force, and (God willing) the plague has been stayed, there will be a grateful remembrance of the self-sacrificing life of William Budd.

ANTISEPTICS IN OPHTHALMIC SURGERY.

By EDWARD NETTLESHIP, F.R.C.S.Eng.,
Ophthalmic Surgeon to St. Thomas's Hospital.

A SHORT note on the use of antiseptics in operations on the eye may be of interest at the present time, especially as the subject was alluded to by Mr. Lister in his speech at the recent discussion. The question as regards operations on the eyeball refers almost solely to the extraction of cataract, and especially to the prevention of that suppurative inflammation which, beginning at the wound, spreads to the iris and uveal tract, and ends in panophthalmitis. Iridectomy and other procedures involving smaller wounds of the cornea are almost never followed by inflammation of the wound, and the same is true of operations for strabismus, etc.

The belief that suppuration after extraction is due in most cases to infection is undoubtedly gaining ground, though the advanced age of most of the patients, the large size of the wound, and the exposure and friction of its edges during the steps of the operation, must doubtless act as auxiliary causes, by tending to retard immediate union. I do not say that some of the more chronic and less serious forms of iritis and irido-cyclitis following extraction may not also be due to infection; this point is at once more difficult to determine and less important. The percentage of cataract-operations lost by suppuration of the eye is not easy to ascertain, and undoubtedly varies in a remarkable manner at different times and in different hands; but probably from two to four per cent. may be taken as about the proportion in Europe and America at the present time; in India, it appears that a much larger percentage of losses may be expected.

No extended use has, I believe, yet been made of the antiseptic spray in eye operations, most operators having feared that it would irritate the eye or interfere with a clear view of the parts; it is, indeed, accused by Horner and Becker of sometimes causing ulceration of the cornea. Rossander of Stockholm has used the spray and all other details of Lister's method in twenty-seven extractions of cataracts. Mr. Story of Dublin has also used the spray in a smaller number. The results so far have been excellent, and no inconvenience appears to have been found.

Within the last few years, however, various attempts have been made to secure partial antisepsis in cataract-extraction by the use of carbolic water and antiseptic dressings, hitherto without, to say the least, any marked success. Schiess, in 1874 and 1876, described his method, and stated that, of one hundred eyes so treated, four suppurated: 1. the conjunctival sac was treated with one per cent. carbolic water the evening and morning before operation; 2. after operation, the eyelids and surrounding skin were freely sponged with the same solution; 3. the dressing consisted of a piece of Lister's protective oiled silk and carbolised cotton-wool, and latterly a carbolised bandage. Horner of Zürich spoke, in 1876, of his experience with salicylic and boracic acid dressings, and considered that the latter substance was well borne by the cornea. In 1878, Alfred Gräfe of Halle adopted a partially antiseptic method, not differing much from that described by Schiess, except in the more assiduous use of carbolic water and in the employment of moist boracic lint covered by oiled silk, instead of dry salicylic or carbolic wool for dressing. His results, decidedly favourable in the first one hundred and fourteen cases, were afterwards marred by an unusual number of suppurations. Gräfe's method has been tried also by O. Just, and with slight modifications by Wecker. Wecker remarks that, although he had a run of nearly two hundred cases without loss by suppuration of a single eye under the ordinary (non-antiseptic) plan, he had not found the new method perfectly free from risk. Other equally long series of successes without antiseptics have, if we may trust published statements, been obtained; and series of fifty, sixty, and upwards are sufficiently common. I tried Gräfe's plan in thirty-four extractions at the end of 1878, and first half of 1879, and with results so much worse than any before, that I gave it up, several eyes being lost by the suppurative inflammation which it was intended specially to prevent. I at present content myself with dipping all instruments into alcohol, and using carbolic water instead of plain water for cleansing the eyelids and conjunctiva at the operation. It may be remarked that complete antisepsis of the conjunctiva cannot be guaranteed, even under the spray, since a considerable part of this membrane is always hidden by the lids, and that the use of the spray in the after-dressings might be dangerous by causing spasm of the lids or unexpected movements of the head.

It appears to me that the question of the practicability and usefulness of the spray and gauze in extraction of cataract can only be decided by a very large series of cases, operated upon in a comparatively short time by a few men with ripe experience and a large field of practice; or by its general adoption at a large hospital like Moorfields, where all cases are afterwards attended and treated by the same house-surgeon and nurses. Small series of cases operated upon under many different conditions can hardly, within a reasonably short time, furnish data for trustworthy conclusions.

ON THE TREATMENT OF GLAUCOMA BY THE APPLICATION OF ICE.*

By HENRY GREENWAY, M.R.C.S., Plymouth.

SEEING that the treatment of glaucoma is to form a subject for discussion at the annual meeting of the British Medical Association, 1879, I embrace the opportunity for bringing before the notice of the members my method of dealing with that disease.

In the summer of 1867, I conversed with Mr. Haynes Walton on the surgical treatment of glaucoma by iridectomy; and he agreed with me that the results of the operation were so frequently unsatisfactory, that that mode of treatment must ultimately be discarded for one more reliable and unobjectionable. In June 1868, I wrote Mr. Walton, reminding him of our former conversation, and said: "The more I think about that disease (glaucoma), the more I am inclined to regard the vitreous body or humour as the ultimate offender. A moment's glance shows us the amount of space it occupies in the eyeball. We also know that inflammation and congestion in a given part are attended with increased secretion and increased temperature. This last effect, in my opinion, makes matters worse by increasing the bulk of the vitreous humour, irrespective of the extra secretion; and it is, as it were, crying out for elbow-room, but cannot get it, as the globe is 'hide-bound' (to use a common phrase) by the dense sclerotic and the cornea." After suggesting the puncturing the sclerotic and removing some of the vitreous humour by means of my suction-tractor, I went on to say: "Supposing my idea that the increased bulk of the vitreous body is partly depending on increased temperature, would the application of cold by means of ice or ether-spray on the closed eyelid be prudent?" In the latter part of 1872, I was consulted in a case of acute glaucoma; and, finding the usual medical treatment unavailing—including the sulphate of iron and magnesia mixture, mentioned in Mr. Power's able treatise on *Some of the Principal Diseases of the Eye*, and which I have on many occasions found serviceable in non-specific ophthalmitis—I determined to try the application of ice. The result proved satisfactory, for the patient regained vision in the affected eye in the course of a fortnight, so that she could read large type, and further improvement took place eventually. I placed the ice in a small pig's bladder, and, as the latter became offensive, I found it necessary to place in it also a small quantity of carbolic acid solution. In order to prevent injurious effects by a too prolonged application of extreme cold, I directed the bladder to be removed occasionally, but to be reapplied as soon as returning warmth was perceptible. This treatment was not required longer than two or three days. Whether the carbolic acid played any part in the cure, I cannot say. In the new edition of Mr. Haynes Walton's standard work on *The Diseases of the Eye*, the application of cold is recommended in conjunction with other treatment in this affection if there be exalted ocular temperature; but I apprehend nothing beyond the application of evaporating lotions will be understood by this advice. Whatever view may be held as to the pathology of glaucoma—whether it be a neurosis, as believed by M. Donders, or inflammation of one or more structures of the eye—the application of ice seems appropriate, as it is both a sedative and an antiphlogistic, and has the power of reducing bulk. As I have only treated a few cases of acute glaucoma by this means, it would not be right to pronounce positively on its reliability; but I trust my small experience may lead other surgeons to give the above treatment a trial.

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* Read in the Subsection of Ophthalmology at the Annual Meeting of the British Medical Association in Cork, August 1879.

THERAPEUTIC MEMORANDA.

QUEBRACHO IN DYSPNŒA.

QUEBRACHO appears to be, from the reports of Penzoldt and others, a very efficient palliative of all forms of dyspnœa. My experience of its efficacy refers only to a limited number of cases, in which the dyspnœa was associated with emphysema of the lungs, atheroma of the arteries, and degeneration of the cardiac muscles. In all these cases, a teaspoonful of the liquid extract (as prepared by Messrs. Corbyn) has afforded *immediate relief*. In three minutes after the administration of the drug, the pulse became somewhat fuller, but not increased in frequency; the patients felt their breathing easier; the face was flushed, and a gentle perspiration appeared on the forehead. There were slight drowsiness and inclination to sleep. These symptoms, however, soon subsided; while the breathing continued to be much improved. One patient, suffering from cardiac dropsy, stated that he had passed more urine after taking three doses of the medicine than he had done before. I had, however, no opportunity of verifying this statement.

From what I have seen of the action of the drug, I am confident that it is deserving of a fair trial. I. B. BERKART, M.D.,
Senior Assistant-Physician to the City of London Hospital, etc.

IODOFORM: ITS USE IN NASAL CATARRH AND THE TREATMENT OF WOUNDS.

MUCH has been written lately about postnasal catarrh. I venture to add to the numerous remedies which have been suggested. The drug I have found most useful is iodoform. I first tried it on myself. Last winter, I had a very severe cold, with coryza, great sensitiveness of the mucous membrane, smarting of the eyes, and lacrymation. Bathing the nose, eyes, and forehead gave almost no relief. I therefore resolved to try iodoform. The reasons for which I tried it were the following. 1. From its analogous chemical composition to chloroform, it would very likely have soothing properties. Indeed, I had seen it used with marked beneficial effect in acute and painful vaginitis. 2. The iodine would constantly be given off in small quantities, and thus stimulate the absorbents, restoring the healthy action of my mucous membrane. 3. As it is volatile, it would be more cleanly than a non-volatile snuff.

I accordingly snuffed up each nostril about as much iodoform as would lie on a threepenny-piece. I did this about six o'clock in the evening, and about eleven o'clock I was immensely relieved, so that the coryza was markedly diminished. In that short time, my cold had been transported from the cold stage to the stage of resolution. Next morning, I was almost well.

I resolved to try this drug on various friends or patients, and have done so with great success. The coryza and accompanying pain and discomfort disappeared in a few hours, or in the course of a night. In cases of mild catarrh, I found it made the symptoms a great deal worse. I generally find one application enough, and give a smaller quantity than I used myself.

I have also used iodoform with success in the treatment of wounds. It is specially useful in strumous subjects, where the wounds do not seem inclined to heal. In antiseptic cases, I mix the powder with a little (1 to 40) carbolic lotion as a necessary precaution, to render inert atmospheric dust which may be mixed with it. It is also very useful in cases where there are sloughs. The sloughs rapidly disappear, and the wound becomes clean and healthy.

Dr. Hack has recently shown the absorbing power of granulations, and that they will absorb aseptic sloughs. This latter fact was pointed out long ago by Professor Lister, not only in regard to aseptic sloughs, but also aseptic necrosed bone in some cases. The iodoform is probably absorbed by the granulations, stimulating them to absorb the slough much more rapidly. I have noticed in these cases that the sloughs disappear without alteration on their external surfaces, and without increased discharge. They are, in fact, absorbed from the under-surfaces which lie in contact with the granulations. I am at present using iodoform in two chronic ulcers of three years' duration, and with steady diminution of their sizes.

In painful burns, I have found that an ointment containing iodoform soothes the pain, while the powder sprinkled on gives very great pain. I would like to suggest its trial in obstinate cases of photophobia, either as a snuff or as an ointment spread along the lids. I think it would prove useful; but I have not had the opportunity of trying it.

ALBERT WILSON, M.B., C.M.Ed., Leytonstone, E.

COD-LIVER OIL IN COMBINATION WITH ALCOHOL.

THE following preparation of cod-liver oil has been so productive of good effects in my practice, that it leads me to bring it under general notice, with a hope that its use may have a more extended sphere of experiment. The formula and mode of preparation are thus. A. Whisk the yelk and white of an egg in a mortar; gradually add four ounces of light cod-liver oil; mix these ingredients to an uniform consistency; then add half an ounce of dilute phosphoric acid. B. With two ounces of brandy mix a drachm and a half of aromatic spirit of ammonia, and also one drachm each of oil of lemon and oil of almond. Combine A and B, adding brandy to eight ounces. The dose for an adult is two tablespoonfuls two or three times a day; for children, a proportionate quantity. A variation in the essential oils is useful where it is necessary to prescribe the mixture for a lengthened period. The flavour can be altered *ad gustandum*.

The preparation specially recommends itself for children, who, as my experience has shown, almost invariably take it without compunction, the "medicine-time" being by some looked forward to with pleasure. It appears to be of great value in the pre-tubercular stage of phthisis. The three ounces daily are in most cases taken without causing any deleterious effect on the alimentary canal. The alcohol materially assists the stomach in digesting the oil, when it would otherwise be unable to do so. With children, the use of sherry is sometimes preferable, as the quantity of brandy prescribed might cause unseeming hilarity. FREDERIC YOUNG LIVY.

SURGICAL MEMORANDA.

ASPIRATION OF THE BLADDER IN CASES OF RETENTION OF URINE.

EIGHT or ten cases of retention of urine due to organic stricture of the urethra, with spasm superadded, in which endeavours to relieve in the ordinary way had failed, have been successfully treated in the hospital under my charge by aspiration of the bladder immediately above the pubes. The advantages of this plan of treatment appear to be these.

1. The operation is very simple, and, if skilfully performed, absolutely without risk.
2. The pain caused by the introduction of the trocar is trifling and momentary.
3. The patient is afforded instantaneous relief.
4. In every case, the patient passed urine freely in a few hours.
5. The delay under the usual method of treatment is avoided, and the patient is saved much unnecessary suffering.

Might not the laceration of the urethra, commonly seen as the result of the rough and unskilful handling of catheters, be avoided by resorting more frequently to the easy and perfectly safe operation of aspiration?

C. BURGOYNE PASLEY, L.R.C.P.L., L.R.C.S.I.,
Surgeon in Charge, Colonial Hospital, Trinidad.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, January 20th, 1880.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

Retarded Hereditary Syphilis.—Dr. Coupland showed specimens from two cases of retarded hereditary syphilis. Case I. A girl aged 13 was admitted into the Middlesex Hospital under the care of Dr. Greenhow, in September 1877, suffering from renal dropsy of ten months' duration. There was a firm but irregular tumour in connection with the liver, and its syphilitic nature was inferred from the following facts. She was the seventh child of a family of twelve, including three still-born. Four of those born alive died in infancy, several of them after having shown some of the usual signs of congenital syphilis. The patient had notched incisor teeth and an opacity on the cornea. She died in December 1877 from the renal disease. The liver was greatly deformed, and the seat of two large firm gummata, chiefly of the right lobe. The spleen weighed nine and a half ounces, and was indurated, but not lardaceous. There was well marked parenchymatous nephritis. Case II. An ill-developed girl, died in November 1879 at the age of eighteen and a half years. She was one of a family of thirteen, seven of whom had died in infancy, and there had been two abortions. No history of infantile syphilis could be elicited, the patient having been in good health till 1876, when she suffered from a painful swelling near the knee-joints. This was followed by other nodes in front of the leg and on the forearms, and in October 1878 she was also under treatment for necrosis of the frontal bone. She died from nephritis and cellulitis of the right leg, following suppuration of a node and necrosis of the tibia. At the necropsy, numerous isolated ill-defined periosteal masses (gummatous) were found in connection with the right tibia. There was, however, no marked osteitis, with the exception of a patch of superficial necrosis connected with one of the suppurating gummata; there was necrosis of the frontal bone and gummata in the frontal and left parietal regions, one of which involved both tables. There was also perihepatitis and a small gumma in the substance of the liver, the organ itself being extremely fatty. The spleen weighed thirteen ounces; it was firm and glistening, but not lardaceous. The kidneys were in the same condition as those in the first case. There was characteristic notching of the left upper central incisors. In neither case was there any ground for believing the disease to have been acquired, while in both the condition of the teeth and the striking family history were strong presumptive evidence of hereditary taint. Dr. Coupland referred to the difficulty of speaking with absolute certainty in this class of cases to which Lancereaux first drew attention; but, in the light of recent knowledge on the lesions of hereditary syphilis, the grounds for doubting their existence had been dispelled. He referred to two analogous cases recorded in 1874 by Professor Laschkewitch of Charkow, and remarked upon the frequency with which renal disease (apart from lardaceous change) carried off the subjects of tertiary syphilis.—The President demurred to the term "late" as applied to these cases. Such lesions as those described generally occurred in early adult life. He had seen many such cases in living subjects, but had only obtained four or five *post mortem* examinations. Such patients were generally very tenacious of life, but if death occurred as the result of syphilis, it was generally due to nephritis.—Dr. Barlow thought the point about the liability of the subjects of congenital syphilis to nephritis to be very important. He had seen a child that had died of parenchymatous nephritis, whilst presenting many symptoms of congenital syphilis. The kidneys were not lardaceous in this case.—Dr. Mahomed thought that in most cases the nephritis of syphilis was due to primary lardaceous disease. He had seen several cases of contracted granular disease associated with lardaceous degeneration in syphilitic patients.—Dr. Greenfield also thought that lardaceous degeneration was the primary factor in these cases, and narrated cases in support of his views.—Dr. Norman Moore had lately seen a case of granular contracted kidney in a syphilitic woman, which was not associated with lardaceous change. —The President said that in one of his cases certainly there had been no suggestion of lardaceous disease. The liver had swollen several times during life, but had always sunk again to its normal size. At death, there was no lardaceous change. There had been several attacks of hæmaturia.—Dr. Coupland stated in reply that, in his case, there was no lardaceous change in any of the organs. The change in the kidneys was mainly epithelial. He believed that people suffering from syphilis of long standing had a tendency to die from parenchymatous nephritis.

Malformation of the Heart, with Transposition of the Pulmonary Artery and Aorta.—Dr. Lees showed the heart of a child seven months old, which had been cyanosed since birth, the blueness being most marked in the head and upper limbs, where the colour was very deep. The fingers were not clubbed. The heart was large, and the second sound accentuated; but when the child was first seen, there was no bruit. When the child was five months old, a bruit developed at the left side of the sternum, conducted upwards to the left clavicle. The murmur diminished before death. *Post mortem*, two parallel vessels were found to pass from the heart, of which the right was the smaller, and proved to be the aorta emerging from the right ventricle. It gave off the usual branches, and united with the ductus arteriosus, which was patent, to form the descending aorta. The foramen ovale was closed, but the septum ventriculorum was deficient at its upper part. The arrangement of the venæ cavæ and of the pulmonary veins was normal. The valves were normal, except the mitral, which was a little thickened. The head and upper limbs were thus entirely supplied with venous blood, the trunk and lower limbs receiving half-aërated blood. There was a clear history of severe mental shock, followed by vomiting and diarrhœa, at about the sixth week of pregnancy, which is about the time that the first rudiments of the heart are formed. At the previous confinement, the mother had twins, one of whom had a deformity of the face, no partition having been formed between the nose and mouth. This had been also attributed to fright in the mother, caused by seeing a woman who had lost her nose. There were four other cases of transposition of the aorta and pulmonary artery in the *Transactions* of the Society, all of which differed in detail from the present case. Dr. Lees thought his case threw light on the production of two symptoms of congenital heart-disease; (1) cyanosis, and (2) clubbing of the fingers. Cyanosis had been attributed to two causes. It was originally thought to be due to intermixture of venous and arterial blood, but Stillé showed that this was not an essential condition. He thought the real cause was venous congestion, and he found that, in fifty-three out of sixty-two cases of cyanosis, there was some form of obstruction in the pulmonary artery. Dr. Peacock came to the same conclusion, for he found that cyanosis occurred where obstruction in the right heart was the only abnormal condition present; whilst the septum ventriculorum might be almost entirely absent without cyanosis occurring. Dr. Lees questioned the efficacy of this explanation. In his case, there was no obstruction, but only a condition producing insufficient aëration of blood. Might not this condition be a frequent cause of cyanosis, and was not the amount of cyanosis to be taken as a measure of the deficiency of aëration? The absence of clubbing in the present case would suggest that clubbing is due to venous congestion, and a careful examination of Dr. Peacock's cases showed that the cases with clubbed fingers were those in which venous congestion existed, or *vice versâ*.—Dr. Norman Moore thought that the explanation of the malformation could be fully found in the fact that the woman had a tendency to the production of monstrosities, without falling back on the notion of a fright.

Dislocation of the First Phalanx of the Thumb forwards.—Mr. Eve showed this specimen from a man killed by a fall of an arch. A similar case was recorded by Mr. Wood in the Society's *Transactions*. Hamilton had recorded ten such cases.

Pathology of Bright's Disease.—Dr. Saundby (Birmingham) showed a series of drawings of microscopical specimens, with a view to elucidate the pathology of Bright's disease. He summed up the various views that had hitherto been enunciated as regards the mode of production of the three chief forms, mentioning that there were three great schools of pathologists. The first maintained that acute inflammation of the kidney, fatty kidney, and granular kidney, were three stages of one process, a process of exudative or interstitial inflammation. The second school, founded by Virchow, and which included Drs. George Johnson and Moxon, believed that they were due to parenchymatous nephritis, and that the mass of fibrous tissue in the granular kidney was chiefly due to wasting of tubules. The third school, which was headed by Sir W. W. Gull and Dr. Sutton, believed that the granular kidney was due to a hyaline-fibroid degeneration in the walls of the vessels of the body, generally resulting in fibrosis of the kidneys and other organs. He had paid close attention to the subject for some years, and had at first inclined to the doctrine of interstitial nephritis. Further investigation had, however, led him to adopt the views of that school which looked upon granular kidney as the result of chronic parenchymatous nephritis. He was first led in this direction by studying cirrhosis of the liver. Charcot had pointed out that, in cirrhosis, the normal hepatic epithelium disappeared, and was replaced by a small-celled epithelium, which tended to become developed into fibrous tissue. He himself had shown that this epithelial change took place, not only in cirrhosis, but in many other morbid conditions of the liver. The same change could be seen in the kidney. The cells first became more translucent, the protoplasm cleared up, and the nucleus stained readily with carmine. The protoplasm diminished in quantity, until the tubules were filled with numerous small cells. These cells, which were at first round, became spindle-shaped, and then gradually changed into connective tissue. The changes began in the convoluted tubes, and afterwards involved the straight. Ultimately, the Malpighian bodies appeared to undergo the "embryonic transformation", their contents becoming changed, first into cellular tissue, thence into a kind of mucous tissue, and ultimately cysts were formed. The arterial walls were hypertrophied, but this was only what was found in all cases where chronic inflammation, or even chronic hyperæmia, was present. Granular kidney was especially liable to arise in persons of atonic temperament, where the depurative organs were sluggish, and where, consequently, a greater strain was thrown upon the kidney, leading to persistent hyperæmia of the organ and hypertrophy of its vessels.—Dr. Greenfield thought that, considering the importance of the question, it was not desirable to discuss it, unless the original preparations were exhibited from which the drawings had been made. He moved, therefore, that Dr. Saundby be invited to exhibit his specimens at a future meeting of the Society.—Dr. Mahomed seconded the motion; and in answer to the President, Dr. Saundby replied that he should be very glad to accept the invitation.

Membranous Laryngitis in an Adult.—Dr. Pye-Smith showed, on behalf of himself and Dr. Shadwell of Walthamstow, the respiratory apparatus, and also an arborescent membranous cast of the trachea and larger bronchi, from a woman aged 23, who caught cold a few days before. She was taken suddenly ill with shivering and vomiting, and the signs of sthenic fever. Next day, she coughed up some fragments of membrane. The following day, she coughed up the arborescent cast exhibited. On December 29th, there was extreme dyspnœa, but no false membrane on the fauces. She was prematurely confined on the 30th, and died shortly afterwards. The larynx, trachea, and bronchi were injected, and contained frothy fluid, but there were scarcely any traces of false membrane. The appearance of the cast was like those seen in plastic bronchitis, but the absence of hæmoptysis, and the general aspect of the case, negatived the idea that it was a case of this kind. He thought, also, that the case was not one of diphtheria. There was no possible source of contagion, nor any severe poisoning so far as could be ascertained, whilst, on the other hand, the patient had certainly been exposed to severe chill. There was also an absence of all the signs and characteristics of diphtheria in the adult; there was no asthma, no faucial inflammation, no swelling of the neck or cervical glands, nor was there albumen in the urine. Death took place from asphyxia. The *post mortem* examination showed the signs of local disease, but none of those of asthma. The case appeared to be one of simple membranous inflammation of the larynx and trachea, such as had been long searched for, but hitherto without success.—Dr. Semple thought the case was one of diphtheria. In some cases, diphtheritic membrane had extended into the bronchi, whilst, on the other hand, it was not always present in the fauces. Again, diphtheria might arise without traceable causes. He considered the case was not sufficiently clear to justify its being called one of membranous laryngitis.—Dr. Shadwell gave further particulars of the illness and of the surrounding circumstances. There were no cases of sore-throat in the neighbourhood, nor did any of the other inmates of the house become affected. The drainage was in good order. The drinking-water was derived from a well twenty feet from the sewer; its water had been analysed, and was found free from impurity.

Recent Specimen of Malignant Growth in Lung.—Dr. Norman Moore showed the lungs and heart of a patient who had been admitted into St. Bartholomew's Hospital ten days before death, with the signs of emphysema and bronchitis. *Post mortem*, a cancerous growth was found round the root of the right lung, which had passed across the middle line, and had penetrated the wall of the left auricle, obstructing one of the pulmonary veins. The left auricle was filled with a growth which rested on the mitral valve.

Specimens exhibited by card:

1. Dr. Coupland: Osteitis with Ulceration of Skull: Gummatous Infiltration of the Dura Mater: Gummata in Spleen and Lung: Fibroid Testes; from a case of Syphilis.
2. Mr. Ewart: Congenital Malformation and Cystic Degeneration of Left Kidney.
3. Mr. Ewart: Specimen of Double Ureters on both Sides of the Body.
4. Mr. Ewart: Miliary Tubercle of Bladder: Absence of Tubercle elsewhere.
5. Mr. Ewart: Fibrous and Calcareous Change of Suprarenal Capsules (? Syphilitic): Absence of Symptoms.
6. Mr. Hulke: Eight Drawings of Cancer.
7. Dr. Robert Smith: Œsophagus and Stomach from a case of Acute Poisoning with Carbolic Acid.
8. Mr. Eve: Dislocation of the Acromial End of a Fractured Clavicle.
9. Mr. Nettleship: Optic Nerve in a state of Neuritis associated with Good Sight.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

Wednesday, November 5th, 1879.

J. W. F. Smith-Shand, M.D., President, in the Chair.

Fracture of Skull.—Dr. Garden showed a lad, aged about 16, who had, about four months before, been a spectator of some Highland games, and had been then struck with a heavy hammer on the back of the head towards the left side. When he was seen, about an hour after the accident, there was observed a depression of the left parietal bone. An incision was made, and a cupful of coagulated blood removed, as well as several pieces of the outer table. The inner table was not interfered with. He recovered without any bad symptom. On being struck, he vomited, and became insensible, but next morning recovered sensibility. He had no loss of speech.

Enlarged Axillary Glands.—Dr. Garden exhibited a mass of strumous axillary glands about the size of a large orange, which he had removed from a boy about ten years of age. The boy's health had much improved.

Necrosis of Lower Jaw.—Dr. Garden showed the whole of the necrosed right half of the lower jaw of a woman about seventy years old. The other half having been removed formerly, nothing now remained but a slight hardness where the lower jaw formerly was. The woman could still eat soft food.

Molluscum Simplex.—Dr. Garden showed a coloured wax model and also a coloured drawing of molluscum from the head of an infant. There was no history. The mother's arm on which the child's head rested was irritated, but did not exhibit any sign of the disease in the shape of vesicles.

Chronic Tympanic Catarrh.—Dr. Mackenzie Booth read notes of some cases of chronic tympanic catarrh. Case I occurred in a ship's carpenter aged 30, who, about two years before, while at sea, became slightly deaf in both ears, and had gradually become worse. He had had constantly recurring nasal catarrh. He could hear ordinary conversation on attending closely only, and the tick of a watch only on contact. The secretion or wax had diminished, and the meatus was dry and scaly. The tuning-fork was well heard on the vertex, especially in the right ear. Both drums were thinned, retracted, and lying on the promontory of the tympanum; the short process of the malleus protruded; the manubrium was foreshortened; the posterior fold was prominent; the naso-pharyngeal space was catarrhal, pale, and paretic; the median raphe was strongly drawn to the left during phonation; the Eustachian tubes were pervious. He was treated by inflation; intratympanic injections of iodide of potassium and bicarbonate of soda solutions twice a-week; perforation of the drumhead; and warm solution of common salt to cleanse the naso-pharynx, and a gargle of perchloride of iron solution. There was no improvement as regarded the watch, but conversation was heard with less close attention. The drumhead on the less affected side was touched with collodion, but without effect. Case II. A sawyer aged 65, healthy, had grown gradually deaf for twenty years; he had had tinnitus lately, especially in the right ear, and had had continued nasal catarrh nearly every winter. On examination, the tuning-fork on the vertex was well heard; the watch was not heard at all; the voice was heard only on raising it very high; the larynx was pale and atrophied; the median raphe inclined to the left on contraction of the velum. Both drums were retracted strongly, lustreless, opaque; the malleus was rotated inwards, the short process protruding through the membrane; the manubrium was almost horizontal. On introducing air into the tympanum by the Valsalvian method, the note of the tuning-fork was unchanged. Inflation gave temporary relief. Perforation of the drumhead relieved the tinnitus considerably, but, on the closure of the opening, after two days the tinnitus returned. On piercing the drumhead again behind the manubrium, and enlarging the opening, tinnitus was again relieved, and relief had continued for some months up to now, although the slit healed in less than a fortnight. Hearing did not improve, although in earlier days he had often heard better in a noise. Case III. A lady aged 29, affected with deafness on the right side four years, had had an affection of the apex of the right lung, and severe attacks of sore-throat chiefly on the right side. She had had always a raw feeling from the right ear down the throat to the right collar-bone, supposed to be from lung-affection. She had had morning cough and expectoration for several years. The watch was heard only in contact with the meatus, and the voice required to be raised when the left ear was closed; the tuning-fork on the vertex was well heard, best by the right ear; the right drumhead was retracted; the handle of the malleus was bent inwards; the short process unduly prominent; the incudo-stapedial articulation was visible through the upper and posterior part of the membrane; the circumference of the membrane and part adjoining the attachment of the manubrium was opaque; the central parts were more transparent and thinner than natural; the pharynx was relaxed and reddened, especially on the right of the middle line. Air could not reach the tympanum by Valsalva's or Pollitzer's methods. The catheter passed with difficulty. Inflation was tried every third or fourth day; the pharynx was brushed with tincture of perchloride of iron night and morning, and cod-liver oil was taken. During the first month, there was steady improvement, and at the time of the report (four months after she was first seen) she was still improving under the same treatment. In this case, no benefit was derived from intratympanic injections of carbonate of soda or iodide of potassium, or from coating the drumhead with collodion. Sulphate of zinc injections removed moist sounds from the tympanum. Case IV. A woman, aged between 40 and 50, with a family history of deafness, had not suffered from catarrh, but had been rheumatic. The tuning-fork was well heard; the Eustachian tubes were pervious; there was little retraction, but opacity of the drumheads; there was singing in the ears, and dull aching pain there, as if from rheumatism. Often repeated Valsalvian inflations improved the patient greatly; and coating the drumhead with collodion caused the watch to be heard more distinctly on one occasion. Dr. Booth said that strong inflation (with local applications to the pharynx) seemed the agent from which the best results were obtained. In one case, he had used inflation every second day for nearly two months with good results. The electro-cautery, burning out a piece of the drumhead, had been useful in relaxation, the indications being the vibrating tuning-fork being heard louder when held near the meatus, and weaker when placed on the vertex during Valsalvian inflation. Perforation had improved cases of abnormal tension with symptoms of deafness and tinnitus, and was indicated when there was no change in the perception of sound during inflation, whether the fork was near the meatus or on the vertex. When inflation had failed in chronic catarrh, division of the tensor tympani had given good results in Urbantschitsch's hands. Intratympanic injections had not been of service except in cases where moist sounds were heard through the otoscope. Warm alkaline injections might be expected to do good in cases where accumulations of inspissated mucus had taken place within the cavity, although their power had been denied by some authorities. The application of collodion to the drumhead had been stated to prevent or rupture adhesions, restore mobility to stiffened ossicular joints, and relax or prevent labyrinthine pressure; but he had seen good results from this in one case only. A binaural acoustic apparatus with high magnifying power, enabling the patient to hear ordinary sounds for a continued period, the joints, membranes, and other structures being brought into exercise by the increased vibratory motion, had been introduced by Dr. McKeown with satisfactory results, as reported by him.—Dr. A. OGSTON agreed with Dr. Booth as to the little value of injections. He had given them up. He considered tinnitus a very important symptom, as it frequently depended on the state of the labyrinth. In elderly rheumatic patients, with tinnitus and faintness coming on gradually, the symptoms were supposed to depend on incipient softening of the brain. Here tinnitus was sometimes constant, sometimes occasional, and, though not often benefited by treatment, gradually diminished, the deafness remaining, the disease being incurable. With reference to deafness, he thought the subject important in regard to life-assurance, as deaf persons, even though careful, were more exposed to accident than careless individuals who had full power of hearing. It was a question whether inquiries should not be made into this matter in every case of an applicant for a life-policy.

NOTES ON BOOKS.

WITKOWSKI'S *Atlases of Human Anatomy*, with superposed coloured plates. Messrs. Baillière, Tindall, and Co. have issued an English edition of Witkowski's beautifully designed and skilfully arranged superposed coloured anatomical atlases of the regions of the body. The parts before us are admirable in design and execution. They will not supersede the necessity of dissection; but in any hospital or school library they will prove useful and interesting to the student and surgeon. The texts have been rewritten by eminent English authorities, and add greatly to the value of the plates.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 31ST, 1880.

THE LESSONS OF A LIFE.

WE record in another place the death of a man whose work will live, whose name has long been honoured abroad even more than it has at home, but of whose claims, his professional brethren and especially the great medical corporations of London, shewed themselves during his life hardly sufficiently conscious.

Dr. Lockhart Clarke's chief work was the investigation of the minute anatomy and pathology of the central nervous system. His most important papers were read before the Royal and the Royal Medical and Chirurgical Societies, and published in their *Transactions.* Thus they were unfortunately inaccessible to very many. He was urged to republish them, but for some reason he never consented to do so. He was never invited by either of the Colleges to lecture in their theatres. The work he did was of the most laborious kind, and the permanent value of his researches no one disputes. As contributions to anatomy and physiology they are inestimable, and are so thorough and careful, that they bear most directly on the elucidation of very obscure and difficult diseases of the nervous system, and in particular on some important affections of the spinal cord and medulla oblongata. For these labours, the Royal Society conferred on him the great distinction of the Royal medal. Since he discovered a new method of investigating nervous tissue, many reports of examinations in which the spinal cord has been said to be healthy are now considered valueless, because examination was not made by the method which Lockhart Clarke introduced, and which, throughout the world, is associated with his name. Nor can we forget either that he was a very early worker in his particular field; in this country, perhaps the first. More than this, the conditions under which he laboured so successfully add to the remarkable features of his career. He was, when he began and when he did his best work, a general practitioner. All he did bears the noble marks of a large patience and of great accuracy—the two basic qualities of the truly superior mind.

That Clarke obtained success in the sense of the word which a noble-minded man would most desire, is evident enough. His fame is world-wide; his work is of lasting value; it is now old enough to be correctly appraised. But, in the vulgar sense of the word, Clarke was not successful. He obtained neither wealth nor rank, nor any sort of reputation with the general public. For some years past, he attempted to gain practice as a physician, but we do not think he had many patients. The Darwinian law is not the survival of the best, as some erroneously take it to be, but of the fittest. This law probably applies to the principle of success in our and other professions, using the term success just now for that which most men desire. For success, there are required not only intellectual power, but vigour of character also; both which Clarke had. More than this, there is required fitness for surroundings. The higher kind of man might fail to obtain large practice and credit with the general public, while men whose habits of thinking and manner are those of the popular preacher might be very successful. While, as a scientific man, Clarke's success was very high, he was far distanced in the race of life by many about whose lives writers of medical biographies of the Victorian era will not be at all curious. He did not acquire one of those bulky reputations which collapse at death. So, in the ordinary struggle of life, Clarke was one of the best, but not one of the fittest. He was one of the fittest in the sense of being able to do that kind of work by which humanity will always profit. We never heard Clarke complain. He would have large compensations. As he grew old, he would not have to regret that he had sold his birthright for a mess of pottage. Clarke was an amiable, conscientious, and most just man. Let no young enthusiastic beginner in science be discouraged from doing work at necessary questions which, by the nature of it, may not for a long time, perhaps never, bring him either solid pudding beyond enough to live on, nor perhaps for years the finer pudding called praise. And in any professional career, let him remember that his failure may be a natural one; that, for lack of some really good qualities, he, although possibly one of the best men, was not one of the fittest for a public career. He may not have the tact, the skill, and the practical qualities which the highest social positions in professions require. He may be sure that the man who has gained large ordinary success, and yet feels that, in working to obtain it, he has missed opportunities of doing solid, permanent work, has, too, his regrets.

Supposing Clarke lacked some of those excellent and most praiseworthy qualities which enable men honestly to acquire a deserved ordinary success, many would think it regrettable that he had no State recognition. He was not a very likely man to care much about this; and, for aught wek now, he may have repeatedly declined such honours. But, granting that those who carry on the immediate work of the world deserve particular honours, we yet ask, How should the profession itself be honoured through such a man as Clarke; the kind of man who permanently widens its usefulness, and makes the members of it more scientific and practical? If there ever was a medical man in recent generations who deserved State recognition for patient, unselfish work, Clarke was that man. If not for an individual's sake, then for our own sakes, a just life should be justly honoured. Clarke had the highest kind of honour, but an honour, in the technical sense of that word, might, some think, have made his life easier.

EXTIRPATION OF THE KIDNEYS.

Czerny, in an address delivered at Baden-Baden before the Surgical Section of the Congress there in September last, since published in the *Centralblatt für Chirurgie*, 1879, pointed out that, although ten years have already passed since the famous first case of extirpation of the kidney by Simon was reported, we must yet acknowledge that last year only, for the first time, was much progress made towards the confirmation of the first triumph of this most serious operation. In his opinion, until now, except the first case of Simon, only one not very clear case of Langenbeck could be counted as a recovery after extirpation of the kidney. Now, however, the methodical application of antiseptic treatment of wounds in ovariotomy, and the antiseptic ligature and arrangement of the pedicle associated with it, have enabled Martin the younger to obtain new results in cases of movable kidney. These operations indicate, therefore, a new step in advance for nephrotomy, since here, for the first time, the way has been pointed out by which the kidney can be removed, with good expectation of success in suitable cases, through the abdominal cavity. The controversy need no longer be as to the permissibility of extirpation of the kidney as such, but only upon the question which way is the best—the extraperitoneal from the lumbar region, or the intraperitoneal from the linea alba. Since in both ways already good successes have been obtained, it will have to be determined in which cases the one, and in which cases the other, is to be preferred. Quite recently, Martin has successfully removed a renal tumour by laparotomy; while Zweifel has extirpated a sound kidney with success according to the old method of Simon, on account of a fistulous communication between the ureter and the uterus.

Czerny has twice attempted nephrotomy: once, in a case of large cancer of the kidney, through the abdominal cavity, and, in the other case, one of pyonephrosis, by the lumbar operation. As the operation showed, in the first case there was no result to be obtained, while the econd ended with cure. In the first case, the patient was a man aged 50, who had had for two years a large tumour, of which the largest diameter was fifteen inches. It had developed itself with considerable pain, but without interfering with the passage of the urine. It sprang from under the left ribs, was only slightly movable, and filled the whole of the left half of the abdomen. As it could be proved by injection of water that the descending colon passed over the surface of the tumour, it was diagnosed as a tumour of the kidney. On January 13th, Czerny attempted the removal of the tumour by laparotomy. The external layer of the descending mesocolon was cut through over the tumour, and the removal of the decapsulated mass was commenced by tearing it away. After further proceeding, it was found that the soft tumour-mass on the inner side had not only broken through the capsule, but also through the inner layer of the mesocolon. No hold could be got on the soft tissue of the tumour. Profuse bleeding occurred, which could only be stopped by the temporary compression of the aorta. Signs of approaching death from hæmorrhage occurring, nothing remained but to put a ligature round the aorta. The bleeding was arrested, and, after closure of the abdominal wound, the patient was taken to bed. He came entirely to himself. After two hours, anæsthesia and paralysis of the lower extremities occurred, which was followed, ten hours after the operation, by death. The *post mortem* examination showed that the renal artery was torn through at the point of entry into the tumour, and that the ligature on the aorta so lay between the renal arteries that the blood still poured into the right kidney, while the supply to the left was cut off.

The second case was that of a woman aged 32, who had suffered for four years from difficulties with her urine, until, in April, an abscess formed under the right eleventh rib, which was opened. The symptoms under which she suffered varied according as the secretion from the fistula was greater or less. The patient stated that the urine was clear when the pus escaped from the fistula, whilst the urine was thickly purulent, and she suffered great pain and febrile symptoms, as soon as the matter ceased to escape. These facts were proved, also, in the hospital. The diagnosis was made of pyonephrosis on the right side, with secondary catarrh of the bladder, the function of the left kidney being healthy. It was resolved to provide for a free dilatation of the fistula, in order to afford better evacuation of the pus, but the extirpation of the kidney was kept in view, in case the organ was found to be considerably diseased. On May 22nd, 1879, Czerny cut down on the fistula layer by layer in the direction of the eleventh rib; and after dilating the wound opposite to the middle of the right crest of the ilium, his finger passed into an abscess, in which he found soft flabby-like bodies which felt like placental tissue. A severe venous bleeding followed. He dilated in the above indicated direction, and made a subperiosteal resection of a portion of the eleventh rib. He thus obtained so good a view, that he could see that the kidney was hypertrophied to three times its normal size, and was surrounded by softened old blood-coagula. These were removed, and then the loosening was effected of the posterior and lower portion of the dilated kidney-sac. As there was not yet sufficiently free access above, it was necessary to make a subperiosteal resection of a further portion of the eleventh rib (altogether three-and a-half inches). He could now put his whole hand in the wound and free the upper part of the kidney, when the purulent bag of pus burst, and a quantity of matter escaped from the wound. After the pedicle was ligatured with catgut and an elastic ligature put round it, the rest of the kidney was cut off at the hilus, and the ligatures brought out of the wound. The wound was disinfected with a five per cent. solution of chlorate of zinc, stuffed with thymol gauze, and then the wound in the side, which was nearly eight inches in length, was half closed.

The subsequent course of this serious operation was entirely free from fever. The ligature fell from the pedicle on June 17th; and, according to the report of Dr. Busch, on September 14th, the surface of the wound still showed some secretion, but the condition of the patient left nothing to desire, and she was again pregnant.

To these particulars of Czerny's operations, it may be interesting to add a brief note of Zweifel's case of uretero-uterine fistula cured by extirpation of a kidney, referred to above, and detailed by him in the *Archiv für Gynäcologie*, Band xv. His patient, after pregnancy, suffered severely with her fifth child. Incontinence of urine followed, and the patient recovered after severe pains with occasional cessation of the incontinence of urine. Zweifel found an uretero-uterine fistula on the left side, which he vainly tried to cure. The patient again became pregnant, and artificial delivery was procured, but the healing of the fistula became impossible. The patient was at last cured by extirpation of the left kidney. Only eight cases of this affection are stated to be on record. The nephrotomy in this case was performed by the extraperitoneal method from the loin. Zweifel found it, after previous practice on the dead subject, not difficult. The most troublesome part of the operation was the removal of the kidney from its capsule. Resection of the rib was unnecessary. The ligature was brought out of the wound. The skin-wound was closed by Kœberlé's knot. Cure followed very successfully. The quantity of urine remained for a long time very small.

The details of Martin's successful case are to be found reported in Langenbeck's *Archiv*, 1879, Band xxiii, 3 (Keppler on the Therapeutics of Floating Kidney).

Czerny considers that, from the now existing material, there can remain no doubt that both methods of nephrotomy—the extraperitoneal and the intraperitoneal—have their special indications. The extraperitoneal appears *cæteris paribus* to be the less serious. When the kidney is not too greatly enlarged, when it is fixed, lumbar nephrotomy is on this account to be preferred. In floating tumours, on the other hand, laparotomy is suitable; how far also in fixed tumours which are too large for the lumbar operation (laparotomy), can only be determined by careful but courageous research in such cases in the future. The territory of the lumbar operation has been, perhaps, somewhat enlarged by Czerny's modification of Simon's incision, which he makes further forward at the anterior border of the quadratus lumborum, and by his addition to it of the partial resection of the eleventh rib. With this modification, it is easy to introduce the whole hand into the wound, and thus also easier to effect the removal of the kidney from its attachment and the ligature of the pedicle. The resection of the rib is devoid of danger, since about the outer third of the eleventh rib lies beyond the limit of the pleural cavity; and when periosteal peeling of the rib is commenced here, the periosteum itself may be pushed back to the limit of the pleural cavity, and it is easy with a little precaution to avoid any injury of the pleura.

It will be observed that we have said nothing in this article as to the work of British surgeons in the treatment of renal cysts and tumours. We purposely defer what we have to say on this subject until the reading of a paper by Mr. Barker at the Royal Medical and Chirurgical Society. His case and that of Mr. Knowsley Thornton will, we trust, be discussed as fully as the great importance of the subject demands.

THE ASSOCIATION AND THE NOTIFICATION OF INFECTIOUS DISEASES.

We publish this week an able address delivered before the Dublin Branch of the Association by Dr. J. W. Moore, on the subject of the compulsory notification and registration of infectious diseases. Dr. Moore's acknowledged position as a sanitarian entitles his views to very great weight, and it is eminently satisfactory to us to find him so warmly endorsing the report on this important branch of State Medicine, which was recently submitted to the Parliamentary Bills Committee by the chairman. That report, indeed, has at once attracted a large amount of attention and met with a very cordial reception in various parts of the kingdom; and it is gratifying to find that, in addition to inspiring Dr. Moore's paper, it has afforded the basis of a very interesting discussion held recently by the Birmingham and Midland Association of Medical Officers of Health, a body highly competent to discuss the subject, and directly interested in it. The notification of infectious disease is rapidly achieving a foremost place in the estimation of local authorities, as well as of medical men, and numerous petitions have at various times been submitted to Parliament by the former, praying for an amendment of the law in this respect. The Local Government Board is, we have reason to believe, generally favourable to the scheme, though a little doubtful at present as to hazarding any general enactment on the subject. Meanwhile, it may be observed that thirteen English and two Scotch towns possess the power which, we are sanguine enough to hope, may before long be in force throughout the country. During the ensuing session, four other towns will ask Parliament to grant them similar powers. These towns are Birkenhead, Huddersfield, Oldham, and Preston; Huddersfield desiring to extend the duty of reporting to all cases of infectious disease, and not as at present to those only occurring amongst persons without proper lodging or accommodation. In addition to the clauses relating to the notification of infectious disease, however, the local Bills for these places contain provisions with regard to infection and infectious diseases so very far in advance of those in the general Statute Law as to merit the particular consideration of the Parliamentary Bills Committee. The Chairman of that Committee is now preparing a report on the subject, in connection with past and future legislation, which will be submitted to the Association at an early date.

THE NAVAL MEDICAL SERVICE.

The Admiralty are asking for candidates for examination for the Naval Medical Service. In the present circumstances, we cannot advise young medical men to enter on this career. Of the two services, the army at present offers the more equitable and attractive conditions to candidates. In the navy, they will find less pay; long periods of enforced half-pay; slow promotion, brought sometimes altogether to a standstill by the arbitrary regulations as to the period of sea-service required (over which the officer himself has no control); and, in the absence of a public roster for each rank, there is no fixity or regularity in employment and certainty of the prospect of a fair turn of sea-service by which to earn promotion. These and other disadvantages inseparable from sea-service have not unnaturally rendered the Naval Medical Service so unpalatable and unattractive, that there is a considerable dearth of officers. This circumstance, however, is of itself enough to warn the authorities that they must consider the propriety of applying an early remedy to the grievances of the Naval Medical Department; and it would be a pity if the strength of the warning should be diminished by any supply, under existing circumstances, of candidates for a career which is at present one of much discomfort and discontent.

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Small-pox last week caused sixty-eight deaths in Paris.

Dr. Munro Scott has been appointed Warden of the Medical School of the London Hospital in the place of Dr. Norman Chevers, who has resigned.

Since the East London Water Company was heavily fined, as recently reported in our columns, it is announced that the supply of water to the Industrial Dwellings in the East London district has been in all respects satisfactory: an useful hint to medical officers of health.

The returns of the Sheffield Hospital Sunday collections received up to last night show a total of £1,969, of which the Church of England contribute £1,141. The amount received last year was £1,968. The hospital collection at Rotherham on Sunday resulted in £198 against £185 last year.

Southend-on-Sea is being visited by a severe epidemic of typhoid fever. The disease appears to have originated at Prittlewell, one of the suburbs, and has now assumed serious proportions. Between sixty and seventy cases have occurred, some of which have proved fatal. The disease has also appeared at Barnham, another village in the environs of Southend.

THIS evening's lecture at the Royal Institution will be delivered by Mr. John Marshall, on the Proportions of the Human Figure.

THE subject of the Wyatt-Edgell Prize Essay of the Sanitary Institute is "The *Range* of Hereditary Tendencies in Health and Disease", not the *Cause*.

WE understand that Dr. Hood and Dr. Murrell are candidates for the post of Assistant-Physician to the Middlesex Hospital. Dr. Murrell has already attracted the attention of the profession by his writings on therapeutics; and especially by papers on the Physiological and Therapeutical Action of Nitro-glycerine in Angina Pectoris.

ON December 10th, 1878, the first cremation was performed at Gotha. *Nature* reports that in that town, during 1879, fifteen other cremations were performed. This is looked upon as an extremely satisfactory result for the first year in which the process may be chosen by and for anybody. The time for the complete incineration of the bodies was between one and a half and two and a half hours, therefore about two hours on the average. Besides Gotha, other German towns furnished subjects for cremation, such as Langensalza, Naumburg, Neustadt on the Orla, Leipzig, Dresden, Bamberg, Hanover, Breslau, and Vienna.

AT the Carmarthenshire assizes, last week, a case involving the sanity of Mr. Thomas Price, a Pembrokeshire gentleman, was concluded. The question was whether he was sane when he signed a valuable lease; and against the theory evidence was called showing that he was subject to delusions respecting sulphur and evil spirits being in people and houses. For the defence, evidence was called to show that, when the lease was signed, Mr. Price could buy and sell cattle, and transact business; and letters were read which satisfied the jury, that when he wrote them, which was about the time he signed the lease, he was sane. The jury, therefore, found accordingly.

SUCCESSFUL NEPHROTOMY.

THE left kidney of a child aged seven was successfully extirpated at the Samaritan Hospital, on January 3rd, by Mr. Knowsley Thornton. The child is now quite well and at a convalescent home at Brighton. The case was admitted under the care of Dr. Day, and Mr. Thornton diagnosed cystic kidney, and advised exploratory antiseptic tapping. Some pints of urine were drawn off; the cyst refilled in a few weeks, and was removed by antiseptic abdominal section.

JURISDICTION OF CORONERS AND MISTAKES OF JURIES.

THE evil of allowing two distinct inquiries for the same offence, one before a magistrate and the other before a coroner, has received a practical illustration by a case tried at the recent Dorchester Assizes. A youth was charged with the manslaughter of his brother on the coroner's inquisition, and in accordance with the verdict of a coroner's jury. The case had, at the same time, been laid before the magistrates, and the depositions taken in proper legal form. The magistrates came to the conclusion that the occurrence was entirely accidental, and that there was no legal ground whatever for imputing manslaughter or committing the prisoner for trial at the assizes. This, however, is one of the evil results of allowing such an important question to be placed before twelve comparatively ignorant and incompetent men for a decision. They should confine themselves to the question of the cause of death, and not meddle with the legal definitions of manslaughter or murder. The counsel for the prosecution in the Dorchester case said that, having read the depositions taken before the magistrates, who had refused to commit the accused for trial, he could not ask the jury to convict the prisoner, as it was apparent that death was the result of accident. The judge also stated that, in his opinion, the jury were mistaken in arriving at the conclusion that this was a case of manslaughter. The accused was, of course, immediately acquitted. This case plainly shows that a coroner should confine his inquiry to the cause of death, and leave the legal question of the nature of the crime, if any, to be settled by a higher tribunal. It is with regret we perceive that this concurrent jurisdiction and inquiry into the same offence by magistrates and coroners are still maintained under the new Bill; and, further, that a coroner in future is to have the power of compelling the attendance of the accused person before him.

VOLUNTEER AMBULANCE.

ON Wednesday evening, the Lord Mayor presided at the distribution of certificates of efficiency gained by members of the volunteer ambulance department during the past year. The object of the movement is to instruct volunteers in the primary dressing of wounds and the various extemporised methods of carrying the wounded. The department is under the direction of Surgeon-General Munro, C.B.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE usual quarterly court of directors of the above Society was held on Wednesday, January 14th, in the rooms of the Royal Medical and Chirurgical Society. The chair was taken, at 5 P.M., by the President, Sir George Burrows. One new member was elected, two sent in their resignation, and the death of one was reported. Grants, amounting to £1,284, were made to fifty-nine widows, fourteen orphans, and three orphans on the Copeland Fund. Fresh applications were received on behalf of one widow and two orphans. A legacy of £500 from the executors of Miss Hurst was announced by the Treasurer. The expenses of the quarter were £56 12s. On the motion of Mr. Steet, it was resolved to propose to the next annual meeting an alteration in the by-laws, to extend and define more certainly the area of the operations of the Society, by making all medical practitioners residing within a radius of twenty miles from Charing Cross eligible to become members.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

THIS Society entertained, on Wednesday night, a number of their medical friends at a dinner at the Langham Hotel. Mr. Cartwright presided; and a considerable number of the leading dentists of London were present as members of the Association. In the course of the dinner, and in proposing various toasts, the opinion was expressed by two members of the Medical Council that the Dental Act requires amendment, especially in respect to the assumption of the title of surgeon by dentists who are not surgeons, but only dental licentiates of various colleges. The Association numbers seventy members, and is in the fourth year of its existence. It may be congratulated upon the vigorous vitality which it exhibits, and the accordance expressed in its views on the subject of dental legislation by the distinguished company who were assembled to share its hospitality.

ORGANISATION OF HOSPITAL RELIEF.

THE investigations which were made some time ago by the Charity Organisation Society, at the request of some of the London hospitals, with regard to the circumstances of the out-patients who thronged those departments, revealed (says a recent writer in *Social Notes*), a state of things which had long been suspected, and proved that a large proportion of the applicants were such as ought to, and could, make at least some payment in return for advice and medicine. The story of the doctor who prescribed for a patient in the morning at a dispensary, and took her down to dinner at a party in the evening, may be an extreme and not frequent instance of abuse, which no one surely can be found to defend; but it is a fact nevertheless, and so is it also that ladies, accompanied by their maids in cabs, apply for free medical aid and receive it. We are not aware that any such inquiry has been instituted with regard to the in-patients of hospitals; but there can be no doubt that many who are able, and we may add willing, to pay a moderate sum, though not a heavy doctor's bill, are induced or compelled to enter hospitals because there is no intermediate step which they can take for their relief. Looking at the subject from this point of view, it is a matter of sincere rejoicing to all who have the promotion of true charity at heart to see the proposal of the "Home Hospitals Association", and its progress towards realisation; for only the adoption of such a plan or system can do away with the abuses of which we are complaining. As long as twenty-one years ago, the subject was advocated and brought forward in the *Guardian* by a correspondent who visited the charitable institutions of Paris, and admired the system of Maisons de Santé, to which all sick persons who were able to afford some payment were admitted according to their means.

THE PATHOLOGICAL SOCIETY OF LONDON.

The subject of joint-disease in connection with locomotor ataxy will, it is expected, be one of the chief topics of interest at the next meeting. Dr. Buzzard will show some living specimens, and Mr. Hutchinson a bone and some casts sent by Professor Charcot. The novelty and importance of the subject may be expected to attract considerable attention.

CAMBRIDGE MEDICAL SOCIETY.

The members of the profession in Cambridge have formed a society for promoting medical science by communications, cases, exhibition of specimens, and discussions. The society is called the "Cambridge Medical Society"; and the meetings are to be held in the Anatomical Museum, on the first Friday in every month, except September, at 3 P.M. and 8 P.M. on alternate months. Professor Paget is President; Professor Humphry Vice-President; and Dr. Creighton is Secretary.

OBSTETRICAL SOCIETY OF LONDON.

The election of officers and Council will take place at the meeting on Wednesday next, February 4th, at 8 P.M. The following is the list recommended by the Council;—*Honorary President:* Arthur Farre, M.D., F.R.S. *President:* W. S. Playfair, M.D. *Vice-Presidents:* *J. Bassett, M.D. (Birmingham); A. W. Edis, M.D.; J. B. Potter, M.D.; G. Roper, M.D.; *John Williams, M.D.; Robert J. Wilson, F.R.C.P.Ed. (St. Leonard's). *Treasurer:* Henry Gervis, M.D. *Honorary Secretaries:* Clement Godson, M.D.; *Alfred L. Galabin, M.A., M.D. *Honorary Librarian:* *George Ernest Herman, M.B. *Other Members of Council:* J. W. Baker (Derby); R. S. Fancourt Barnes, M.D.; P. Boulton, M.D.; *C. H. Carter, M.D.; *F. H. Champneys, M.A., M.B.; *R. Cross, M.D. (Scarborough); R. Cory, M.B.; J. Matthews Duncan, M.D.; G. Eastes, M.B.; *W. T. Greene, M.A., M.D.; H. W. Kiallmark: C. D. Kingsford, M.D.; *D. Lloyd Roberts, M.D. (Manchester); *F. W. Salzmann (Brighton); T. Savage, M.D. (Birmingham); *C. B. Sewell, M.D.; T. J. Walker, M.D. (Peterborough); *F. Wallace. Those gentlemen to whose names an asterisk is prefixed were not on the Council or did not fill the same office last year.

MEDICAL ARRANGEMENTS IN SIR GARNET WOLSELEY'S CAMP.

Our correspondent with the forces of Sir Garnet Wolseley at the storming of Sekukuni's stronghold sends us from the front particulars of the medical arrangements made for the care of the wounded. His letter reaches us *viâ* Durban, bearing postal mark there of the 26th ult.

"From the natural strength of the position—a long hill three miles in length, and with a known difficulty of access to the ascent, which was lined with caves filled with the enemy—it was thought that some hard fighting would occur, and preparations were accordingly made. The medical arrangements were made by Surgeon-Major Kerr, Senior Medical Officer of the Transvaal force. Surgeon-Major Johnston had charge of the front field-hospital, and Surgeon-Major Hector of the stretcher-bearer company of the Hospital Corps; and Surgeons Frazer, Martin, and Lloyd were detailed for duty. On November 15th, Sir Garnet held an inspection of the bearer company in their stretcher-bearing drill, and expressed his satisfaction with their efficiency and appearance. At the attack on Sekukuni's stronghold, the organisation and working of the bearer company in time of war were tried for the first time; and Sir Garnet was much pleased with the assistance thus rendered to the wounded, and by their prompt transfer on stretchers to the sick-ambulances in charge of Surgeon-Major Johnston at a convenient distance from the enemy's fire. The following is a list of the casualties that occurred:—Regulars—killed: Captain Laurel, 4th Hussars; Captain Christian, 60th Rifles, staff-officer; three privates 94th Regiment. Wounded: Captain Morris, Lieutenant O'Grady, 94th Regiment, and nine privates; Captain Willoughby, 21st Regiment. Irregular Troops—killed: Mr. Campbell, attached to Swazies; Commandant McCauley, Rustenburg Contingent; and six white troopers. Wounded: Captain Beeton, Rustenburg Contingent; and nineteen troopers of irregular cavalry. Black Troops: Swazies, wounded, eighty-one; killed, unknown; other natives, about ten killed and wounded. The black troops wounded were treated locally; and Surgeon-Major Hector left for Middleburg, the base-hospital under Surgeon-Major Comerford, with the wounded white soldiers in mule-ambulances, on November 30th."

MR. JAMES R. LANE.

On the evening of Wednesday, the 21st January, some of the past and present students of St. Mary's Hospital, to the number of about forty, met at the Pall Mall Restaurant, on the occasion of a complimentary dinner to Mr. James R. Lane, who has for twenty-eight years filled the office of surgeon to the hospital. The chair was taken by Dr. Broadbent, who, after the usual loyal and patriotic toasts were disposed of, presented Mr. Lane with a handsome silver epergne and illuminated address, subscribed for by upwards of a hundred of Mr. Lane's pupils at the hospital; and in an eulogistic address he alluded to Mr. Lane's long and valuable services to the hospital, his contributions to surgical literature, and his uniform kindness and courtesy to all with whom his arduous and multifarious duties brought him into contact. Mr. Lane, in a long and appropriate reply, feelingly expressed the lively satisfaction it gave him to meet so many of his old friends on such an occasion; his sense of gratitude to those who had inaugurated, subscribed, and carried to a successful issue this expression of their respect and regard for him; and the real pleasure he felt at seeing on the list so many names from all quarters of the world.

THREATENING A SURGEON.

At the Hertford Assizes, a clerk named Arthur Green, aged 25, was convicted of sending a threatening letter to a respectable surgeon of East Barnet, in which he demanded money as the price of his silence about an infamous offence which he alleged against the surgeon: a charge for which there was not the slightest foundation. The prisoner now admitted that his letter was groundless, and offered an apology. He was sentenced to twelve years' penal servitude. We have since been informed that this is believed not to have been his first offence; and that, in former instances, his victims have been intimidated by the horrible charge, and have submitted to extortion. In this instance, the surgeon acted promptly and boldly, and, by the skill and good conduct of Inspector Bannister of Barnet, the culprit was tracked and seized, and his serious offence proved.

CORONERS' INQUESTS AND THE NEW CORONERS' BILL.

The subjoined paragraph, taken from a contemporary journal, is of some importance to the profession and the public in relation to the new Coroners' Bill to be introduced by Government in the ensuing session of Parliament.

"A proposal to multiply coroners' inquests is likely to be acceptable to coroners, but not to the medical profession or the public. Yet some such proposal seems to be under discussion by the coroners and some sympathising medical men who met lately under Dr. Hardwicke's presidency. The object of the conference was to consider the present relation of medical men to the coroner's court. Two resolutions were come to, the first of which was that no registrar of deaths should give an order for the burial of a body unless he has received a certificate from a registered medical practitioner or from a coroner. This is understood to be the usual practice of registrars, and there could be no objection to making it their legal obligation. But a second resolution was passed suggesting that, where a medical man cannot satisfactorily certify to the causes of death, he should immediately communicate the ascertained facts to the coroner, who should then form his own judgment as to the holding of an inquest. Such a proposal is not likely to get either medical sanction or public approval. The coroner could not possibly be in so good a position to judge of the facts as the medical man, and the discretion in such cases is wisely and justly left in the hands of the latter. It would probably be safer and more convenient to extend the powers of medical men in this respect, and to limit those of coroners. Sudden deaths often take place, the cause of which is by no means obscure; and, if the deceased person is not under the actual care of a doctor at the time, a most needless and painful inquest has to be held. The death of Sir Charles Lyell is a case in point. In such deaths, the ordinary medical attendant of the family might be empowered to give a certificate, and not only would no danger arise to the public, but great private inconvenience and suffering would be spared."

We cordially concur in the first resolution, but we demur to the second. It involves the vicious principle that a person occupying a judicial position as coroner has it in his power to increase his salary by multiplying inquests. The salaries of coroners are now fixed at stated intervals by the number of inquests held; and this method of regulating the salaries is preserved in the new Bill. If, in accordance with the qualifying clause of this Bill (clause 18), no person will in future be eligible for the office of coroner excepting a barrister or solicitor who has been in actual practice for not less than five years, it is certain that the second resolution will lead to a great and unnecessary increase in the number of inquests. Members of the legal profession would not have the medical knowledge required to deal with such cases; and the result would be that a coroner's court would become the medium for supplying the defective registration of the causes of death. We trust that this clause will be amended in passing through the House, and that registered physicians or surgeons of five years' standing will be admitted as equally eligible for the office of coroner. They will be better qualified than any other class of persons to form a proper judgment of the facts in cases of sudden death, and to determine on which cases an inquest is really necessary.

SINGULAR DEATH FROM AN ELECTRIC SHOCK.

A FATAL accident, probably unprecedented in its nature, occurred on the 20th instant, at the Holte Theatre, Aston, Birmingham. The stage of the theatre is lighted by two electric lights, and, when the "candles" are not burning, two brass connectors used for the purpose of closing the current, are hung up over the orchestra. After the performance, a member of the band, a man aged 30, was leaving the theatre, when, presumably from curiosity, he caught hold of the two brass connectors referred to. The man in charge of the electric apparatus called out to him, but the warning came too late, and the bandsman received the full shock of the electric current generated by the powerful battery which supplies the whole of the lamps in the theatre and recreation grounds. Unable to disengage himself, his weight pulled the wires down. The poor man was at once rendered insensible; he never rallied; and he died in about forty minutes after receiving the shock. Surely such an accident as this, in connection with electric lighting, ought to be rendered impossible by the safe covering at all points of the wires proceeding from the batteries to the carbon points.

LOWEST WINTER TEMPERATURES AT BOURNEMOUTH.

DR. COMPTON has published some memoranda on the lowest temperatures at this watering-place during the month of December in 1878 as compared with forty-five other English stations, from which he inferred that its comparative winter warmth is by no means a myth. The tables show, from the records kept at South Bourne and three other stations at or near Bournemouth, that, at the most sheltered station on the East Cliff, the means of all the coldest days was the same as at his station, but was 1.6° warmer than at the West Cliff station. The mean of the lowest temperatures on the eleven coldest days in December 1878 was 31.3° in Guernsey, 27.2° at Ventnor, 25.6° at Bournemouth (South Bourne), 25.4° at Torquay, 25.1° at Llandudno, 24.6° at Brighton, and 24.5° at Ramsgate. The actual lowest temperatures recorded were Guernsey 28.5°, Ventnor 23.7°, Bournemouth 22.3°, Brighton 21.0°, Llandudno 20.7°, and Ramsgate 19.1°. The cold in December 1878, like that in 1879, was exceptional as regards the localities which were visited most severely, so that these conclusions as to Bournemouth must not be taken as indicating the ordinary differences between these places. Thus, during the coldest eight days in January 1879 (not referred to in the tables), the means of all the lowest temperatures were 29.6° in Guernsey, 27.6° at Ventnor, 27.0° at Torquay, 26.4° at Llandudno, 26.2° at Ramsgate, 25.0° at Brighton, and 24.8° at Bournemouth. The actual lowest at these places was 24.5° in Guernsey, 21.8° at Ventnor, 21.6° at Ramsgate, 20.8° at Brighton, 19.1° at Llandudno and Torquay, and 16.0° at Bournemouth. The records of January 1879, therefore, completely reverse the position of Bournemouth as regards minimum temperatures. There is no doubt that Bournemouth contrasts favourably as to rainfall, and probably sunshine, with some, if not most, of the Cornish and South Devon watering-places; but a comparison for so limited a period as this affords but a narrow basis on which to found a claim for superiority of climate. The question of comparative warmth in winter has received far too much attention, as it is usually considered to the almost total exclusion of the number of rainy days, total rainfall, kind of soil, amount of cloud, and protection from northerly and easterly winds, each of which is almost if not quite as necessary for consideration by an invalid as low or comparatively high night-temperature. It should be remembered that a variation of three or four degrees in the night-temperature will but slightly affect a person sleeping in a warm room, whilst the rapidity with which the soil of one place will dry after rain, as compared with another, will make an immense difference as to the time during which walking exercise can be taken, and also in the hygrometrical condition of the atmosphere, and consequently as to the influence of the locality on the health of the patient.

THE MODE OF ELECTION OF CORONER.

THE subjoined extract from the *Times* shows that the old style of appeal to the freeholders is still going on.

East Sussex Coronership.—To the Freeholders of the County of Sussex.—My Lords and Gentlemen,—The Lord Chancellor having now removed the late coroner, and issued his writ for the election of a successor, the sheriff has appointed Thursday, the 29th day of January inst., at 11 o'clock A.M., at the County Hall, Lewes, for such election. The receipt by me of upwards of 2,000 promises of support (including those by some of the most influential landowners in the county) emboldens me to hope that you may not be occasioned the inconvenience of attending to record your vote. Should, however, a poll be necessary, it will take place at the County Hall, Lewes, on the following Monday, the 2nd day of February, between the hours of 8 A.M. and 4 P.M., when your continued support will be very highly esteemed by your faithful servant, WYNNE E. BAXTER.

No. 208, High Street, Lewes, 19th January, 1880.

The sooner Mr. Cross's Bill for reforming this mode of election is passed in some form or other, the better.

THE CINCHONA CURE FOR DRUNKENNESS.

DR. A. G. HAYNES, Superintendent of the Home for Inebriates in San Francisco, makes the following statement regarding the value of this "cure". "In no single instance have I found it to possess the slightest power in disgusting the patient with liquor, or in any way diminishing the craving or appetite for intoxicating drinks. On the contrary, it has been freely confessed to me that the anticipation and pleasure of a drink remained as strong as ever." There is, however, a great mass of evidence in the opposite direction.

POISONING BY ANILINE.

M. LELOIR recently made a communication to the Paris *Société de Biologie* on the phenomena of poisoning which had supervened in patients affected with psoriasis, to a limited portion of whose skin bandages saturated with a solution containing chlorhydrate of aniline had been applied. These patients had nausea, algidity, cyanosis, cramps, dyspnœa, and sleepiness; the urine contained fuchsine. M. Leloir had studied aniline poisoning experimentally. The phenomena observed in dogs into the veins of which thirty grains of aniline were injected, were perfectly analogous to those found in man. The urine was scanty, and contained fuchsine; the saliva, on the contrary, was rather abundant, but did not contain either fuchsine or aniline; the blood was of a brownish tint, the corpuscles under microscopic examination appeared healthy. Nevertheless, blood-lesions seemed to be the cause of the symptoms noted. In several cases, there were epileptiform convulsions, which were not present in cases where the animal was killed by a series of weak injections; death then supervened by cold. M. Quinquaud has made experiments on the same subject, and has also noted, besides the appearances observed by M. Leloir, a diminution of hæmaglobin, and a remarkable incapacity of the undestroyed hæmaglobin to absorb oxygen. M. Laborde reminded the Society that the workmen in aniline-works are subject to epileptiform convulsions.

THE DENTISTS' REGISTER.

In a recent number, we printed counsel's opinion upon certain points respecting the rights of registration in the *Dentists' Register*. The following legal opinion on the question of what, in law, constitutes "a practising", and the claims of apprentice to be considered in practice, will no doubt exercise a very important influence in determining the right of a certain number of persons to the retention of a place in that *Register*.

"1831, June 8th.—The Master, etc., of the Company of Apothecaries against Benjamin Greenwood.—This was a case in which A bound himself apprentice to an apothecary, who resided eight miles from B. The apothecary then took a house at B, in which A resided, and attended several patients there—the apothecary coming over occasionally, and being consulted by the defendant (A) about the patients. At the trial, before Justice Park, at the York Summer Assizes 1830, the judge directed the jury to find a verdict for one penalty of £20, but reserved liberty to the defendant (A) to move to enter a nonsuit. A rule *nisi* having been obtained for that purpose, the judgment of the Court was delivered by Lord Chief-Justice Tenterden, who, after stating the case, proceeded as follows. 'It was argued for the defendant that, if he should be considered as practising within the terms of the Act, every apprentice to an apothecary who, in the absence of his master, should give attendance, advice, or medicines, might be so considered. We think, however, that no such consequence will follow. The Act does not in terms require a practising on the party's own account; and it must be obvious that, if a case like the present be not within the Act, a door will be opened whereby the objects of the Act may be evaded; and there may be a practising at several towns under one certificate, and at some of these by persons, under the name and colour of apprenticeships, with little or no benefit to the patients from the skill or knowledge of the person who has obtained the certificate. We think the only safe rule is to confine the practice of apprentices to the residence of their master, whereby the patients may in general have the benefit of his skill. In the present case, few of the patients could have that benefit in any degree. We think, therefore, the defendant incurred the penalty of the statute, and, consequently, this rule must be discharged. Rule discharged.'"

THE PHYSIOLOGICAL LABORATORIES OF HOLLAND.

M. Charles Richet, Doctor of Science, *agrégé* of the Faculty of Medicine of Paris, has been charged by M. Jules Ferry, Minister of Public Instruction, to visit the physiological laboratories of Holland: those of MM. Place at Amsterdam, Donders and Engelmann at Utrecht, and Heynsius at Leyden. In a report which he has addressed to the Minister, M. Richet points out certain measures adopted in Holland, which are adapted to favour the development of physiological studies. Among these are, in the first place, the existence of a large apartment specially reserved to physiological chemistry, and distinct from the other departments; and further, the creation of the post of mechanical instrument-maker, charged with the instrumentation and the apparatus of the laboratory. The physiological institutes of Holland (says M. Richet, in his conclusions) are constructed in wood and in brick, very lightly—that is to say, economically. The edifices can, therefore, be changed from time to time, according to the development of studies and the needs of investigators. A chamber is exclusively consecrated to physiological physics—a science, he observes, which is more cultivated in Germany and in Holland than in France, and, we fear we must add, more cultivated in France than in England. The chambers are very well lighted and numerous. They have each a distinct use, being set apart for separate purposes. This multiplicity of rooms allows students to work either isolated in small chambers, or in common in the large rooms. The author adds that Holland has not more than from three hundred to four hundred students in medicine, which makes about sixty young men who each year require to study physiology. For these sixty students, there are four physiological institutes, of which three—those of Amsterdam, Leyden, and Utrecht (a fourth, less important, exists at Gröningen)—are evidently superior to the laboratories of Paris, where there are about five thousand students in medicine. We may add that, as compared with London, the result of such comparison would be still more humiliating; for we have nothing in London to compare with the facilities at the physiological laboratories of the Museum of Natural Science, or of the Collége de France in Paris, not to speak of others which exist there. There does not exist anywhere in London anything like a central, well-mounted physiological or physical laboratory to which students have access, as they have at the Collége de France, almost without fee and with the slightest formalities—the only condition required being that they shall have given evidence of adequate preliminary instruction and a desire to make use of the advantages put before them. Under these sole conditions, the French student, or the foreign student who resorts to Paris, may, under the superintendence of teachers as devoted, as distinguished, and as capable as Ranvier, Marey, Brown-Séquard, Gariel, and a host of others, pursue studies with great facility of instrumentation and great advantages of instruction, such as do not exist here. It is, indeed, lamentable that there does not exist in this metropolis any kind of superior institution for research or high professional study by the student of the higher class of instruction without reference to fees or schools. The scientific destitution of the metropolis, for all that relates to the higher scientific studies, is a reproach to the country and a great injury to the progress of medical science. It is lamentable so frequently to have to call attention to this state of things, due largely to the excessive multiplication of medical schools in the metropolis. No doubt such a condition will ultimately be reached; but it is only by frequently discussing them that we can hope to see the improvement effected.

DEATH FROM CHLOROFORM.

On the morning of the 19th instant, Mr. Alexander Thom, Surgeon, of Brampton, Cumberland, was found dead in his bed under circumstances which leave no doubt that he died by misadventure, from the effects of an overdose of chloroform administered by himself. Deceased had retired to rest apparently in good health, and was found in the morning lying upon his bed, partially undressed, and having evidently been dead for some hours, with a piece of lint, nine or ten inches square, lying upon his face. Dr. Wotherspoon stated at the inquest that his partner, Mr. Thom, had been in the habit of inhaling chloroform from time to time to induce sleep for the last nine years, and that lately he seemed to have followed his dangerous practice more frequently. Mr. Thom, who was forty-two years of age, was Medical Officer of Health for Brampton. He was much esteemed by his professional brethren, and he had a very large private practice.

A REMARKABLE CAUSE OF EPISTAXIS.

Singular cases occur in medical practice in which the most experienced physicians will find their knowledge and experience fail to furnish the elements of diagnosis. A remarkable example of a case of this kind is related in the *Journal für Oeffentliche Gesundheitspflege*, No. 1, 1879, by Dr. Landon of Elbing. He had been treating for some years a workman suffering from liver-complaint, which sometimes improved, but from which his patient had never completely recovered. The patient was from time to time attacked with severe bleeding at the nose, which produced great weakness. The bleedings lasted, from time to time, for seven years. At first, they were slight, and then they became more severe, and, later on, generally occurred twice a day. Injection of iced water and other means were employed, which gave temporary relief only. At the same time, the patient complained of a sense of pressure in the upper part of the nostril. Suddenly, one day, after a hard sneezing, there escaped from the left nostril what resembled, on superficial examination, a small round worm, which was full of active movement. It was put into water, and left for a long time. After the expulsion of the worm, the patient improved considerably, the bleeding altogether ceased, and gradually he assumed a healthy aspect. The worm was identified as a young form of the so-called *pentastoma tænioides*. This is an entozoon, which in its states of development inhabits the rectal and nasal apertures of the dog, the wolf, the fox, occasionally the horse, and rarely of man. The early forms live encapsuled in the abdominal and therastic cavities of the herbivorous animals, especially in the liver, where they give rise to considerable destructive changes. After some time, they escape from the capsule, wander about in the body, and again become encapsuled, and, when the encapsuled creature does not die, new ones are produced. When they are hidden in the flesh of the animal in which they live, they find a home in their host, and lie quiet for a time until they are expelled with the nasal mucus. It is not improbable that, from the frequent taste in Germany for uncooked or imperfectly cooked food, these entozoa enter the human system in the living state; and it would appear in this patient that the previous liver-affection might be due to the entrance into the liver of the pentastoma in its embryo state, and that it subsequently passed off as the creature became encapsuled.

DUST-WORKERS.

THE prevalence of phthisis among artisans who are engaged in dusty occupations is well shown in a series of observations made in the hospitals at Breslau and Würzburg, quoted in the *Times;* the percentage of cases being classified as follows. Of those who work in metallic dust, the percentages were, needle-polishers, 69.6; file-cutters, 62.2; lithographers, 48.5; sieve-makers, 42.1; grinders, 40.4; compositors, 36.9; watchmakers, 36.5; type-founders, 34.9; engravers, 26.3; dyers, 25; varnishers, 25; painters, 24.5; printers, 21.6; beltmakers, 19.7; tinkers, 14.1. Of those who work in mineral dust—flint-workers, 80; grindstone-makers, 40; stone-cutters, 36.4; plasterers, 19; porcelain-makers, 16; potters, 14.7; carpenters, 14.4; masons, 12.9; diamond-cutters, 9; cement-makers, 8.10. Of those who work in vegetable dust—cigar-makers, 36.9; weavers, 15; rope-makers, 18.9; millers, 10.9; bakers, 7; chimney-sweepers, 6.5; coal-miners, 0.8. Of those who work in animal dust—brushmakers, 49.1; hairworkers, 32.1; upholsterers, 25.9; fellmongers, 23.2; turners, 16.2; hatters, 15.5; button-makers, 10. Of those who work in mixed dust—glass-cutters, 35; glass-makers, 17.8; labourers, 15.1.

MORTALITY REFERABLE TO ALCOHOL.

IN the early part of last year, a committee of the Harveian Society was appointed by the Council of the Society for the purpose of inquiring into this subject. That committee has collected and reduced to order a first instalment of statistics respecting it. These statistics have been obtained by inviting members of the Society to enumerate, from the counterfoils of their death-certificates, the age and sex of every adult person to whose death they had certified within the last few years, distinguishing those who had died either partly or wholly from the effects of alcohol, and adding, in each of such cases, the registered cause of death and the occupation. It was considered that these materials, if accumulated on a sufficiently large scale, would afford a sure basis for calculating, not only the ratios which wholly and partially alcoholic deaths bear to the total mortality of the country, but also the proportions in which they occur in the two sexes and at different ages, as well as the occupations in which they are most frequent. The returns yielded altogether a record of 1,615 deaths, which have now been carefully classified, with the following result. Out of the 1,615 deaths, chiefly among the middle classes in London, no fewer than 188, or 11.64 per cent., were partially, and 74, or 4.58 per cent., wholly, due to alcohol. The deaths partially due to alcohol were found to be, among men, 17.5 per cent. of the whole, and among women, 7.37; the deaths attributable entirely to alcohol, among men, 5.3, among women, 4 per cent. Thus, while men preponderated in both classes, the proportion of women to men in the class directly killed by alcohol was much larger than it was in the class of deaths partially caused by drink. The greatest mortality in the former class was at the ages from forty to forty-nine; in the latter, from fifty to fifty-nine. Of the wholly alcoholic deaths, no less than thirty-two were referred to disorders of the liver and digestive organs; nine to various forms of chest-disease; seventeen in plain terms to excessive drinking, or some equivalent phrase. In the partially alcoholic class, while disease of the liver and allied organs still stood at a very high figure, the death-rate did not rise above that of phthisis, which, fatal as it was in the adult population generally, seemed slightly more fatal here. The committee believe these results will hold good when tested on a larger scale, necessary to place them beyond doubt; and the Council of the Harveian Society has resolved to issue similar inquiries to the general practitioners whose names are found in the London division of the *Medical Directory*. As the inquiry is one of very high importance, it is greatly to be desired that all the practitioners appealed to by the Society will take pains to fill in their replies, and to return them with as little delay as possible.

THE INTERNATIONAL HOSPITAL IN NAPLES.

THE Committee of the International Hospital in Naples, which was established seventeen months ago under the direction of Dr. Malbranc, have issued a short statistical report, from which it appears that 155 foreigners—101 travellers and 54 residents—have been admitted into the hospital during the above-mentioned period; and that 120 foreigners were treated as out-patients. An urgent appeal for voluntary contributions in support of the institution is made by the Committee.

POSTURAL TREATMENT.

DR. EMMET (*Principles and Practice of Gynæcology*) describes the following method of treatment of procidentia uteri as being practised successfully by a shrewd border physician. His practice was almost exclusively confined to the negroes. A case was cured in ten days. The woman was placed in a swing, suspended to a beam, in the knee and chest position. This was maintained for ten days, during which time the vagina was kept filled with a strong decoction of oak-bark, which was changed every day by means of a syringe. With a properly padded swing there was no difficulty, as the woman slept all the time, and was disturbed only to receive her food or to answer a call of nature. The principles of treatment were undoubtedly correct, although the method be unsuitable in other races.

NEAPOLITAN SOCKS.

DR. DENIS DUMONT, in a recent work on syphilis, describes a mode of treatment in substitution of frictions or inunctions of mercury. These have the inconvenience of soiling the linen, and it is to remove this that M. Denis Dumont has invented his *chaussettes Napolitaines*. The proceeding, says the author, is this. Every night, before going to bed, the patient, in lieu of blackening his armpits or thighs or belly, will simply rub his feet and the lower part of his legs with a piece of Neapolitan ointment, of the size of a nut, over each foot; and he will cover them with a pair of woollen socks kept for this sole use. Various considerations concur in securing success to this mode of treatment with patients. In the first place, the bed is not soiled any more than the clothing. The patients are thus no longer an object of disgust, either for themselves or for those who surround them.

SCOTLAND.

AT a meeting on the 20th instant, Dr. H. C. Cameron was appointed Consulting-Surgeon to the Royal Lunatic Asylum, Gartnavel, in room of the late Dr. J. G. Fleming.

OVARIOTOMY IN THE EDINBURGH ROYAL INFIRMARY.

As is well known, Dr. Thomas Keith was allotted a ward in the old Infirmary for the performance of his speciality—ovariotomy. The death of his first patient, and the general unfavourable hygiene, led him to abandon, after this first trial, any further attempt at operating there. Since the opening of the new Infirmary, however, the managers have placed two small wards at his disposal; and accordingly, within the past fortnight, the students have had the privilege of seeing ovariotomy performed by one of the most successful ovariotomists in the world. The first case was a simple one, with no adhesions. It was performed with the strictest antiseptic precautions, each point of detail being carefully attended to.

Bleeding points were secured with catgut ligatures, and the pedicle was thoroughly seared and then dropped back. The patient has made a good recovery. The second case was a dermoid cyst, with adhesions to omentum and intestine. In this one, the pedicle was ligatured and then dropped.

DEATH FROM CHLOROFORM.

A DEATH from the action of chloroform took place recently in Mr. Chiene's wards in the Edinburgh Royal Infirmary. The case was one of removal of a projecting phalanx from an injured finger. Death occurred before any operative interference. All the usual restorative means were employed unavailingly. The chloroform was administered by a dresser, under the direction of the house-surgeon; Mr. Chiene himself was not present. On *post mortem* examination, the only pathological state found was fatty liver—a condition, of course, which has, so far as is known, no bearing on the subject of death from chloroform.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General, just issued for the week ending January 17th, it appears that the death-rate in the eight principal towns during the week was 21.7 per 1,000 of estimated population. This rate is 5.6 under that for the corresponding week of last year, and 0.4 under that for the previous week of the present year. The lowest mortality was recorded in Perth, viz., 15.6; and the highest in Paisley, viz., 30.8. The mortality from the seven most familiar zymotic diseases was at the rate of 3.3 per 1,000. Whooping-cough continues the most prevalent of these diseases, and shows a considerable increase in Glasgow. The deaths from acute diseases of the chest were nearly the same in number as in the previous week. The mean temperature was 33.6°, being 9.0° lower than that of the week immediately preceding.

THE GLASGOW CONVALESCENT HOME.

THE fifteenth annual meeting of the Glasgow Convalescent Home was held on the 26th instant. From the report, it seems that the number of patients admitted to the Home during the year was the largest there had ever been, being 20 in excess of the previous year. The numbers were 838 male and 507 female patients, making a total of 1,345, of which 360 were surgical cases and 985 medical. The average period of each patient's residence in the Home for the year was 18¼ days. The patients came principally from the Royal and Western Infirmaries of Glasgow. The total expenditure during the year had been £2,021 and the revenue amounted to £2,020. During the year, the sanitary condition of the institution had been excellent.

ASSOCIATION FOR THE RELIEF OF INCURABLES.

THE fifth annual general meeting of the qualified contributors to the Association for the Relief of Incurables for Glasgow and the West of Scotland was held on the 26th instant. The report, which was adopted, showed that 75 patients were in the Home during the year and 55 at the close; and that, at the end of December, 133 out-door pensioners were on the list. Although there had been a decrease in the annual subscriptions, this had been met by increased donations; and altogether, the work of the Association during the year had been very satisfactory, and showed steady progress.

THE GLASGOW ROYAL INFIRMARY.

THE annual general meeting of the supporters of this institution was held on the 26th instant; and, from the report of the medical superintendent, we gather that during the past year 5,320 patients were admitted into the hospital, being 21 fewer than in the previous year. The daily average in the institution was 486, against 487 in 1878. The total number treated to a conclusion in the medical wards was 2,582; of these, 2,265 were dismissed cured, relieved, or from other causes, and 317 died. In the surgical wards, the total number treated to a conclusion was 2,763; and of these 2,617 were dismissed cured, relieved, or from other causes, and 146 died. Deducting the 97 who died within forty-eight hours of admission, the mortality was reduced from 8.6 to 6.9 per cent. Including children, the total number of patients treated at the various departments of the hospital was 32,547, against 29,836 in 1878. The ordinary revenue of the year amounted to £17,401, and the ordinary expenditure to £23,721, showing a very considerable deficit.

ARSENIC IN ARTICLES OF COMMON USE.

DR. STEVENSON MACADAM read a most interesting paper, on the presence of arsenic in articles that are handled and used freely by children and others, at a meeting of the North British Branch of the Pharmaceutical Society in Edinburgh, last week. Particularly, he referred to the large amount of arsenical green contained in some textile fabrics, paper used for decorative purposes, and water-colour paints. He stated that, in some textile fabrics examined by him, he had found as much as twenty-three grains of arsenic in each square foot of the cloth. In concluding his communication, he thought that restriction should be placed on the employment of arsenical green so indiscriminately as it is at present used.

UNIVERSITY OF EDINBURGH.

THE Edinburgh University Court met on Monday, and elected Dr. Alfred B. Duffin, F.R.C.P., Professor of Pathology in King's College and Physician to King's College Hospital, an Examiner in Practice of Medicine, in succession to Dr. Dyce Duckworth, whose term of office has expired. Dr. McIntosh of Murthly was reappointed Examiner in Natural History. The appointments are for the current year, and are tenable for five years by annual reappointment. At the same meeting, the Examiners in Anatomy, Physiology, Pathology, Surgery, Materia Medica, Midwifery, Clinical Medicine, Clinical Surgery, and Medical Jurisprudence were reappointed. Subsequently, the Court considered the representations of the General Council of the University regarding the recommendations of the Scottish University Commissioners, 1876; and came to the conclusion "that reforms in the Scottish Universities, such as are recommended by the Commissioners and approved with modifications by the General Council, cannot be carried out by the Universities themselves; and can only be perfected by an Executive Commission, receiving from Parliament the proper powers and having the necessary means placed at their disposal".

EDINBURGH EYE INFIRMARY.

THE annual meeting of the contributors to the Edinburgh Eye Infirmary was held on Friday. The annual report, in a retrospect of the institution since it was founded, stated that, during its existence since reopening, twenty-eight years ago, there had been 24,105 patients treated, and of these 386 had been accommodated in the house for varying periods while under treatment. During last year, the outdoor patients numbered 1,059, and there had been five indoor patients. About a fifth of all the applicants came from the country districts. The financial report showed the affairs to be conducted economically and also satisfactorily, there being a balance of nearly £65.

SMALL-POX IN ARBROATH.

CONSIDERING that a number of cases of small-pox have occurred in Arbroath, that two deaths have already taken place from it, and that such cases are not admitted into the Arbroath Infirmary, the Board of Supervision have written to the Local Authority, urging them strongly to provide an epidemic hospital as speedily as possible; to have all houses that are infected cleansed and disinfected; and to encourage as much as possible the practice of revaccination.

GLASGOW LOCK HOSPITAL.

THE annual general meeting of the subscribers to this institution was held on the 13th instant; and, from the seventy-fourth annual report of the directors, it appears that, at the commencement of the year, there were in the hospital 21 patients, and there had been admitted since 343, making in all 364. During the year, 335 had been dismissed as cured, leaving 29 under treatment. These figures showed a decided decrease in the numbers seeking the benefits of the institution. The average age of the patients was 22 years. The annual subscriptions showed a falling off compared with the previous year. A cordial vote of thanks was given to the medical officers for their services.

IRELAND.

ZYMOTIC DISEASES IN IRISH PROVINCIAL TOWNS.

In the fifteen principal provincial towns, the deaths from the seven chief zymotic diseases during the week ending January 17th amounted to forty-two, of which number ten were due to scarlet fever, seven each to measles and whooping-cough, eight each to diarrhœa and fever, and two to diphtheria. No death from small-pox was reported from any of the provincial towns.

VACCINATION DEFAULTERS.

Dr. Carmody reported to the guardians of the Enniscorthy Union, last week, that one hundred and forty-seven children in his district, of whom one hundred and sixteen were over six months old, had not been vaccinated. Several of the parents were returned as defaulters before, but, instead of being prosecuted, have merely received a notice. The people, it appears, have a great objection to let their children be vaccinated at the present season. This explanation of the matter was considered satisfactory by a majority of the guardians, and the relieving officers were desired to serve further notices on the various parties. As a case of small-pox has recently occurred at Newtownbarry, in the same union, this misplaced leniency on the part of the guardians may cause very serious consequences, should the disease spread.

BELFAST HOSPITAL FOR SICK CHILDREN.

The annual meeting of the friends of this useful charity was held on the 23rd instant, presided over by Sir John Preston, J.P. The Committee of the Hospital, in their annual report for 1879, referred to the opening and occupation of the new premises in Queen Street, which took place last April. During the twelve months, two hundred and seventy-four intern and six hundred and ninety-two extern patients were under treatment; and, although many serious cases were admitted, there was only a single death recorded. The income came to £826 8s. 9d., and the expenditure to £797 7s. 3d., the balance remaining in the treasurer's hands amounting to £1,027. The total amount received on behalf the building fund has been £5,817, leaving a balance due of £301. Some months ago, it was determined to distinguish by name the medical and surgical wards; and the medical ward has been called the "O'Neill Ward", after the President of the institution; and the surgical the "Darbishire Ward", after the late Honorary Secretary. The question whether the benefits of the extern department were habitually used by those who were not intended to obtain the advantages connected with the hospital has occupied the attention of the Committee, who took steps to investigate the matter; but, after careful inquiry, the cases of abuse were found to be exceedingly few, and it was determined—for the present, at all events—not to change the usual system. As regards the intern department, as many beds as possible are to be kept free as the finances of the hospital will allow, the remainder being set aside for pay-patients. During the present session, twenty-seven students are attending the hospital clinic. A vote of thanks to the medical staff for the skill, care, and kindness with which they had discharged their duties during the past year, terminated the proceedings.

ARKLOW WATER-SUPPLY.

Three pumps were recently closed in this village, a procedure which created considerable indignation among the fishing population; and last week Dr. Halpin, sanitary officer of the district, who incurred their enmity for having forwarded samples of the water for analysis, was hooted and burned in effigy. It is stated that Dr. Halpin was unable to leave his house, and was obliged to appoint a deputy. Dr. Cameron, who analysed the water, classed the specimens sent as of second-rate quality, and suggested that their use ought to be discontinued when better water could be had. No additional source of water was, however, supplied to the inhabitants; and the guardians in consequence have reopened the pumps until a purer supply can be obtained.

FURTHER REMARKS ON THE DISABILITIES OF THE NAVAL MEDICAL SERVICE.

Half-Pay.—The system of placing naval officers periodically on half-pay, so as to have at command a reserve to fall back upon in the event of war or other emergency, may be necessary for the executive and other officers who are manufactured in the service. It does not, however, apply to medical officers, as the profession on shore is an inexhaustible reserve from which surgeons can always be drawn if the market price is only offered. It is therefore unnecessary, and, being moreover expensive, should be abolished. The results of the system to the naval surgeon is loss of money, of time, of promotion, and *a life of compulsory idleness.* It is the principal objection to the navy; and, in any other service, the placing an officer on compulsory half-pay would be looked upon as one of the severest punishments that could be inflicted. The manner in which it is carried out is unjust, there being no roster by which a medical officer should be employed according to his turn. Interest, favouritism, and not merit, carries the day. Such a roster for *each rank* should be established; and, if any man were not appointed to full pay in his turn, he should be officially informed of the reason. The roster should be open to public inspection.

Full Pay and Retired Pay.—As a compensation for losses resulting from the half-pay system, the half, full, and retired pay of naval medical officers must be considerably greater than that of the army surgeon.

Promotion.—In consequence of the obstructions to promotion in the inspectorial grades, the promotion of the other ranks is delayed. By the death of the late Dr. W. T. Domville, C.B., in September last, the Inspector-General's list, the complement of which is four, has been reduced to one officer. The cause of this anomaly is the Order in Council of August 1869, introduced by Sir A. Armstrong, which requires a deputy inspector-general to serve five years on full pay, three years of which must be in charge of a foreign naval hospital, before he can be promoted. If the navy were a continuous service, it might be possible to comply with the regulation; but, as it is not, how can an officer be expected to do so when he is placed on compulsory half-pay? To illustrate the absurdity, we may take the case of Dr. J. W. Reid, the Senior Deputy Inspector-General, now performing the duties of Director-General. When this officer was promoted, in March 1874, he was placed on compulsory half-pay for nearly twelve months. The consequence is that he is not, nor is any other officer, qualified to fill Dr. Domville's vacancy; and Haslar, our principal naval hospital, has ever since been left without an inspector-general. Why the regulation was introduced, no one can tell. No order of the kind existed before 1869, nor is any such qualification required in the army; deputy surgeons-general being at once promoted to vacancies as they arise in the Surgeon-General's list. As already stated, it is not only the inspectorial grades that are injuriously affected by the order, but also the lower ranks of the department, promotion throughout being obstructed by the stagnation produced at the top. No promotion from the rank of fleet-surgeon to deputy inspector-general, or from deputy inspector-general to inspector-general, has, in consequence, occurred during the year 1879; and the Inspector-General's list to this day continues at one officer. It cannot, therefore, be too forcibly impressed on their lordships that no warrant can give satisfaction that does not cancel or modify this obstructive regulation, which requires a deputy inspector-general to serve five years on full pay before he can be promoted. At present, let the period of service be reduced from five to three years in charge of a foreign naval hospital, that foreign service may not be avoided.

Professional Qualifications.—In promotions to the inspectorial grades and appointments of trust, the professional qualifications of the naval medical officer should be taken into consideration. Such has not hitherto been the case; and it can be seen by a reference to the *Navy List* and the *Medical Register* that the qualifications of some of our principal medical officers of the naval hospitals are of a low order. No medical officer should be promoted to the inspectorial grades who was not a Fellow of one of the Colleges of Surgeons of the United Kingdom by examination. At Malta Hospital, the deputy inspector-general in charge is simply a Licentiate of the College of Surgeons of Ireland. At Melville Hospital, Chatham, the officer is also simply a L.R.C.S. At Haslar and Plymouth, in like manner, junior deputy-inspectors are merely Licentiates of a College of Surgeons. At present, in the inspectorial grades, there are only two officers who possess the Fellowship of a College of Surgeons, viz., Inspector-General Morgan and Deputy Inspector-General Bernard.

PARLIAMENTARY BILLS COMMITTEE.

AT a meeting of the Parliamentary Bills Committee, held at the offices of the Association, on Tuesday, January 13th, 1880—Present: Mr. ERNEST HART (in the Chair); Dr. Fancourt Barnes, Mr. Rogers-Harrison, Surgeon Myers, Dr. Norman Kerr, Mr. Sibley, Dr. Alfred Swaine Taylor, F.R.S., Mr. J. B. Curgenven, Dr. Holman, Dr. Nicolson, Dr. Joseph Rogers, Dr. Vinen, and Dr. Wiltshire.

The minutes of the last meeting were read and found correct.

The Chairman reported that a conference on Animal Vaccination had been held on December 4th last, and that it had been adjourned twice, viz., to the 18th and 31st of December.

Moved by Mr. ROGERS-HARRISON, seconded by Dr. VINEN, and

Resolved: That Mr. Sclater-Booth be asked to receive the deputation on the subject of animal vaccination.

Moved by Dr. ROGERS, seconded by Mr. MYERS, and

Resolved: That the Committee of Council be requested to make a grant of £50 towards the expenses of this Committee.

The report of the subcommittee appointed to examine the report upon the Coroners' Bill 1879, as amended by the select committee of the House of Commons, was then read by the Chairman and considered.

Moved by Dr. NORMAN KERR, seconded by Dr. VINEN, and

Resolved: That the report of the committee appointed to consider the Coroners' Bill 1879, as now amended, be received, adopted, and entered on the minutes, with the warm thanks of this Committee to the members of the subcommittee who have given so much valuable attention to the subject.

Resolved: That a subcommittee, consisting of the Chairman, Dr. A. S. Taylor, Dr. Rogers, and Dr. Sibley, be appointed to wait upon Mr. Cross, the Home Secretary, to place before him the views of the Parliamentary Bills Committee upon the Coroners' Bill.

Report of the Subcommittee appointed to examine and report upon the Coroners' Bill, 1879, *as amended by the Select Committee.*

THIS Bill proposes many alterations of importance; and, although it embraces various changes which would be beneficial, there are some provisions which would directly affect the interests of the medical profession, and which deserve attentive consideration. Two clauses stand out prominently for discussion.—(1) The qualifications of Coroners; and (2) The payment of medical witnesses.

Qualification of Coroner.—The first clause, page 7, provides that in future a Coroner shall be a barrister or solicitor. As is well known, at present no profession or occupation is excluded from the office, and there are at the present time a large number of medical coroners. We hold strongly the opinion that medical knowledge is of the first importance to a Coroner. The primary question, as to whether an inquest should be held, is one that can be settled with much greater readiness by a medical man than by a member of any other profession. Such an one is far better able to understand the importance of the various circumstances attending a sudden or suspicious death, and, therefore, after a few inquiries, more competent to decide the question whether or not an inquest is necessary. A few simple primary questions would be sufficient to satisfy a medical coroner at once in many instances that further investigation was unnecessary, and many useless inquests would thus be avoided. To restrict the office of coroner to members of the legal profession would, therefore, in our judgment, have the effect of perpetuating and increasing an abuse which notoriously exists at the present time, namely, the holding of a large number of unnecessary inquests.

Again, in the conduct of an inquest, in a very great majority of cases the whole inquiry turns, or ought to turn, upon the cause of death. Not only is a medical man better able to appreciate the value of scientific evidence, but his technical knowledge frequently enables him to detect a flaw in the statements made before him. The fact that it may have occasionally happened that a medical coroner has committed an error for want of judgment or of legal knowledge, is of very small importance against the every-day facility which medical knowledge gives to a coroner in the discharge of his office. Of the one circumstance, however, cases have unfortunately been brought prominently before the public, whilst of the other nothing is known outside the coroner's court and the limited bounds of the medical profession.

These considerations acquire now more force than ever, since the legal functions of the coroner may be still more limited by this Bill, which would be the case if a clause be added to Section 7—so as to limit a coroner's inquest to an inquiry into the cause of death alone, in those cases in which a prisoner is charged with murder or manslaughter before another court. Under the present system, whether the coroner be legal or medical, it is found necessary in all criminal cases of importance involving charges of murder to have a concurrent inquiry before a magistrate or magistrates, and it is upon the depositions then taken that the case goes to trial. *By limiting the inquiry before a coroner to the cause of death a conflict of jurisdiction and opinion would be avoided. The expenses attending these inquests would also be greatly reduced.*

Clause 31, *page* 13. *Fees to Medical Witnesses.*—The second clause of interest is that which refers to the payment of medical witnesses. In this clause is perpetuated the present injustice by which the resident officers of public institutions are obliged to give evidence without fee; and, by clause 33, on failure to obey the order of the coroner in this respect they are liable to a heavy fine. We are unable to see any ground upon which it should be expected that a professional man should undertake a considerable amount of work, make a careful *post mortem* examination with, perhaps, an elaborate analysis of the contents of the stomach, and give evidence as a skilled witness without any pecuniary award. The resident medical officers of public institutions are commonly not well paid, and much of their services may be regarded as given to charity, but this principle cannot be extended to giving expert evidence at an inquest. The clause should, therefore, be amended to provide payment to the resident medical officers, except in those cases in which they are not legally qualified.

Beyond these objects, the following points deserve attention.

Clause 4. The number of jurors might with advantage be further limited, say to nine, of whom five should agree in giving a verdict.

Clause 6. *Viewing the Body.*—Cordially approved. It is quite unnecessary that the jury should be taken in all cases to view the body. It should be left to the option of the coroner. In the cases of exhumed or putrefied bodies, it is an offensive and disgusting procedure, attended with no corresponding benefit. The coroner can always obtain the necessary proof of the identity of a dead body.

Clause 7. *Add at line* 4: *Double Inquiries*,—"Provided always that in any case in which a person is charged with murder or manslaughter before a magistrate or magistrates, and the deposition of witnesses have been or shall be taken in due form, it shall not be necessary for the coroner to hold an inquisition on the body of the deceased, or, should an inquest have already been commenced, it shall be restricted to the purpose of determining by medical evidence the cause of death."

A member of the Parliamentary Committee, Mr. Herschell, Q.C., M.P., has strongly condemned the holding of coroners' inquests and magisterial inquiries concurrently, in reference to the same person and the same crime. He says the trial of an accused person follows not from the verdict of a coroner's jury, but from "quite independent proceedings, pursuing entirely the same course as criminal proceedings do in cases not coming within the cognisance of a coroner's jury. Surely you have here both an anomaly and a practical mischief. You have two separate tribunals for the purpose of determining whether a man is to be put on his trial, fulfilling their functions at the same time, but quite independently of one another, and arriving, it may be, at conflicting conclusions". (*Address to the Social Science Congress*, Liverpool, 1877.)

Clause 13. *Election of Coroner.*—This is a great improvement on the mode of electing a coroner. The local authority specified (clause 53, page 22) is probably as satisfactory a mode of election of a coroner as any that has been proposed. The only objection that can, perhaps, be urged against it is that the authorities who provide payment are also those who elect.

Clause 18, *line* 28. After the word "borough", it would be expedient to add the words "or member of the Local Board".

Clause 28. Liability to fine of five pounds. This would, of course, apply equally to those who give evidence without fee. (Clause 31.)

Clause 30. Where a charge is likely is be brought against a medical man, although he may not conduct or be present at the *post mortem* examination himself, he should, if he wishes it, be represented by some medical man.

ALFRED S. TAYLOR.
JOSEPH ROGERS.
SEPTIMUS W. SIBLEY.

The Chairman reported that the new Army Medical Warrant contained the chief points which had been pressed upon the Government by the Committee, and that he had received many communications from army medical officers expressing the gratitude of the department for the successful exertions of the Committee.

The Chairman then made a statement of the disabilities of the Medical Officers of the Navy.

Moved by Mr. SIBLEY, and seconded by Mr. ROGERS-HARRISON, and

Resolved: That Mr. Sibley and Dr. Vinen be requested to join the Chairman in preparing a memorial to be presented by a deputation to the authorities upon the subject of the Naval Medical Warrant.

The Chairman brought before the meeting the subject of the Infant Life Protection Act.

Resolved: That a Sub-Committee, consisting of the following gentlemen—Dr. Norman Kerr, Dr. Fancourt Barnes, Dr. Vinen, and the Chairman—be appointed to draft representations to the Home Secretary: 1. as to the registration of persons taking one child for the purpose of gain; 2. as to the advisability of making it compulsory upon all local authorities; 3. as to the provision of the more efficient inspection of Poor-law Officers.

The matter of the recent appointment of the new Registrar-General was brought before the meeting by Dr. Rogers. The Chairman was requested to call the attention of the Committee of Council to the circumstances attending the resignation of Dr. Farr; and to suggest, in addition to any other steps which may be taken, that representation be made to the Royal College of Physicians and the Royal College of Surgeons that his case is one on which they might with advantage make communications to the Government.

THE HABITUAL DRUNKARDS' ACT.

An important meeting of the Committee on Habitual Drunkards was held at 161A, Strand, on Wednesday afternoon, "to confer with the Committee of the Society for Promoting Legislation for the Control and Care of Habitual Drunkards" as to the best course to be followed to give practical effect to the Act of last session. Dr. Alfred Carpenter, the President of the Council, was in the chair, and the meeting was attended by Mr. Stephen S. Alford, Mr. Chubb, Dr. Dowse, Mr. C. A. Govett, Dr. Hardwicke, Mr. C. Holthouse, Dr. Norman Kerr, and Dr. E. H. Vinen. Mr. Saunders of Windsor was also present.

The following resolutions were unanimously passed:

"That, in the opinion of the joint-committee, an effort should be made to establish an institute for the purpose of treating inebriates according to the provisions contained in the Habitual Drunkards' Act, 1879."

"That the proposed institution be established by the aid of voluntary contributions, and afterwards supported by payments from the patients.

"That the name of the institution be the 'Dalrymple Retreat for the Treatment of Inebriates under the Habitual Drunkards' Act, 1879'."

"That the following gentlemen be a subcommittee to carry the foregoing resolutions into effect:—Dr. A. Carpenter, Mr. C. A. Govett, Dr. N. Kerr, and Mr. S. S. Alford, with power to add to their number."

The Model Rules for Retreats which have been drawn up by Mr. Cross, and which are styled "Model Rules for the Management of Retreats" licensed under the above Act, were submitted to the Committee; but, as they had only just been obtained from the Queen's printers, they could not be fairly considered.

It was resolved to write to Mr. Cross, to know whether retreats licensed under the Act would be allowed to receive patients for treatment and care who were then without certificate; it being an impression upon the minds of some of the Committee that no cases could be admitted unless they were committed by magistrates; whilst it was thought that purely voluntary patients might be a source of revenue.

Mr. Alford, the Honorary Secretary to the Committee, will read a paper on the subject of the Act at the rooms of the Social Science Association, 6, John Street, Adelphi, on Monday evening, at which Lord Shaftesbury has consented to preside. It was resolved to communicate the action which has been taken by the joint-committee to that meeting, and to ask those present to support the proposition put before them by such means as they might think best fitted to effect the object they have in view.

The Act at present seems to be a dead letter; and some members of the Committee did not hesitate to express their opinion that houses for inebriates would be more satisfactory if they were not registered under the Act at all. We doubt whether it will not be necessary for all to be so registered whether they like it or not; but we do not see why patients should not be admitted without being compelled to declare their shame before two magistrates; and we hope that there will be no attempt to stop the cure of such cases by any such formality, though, of course, it is manifest that such patients could not be detained against their will.

DR. WILLIAM FARR AND THE OFFICE OF REGISTRAR-GENERAL.

The recent appointment to the office of Registrar-General was made the subject of discussion at a meeting of the South London District of the Metropolitan Counties Branch held on January 21st, at the Bethlem Hospital, under the presidency of Dr. Alfred Carpenter, in the unavoidable absence of Mr. John Wood, President of the Branch.

The Secretary (Mr. Nelson Hardy) said he had received many letters from members of the profession with regard to the case of Dr. Farr. Dr. Lush, M.P., had written, referring to "the recent scandalous abuse of patronage in the late appointment of Registrar-General and the contemptuous neglect of the paramount claims of Dr. Farr to the vacant post. Although utterly useless as affecting the action of the people who do these things, yet the attitude of the profession upon the question will be a solace to Dr. Farr in his retirement, and afford another proof that sometimes 'the post of honour is a private station'."

Dr. Quain, Dr. A. P. Stewart, Dr. J. S. Bristowe, Dr. Parkinson, Mr. Ernest Hart, and Mr. Sibley had also written expressing their sympathy with the object of the meeting.

Dr. Joseph Rogers said that he had had associations with Dr. Farr during a long series of years. As soon as the papers announced that the new Registrar-General had been appointed, and the claims of Dr. Farr disregarded, at a meeting of the Council of the Poor-law Officers' Association, a resolution was unanimously passed condemnatory of the selection that had been made. In asking the meeting to express an opinion upon the claims of Dr. Farr, it might be necessary to state that Dr. Farr had held office for forty-two years. As far back as the formation of the office, in 1838, the then Superintendent-Registrar, prior to Major Graham's appointment, reported of him as "a gentleman of the medical profession, whose scientific knowledge and intimate acquaintance with statistical inquiries were ample pledges of his peculiar fitness, and whose letter, including abstracts of the causes of death, and explaining the classification (statistical nosology) which has been adopted, I have the honour to lay before your lordship in the appendix to this report." In that same year, Dr. Farr contributed to the *Lancet* a paper on Benevolent Funds and Life-Assurance in Health and Sickness. From 1837 to 1844, he contributed the articles on Vital Statistics to McCulloch's *British Empire*. In 1841, he was consulted by the Commissioners for taking the census. In 1843, he published, in the *Fifth Report of the Registrar-General*, the English Life-Table No. 1. In 1849, he published, in an appendix to the *Eighth Report of the Registrar-General*, the New Northampton Mortality-Table. In 1852, he produced the able *Report on the Mortality of Cholera in England in* 1848-9. During the years 1851 to 1854, he was engaged as one of the assistant Commissioners for the census. In 1853, he printed, for private circulation, a pamphlet entitled *A System of Life-Assurance*. Upon that the Government scheme was built up. In 1859, he submitted to the Royal Society of London a paper on the Construction of Life-Tables. In 1860, he prepared a *Report on the Proceedings of the International Statistical Congress* held in London in that year. In 1861, he read before the British Association, at Manchester, a paper on the Health of the British Army, and the Effects of Recent Sanitary Measures on its Mortality and Sickness. During 1861-63, Dr. Farr was again occupied as one of the assistant Commissioners for the census of 1861. In 1863, in conjunction with Lord Stanley, Lord Herbert, Sir Ranald Martin, and Dr. Sutherland, he aided in the preparation of a *Report on Army Medical Statistics*. In 1864, he published as a distinct work *English Life-Tables No.* 3. In his evidence before the Royal Commissioners appointed in 1864 to inquire into the condition of mines in Great Britain, Dr. Farr furnished some valuable tables, the result of an elaborate inquiry on the vital statistics of miners in the four chief mining districts of England and Wales. In 1865, in view of the Act of the preceding year, authorising the adoption of a Government system of insurance, Dr. Farr prepared a memorandum for the use and guidance of the then Chancellor of the Exchequer in the development of the scheme. The English Life-Table was adopted as the basis of the Post Office insurance scheme. In 1866, he contributed to the *Journal of the Royal Agricultural Society of England* a paper embodying a scheme for a General Cattle Mutual Insurance Fund, in which a vast amount of valuable information is contained, and which may yet be utilised. In 1868, he prepared a *Report on the Cholera Epidemic of* 1866. In 1871, he was appointed one of the Commissioners for taking the census of that year, and was engaged with the other Commissioners down to 1874 in the preparation of the able reports which are contained in the four large folio volumes. In addition to this, he has brought out different reports; and his able letters in the annual reports of the Registrar-General must also be kept in mind. These presented masterly researches on hygienic and mortuary statistics, on the construction and improvement of mortality-tables, on the demerits of the Northampton Tables, on the conduct and finance of life-assurance, with an extensive investigation and discussion of practical formulæ, etc. They ranked among the most valued contributions to the world's knowledge on these subjects. He had represented Great Britain at the several International Statistical Congresses in various capitals of Europe. He had also given evidence before various Parliamentary Committees and Royal Commissions, as the Committee on Assurance Association, 1853; the Royal Commission on Water-Supply, 1869; and the Royal Sanitary Commission the same year. Dr. Farr's work stamped him as one of the foremost men of the day as a literary character. Dr. Rogers next called attention to the supineness of the medical profession in matters affecting their interests, which he regarded as a very miserable condition of things. Here and there only a gentleman engaged in extensive practice, occupying a good position both in society and in the profession, had the manliness of his feelings and sentiments, and dared to give expression to them. Not many years ago, a cabinet minister had told him that, when he had remonstrated with Boards of Guardians for not giving sufficient salary. "How is it possible that a gentleman can be found to do so much work for so little money?" and he added, "I have even sent back to the Boards of Guardians and have told them that, and inquired why they did not"; he had been answered "that there were a dozen or fifteen applicants for the post". That was the reason why the heads of departments in this country looked down upon medical men with contempt, and promoted civilians over their heads for anything like positions such as the office of Registrar-General. He trusted that medical men would try to induce their sons whom they might bring into the medical profession to adopt a more manly tone in the future than in the past. In no other country but Russia did the medical profession stand at so low an ebb as it did here. In France, medical men were placed in positions of trust; and the same thing took place in Germany, Italy, and other countries. He concluded by moving the following resolution: 1. "That this meeting desires to express its regret at the retirement of Dr. William Farr, F.R.S., from the office of Superintendent of the Statistical Department of the General Register Office under circumstances which seem to disregard the exercise of singular ability, fidelity, and zeal in a long public service; that this meeting therefore earnestly hopes that the Government will advise the Crown to confer upon Dr. Farr a suitable distinction in recognition of his rare and distinguished services, not only to this country, but to the cause of sanitary knowledge and vital statistics throughout the world. 2. That this meeting records its regret that the opportunity has not been taken in England as in Ireland of filling the office of Registrar-General, which requires eminently the combination of medical and statistical knowledge, by a medical man combining the two requirements."

Dr. MAHOMED seconded the resolution. When he first saw the announcement that Sir Brydges Henniker was to be the future Registrar-General, he was utterly astonished to think that Dr. Farr should have been passed over under any circumstances whatever, however able his successor might be. Then it occurred to him that Dr. Farr was advancing in life, and possibly had suggested that he was willing to retire, and that Sir B. Henniker was a man of notorious and surpassing ability as a statistician. But, even supposing that he did possess extraordinary abilities, it still remained utterly inexplicable why a medical man had not been appointed. No civilian would grasp the whole subject or form the least possible conception of the duties devolving upon the Registrar-General, in the registration both of death and of disease, and numerous other points. He thought that the motion was hardly strong enough when it merely stated "that this meeting records its regret that the opportunity has not been taken in England as in Ireland of filling the office of Registrar-General, which requires eminently the combination of medical and statistical knowledge by a medical man combining the two requirements". To overlook the claims of medicine in such a question, as Dr. Rogers had rightly observed, was a mistake that would not be made in any other civilised country; and, while seconding the resolution, he hoped it was not the last or the strongest form which the movement would take.

Dr. DICKSON had great pleasure in expressing his great respect for the high character of Dr. Farr, and the noble work he had performed during more than forty years' service under the Government of this country. Dr. Farr had, in fact, created medical statistical science. His work in this country had been copied in almost every civilised country. In his most valuable weekly returns, there were not only the health-statistics of London and all the great cities of the kingdom, but recently similar statistics had been given of all the capitals in Europe, and some great cities in America and Asia. In that way, most valuable standards of comparison, to the great advantage of mankind, had been established, chiefly by the influence and ardour of Dr. Farr. He hoped that the Government would make him some return by giving him full salary, and even some titular distinction of honour. In such an office as that of Registrar-General a good deal more than mere statistical knowledge was required. Major Graham derived his statistical knowledge from Dr. Farr. He was placed in office as a disciplinarian. He entirely coincided with the speakers who had recommended the use of efforts to show sympathy with Dr. Farr.

Mr. MAC CORMAC was sure it would be the unanimous feeling of the profession in this country that the services of Dr. Farr had been of such a kind that they ought not to have been rewarded in such a manner. They had been continued for so many years, that it was a public misfortune that the Government had seen fit to overlook them. Not only in this country, but in others, it would be acknowledged that they had committed an error. From a pecuniary point of view, the amount of pension did not concern the medical profession so much as the public at large. He thought that it was only right that the members of the medical profession should express in the strongest possible manner their sense of the injustice that had been done, and the great loss that the public service of this country had sustained.

The CHAIRMAN said that, at a meeting of the Committee of Council held in the previous week, the subject was brought forward, and it was left to himself and Dr. Stewart to draw up some form of remonstrance to send to the Government. There was but one opinion in the Committee, that great injustice had been done to Dr. Farr, and that the Government should grant him such a recognition as should be not only some kind of solace to himself, but also some kind of apology to the profession for the insult which, it was assumed, had been passed upon it. Sir B. Henniker might be a heaven-born statistician for all he knew, and might turn out to be a good Registrar-General. But whether that were so or not, a very serious and dangerous precedent had been set. Dr. Farr had been the founder of sanitary science in this country; he had been the first to form landmarks in it, and to point out the means of obtaining considerable insight into the requirements necessary for the removal of infectious and epidemic diseases. The tables which Dr. Farr prepared, the way in which he put them before the public, and urged attention to them upon the Registrar-General and the Government, in connection with all matters relating to health, had been marvellous; and his acumen has been such as to show to the world at large that an enormous deal could be done in the direction of prevention of disease. An opportunity had arrived for the Government to recognise Dr. Farr's merit at a time when he was fully competent to do all that he was called upon to do; but the Government would not do this. Every valuable reward for service was given to political adherents, and not to those who had devoted their lives to the public service—almost, one might say, without fee, because the payment that Dr. Farr has received was nothing compared with that which he could have had. He had no hesitation in saying that there was no other single person—not even Lord Beaconsfield—who had done so much good for the world at large as Dr. Farr. He had laid foundations upon which could be built superstructures for the perfection of sanitary work; and yet he was quietly shelved without any recognition. Had he been in any political position, he would have been called to the House of Lords as a matter of course; but no medical man was ever called to the House of Lords, and it was not likely that he would be. Medical men considered first of all their patients, and then they had a certain consideration with regard to their private interests. They ignored themselves; they did not stand up for their rights; and, so long as that was the case, political parties, whether Liberals or Conservatives, would ignore their claims. He thought there should be a strong expression throughout the country as to the injustice that had been done to Dr. Farr, and the necessity for the profession to assert its rights to certain positions. By that means, advantage would accrue to humanity at large, totally independent of any political party. That was the position which he hoped the profession would take up—that on every occasion when they had the opportunity they should assert their right, not because it was to their advantage individually as members of a particular profession, but because their rights were connected with the public advantage. It was not to the advantage of a party merely, but to the advantage of the whole people of this land, that offices connected with the medical profession, such as that of the Registrar-General, should be filled by medical men. Until the profession asserted their rights, he thought they would be always open to neglect from the Governments that be; and it was necessary to exercise a certain amount of political power and influence if they expected to get anything from any Government whatever. He hoped that the same action which had been taken would be taken by every other Branch of the Association in the kingdom, so that there might go up to the Government a certain amount of remonstrance that might make them hesitate to do a similar thing on a future occasion, and that they might be led to give that amount of reward to Dr. Farr to which he was undoubtedly entitled.

The resolution was carried unanimously.

On the motion of Dr. OSWALD, seconded by Dr. SAVAGE, it was resolved that copies of the resolution should be sent to Lord Beaconsfield and Mr. Sclater-Booth.

The following letter has been received by Mr. H. Nelson Hardy, the district honorary secretary, in acknowledgment of the resolutions.

"10, Downing Street, Whitehall, January 23rd, 1880.

"Sir,—The Prime Minister has received with regret a copy of the resolutions which it has been thought necessary by a district meeting of the Metropolitan Counties Branch of the British Medical Association to adopt with reference to Dr. Farr; and he desires me to say that he is highly sensible of the eminent public services rendered by that gentleman during his past career, that he well knows how to appreciate them, and that Her Majesty's Government had excellent reasons for the course which they considered it their duty to take.—I have the honour to be, sir, your obedient servant, (Signed) ALGERNON TURNOR."

This reply will be taken into consideration at the adjourned meeting of the South London District of the Metropolitan Counties Branch at Bethlem Hospital on Wednesday next.

At a meeting of the Gloucestershire Branch of the British Medical Association, held at Gloucester on Tuesday, January 20th, 1880, the following resolution was unanimously agreed to:

"That this meeting has learned, with great surprise and regret, the appointment to the important office of Registrar-General of a gentleman who, by his antecedents, has established no claim to, or given any public evidence of his competency for the duties of, this office; whilst a highly qualified candidate for the post existed in the person of Dr. William Farr, F.R.S., whose lengthened service in the Registrar-General's office and valuable contributions to vital statistics indicate his high claims and peculiar fitness for this office; that, in the opinion of this meeting, such an appointment tends to discourage conscientious official work, to depreciate the value of scientific training for scientific duties, and to discredit generally the public service."

AT a meeting of the members of the Liverpool Medical Institution, held January 22nd, 1880, Mr. Newton, Vice-President, in the Chair, it was unanimously resolved—

"That this Institution desires to express its sense of the great service rendered to the country by Dr. William Farr, who, by his unrivalled abilities and long and successful work as a statist, has not only done more than any other man to stimulate our national sanitary progress, but as well to advance the study of vital statistics throughout the civilised world; and to record its surprise and regret that his paramount claims for the office of Registrar-General have been disregarded, and the post bestowed on a gentleman whose name as yet is entirely unknown to the country in connection with statistical science."

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Population Statistics in France.—M. Jules Guérin.—Dr. de Pietra Santa on Animal Vaccination.—Medical Jurisprudence at the Morgue.—A New Theory of Death in Coal-Mines.—A Dangerous Custom.—Professor Broca.

A NEW office has been created at the Prefecture of the Seine to be devoted exclusively to statistical information, at the head of which Dr. Bertillon, well known for his demographical researches, has been placed. This new office will render immense service to political economists, as well as to the medical profession. Dr. Bertillon has already commenced a series of demographical statistics, and he has only just completed the general statistics of France for the year 1876, although he had been engaged for some time in collecting the necessary information. The following is a summary of the report. The population was estimated at 36,905,788 at the end of 1877; but at present it has increased to upwards of 37,000,000, owing to the increased number of marriages and the consequently increased number of births annually. In 1876, there were born 996,682 children; of this number, there were 8,843 twins and 79 triplets. The birth of boys had for a long time exceeded that of girls; since 1849, the proportion diminished. Among the stillbirths, the number of boys was greater than that of girls; and this premature mortality continued during early childhood. Later on, the mortality among women was also less than that of men; and this accounts for the greater number of women over the men in existence, although more men are born than women. The number of deaths was, in 1876, 824,074, or 2.26 per cent., or 1 death to 44.2 inhabitants. The mortality, which is nearly 20 per cent. in the first year of life, is less than 3 per cent. in the four following years. It reaches its minimum between ten and fifteen years, and increases slightly afterwards until fifty-five, and then increases to a greater proportion. There are in France, on an average, only 73,199 persons who have attained the age of from eighty-five to ninety years; 15,808 from ninety to ninety-five years; 2,738 from ninety-five to one hundred and more. But the most appalling information derived from these statistical researches is the fact that, of the million children born annually, 360,000 die during the first year, not from disease, but from general neglect of the simplest rules of hygiene, and only 5,000 reach the age of twenty. These figures speak for themselves.

M. Jules Guérin, who has passed his threescore years and ten, at a recent meeting of the Academy of Medicine, submitted a condensed report of his professional career, extending over a period of fifty years. The report comprises a synopsis of the works of which he is the author. He intends publishing a quarterly review of these works, which treat of the various branches of medicine and surgery which he has so creditably represented in his writings and practice. M. Guérin is one of the oldest members of the Academy, and has always been known as a great and systematic caviller. His opposition to animal vaccination will long be remembered, for he endeavoured to show that, to be effectual, lymph taken from the cow-pox must pass through the human subject, or, as he expressed it, it must be humanised. This, however, is contrary to the experience of the most eminent vaccinators of the day.

At a recent meeting of the Academy of Medicine, Dr. de Pietra Santa submitted a very interesting communication on animal vaccination. In this report, which is a supplement to another he had already presented in the name of the Société d'Hygiène a few weeks ago, he insisted on the happy results afforded by animal vaccination. He showed that Italy, Germany, Russia, Switzerland, Austria, etc., were in this respect much in advance of France, but he said nothing of Great Britain. In concluding his report, Dr. de Pietra Santa conjured the Academy to take up seriously the important question. He does not deny the efficacy of arm-to-arm vaccination, but he has endeavoured to show that animal vaccination has incontestable advantages over it.

Very important improvements are about to be effected at the Morgue, under the direction of Dr. Brouardel, the Professor of Medical Jurisprudence at the Faculty of Medicine. The proposed additions consist of a separate *post mortem* room; a frigorific apparatus for the preservation of dead bodies; laboratories of histology, of chemistry, and of moulding; a library, a herbarium, a kennel, a cistern for frogs, etc.; in short, everything necessary for a complete course of lectures on medical jurisprudence, and for the unbiassed investigation of cases submitted for examination.

M. Riembault, a civil engineer, lately read a very interesting paper at the Academy of Sciences on the manner in which death is more generally caused in coal-mines. According to him, miners are killed, not by asphyxia, as is generally supposed, but by the ignition of the particles of coal which exist in the form of an impalpable powder in the atmosphere of the mine, which particles are actually swallowed in an ignited state, and the workmen are thus literally burnt to death. In support of his opinion, the author stated that, after an explosion in a certain mine, the workmen who escaped were found dead at a distance from the place where the explosion occurred. They were found in a sitting posture on the ground, with the back leaning against the wall; their lamps were still burning near them, and lower than their head, which would exclude all idea of asphyxia. In any case, M. Riembault draws the attention of the Academy to the danger to which miners are exposed in breathing this carbonaceous atmosphere. The powder penetrates into the lungs, there accumulates, and thus prevents the proper function of these organs; the consequence is the health becomes so affected, that the subjects sooner or later die. The author considers that this danger is even more to be dreaded than the most terrible explosions, as there is not a single miner who escapes after a certain number of years.

The feast of the Epiphany is generally celebrated in France by social reunions, at which a cake is served up with the traditional horse-bean in it. This latter is so placed that it cannot be perceived. The cake is cut up, and divided among the guests, or, rather, each takes a bit, and he or she who gets the bean is proclaimed king or queen. It is not everybody who likes the honour, as there is a certain tax attached to it. It sometimes happens that the bean is accidentally or intentionally swallowed. In the latter case, it is done to avoid the tax, as happened at one of these parties on last Epiphany day, when a young man swallowed, not the bean, but a small doll made of porcelain, which, it is to be regretted, is now being substituted for the bean, with what motive I cannot say. The trick would perhaps not have been discovered but for the young man's struggling for breath. Indeed, he must have died from asphyxia, the doll having stuck in his throat, had not timely aid been afforded. A medical man was called in, and he with some difficulty succeeded in removing the offending body, but not without injury to the patient, whose throat was severely bruised.

Professor Paul Broca, the eminent physiologist and anthropologist, has been proposed for a vacant seat in the French Senate, and his election is almost certain; but it is to be hoped he will not give up science for politics, which, however, I am afraid is inevitable—not that the two are incompatible, but it would take a man of almost supernatural powers to do justice to both.

MELBOURNE, VICTORIA.

[FROM A SPECIAL CORRESPONDENT.]

New Australian Branch of the British Medical Association.—Presentation to Dr. Neild.—Address to Dr. Jamieson.—Taxation of Patent Medicines.

By this mail, I am glad to inform you that the number of members forming our Branch is now close upon fifty, which we must think a very satisfactory result, considering the short time of its existence. I do not think that our number will keep on swelling at this rate during this year; but I am confident that, when invitation is again made to the medical men of this colony to join during the next year, a more widespread response will be given. The Journal itself, in addition to the advantages of belonging to an Association, is the strong inducement for country members, who, far away from town and at some distance from the possibilities of any professional intercourse, feel themselves thus linked to the English profession. A meeting of the Council was held on Friday, October 10th, at the house of the President (Mr. Gillbee). A number of new members were balloted for and enrolled. At this meeting, in response to an invitation from the Chairman of the Ceremonial Committee of the Melbourne Exhibition for 1880, Dr. McCrea, Mr. Hewlett, and your correspondent, were elected as delegates to the Social Science Congress, which it is intended to hold contemporaneously with the Melbourne Exhibition. The matter of the desirability of amalgamating the Medical Defence Society with the Branch was further discussed; and Dr. Browning, Honorary Secretary of the Medical Defence Society, and Dr. Louis Henry, were authorised to communicate with each other as to the best means of effecting this, and then to lay their proposals before the Council at their next meeting. After the business of the meeting had terminated, the whole of the members of the Council, and some other members who had been invited, sat down to an excellent supper, and the evening passed in a highly enjoyable manner. It has been mutually agreed that the Council shall meet at each other's houses alternately, each to furnish a supper on the occasion. We expect to hold an ordinary meeting for the reading of papers, etc., during this month.

Dr. Neild will shortly be presented with a testimonial from the Medical Society of Victoria, for his energy on their behalf, his long and continuous connection with their Society, and his talented and skilful guidance and editorship of the *Australian Medical Journal*.

On the occasion of delivering the concluding lecture of the term, Dr. Jamieson, the Lecturer on Obstetrics, was presented by his class with an address, in which they congratulated him on the successful issue of his endeavours to instruct them in the science and art of midwifery, and also thanked him for his courtesy and consideration which he had at all times manifested towards them.

A blow has been struck at the excessive use of patent medicines in this colony, by the imposition of an almost prohibitive duty of 25 per cent. In connection with this, the following story is told. A staunch supporter of the present Government, who had been continually purchasing a box of patent pills, on entering the shop to repurchase the same, was asked threepence more than he had usually paid. On inquiring into the matter, he was quietly informed that the new duty had caused the rise in price. The purchaser, looking at the pill-box in a perplexed manner, said: "Well, I can stand a good deal. I supported this Government through thick and thin, from first to last, but this is going a little too far; tax a man's mild aperient! If that's protection, then I'm out of it." And one more swells the ranks of the Opposition.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

The Degree in Natural Science.—On February 3rd, the question of the Natural Science Degree will, *Nature* reports, again come on for discussion in congregation. Last term, it will be remembered, the proposal to grant a special natural science degree was defeated after a close division, the principal opposition to the motion coming from the scientific members of congregation. It was thought that a separate science degree, not carrying with it the privileges of the Master of Arts Degree, would be regarded as an inferior degree, and tend to lower the position of science in the University. A clause is now proposed by an influential body of residents—including Professor Odling, Dr. Mark Pattison, Rector of Lincoln; A. Vernon Harcourt, Professor Green, Professor Lawson, and Professor Nettleship—to the following effect: "Every person who shall have been admitted to the Degree of Master of Natural Science, shall also be admitted to the Degree of Master of Arts."

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

An adjourned meeting of this district will be held at Bethlem Royal Hospital, St. George's Road, S.E., on Wednesday, February 4th, at 8 P.M.

The reply of the Prime Minister to the resolutions referring to Dr. Farr's resignation will be considered.

The discussion on Private Asylums will be resumed by Dr. W. G. Balfour, who will explain the provisions of a proposed Bill on the subject.

H. Nelson Hardy, *Honorary Secretary.*

The Grove, Dulwich, S.E., January 28th, 1880.

SOUTH OF IRELAND BRANCH.

The usual quarterly meeting of the Branch will be held in the Royal Cork Institution, on Wednesday, February 25th, at 4 P.M.

Members intending to read papers, or send communications, will kindly intimate their intention to the Secretaries.

P. J. Cremen, M.D., }
T. G. Atkins, M.D., } *Honorary Secretaries.*

Cork, January 22nd, 1880.

VICTORIA BRANCH: ORDINARY MEETING.

An ordinary meeting of the above Branch was held on Wednesday, November 26th, 1879, at the Athenæum, Melbourne. Mr. Gilbee, the President, occupied the Chair; and there were about twenty members present.

The President congratulated the proposers of the movement upon the success which had attended the formation of the Branch, and expressed himself hopefully of the prospects for the future.

Report.—The Honorary Secretary, Dr. Louis Henry, announced that the list of members now numbered fifty-two. He thereupon read the report of the Council on a visit to the Metropolitan Lunatic Asylum at Kew. This report exposed facts of an interesting character. It showed that the asylum was much crowded, and that the treatment of the patients appeared to have no reference to their specially diseased conditions. Particularly the visitors had noted the lack of employment, both bodily and mental; the want of cubic feet of space sufficient for the requirements of each patient; that the building, originally intended for the accommodation of six hundred patients, was now overcrowded to the extent of one thousand. The report, after a brief discussion, was unanimously adopted.

Papers.—The following were read.

Dr. Jamieson, Lecturer on Obstetrics at the University, read a carefully prepared paper on the Comparative Fertility and Frequency of Abortion among Women in England and Victoria. His own observations confined themselves to two hundred married women who attended the Melbourne Hospital as out-patients. This paper evoked considerable discussion; and the suggestion was made to Dr. Jamieson to extend the range of his observations, so as to increase the definiteness of his conclusions. Dr. Balls-Headley, Dr. O'Hara, and Dr. Adam took part in the discussion.

A paper on the Pathological Histology of the Brain in a Case of General Paralysis, with microscopical demonstrations, was read by Mr. Alexander Morrison. It was accompanied by some exquisitely prepared sections of brain-substance illustrative of the author's remarks, and called forth warm admiration for the care with which Mr. Morrison had conducted his observations.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The second ordinary meeting of this Branch was held on Wednesday, December 17th, 1879, at the Museum and Library, Bristol: Dr. Beddoe, President, in the Chair. There were also present fifty members and two visitors.

Papers.—The following were read.

1. Dr. Greig Smith read a paper on Osteotomy for Genu Valgum, showing a patient, and illustrating his paper by numerous photographs.
2. Dr. Elliott read a paper on the Treatment of Chorea by Monobromide of Camphor.
3. Dr. Swayne read a paper on the Induction of Premature Labour.

CORRESPONDENCE.

THE NAVAL MEDICAL SERVICE.

SIR,—It must be very satisfactory to the medical officers of the navy, to know that the Parliamentary Committee of the British Medical Association is about to look up the question of the existing collapse of their department. The Director-General-elect has a sorry scene before him, as if looking down from his post on the poop into the hold of a once fine ship of war now nearly gutted by fire, and that not by the enemy, the decks and bulwarks destroyed, and a few charred beams still crossing from side to side, so that very much will require to be done by him to refit her for war-service. It will be well, indeed, if the Admiralty receive outside opinions before repairs are begun, as it has the results of a ten-years' series of changes adopted without ventilation among the profession at large, and sprung like mines or torpedoes under those who had reason to believe they stood on fair footing. The War Office failed singularly in 1876, when yielding to the same course, and has profited by that before launching its recent Warrant. Had the Admiralty been less precipitate with its Orders in Council, it would unquestionably be now standing in a different position before the profession. It must be weary enough of framing Orders in Council, such as make holes anew, or larger than they were before; and if desirous to avoid such another Committee of its own formation as that of 1866, which failed to give satisfaction, it ought to be glad enough to get from outside the opinions of well informed professional authorities. The new Director-General being a junior officer placed over the head of his only senior officer who has survived the incendiary process referred to (although that senior is generally esteemed for his integrity and firmness of purpose, and, moreover, is in possession of the C.B. for war services, and gold medal for professional ability), he has, I think, a difficult task to perform, with all his persuasive tact, and therefore he will require a good deal of buttressing up from the outside profession to make him a restorer of that good old ship "The Naval Medical Department".—Yours, AN OLD INSPECTOR-GENERAL.

PROFESSOR SPENCE ON SURGICAL STATISTICS.

SIR,—In Professor Spence's article on Surgical Statistics in your issue of the 24th instant, I observe the following statement. "When he" (Mr. Lister) "left the Edinburgh Royal Infirmary, there remained in his wards many cases of chronic abscesses uncured (I believe seventeen cases), and some of these had been upwards of two years under his treatment."

It will be obvious to all your surgical readers that, unless Mr. Lister had ceased to treat chronic abscesses at a period long anterior to his removal from Edinburgh, he must have left some cases uncured. Mr. Spence's account, however, is greatly exaggerated; and, as I was personally conversant with the circumstances, I beg you to allow me, in justice to Mr. Lister, to state the actual facts. The cases in question were as follows:

Name.	Age.	Disease.	Date of Admission.
William M.........	17	Abscess of hip-joint...........	January 7th, 1876
John D.	18	Psoas abscess	March 16th, 1876
Lizzie T.	19	Psoas abscess	August 1st, 1876
James B.	23	Abscess of hip-joint...........	January 5th, 1877
Hugh McL........	6	Lumbar and psoas abscess	January 19th, 1877
Michael C.	21	Two lumbar abscesses	January 25th, 1877
John B............	25	Psoas abscess	January 25th, 1877
Alex. W.	16	Abscess of hip-joint...........	June 22nd, 1877

Thus the cases were eight in number instead of seventeen; and, as Mr. Lister left the Infirmary in August 1877, it will be seen from the dates of admission that only two had been more than a year under treatment, and neither of them so long as two years. Knowing that these cases could have little clinical interest for any one who had not treated them from the outset, and at the same time feeling that they would still demand careful management for a more or less protracted period, Mr. Lister thought it better to remove them from the Infirmary when he went to London. He therefore wrote to ask me to take charge of such cases as the house-surgeon thought it desirable to place under my care. The female patient was sent to King's College Hospital. One male patient, Alexander W., was considered by the house-surgeon unsuitable for removal. He was in a very weak state, some bed-sores having only just healed. He was, however, much improved, and was regarded as in a promising condition. The remaining six patients were transferred to my care, and I had the satisfaction of seeing them all cured with the exception of the little boy, whose abscesses had become putrid before he left the Infirmary, probably from slipping of the dressings owing to the extreme deformity of his body. His father removed him in August 1878 to the West of Scotland. He was then considerably improved, having youth on his side to resist the septic influences; and, when he was last heard of, he was running about.

The results of the rest of the cases were as follows.

William M., healed in December 1877; left in February quite strong. When last heard of, he had gone to Liverpool as clerk in a warehouse.

John D., healed in March 1878; left Edinburgh in May. When last heard of, he was able to walk without support, and was feeling quite strong.

James B., healed in May 1878; left Edinburgh in July. When last heard of, he was working at his trade (as a baker).

Michael C., healed in March 1878; left in May. In July 1878, he was able to go to Peterhead to the herring-fishing. He returned to the fishing in 1879.

John B., healed in December 1877; left in February quite strong and well. When last heard of, he was employed as a colporteur.

I remain, your obedient servant,
Edinburgh, January 26th, 1880. JOHN BISHOP.

STATISTICS OF THE GLASGOW INFIRMARY.

SIR,—The correspondence on these so-called statistics in your last issue does not require much notice; but you will permit me to say that my position in regard to their bearing on the Listerian treatment remains unshaken: viz., that scarcely a tenth of the cases included in the numbers given could be fairly supposed to have their ultimate fate influenced in any great degree by the treatment employed. These numbers, be it observed, I have never either acknowledged or denied. To do so was quite unnecessary, as it is manifest that they are valueless. The question is not *where* the patients die, but what becomes of them: at all times a pertinent question, but now specially so, and which formed the main part of a motion submitted by me to the managers, which met with the cold shoulder.

I did not criticise Dr. Cameron's treatment of his unfortunate case; but it should have been retained in the surgical ward. The good natured physician who admitted it into his ward deserves our sympathy.

Dr. Cameron says: "This difference in our results is one of measures, not of men"; and in this he is surely wrong, and much too modest; for, leaving the figures ascribed to me out of view, his returns are much better than those of his other three colleagues, who are professed followers of the Listerian system; and the reason is now very obvious. To reduce my mortality, excision of the hip in cases of morbus coxæ must be shunned; I must refuse cases of spina bifida, though from 70 to 80 per cent. have been saved by my method, both in and out of hospital. Yet there still remains the residue of 20 to 30 per cent., and the train of hopeless hydrocephalic cases which follow these, to damage my reputation as a surgeon. To operate for relief alone must not be thought of; dangerous cases must be avoided; and thus an end put to all progress. We must not keep bad cases in the wards to enable the students to see and study the phases of disease.

True it is, that Listerism has lately been the fashion; but to be in the right with a few such men as Mr. Holmes, Mr. Savory, Mr. Spence, and the late Mr. Callender, is enough for me, after a fair comparative trial which I made of Mr. Lister's plan when he was here, and when I find that, by irrigation and other means, both lives and limbs can be saved which Listerism would endanger or destroy. Let me add that my hospital report for the past year is being prepared, and will soon be made public.—Yours faithfully, JAMES MORTON, M.D.

Glasgow, January 1880.

THE MANCHESTER CHILDREN'S HOSPITAL AND DR. HUMPHREYS.

SIR,—I joined the Pendlebury Hospital in January 1877, not, indeed, induced by anyone's solicitations, but by the expectation that, though I should receive some remuneration for my work, I should also receive that courtesy which is ordinarily accorded to a hospital physician. In taking the post, I certainly thought that the position was a permanent one, and that, as long as I devoted myself to my hospital work, so long I should have the option of remaining connected with it.

In Dr. Borchardt's long impeachment of my work at the Children's

Hospital, I find only one definite charge made against me, namely, that I failed to give clear and strict instructions to the nurses. This is the first occasion on which I have learned that any such charge was preferred against me, and no opportunity was ever given me to meet it.

Dr. Borchardt speaks of my tenure of office as medical administrator. I never held such an office. I was certainly chairman of the medical board; but the administration was "joint". In the words of the Hospital Report for 1878, it is stated: "The interests of the hospital would be best served by appointing to the joint charge of the hospital Dr. Humphreys, Dr. Neill, and Mr. Jones." When it was decided that the administrative department should be placed in the hands of one individual, and it was suggested that Dr. Ashby should take the post, I readily fell in with the suggestion, since it relieved me of some uncongenial work. I thought it well, however, to have an interview with the President of the Hospital, and stated that, whilst agreeing most willingly to the proposed arrangement, I would resign at once if anything further were meant. The President distinctly told me that such was not the case, and perfectly reassured me as to my position in the hospital and with the board.

Dr. Borchardt states that a dispute had arisen between the lady-superintendent and one of the sisters, on a point affecting neither the patients nor the medical staff. A point involving ward-discipline, and which leads to the loss of a good sister, does, I maintain, affect both patients and medical staff. In Dr. Borchardt's account of the incident, he omits two important facts relating to the interview between the lady-superintendent and myself: first, that I was appealed to by the sister to seek an interview with the lady-superintendent for the purpose of ascertaining the cause of her loss of favour; and, second, that in the said interview I not only distinctly informed the lady-superintendent of my object, but that I intended to acquaint the sister with its results. In the light of these facts, I fail to perceive that the term gossip could be applied to such action.

In conclusion, I wish to take the opportunity of offering my very best thanks to the medical profession of Manchester and Salford for the kind and generous sympathy expressed in my behalf.—Yours faithfully,

HENRY HUMPHREYS, M.D.

Eccles, January 27th, 1880.

SIR,—The article on "Nurses and Doctors" which appeared in your JOURNAL of the 17th instant, is written with a view to impress upon those in charge of hospitals the absolute necessity of subordinating the nursing of patients to the direction of qualified physicians and surgeons, and in this view the Board of Governors of the Manchester General Hospital and Dispensary for Sick Children fully concur. Such has been the rule and practice of the hospital. When, however, you proceed to cite, as you state upon "good authority", the suspension and subsequent resignation of Dr. Henry Humphreys as a case in point, and quote a memorial, signed by a large number of physicians and surgeons connected with the medical charities of Manchester, condemning the action of the Board of Governors in this matter, this Board considers it necessary to point out to you: 1. That the memorial to Dr. Henry Humphreys has been drawn up and signed upon a one-sided statement, and without any inquiry as to the correctness of its allegations; and 2. That the so-called facts which you enumerate, upon what you state as "good authority", are in many essential particulars inaccurate.

The Board has no desire to deny or disparage the medical acquirements and qualifications of Dr. Humphreys. Those qualifications obtained him the position he held at the hospital, which he sought in answer to advertisement, and which he obtained in competition with other applicants. Beyond an advertisement addressed generally to the profession, no inducement was offered him.

The Board of Governors discovered, very soon after Dr. Humphreys' appointment, that a medical investigator and experimentalist, however accomplished, was not necessarily gifted with energy or judgment, nor fitted for a position requiring such qualities. This eventually became so apparent in the work of the institution, that the medical board, of which, as senior physician, he was chairman, did not after his first year re-elect him to the chairmanship, but appointed the junior physician to preside over their meetings, prepare their reports, and generally to take the lead in the medical administration of the hospital. This action was confirmed shortly afterwards by the Board of Governors appointing the junior physician medical administrator. Dr. Humphreys tacitly acquiesced in these changes, which reduced him to the position of ward-physician.

Your article states that Dr. Humphreys had every reason to believe, and gives evidence that leads it to be supposed that he acted on the belief, that his position at the hospital was a permanent one; but Dr. Humphreys himself, writing on the 5th December 1879, says he felt, from the time the above changes were made, "that his footing with the Board of Governors had become unsatisfactory, and he regretted he had not then tendered his resignation". Had he done so, the resignation would undoubtedly have been accepted. After-events proved it would have been well had he taken this course; for his want of clearness and decision in instructions given with regard to the treatment of patients became a frequent cause of anxiety and embarrassment, and repeatedly came under notice, finally convincing the Board of Governors that Dr. Humphreys was not suited for the position he held.

A feeling of consideration for Dr. Humphreys alone prevented action from being taken by the Board at a much earlier period; but when, finally, he improperly interfered in discussions between the lady-superintendent and the members of the nursing staff, in matters entirely unconnected with the medical work of the hospital, and took such a part as to render discipline impossible, decisive action became necessary. Hence his suspension. On the next day, without waiting for the meeting of the Board of Governors, to whom that suspension would have to be reported, Dr. Humphreys tendered his resignation; and the matter being thus concluded, the Board deemed all further controversy undesirable.

Signed by order of the Board of Governors,

EDWARD CROSS, Chairman.

General Hospital and Dispensary for Sick Children,
Manchester, January 22nd, 1880.

SIR,—My name having been mentioned in Dr. Borchardt's letter on the above subject, I ask permission to say a few words in reply. Dr. Borchardt's letter is ostensibly a defence of the Committee of Management; but as throughout he shows that his own influence has been paramount in the control of the hospital, his letter may not unfairly be taken as his own defence. The meeting of the House Committee which decided upon Dr. Humphreys' suspension took place at Dr. Borchardt's rooms; and he has given his *imprimatur* to the infliction of an indignity which is ordinarily reserved for grave moral delinquency. Dr. Humphreys' offence, according to Dr. Borchardt's own statement, amounts to nothing more than a very warm discussion between a physician and a lady-superintendent, and the subsequently informing a ward-sister of the results of the interview. But Dr. Borchardt has ignored the fact that Dr. Humphreys expressly stated to the lady-superintendent that one of his objects in seeking the interview was to ascertain the causes of the loss of favour of the ward-sister, and that it was his intention to communicate the results of the interview to the ward-sister. Dr. Humphreys' conduct was certainly straightforward, and does not bear the sinister construction put upon it in Dr. Borchardt's statement.

But I presume that no sane person imagines that this incident was used for anything more than a pretext for getting rid of Dr. Humphreys. I have read carefully the first part of Dr. Borchardt's letter, with a view to ascertain the reasons why Dr. Humphreys had previously lost the confidence of the Committee. The only reason categorically given is that "some of the nurses in the wards under his charge complained to the chairman of the House Committee that they did not receive clear and strict instructions from Dr. Humphreys with regard to his patients". There is no proof given that this charge was substantiated; it contrasts markedly with the testimony given elsewhere by Dr. Bury, who, as resident medical officer, had daily opportunities of judging of Dr. Humphreys' work. But Dr. Borchardt's sentence speaks volumes. It suggests a method of obtaining information as to a physician's capacity which is both undignified and unreliable. After such an admission, there is a painful irony in Dr. Borchardt's subsequent remarks on the ill effects of gossip and the failure of "medical administration". Surrounded by an atmosphere of such espionage, there is little wonder that twice Dr. Humphreys should have expressed his wish to resign. How are we to explain, in the light of antecedent and subsequent events, the reassuring words with which the President prevented Dr. Humphreys from carrying out his purpose? And seeing that "private hints" were so freely bandied about in this hospital, one wonders that, after the final incident, the Committee should not have given Dr. Humphreys some such hint as that then, at least, he might carry out his purpose. Such a method would, at all events, have been less heartless than the one adopted.

The lesson of the Children's Hospital at Pendlebury is written in characters so plain that he who runs may read. It is this: Medical autocracy, like every other autocracy, may do well enough for awhile, but is sure to end in disaster. Able men may be tempted by the emoluments offered to serve under such a government, but they will find to their cost that it is at the sacrifice of all independence, and that some day they may be crushed by a single blow.—I beg to remain, sir, your obedient servant,

THOMAS BARLOW, M.D.

London, January 27th, 1880.

SIR,—In Dr. Borchardt's letter of January 24th, I am surprised to see that Dr. Humphreys is charged with not giving the nurses strict and exact orders regarding his patients, and that nurses had complained of this to the president.

I had the pleasure of working daily with Dr. Humphreys for seven months—from May to November of last year—and can say that, during that time, I saw no ground whatever for that accusation; besides, I never had any special trouble in supplementing or explaining Dr. Humphreys' orders. I am sure I express the feeling of every one who has worked with Dr. Humphreys, when I say that he was most thorough and painstaking in every detail of professional work.

One explanation of the matter may be this: that occasionally nurses who had had very inadequate previous training were put in charge of wards, and to them the ordinary responsibility would appear unusually heavy.

In connection with this, I may mention that criticisms by members of the nursing staff on medical treatment were painfully common; and the impossibility of working smoothly under those circumstances, together with the extraordinary treatment Dr. Humphreys received, forced me to tender my resignation of the post of senior resident medical officer.—I am, yours, etc., C. S. WATSON, M.B., M.R.C.S.,

Late Senior Resident Medical Officer, Children's Hospital, Pendlebury.

Manchester, January 27th, 1880.

SIR,—The letters on "doctors and nurses" that occupy consecutive places in to-day's JOURNAL are suggestive. First, Dr. Borchardt's explanation of the treatment of Dr. Humphreys at the Pendlebury Hospital suggests that, when a subcommittee of five are dissatisfied with a physician, they make him medical administrator in addition to his former office, and then, "in the interests of the institution", "restrict his duties to those of a ward-physician". When he ventures to remonstrate ("warmly") with a lady superintendent, they suspend him altogether; and when an explanation is requested, they reply that "they do not see the necessity for, nor the benefit that could arise from, any correspondence upon the subject".

When a memorial signed by the leading members of the profession in Manchester is presented, Dr. Borchardt suggests that "the Board will no doubt take it into the consideration it deserves". Dr. Borchardt's kindness and geniality are as well known as his devotion to the interests of the Pendlebury Hospital, but is it not just possible that his devotion to the existing management may make him a little blind to its defects? Lastly, it suggests that, should any respectable member of the profession ever become a candidate for the appointment vacated by Dr. Humphreys, he will not have any reason to suppose that his position is likely to be a permanent one.

Dr. Handfield Jones's suggestion "that lady superintendents (where they exist) should be replaced by plain housekeepers, who should have nothing to do with nursing, and the control of hospitals left to a good man of business—a genial, kindly, wise manager", is, perhaps, the best suggestion of all.—I remain, sir, yours very truly,

Hastings, January 24th, 1880. FRANCIS H. PARSONS, M.D.

FACTORY LEGISLATION.

SIR,—I have read with much interest the article on the above subject in the JOURNAL of December 27th, and wish to remark on one or two statements therein, with which I do not entirely agree.

The production of birth-certificate, which has been necessary since January 1st, caused some little inconvenience and annoyance at first to factory-owners and to certifying surgeons; but in my district (a large manufacturing town) this no longer exists to any great extent. In fact, I entirely approve of the system, as it relieves the certifying surgeon of the responsibility of defining a child's age, which, under the old system, pressed heavily upon us. On this point, another fact is, I think, worth notice. In my district, many of the "young persons" (or full-timers) have been previously working half-time; consequently, when they wish to commence working "full-time", all they require to produce to the certifying surgeon is their school-book, which shows the date of birth and the standard of education which they have passed, and costs them nothing. In addition to this, certifying surgeons are also provided with blank forms of certificate of birth, which can be filled up by the registrar of births for the sum of one shilling.

One more fact also should be mentioned; viz., that the certifying surgeon is allowed to give surgical certificates on the production to him of a family bible, providing it has not been tampered with. In practice, I frequently avail myself of this.

As regards the sixpenny fees, I contend that they are only intended for periodical visits, or in cases where the owner keeps within the law and has his hands certified within the seven days allowed by the Act. In all other cases, I should charge sixpence for each certificate after the first one. If I be not mistaken, some certifying surgeons have charged "exorbitant fees", and have given offence to employers of labour by so doing. In the early part of the year, at the suggestion of my subinspector, I adopted a plan which gives satisfaction to employers of labour, and at the same time answers my purpose. I have several small factories which very seldom require surgical certificates. I enter into a contract with the employer to attend at his factory when required during the year for one sovereign. At the same time, I provide him with a *post card* having my name and address printed in front, and a request to attend on the back. This saves him trouble, and at the same time removes the temptation of keeping his hands back (or bottling them up) until he has *five* fresh hands, which, of course, is a pecuniary loss to the certifying surgeon. I repeat that many small factories avail themselves of the privilege; while of course larger factories, where more frequent changes of hands occur, require periodical visits, and pay larger sums in proportion. The system of contracts has been long in use, and has, I believe, always been sanctioned by the past and present chief inspectors.

I have been sorry to see occasional complaints in the JOURNAL on the subject of surgical fees and of the conduct of subinspectors. I have always met with polite attention from those in my district; and, when any grievance has occurred to me, they have invariably given me good sound advice. If others have not been so fortunate, I am truly sorry for them.—I remain, sir, yours truly,

December 27th, 1879. A CERTIFYING SURGEON SINCE 1868.

HOSPITAL ABUSE.

SIR,—If I were to attempt to answer the inquiry made in a letter with the above heading in the JOURNAL of December 27th, I should have to occupy more of your space than you could well spare for the subject. I will therefore content myself by referring Messrs. John Arthur and John Dunlop to a book—*Pay Hospitals and Paying Wards of the World*—just published by Messrs. Churchill, where they will find a history of the abuses to which they refer, and an account of the various checks which have proved efficacious in England and other countries, by providing a system of management which prevents the admission to free hospitals of those who are able to pay for private medical or surgical advice.—I am, etc., HENRY C. BURDETT.

Seamen's Hospital, Greenwich, S.E., December 30th, 1879.

SIR,—Permit me to offer a plan for the consideration of the Bradford Medico-Ethical Society, which I have for years thought would be useful to check the enormous abuses to which our hospitals are subjected by patients obtaining medical and surgical aid who are in competent circumstances. It is this: that each applicant applying for aid should first procure the signature of the clergyman who resides in the patient's district, stating that he or she is in such circumstances as to warrant the charity of the institution being afforded. I would suggest that the governor's letter of recommendation should have printed a few lines to the above effect, and that a blank space be kept for the clergyman's signature, thereby reducing the trouble of the gentleman signing to a minimum.—I am, sir, yours obediently,

W. E. FULFORD, L.R.C.P., etc.

Port Isaac, Cornwall, December 27th, 1879.

INEFFICIENT VACCINATION.

SIR,—The efficiency of vaccination as at present carried on has been lately called in question, and, at the recent Conference, much was said in favour of using calf-lymph. There can be little doubt, I think, that our vaccination in England is far from perfect.

It naturally falls to my lot to examine the arms of patients, admitted here, for signs of vaccination; and I must say that it is the exception to find four good marks; often none at all can be seen, though the patient may distinctly state he was vaccinated in infancy. Why is this? I believe for two reasons: first, because many medical men do not vaccinate carefully and well; but far more because it is impossible for them to keep up arm-to-arm vaccination.

Instead of the use of calf-lymph, the remedy I would venture to suggest is, that vaccination should be taken out of the hands of the many and placed in the hands of the few; that the general practitioner should cease to vaccinate; and that special medical officers should be appointed whose sole work should be vaccination. Perhaps, in some parts of the country, the duty might be combined with that of medical officer of health. If the vaccination officer were not allowed to engage in private practice, I do not think the general practitioner would be opposed to the change. The question of salary, and by whom paid, could be easily arranged; it should be such an amount as to secure the services of careful and well-educated medical men. The wealthier classes could still have their children vaccinated in their own homes as heretofore, and in the most efficient manner.

Thus, and, I believe, only thus, can the system of arm-to-arm vaccination be properly carried out, and choice made of the most perfect vaccine lymph. At present, the medical attendant is often obliged either to take lymph from a vesicle which is not perfect, or to obtain preserved lymph from a probably unknown source.

I am, sir, yours obediently, F. W. STRUGNELL.

Small-pox and Vaccination Hospital, Highgate Hill,
Upper Holloway, N., London, Jan. 8th, 1880.

OBITUARY.

J. LOCKHART CLARKE, M.D., F.R.S.

THE announcement we have to make of the death of Dr. Lockhart Clarke will be received with universal regret. The sad event took place at his sister's house at Balham, on Sunday, January 25th.

Jacob Augustus Lockhart Clarke was born in 1817. His mother was left a widow when he was a boy, and took her family to France during their education. Like many minds of a high type, Lockhart Clarke gave no early indications of unusual ability, and, indeed, was regarded by his family as lazy. He received his medical education at Guy's and St. Thomas's Hospitals, and, on becoming qualified, commenced practice at Pimlico. Here, amidst the constant interruptions incidental to his calling, he carried on those patient investigations which have made his name an imperishable honour to our profession and country. Whilst as successful in general practice as the abstractions necessitated by the scientific work allowed, he determined, about ten years ago, to become a consulting physician, justly thinking that the knowledge he had gained of the intimate nature of the nervous system and its diseases, qualified him for such a career. On the occasion of his being elected physician to the Hospital for Epilepsy and Paralysis, Regent's Park, we expressed our warm sense of his labours and of his special aptitude for that position. What measure of success he had we do not accurately know, but we do know enough to be sure that it was in no way commensurate to his deserts. He fell into ill-health nearly twelve months ago. For some time, it had been apparent that he had pulmonary disease, and his sufferings were increased by a surgical complication, which led him to seek the services of Mr. Henry Smith. These were freely given, and he was seen before his death by Dr. Hughlings Jackson and Dr. Stephen Mackenzie.

EDWARD CATOR SEATON, M.D., F.R.C.P.,

MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

WE had, last week, the painful duty of chronicling the death of Dr. Edward C. Seaton, who, until a very recent date, held the important post of chief medical adviser of the civil departments of State. Dr. Seaton was born of Scotch parentage in the year 1815, and after prosecuting his medical studies in Edinburgh and Paris, took his degree of Doctor of Medicine at the former university in 1837. For some years, he was in general practice at Rochester, and subsequently in Sloane Street. He had always taken great interest in the subject of vaccination, and when the Epidemiological Society was founded in 1850, one of its first acts was the appointment of a committee for the investigation of small-pox in connection with vaccination, with the late Mr. Grainger as chairman, and Dr. Seaton as honorary secretary. After two years of painstaking inquiry, the committee presented a valuable report (specially the work of Dr. Seaton), which was ordered to be printed for presentation to Parliament, and has since been justly considered as one of the classics of vaccination. After the issue of this report, Dr. Seaton naturally became recognised as one of the first authorities on the subject; and thus, when Mr. Simon inaugurated the systematic inspection of public vaccination, it was not surprising that he selected Dr. Seaton as the first vaccination inspector to be appointed. For the last twenty years, Dr. Seaton has been continuously employed in Government work, though it was not until 1865 that he was permanently attached to the Medical Department of the Privy Council. From 1865 to 1871, he acted as superintending inspector, and, after the retirement of the late Mr. Tomkins, as director of the National Vaccine Establishment. During this period, he contributed to Reynolds' *System of Medicine* an article on vaccination; and he also wrote, in the year 1867, a *Handbook of Vaccination*, published by Macmillan, which went very thoroughly and completely into the subject.

On the formation of the Local Government Board in 1871, he was made the senior assistant medical officer under Mr. Simon; and, while acting in that capacity, he represented the British Government, with Dr. Dickson of Constantinople as his colleague, at the International Sanitary Conference at Vienna in 1874. After his return from this important duty, he prepared for the Local Government Board a very elaborate and valuable report on the Small-Pox Epidemic of 1871-2 in its relation to Vaccination and the Vaccination Laws, published in the fourth report of Mr. Simon's New Series, and afterwards reprinted separately. On the retirement of his chief, in May 1876, Dr. Seaton succeeded to the post of medical officer, though with diminished powers and a smaller salary. This appointment he held up to the end of 1879, although for the last year his failing powers rendered him unable fully to discharge his official functions.

During the whole of this long period, Dr. Seaton had been working steadily and perseveringly in the improvement of our national system of public vaccination; a work to which, in fact, he may be said to have devoted his life. On all matters relating to vaccination, he was an acknowledged authority, and the improvements of the last twenty years are to a very large extent due to him.

Dr. Seaton had a family of four sons and four daughters; one son and two daughters, together with his wife, having predeceased him. His eldest son is the well known officer of health for Nottingham, and one of his daughters is married to Dr. George Buchanan, his successor at the Local Government Board. At his funeral, which took place on Monday last, at Kensal Green Cemetery, there was a large gathering of past and present members of his department, who attended to pay a last mark of respect to so faithful a colleague and so true a friend.

By Dr. Seaton's death, the nation has lost a valuable public servant, and the science of hygiene one of its most sincere supporters. To the members of his own department, and to those who had any relations with him, whether officially or privately, Dr. Seaton had endeared himself by his thorough honesty of purpose and his upright and sterling character. A good disciplinarian, he was never harsh or unjust in his estimate of conduct, and the truest interests of the large class of officials with whom he had to deal were always perfectly safe in his hands. His death will be regarded as a painful loss by the whole profession, and especially by those who knew and valued him.

MICHAEL FOSTER, F.R.C.S., HUNTINGDON.

MICHAEL FOSTER was born on April 22nd, 1810, at Holywell, a small village in the outskirts of Bedfordshire, close to Hitchin. His father was a farmer of more than average ability, being much given to antiquarian research. For many generations back, the members of the family had been farmers in Hertfordshire and Bedfordshire, and were generally conspicuous for their devotion to the cause of civil and religious liberty, some of them in their time being close personal friends of John Bunyan. He began his professional studies in 1826, by becoming an apprentice to Mr. Peck, surgeon, of Kimbolton; and, after serving the usual time of five years, entered, in 1831, the medical school of University College, pursuing his clinical studies at Middlesex Hospital at the same time, University College Hospital not being as yet established. Of his teachers (among whom were Sir Charles Bell and Dr. Elliotson), one still survives him—the then Demonstrator of Anatomy, Richard Quain. His college career was a very brilliant one: he carried off a large number of medals; his chief rival being his intimate friend William Baly, the since distinguished physician. Possibly, had his means allowed him to stay in London, Michael Foster might have achieved an eminence like that of his college friend. But he had no such opportunity. When, after two years' study (for so short a time was sufficient then), he had "passed the Hall and College", the *res angusta domi* led him to turn his qualifications to immediate profit by becoming first assistant to, and subsequently partner with, Mr. Jonah Wilson of Huntingdon. For more than forty years (for many years single-handed), he carried on a large country practice, winning from his patients not only an almost unbounded confidence in his professional skill, but also a strong personal affection growing out of his blameless unselfish character and pure Christian spirit. Nor was the confidence or affection misplaced: few men have possessed to so marked an extent as he did the instincts of a doctor, or have loved their profession more; few men have gone through life so intent as he was on doing good to others.

Premonitory warnings of the malady which finally destroyed him, appearing in the form of transient pains, did not at first excite the anxiety of his family; but the shock which he received five years ago, in the sudden death by accident of his son John B. Foster, was soon followed by unmistakable symptoms of that "cruel" malady, as Charcot truly calls it, paralysis agitans or Parkinson's disease. He was soon compelled to withdraw from practice; and, after many months of suffering, which, in spite of the best exertions of professional friends and the most unremitting attention of his family, were often acute, he finally sank on January 7th. Of a family of ten children, three only, with his widow, survive him—two daughters and his eldest son, who bears his name.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

NOTIFICATION OF INFECTIOUS DISEASES.

Sir,—I must ask a brief space to say that neither in my letter you were good enough to publish in the Journal of the 13th December, nor in anything I have ever said or written on the subject, is there a single word to justify the sentence in your note, in which you speak of "the fullest conceivable use of the information" as to the existence of infectious disease. I have never expressed the slightest objection to the notification of infectious diseases: I have simply asked, as one seeking information, what use medical officers of health are to make of the information when they get it, and pointed out some of the unquestioned difficulties in the way. Medical officers of health have to perform their duties under the sanction of an Act of Parliament by the enactments in which they are bound. They are officers of a public authority, and must act within the law. Surely, then, it is not unreasonable to ask some of the many "eminent sanitarians" to throw some light on this subject. They certainly have not yet done so. If my memory serve me right, they were by no means agreed on the subject in their evidence before the Royal Sanitary Commission, out of whose report the Public Health Act sprung. At the present moment, in every town where the local authority has obtained the power to compel the notification of infectious disease, the matter stands thus: A. B. may say to the friends of his patient, "Your corporation have an Act by which I am obliged under a penalty to give you this certificate; and by the same Act, you are obliged to see that it is delivered at the office of the local authority; but no officer has any right to enter your house without your permission, and certainly no authority to examine or interfere with your sick relative". If this be true, surely it is not wise to be urging local authorities to obtain powers they cannot use for any practical purpose. I ask, simply with the desire to obtain information, "What are the limits of practical usefulness to which sanitary authorities can apply the information when obtained? If this be very limited, what new legislation is proposed?"—I am, your obedient servant,

S. W. North.

York, December 15th, 1879.

*** Mr. North would tempt us into a discussion on the general question of the desirability of the registration of disease, a subject into which we have already expressed our unwillingness now to enter; but we must point out to him that he is in error in supposing that there was any disagreement on this subject in the evidence taken by the Royal Sanitary Commission. If he will turn to the Report of the Commission, under the head of Registration, he will find the Commissioners arguing strongly and at length in favour of the registration of sickness. They stated, indeed, distinctly, that "all the witnesses examined by us on the point have spoken strongly on the need of this registration of sickness" (page 59). On the very numerous grounds brought forward by the Commissioners, they recommended "that authority and sufficient means should be given to the Registrar-General for a registration of sickness", and that "the diseases constantly registered should be those which affect large numbers of the population, which may be considered as, in a greater or less degree, preventable by sanitary arrangements, and which are usually not difficult of discrimination". As to Mr. North's statement, that he has "ever expressed the slightest objection to the notification of infectious disease", we can only say that the papers on the subject read by him last year before the Yorkshire Association of Medical Officers of Health and the British Medical Association appear to leave a distinctly contrary impression. Many phrases occur in these latter which seemed to us to show conclusively that Mr. North was opposed to the notification of such cases; but we are glad to find that we were mistaken, and we do not doubt that many of our readers will be rejoiced to learn what Mr. North's real feelings in the matter are.

THE MEDICAL OFFICER OF THE CLUN DISTRICT.

Sir,—I think it right to inform you of the true facts of the case relative to my action in the matter of the medical officership of this district of the union. When I first settled down in this neighbourhood, I was informed by a friend that one of the guardians of the union had told him that the medical officer then in office could not continue in the appointment, as he was not sufficiently qualified to hold it when another medical man who possessed the necessary qualifications was on the spot, and that unless I sent in my application the guardians would be placed in an awkward position. I was also informed that the medical officer of this district then in office was only appointed annually, and not triennially, as is the case with the other medical officers of the union, in the event of another medical man coming to reside here. As the guardians thus appeared to expect me to apply for the appointment, I did so; but, finding it was made more a matter of personal feeling and party spirit on their part than a point of law, I referred the matter to the Local Government Board.

You will thus see that it was not I who pointed out to the guardians the fact of their then medical officer not being sufficiently qualified, but that their eyes were already open to the fact; and had it not been for the opinion expressed by the guardians, I certainly should not have moved in the matter at all.—I am, sir, yours truly,

John W. Davies.

Clun, December 30th, 1879.

POOR-LAW MEDICAL APPOINTMENTS.

Allen, Alfred, M.D., appointed Medical Officer to the Keelby District of the Caistor Union, *vice* Ralph Burnham, M.R.C.S.Eng., resigned.

Crowe, J. W., L.K.Q.C.P., appointed Medical Officer and Public Vaccinator for the Hartlepool District of the Hartlepool Union, and Medical Officer of the Hartlepool Union Workhouse, *vice* George Moore, M.D., resigned.

Gage, R. C., M.B., elected Medical Officer to the Scotstown Dispensary District, Monaghan Union, *vice* J. C. Hall, M.B., resigned.

Penny, Charles Hall, L.K.&Q.C.P.I., appointed Medical Officer, Medical Officer of Health, and Public Vaccinator for the Wymondham Division of the Melton Mowbray Union, *vice* C. G. Leacock, L.R.C.P., resigned.

Staff, George T. A., L.K.Q.C.P.I., appointed Medical Officer to the Third District of the Penzance Union, *vice* F. E. Hunt, L.R.C.P.Ed., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

THE ARMY MEDICAL DEPARTMENT.

Sir,—Can you inform me in your next issue whether medical officers of the Army Medical Department joining under the new Warrant will be granted extra pay or allowances while serving in India?—I remain, sir, yours, etc., A Member.

*** Army medical officers under the new Warrant will not receive any additional pay or allowances while serving in India. The pay and allowances in that country will remain the same as they have been under the late Warrant. The Secretary of State's instructions on this head are very distinct. They are the following. "The Warrant will not be applicable to army medical officers while in India, and no additional emolument will, under its provisions, accrue to medical officers serving in that country."

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 21st.

Back, Alfred A., Hethersett, Norfolk (St. Bartholomew's Hospital)
Bartlett, Charles R., Cheltenham (St. George's Hospital)
Bates, Henry L., Streatham (Guy's Hospital)
Beresford, Charles W., Buxton (University College)
Biss, Cecil Y., Sydenham (St. Bartholomew's Hospital)
Breese, Thomas T., Norwich (University College)
Cree, Edward R., St. John's Park, N. (Middlesex Hospital)
David, William W., Cymer, South Wales (Guy's Hospital)
Dixon, Harry A., Burnley, Lancashire (Manchester School)
Evans, Ebenezer D., Wareham (University College)
Groom, Henry T., Camden Road (St. Bartholomew's Hospital)
Harvey, Sidney F., Clapham Road (St. Thomas's Hospital)
Hebbert, Charles A., Birmingham (Westminster Hospital)
Hormazdji, Robert Nesbit, Bayswater (St. Mary's Hospital)
Hunter, Vere E., Cromwell Crescent (St. George's Hospital)
Knipe, Francis A. P., Malvern (Guy's Hospital)
Little, Ernest M., Park Street (St. George's Hospital)
Mort, Robert B., Southport (St. Bartholomew's Hospital)
Shorland, Walter E., Bristol (Bristol School)
Smith, Frederick M. G., Fareham, Hants (Guy's Hospital)
Swale, Harold, Guildford (St. Thomas's Hospital)
White, William H., Carshalton (Guy's Hospital)
Wightwick, Fallon P., Folkestone (Middlesex Hospital)

Six candidates were rejected.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 15th, 1880.

Heygate, Frederick Nicholas, West Haddon, Rugby
Jago, Edwin Osborne, Plympton, Devon
Whelan, John Joseph, Grafton Terrace, Maitland Road

The following gentleman also on the same day passed his primary professional examination.

Davies, Jenkin, St. Thomas's Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 22nd, 1880.

Baines, Harold Athelstane, Saxon Villa, Lincoln
Bissill, Arthur Kent, Sleaford, Lincolnshire
Chenai, Eduljer Sorabjee, Chaudor Villas, Lorn Road, Brixton
Conolly, Paul Bennett, Somerset Terrace, Kilburn
Hakim, Homadji Merwanji, Chaudor Villas, Lorn Road, Brixton
Karanjia, Muwanji Dhunjibhai, Chaudor Villas, Lorn Road, Brixton
Keláwálá, Manekshaw Jamskedji, Cromwell Road, Bayswater

The following gentlemen also on the same day passed their primary professional examination.

Orton, Arthur, Queen's College, Birmingham
Puddicombe, William Noble, Guy's Hospital
Williams, Walter Treliving, London Hospital

At the Preliminary Examination in Arts, held at the Hall of the Society, on the 23rd and 24th of January, 1880, one hundred candidates presented themselves, of whom the following passed, and received certificates of proficiency in general education. In the First Class, in order of merit:

1. C. H. Upham. 2. Mary Royce. 3. C. H. Conolly and Arthur Wright. 4. A. F. Messiter. 5. E. E. Batt, R. H. Castor, B. Rigby Johnston, T. G. MacLaren, and F. H. Mead.

In the Second Class, in alphabetical order:

H. W. Austin, Arthur Badcock, E. E. Barclay, R. S. Betts, A. H. Bird, E. J. Bower, Gilbert W. Brooks, Jabez P. Brooks, K. F. Brown-Constable, G. C. Buchanan, F. J. Calvert, J. A. Coles, E. P. Collett, R. Cordiner, H. A. W. Coryn, W. H. Crags, W. E. Eppstein, R. Fetherstonhaugh, E. Gumpert, Kathleen H. Graham, E. Gregson, H. Gurney, E. M. Hassard, W. Hook, T. Hurlbutt, H. Hutchinson, H. W. Husbands, C. H. Jackman, F. P. R. James, S. H. Johns, Osborne Johnson, David E. Jones, Hadley G. Jones, C. R. King, A. G. V. Leech, William J. Lewis, H. E. M. Long, Montague Moore, R. Powell, J. P. Roughton, H. S. Saunders, J. B. Sutton, George Thorpe, A. H. Vlieland, J. Wilding, Charles Wisken, and H. P. Ziemann.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

*ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon. Salary to commence at £80 per annum, with residence and maintenance. Applications not later than February 25th.

*BOOTLE BOROUGH HOSPITAL—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications on or before the 31st instant.

BRIGHTON AND HOVE DISPENSARY—Resident House-Surgeon. Salary, £140 per annum, with apartments, gas, etc. Applications on or before February 2nd.

*BRISTOL ROYAL INFIRMARY—House-Physician. Salary, £100 per annum, with furnished apartments, board, and washing. Applications on or before February 2nd.

*BURY ST. EDMUND'S FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £180 per annum, with house, coal, gas, and additional fees for Midwifery. Applications, stating age, testimonials, etc., on or before February 23rd.

*EVELINA HOSPITAL FOR SICK CHILDREN.—Registrar and Chloroformist. Salary, £30 per annum. Applications not later than February 5th.

GRANTHAM UNION—Medical Officer for the Spittlegate District and Workhouse. Salary, £90 per annum.

*GRAVESEND DISPENSARY AND INFIRMARY—House-Surgeon and Dispenser. Salary, £100 per annum, with board and lodging. Applications, with testimonials, to the Honorary Secretary, not later than February 6th.

*GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary, on or before March 18th.

HUNGERFORD UNION—Medical Officer for No. 3 District. Salary, £80 per annum, and fees. Applications on or before February 10th.

*HUNTINGDON COUNTY HOSPITAL—House-Surgeon. Salary, £60 per annum, with board and lodging. Applications on or before February 6th.

*KING'S COLLEGE—Professorship of Ophthalmic Surgery, also Ophthalmic Surgeon. Applications to the Secretary.

*LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon, Salary, £70 per annum, with residence and maintenance in the house. Applications and testimonials to be addressed to the Chairman of the Committee not later than February 21st.

*LONDON FEVER HOSPITAL—Physician and Assistant-Physician. Applications, with testimonials, to the Secretary, not later than February 7th.

MIDDLESEX HOSPITAL—Assistant-Physician. Applications on or before February 7th.

*NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC—Physician for the Out-patient Department and two Assistant-Physicians. Applications to the Secretary on or before February 7th.

*RICHMOND HOSPITAL, Surrey—House-Surgeon. Salary, £80 per annum for first year, with annual increase of £10 up to £100, with board and furnished apartments. Applications to the Secretary on or before February 18th.

ROSCREA UNION—Medical Officer for Roscrea No. 1 Dispensary District, at a salary of £100 per annum, £10 as Medical Officer of Health, with Registration and Vaccination Fees. Election on February 2nd.

ROSCREA UNION—Medical Officer for Workhouse, at a salary of £80 per annum. Election on February 5th.

*ST. LUKE'S HOSPITAL—Clinical Assistant. Applications, with testimonials, to the Secretary, on or before February 12th.

WEST KENT GENERAL HOSPITAL, Maidstone—House-Surgeon. Salary, £120 per annum, with lodgings, attendance, etc. Applications on or before the 31st instant.

*WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY AND DISPENSARY—Surgeon. Applications on or before February 7th.

*WILLITON UNION, Somerset—Medical Officer for the Porlock District of the Union. Salary, £50 per annum, with extra fees for operations, etc. Applications, with testimonials and qualifications, on or before February 9th.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BENTON.—On January 25th, at The Cottage, Bushey Park, the wife of Samuel Benton, Esq., M.R.C.S., of 2, Bennett Street, St. James's, of a son.

HARDWICKE.—On January 25th, at Parkfield House, Sheffield, the wife of *Herbert Junius Hardwicke, M.D., of a daughter.

PUBLIC HEALTH.—During last week, being the third week of the year, 4,370 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 26 deaths annually in every 1,000 persons living. The annual death-rate was 21 per 1,000 in Edinburgh, 26 in Glasgow, and 40 in Dublin. The rates in the twenty English towns were as follow: Oldham 19, Sunderland 19, Brighton 21, Sheffield 22, Wolverhampton 22, Newcastle-upon-Tyne 23, Leicester 23, Norwich 23, Bradford 23, Portsmouth 23, Leeds 24, Bristol 24, Salford 24, Birmingham 25, London 27, Plymouth 27, Liverpool 28, Hull 29, Nottingham 30, and the highest rate 31 in Manchester. The annual death-rate from the seven principal zymotic diseases averaged 3.8 per 1,000 in the twenty towns, and ranged from 0.7 and 0.9 in Wolverhampton and Oldham, to 8.4 and 10.8 in Plymouth and Hull. In London, 1,900 deaths were registered, which exceeded the average by 139, and gave an annual death-rate of 27.1. The 1,900 deaths included 3 from small-pox, 30 from measles, 83 from scarlet fever, 13 from diphtheria, 140 from whooping-cough, 11 from different forms of fever, and 14 from diarrhœa—altogether, 294 deaths, which were 31 above the average, and were equal to an annual zymotic rate of 4.2 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 455 and 512 in the two preceding weeks, further rose, under the influence of the lower temperature, to 559 last week, and exceeded the corrected weekly average by 104: 372 resulted from bronchitis, and 120 from pneumonia. Different forms of violence caused 61 deaths: 48 were the result of negligence or accident, including 10 from fractures and contusions, 11 from burns and scalds, 3 from drowning, and 16 of infants under one year of age from suffocation. Nine cases of suicide were registered during the week. At Greenwich, the mean temperature of the air was 29.7°, and 9.6° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 6.7 miles per hour, which was 7.1 below the average. Rain or melted snow was measured to the amount of 0.01 of an inch. The duration of registered bright sunshine in the week was equal to 11 per cent. of its possible duration.

NEW DISPENSARY AT MILLTOWN.—At a recent meeting of the Tuam Board of Guardians, it was resolved to establish a dispensary depôt at Milltown; and that Dr. McDonnell, the medical officer of Dunmore District, should attend there once a week, and receive an addition to his salary of £10 a year for the extra duties to be performed.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on January 13th, the following honorary officers and members of Council were elected or re-elected.—*President:* Reginald Harrison, Esq. *Vice-Presidents:* John Newton, C. Puzey, R. Caton, M.D., and E. H. Dickinson, M.D. *Treasurer:* W. M. Campbell, M.D. *General Secretary:* Rushton Parker, M.B., B.S. *Secretary to Ordinary Meetings:* E. A. Browne. *Librarian:* J. M. Howie, M.B. *Other Members of Council:* A. Bernard, M.B., A. Davidson, M.A., M.D., A. F. Graham, M.D., J. W. Warburton, D. M. Williams, A. T. H. Waters, M.D., W. M. Banks, T. D. Ransford, J. Barr, M.B., W. McCheane, H. G. Rawdon, and B. Townson. The number of trustees having been reduced to three, the full complement of ten (five physicians and five surgeons) was made up again at this meeting, viz., J. Cameron, M.D., T. F. Grimsdale, A. T. H. Waters, M.D. (remaining three), W. M. Banks, W. Macfie Campbell, W. Carter, M.D., A. Davidson, M.D., T. R. Glynn, M.D., R. Harrison, and C. Puzey. *Microscopical Committee:* Wm. Alexander, M.D., P. M. Braidwood, M.D., A. Davidson, M.D., E. H. Dickinson, M.D., T. R. Glynn, M.D., Sibley Hicks, John Newton, and Rushton Parker, M.B., B.S.

PRESENTATION.—At the annual meeting of the governors of the Yeovil Hospital and General Dispensary, Dr. Russell Aldridge was presented with a silver waiter, water-jug, and case of salts; Mr. E. C. Garland, with a silver *entrée* dish; and Mr. W. A. Hunt, with a silver salver—each article bearing a suitable inscription. Afterwards, the following resolution was passed: "That this meeting tenders its warmest thanks to the medical officers (Messrs. Aldridge, Garland, Hunt, and Flower) for their gratuitous and most efficient services during the past year; that, as Dr. Aldridge and Mr. Garland have tendered their resignations, the same be accepted, but that they be requested kindly to continue to act as honorary medical officers for the in-department; that Mr. Hunt be desired still to hold the office of honorary surgeon-dentist; and that Mr. G. J. Flower and Mr. C. J. Marsh be the honorary surgeons for the out-department for the present year respectively."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30 Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Lettsomian Lectures, by W. F. Teevan, B.A., F.R.C.S. Lecture III: "Stone in the Bladder".

TUESDAY.—Pathological Society of London, 8.30 P.M. The President: Specimens and Casts illustrating Joint-Disease in Locomotor Ataxia. Dr. Buzzard: Cases of Locomotor Ataxia, with Osseous and Articular Lesions (living specimens). Mr. Morgan: Specimen of Diseased Bone. Dr. Goodhart: Congenital Occlusion of the Duodenum; Gangrene of the Colon. Dr. Dreschfeld (Manchester): Tumours from Abdomen. Mr. Hulke: Drawings of Cancer. Mr. James Startin: Drawings of Skin-Disease—Psoriasis and Acute Pemphigus. Dr. Gilbart Smith: Epithelioma of Pharynx. Dr. F. Semon: 1. Congenital Syphilis of the Larynx; 2. Endolaryngeal Epithelioma. Mr. Nunn: 1. Secondary Tumour after Removal of Breast; 2. Epithelioma of Penis; 3. Melanosis of Finger. Mr. Nettleship: Optic Neuritis. Dr. W. Ewart: 1. Disease of Suprarenal Capsules; 2. Miliary Tubercle of Bladder.

WEDNESDAY.—Epidemiological Society of London, 8 P.M. Dr. Squire will exhibit Micro-photographs, by Sternberg, of the Blood in Yellow Fever; Surgeon-General Dr. Joseph Ewart will read a paper entitled "Enteric Fever in India, with some observations on its probable Etiology in that Country".—Obstetrical Society of London, 8 P.M. Specimens: New Instruments, by Dr. Heywood Smith; Moles and Fibroid Tumour of Vagina, by Dr. Herman. Annual Meeting: Election of Officers; Changes in By-Laws; the President's Address.

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. Osman Vincent, "Congenital Talipes in the Adult"; Mr. Walter Pye, "The Present Position of the Operation of Nerve-stretching".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A DISTRESSING CASE.

THE following is a list of the donations received for Mr. Dalton since last week.

	£	s.	d.
January 17th.—Dr. Siordet (Mentone)	1	1	0
„ 22nd.—Dr. Alexander Maclean (near Wick)	0	10	0
H. F. T.	9	10	0

January 22nd, 1880. HEYWOOD SMITH.

COTTAGE HOSPITALS.

SIR,—Will any of your readers who may be connected with cottage-hospitals kindly forward to me a copy of their reports, which would give me some information as to the working of such institutions?—I am, yours faithfully,

The Hill Top, Gipsy Hill, Norwood, Jan. 20th. WM. GANDY, M.R.C.S.

DUBIOUS.—We think other methods, less open to objection, might be found of rendering friendly service to a beginner, of whom our correspondent thinks well.

COLLEGE OF SURGEONS AND EXAMINATIONS: PASS AND HONOURS.

SIR,—Why cannot the College of Surgeons divide the successful candidates at its examinations for the membership into first and second divisions, and allow those who pass in the first division to compete for honours, similar to the plan adopted by the London University? Some pass with abundance of information to spare, others scrape through, but all are bracketed equal. The examination for honours might be held the week after the first and second examinations respectively, or it could be held at the same time that for the fellowship takes place. Such a plan would allow hard-working students an opportunity of showing that they possessed more knowledge than what was merely sufficient to pass them, and would infuse a healthy rivalry into the schools, all of whom would be pleased to see their men carry off the blue ribbon of the College. The principle once adopted, the details could be easily carried out, and would doubtless add considerably to the prestige of that institution through whose portals the great body of English practitioners pass.—Yours, etc., A MEMBER OF THE COLLEGE.

INFLUENCE OF CONGENITAL SYPHILIS ON VACCINATION.

SIR,—I was unfortunately unable to attend the meetings upon the animal vaccination question; but, having attentively read the reports of the various speeches, I failed to see noted a fact that I have repeatedly observed—viz., that it is impossible to obtain a satisfactory (*i.e.*, a properly formed) vesicle in a congenitally syphilitic subject. I have so often noticed this, and am so assured of it, that, when I have not obtained properly formed vesicles, I look upon it as suggestive of a syphilitic taint in the constitution. I am not prepared to say that the vaccination in congenitally syphilitic patients is not protective. I think the opposite to be the case, as I have treated a case of vaccine syphilis—*i.e.*, a tubercular eruption—general over the surface, and yielding to the application of hydrargyrum cum cretâ and starch externally, instead of violet powder and the internal use of hydrargyrum cum cretâ. Vaccination from these imperfect vesicles will not produce a well-formed vesicle in a healthy subject, but one similar to the vesicle in the congenitally syphilitic, which looks as though it had been rubbed by the clothes, and its ragged appearance is thus generally accounted for by the parent who brings the child on the eighth day. I have, however, too frequently noticed the fact to be deceived, and in some instances have attended both parents, in others one, for syphilis before marriage. In some cases, I have had to infer syphilis from miscarriages or stillborn children. After the poison has somewhat worn out, and the children are born with less of the characteristics of congenital syphilis about them, the vesicles may form well, but the ulceration afterwards is excessive, and leaves a large ragged scar.

I may mention that during the cattle-plague year I vaccinated, at the request of the owner, as a protective against that disease, a whole herd of sixteen or seventeen cows from points just above the vulva without trouble or failure, and could have taken an unlimited supply of lymph had I wished to do so.—I am, your obedient servant, SAMUEL PRALL, M.D., F.R.C.S.

West Malling, Maidstone, January 1880.

THE DIET AT CHRIST'S HOSPITAL.

"A MOTHER" writes to complain of the diet at the Blue Coat School, where, she says, the boys have three meals during the day—viz., breakfast, consisting of bread and butter or dripping, with poor milk and water; dinner, of meat and bread, with some vegetable; never a pudding of any kind; the meat in summer often bad from the heat, and in winter so hard and unsavoury that day after day it is not eaten by the weakly, of whom there must be several in a school of seven hundred, and who certainly require more than the bread and vegetable; tea, of bread and butter or treacle, with milk and water. Our correspondent is acquainted with several boys from different counties—none of these from homes of luxury—and, notwithstanding a strong *esprit de corps* towards their school, the testimony of one and all about the food is the same. She trusts that her statement of facts may be the means of calling public attention to a state of things which has only to be realised by the governors and managers of this wealthy and noble charity to be easily remedied, so that the culinary arrangements may be made as good as other large schools and colleges.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Medical Etiquette.

With reference to the paragraph which appeared under this title on January 17th Mr. Davies calls our attention, in a further communication, to the fact that there have been two separate misunderstandings between himself and Mr. Welsh—one in August and the other in December. In the first case, a satisfactory explanation was made and accepted; while in the second case, no such happy result has been attained. Mr. Davies appears to think that this difficulty might be viewed by itself, and settled without reference to his action in respect to the Poor-law appointment; but this is impossible. It is evident that the unnecessary zeal—to which we have alluded in both our previous comments—has caused such serious annoyance to Mr. Welsh and his friends that it is at the root of the whole matter. We have been at great pains to do substantial justice in the appeal made to us. Any further questions arising out of these difficulties should be referred to the Shropshire and Mid-Wales Branch of the Association.

L.R.C.S.I. (Coventry) has omitted to authenticate his letter by signature.

Contracted Colon.

The best drug for keeping the fæces soft, according to my experience, is extractum aloës Barb. aquosum, in doses of half a grain; and the best preparation of that drug is aloin, prepared by T. and H. Smith of Coleman Street; but I use the following formula. ℞ Aloinæ, myrrhæ pulveris, saponis, āā gr. vi. Misce benè et divide in pilulas xii æquales. One to be taken occasionally. It operates commonly in ten to twelve hours.

John Mann.

Dr. J. L. Miller (Portsdown Road) is thanked for his obliging communications of the 18th and 20th instant. The particulars which he has been so good as to promise to obtain will be awaited with interest. The cow is liable to several diseases which more or less resemble cow-pox.

Enlarged Prostate.

Sir,—Will any of your readers kindly state what means they have found most successful in reducing enlargement of the prostate gland? Is there any form of rectal suppository which would be useful? Preparations of morphia and tannic acid have been used. Works on surgery do not give encouragement as to the use of iodine and other remedies, either local or general. I am disposed to think some of the readers of the Journal may give a satisfactory result of their practice in such cases.—I am, etc.,

M.R.C.S.

⁂ M.R.C.S. will find information regarding the treatment of enlarged prostate in the second volume of the British Medical Journal for 1878, pages 373 and 500.

Dr. C. H. Taylor's letter respecting the addressing of his copy of the Journal has been handed to the General Manager, Mr. Fowke, to whom all letters relating to such subjects should be addressed.

The Distress in Ireland.

Sir,—The Irish famine is rapidly assuming more serious proportions. Most of us have, I presume, already subscribed; but would it not be a graceful recognition of the splendid hospitality of our *confrères* in Cork in August last, if the members of the British Medical Association were to unite in a special contribution towards the relief of the even now terrible distress in Ireland? The amount realised might be appropriately entrusted to our esteemed president Dr. O'Connor, or to Professor Macnaughton Jones, to be applied either to aiding the Duchess of Marlborough's fund, or at the discretion of either or both of these gentlemen.

If you deem the suggestion wise and consent to receive donations, I should be happy to forward you my guinea.—Your obedient servant,

42, Grove Road, Regent's Park, Jan. 24th, 1880. Norman Kerr, M.D.

⁂ We should be sorry to check in any way so graceful and opportune a method of giving timely aid in an emergency which all must deplore; and if we do not make the offer to receive donations at this office, as Dr. Kerr suggests, it is because we think that, in relief of distress other than of professional men, it would be better that, if Dr. Kerr's suggestion find favour, a special committee should be formed of those who think with him, which should collect and dispense of any funds subscribed.

A General Practitioner (Lincoln).—The degree of Member of the Hygeio-Therapeutic College of the United States, whatever it may be worth in America, is not registrable in this country, and a person who rests his claims upon it cannot have the legal status of a qualified practitioner. As to the proper mode of proceeding in such a case, it would be well to consult the honorary secretary of the Medical Alliance Association, Mr. R. H. S. Carpenter.

Friendly Society for Servants.

Sir,—May I ask the favour of inquiring through the Journal which are the best provident friendly societies admitting female members? Servants are supposed to pay for their own medical attendance, and it would be to the advantage of all parties if they were compelled to join some provident society; the medical man would be certain then to receive something for his trouble, whereas now it is generally the other way.—Yours, etc.,

E. Stephens, Mem. B. M. Association.

Ilminster, Somerset, January 1880.

Large Gall-Stone Passed per Anum.

Sir,—Will you allow me (in case it may have escaped his notice) to call the attention of "M.D." (who in the Journal of August 22nd, 1879, "challenged my diagnosis" of large gall-stone passed *per anum*) to the very exhaustive report of examination of the aforesaid gall-stone, read by Dr. Ord before the Pathological Society on the 6th instant, and fully reported in the Journal of the 10th instant.—I have the honour to remain, sir, yours obediently,

Carr Holstok Roberts, L.R.C.P.Lond.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Lithotomy in Glasgow.

Sir,—Your Glasgow correspondent has made a mistake in the report of the meeting of the Medico-Chirurgical Society, which appears in to-day's Journal. My statement was that, taking all the operations of lithotomy at all ages performed in the hospitals of Glasgow since the opening of the Royal Infirmary in 1795, and the Western Infirmary in 1874, the mortality is found to be about 1 in 7½ (not 7½ per cent., as in the paragraph referred to). I also gave the mortality at different ages, but I now only correct the error made.—I am, etc.,

George Buchanan, Professor of Clinical Surgery.

193, Bath Street, Glasgow, January 17th, 1880.

Mirrors in Railway Carriages.

Sir,—I notice that a correspondent, on the faith of a station-master's agreement with him, gives an opinion on the mirrors used for advertising purposes in railway-carriages. Both your correspondent and his friend the station-master must have travelled not at all, or, like Albert Smith's tourist, carefully avoided noticing anything on their route, for otherwise they would have seen all over the Continent for the last quarter of a century, and latterly in the carriages of the most important English railways, almost identical mirrors fixed for mere ornament; and with all the numerous collisions, slight and serious, no accident has ever yet occurred in consequence. The patentee referred to has merely utilised existing materials, making the ornamental useful.—I am, sir, yours very truly,

Edward Casper,
Managing Director Mirror Advertising Company, limited.

40a, King William Street, London, January 19th, 1880.

Junius will find the information which he desires as to cottage-hospitals in Mr. Burdett's book on the subject, published by Churchill and Co.

Royal College of Surgeons of England.

The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates at the written examination for the diploma of membership on the 16th instant, when they were required to answer at least four, including one of the first two, out of the six questions. 1. Describe the several structures which must be divided in an amputation of the thumb and its metacarpal bone. 2. Describe the course, relations, and anastomoses of the deep epigastric artery. 3. What is a node? Give the anatomical characters of its various forms, and the treatment you would adopt in each case. 4. Describe the defects of vision which may exist, unconnected with disease. Explain their causes, and state how they should be remedied. 5. Mention the causes of perineal abscess, its symptoms, course, and treatment. 6. Mention the various injuries which produce—(1) lengthening, (2) shortening of the lower extremity.

The following were the questions on the Principles and Practice of Medicine submitted to the candidates on the 17th instant. 1. What conditions give rise to fluid in the pleural cavity? of what kinds may it be, and what are the signs which indicate the presence of each kind? What treatment should be pursued in different circumstances? 2. What are the chief modes by which mechanical obstruction of the bowel is produced, the symptoms proper to, and the treatment to be adopted in each? 3. What are the uses and doses of the following drugs?—Salicylate of soda, acetate of ammonia, liquor arsenicalis, sulphate of potash, vinum antimoniale, infusion and tincture of digitalis, sulphate of zinc, liquor potassæ, subnitrate of bismuth, extract and tincture of stramonium, calomel, and hydrargyrum cum cretâ.

Dr. Otis (New York).—We regret that Dr. Otis feels that he has reason to complain of injustice at the hands of a London medical paper; and we agree that, on the face of the correspondence which he forwards to us, he has reason to feel that a gratuitous and entirely unjust aspersion of his scientific character was thrown out, and when it was shown that there was no ground for it whatever, the just and liberal reparation was not made as it should have been. We are unable, however, to depart from our rule of leaving other journals to manage their own affairs, but can assure Dr. Otis that his estimation in the profession here is unimpaired.

Sir,—Permit me to inquire through the Journal if any tables have been published—and if so, where to be procured—showing the relation between height, weight girth, and age? I find some such in Dr. Aitken's *Practice of Medicine*, but they are not complete enough to take as a standard.—Your obedient servant,

R. E. Power, Med. Officer H.M. Convict Prison, Portsmouth.

Coster's Paste.

Sir,—The formula for this was, I think, first published in the *Medical Times and Gazette*, vol. i, 1867, p. 34. It is as follows.

"For the treatment of ringworm (tinea tonsurans), a preparation composed of two drachms of iodine, dissolved in an ounce of colourless oil of tar, is used with great success. It was first introduced by Dr. Coster, of Hanwell Central London Schools. This preparation is painted on the affected parts with a firm brush. It forms a cake, which separates at the end of a week or fortnight. It may require to be repeated once or twice, but often more frequently. It causes little or no pain; is not liable to cause abscesses or destruction of the hair-follicles, such as often result from deep blistering. The oil of tar is obtained by distillation from the common tar, and has a specific gravity of .853."

The colourless oil of tar referred to by your correspondent "M.B.Lond." in the Journal of January 3rd, p. 39, used in making the above, is the light oil of wood-tar. It is colourless when quite fresh, but changes to a sherry colour with keeping. It has a specific gravity of .853 to .867. It is known in commerce as rectified spirit of tar, and in some districts is largely used as a sheep-dressing by farmers. I published the formula in the *Pharmaceutical Journal* for 1870, p. 601, and had it inserted in the *University College Hospital Pharmacopœia*, as follows.

Pigmentum Iodi et Olei Picis.—Iodine, two drachms; light oil of wood tar, one ounce. Mix carefully, applying heat if necessary: after ebullition, preserve for use.

It was first used at this hospital by Dr. Ringer, who had it from Mr. Coster himself. Mr. Coster's object, Dr. Ringer informs me, was to get a very strong solution of iodine. He seems to have overlooked the chemical action which takes place when the iodine and oil of tar are mixed. A part of the oil is oxidised, and froms a resinous substance, which is held in solution in the excess of oil. Hydriodic acid is probably formed to some extent at the same time, as the mixture fails to give any reaction of free iodine.—Your obedient servant,

Wm. Martindale.

10, New Cavendish Street, W., January 19th, 1880.

The Brussels Degree.

"Bruxelles" would be greatly obliged if any of the members of the Association would inform him which would be the best books to read for the M.D.Brussels.

NOTICE TO ADVERTISERS. — Advertisements for insertion in the BRITISH MEDICAL JOURNAL should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

THE GLASGOW FACULTY AND THE COLLEGE OF SURGEONS IN SCOTLAND.

SIR,—If as you state to "Undecided" (p. 114, Jan. 17) the diploma of the Faculty of Physicians and Surgeons of Glasgow is only a qualification in surgery, why should the Faculty continue to call itself a Faculty or College or Hall of Physicians and Surgeons? it would be better to call the Faculty a Faculty or College of Surgeons if it really have no medical privileges to unite it to the College of Surgeons of Edinburgh, and form a College of Surgeons for Scotland, with a branch at Glasgow. But any one reading its diploma will see that it is there stated that the licentiate is fully empowered to practise surgery and pharmacy; or, in other words, I take it to mean to practise in the old style as a surgeon-apothecary; and also on the strength of this diploma the licentiate of the Faculty of Physicians and Surgeons of Glasgow could recover for medicines supplied in any case of illness, after the manner of an apothecary or pharmacist A.D. 1599, the date of the first charter. With regard to the Fellowship, it appears a man may be elected a physician-fellow or a surgeon-fellow according to his previous qualifications, but what particular medical or surgical privileges or rights he therein obtains I have never been able to ascertain; but I suppose, however, a physician-fellow would have some special rights to practise medicine as a physician on the strength of being a fellow, but would the physician-fellowship simply stand as a surgical qualification? Probably we must understand for the future that fellows of the Faculty are physicians and surgeons, and that their licentiates are surgeon-pharmaceutists, or otherwise qualified to act as surgeon-apothecaries. It would, I think, be worthy the attention of the fellows of the Faculty and of the College of Surgeons of Edinburgh to take into very earnest consideration the great advantage that would be obtained by the surgical members of the profession in Scotland if the Faculty and College of Surgeons could be united to form one College of Surgeons in Scotland, with all the rights and privileges granted in the charters of A.D. 1505 and 1599, and subsequently. I enclose my card.—I am, sir, yours, etc.,

A PHYSICIAN AND FELLOW OF THE FACULTY OF GLASGOW, AND
Jan. 19th, 1880. MEM. BRIT. MED. ASSOC.

*** The following extract from a prospectus issued annually by the Faculty of Physicians and Surgeons of Glasgow indicates clearly that it acknowledges its diploma to be a surgical qualification only. "The Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, while they continue to give their diplomas separately, under separate regulations, have made arrangements by which, after one series of examinations, the students may obtain two separate licences, one in medicine and one in surgery." The union of the Royal College of Surgeons of Edinburgh and of the Faculty of Physicians and Surgeons of Glasgow would be very desirable. The idea is not new: in the Medical Act of 1858, Section 50 provides for the granting of a new charter or charters "if at any future period the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow agree to amalgamate so as to form one united corporation", etc.

DR. RYDER.—The MS. has been received, and has had attention.

OÖPHORECTOMY.

SIR,—In discussing questions of such vital consequence as "oöphorectomy", it appears to me that it is impossible to attach too much importance to two points: 1. Extreme accuracy of report of cases in which the operation has been performed; 2. In criticism of such operations, the avoidance of any expressions which may savour of a satirical or personal character. The former error Dr. Chambers seems to consider Mr. Lawson Tait has fallen into in the report of his cases of operation (although Dr. Meredith's report can scarcely be said to fail in that respect); but as Mr. Tait's mode of operation may be easily ascertained by any one desirous of performing it, he probably did not consider it necessary to go into details. One cannot but feel that Dr. Chambers has equally fallen into the second error, and his otherwise valuable communication is not devoid of a measure of satire which deprives it of some of the interest it possesses. Mr. Tait's first case seems to have nothing in common with that recorded by Dr. Chambers: Dr. Meredith's is not without great similarity; and it certainly does appear strange that the dilatation of the os uteri was not effected before, so as to admit of complete intra-uterine examination, before resorting to so severe an operation as oöphorectomy. I think every one who has had but very limited experience in obstetrical practice must be aware how intensely intolerant the uterus is of the presence of a foreign body, and how readily it expands under its influence, whether we consider the retention of a small portion of placenta, membrane, or coagulum after childbirth, from which often fatal (sometimes concealed) hæmorrhage results; or the retention of a menstrual clot, unable to pass a narrow and tortuous cervix, keeping up prolonged discharge and much pain; and it behoves us in all cases, where treatment so elaborate as that pursued by Dr. Meredith fails, to dilate the os and examine carefully the interior of the uterus. The two following cases may serve to illustrate this point.

CASE I.—Several years ago, a woman, aged 68, came under my care. She had ceased to menstruate at the age of 48. She had been married, but had never been pregnant. At the age of 63, no cause being assigned, she began to have irregular discharges of blood from the uterus, lasting an indefinite time. After this had lasted five years, she applied to me; and, the ordinary remedies being useless, she reluctantly consented to an examination. Finding nothing in the organs to account for it, I determined to dilate the os uteri. I will not occupy time by describing the process, which was by no means easy, seeing that the os would only just admit the very smallest laminaria tent, and it was not at all projecting into the vagina, feeling merely like a minute depression in the anterior wall; but the result was, that I found several small warty growths attached to the uterine wall, which being removed, the discharge at once ceased, and the woman remained well for five years, eventually dying, at the age of 73, of bronchitis.

CASE II.—The patient, aged 40, mother of four children, whom I saw on October 9th last, had been suffering for two months from almost incessant hæmorrhage, and was exhausted to an extreme degree. She had been under the care of two practitioners, who had tried various astringents. On examination, I found the uterus one inch longer than normal, the os and cervix much abraded. She was suffering much from general debility and nervous exhaustion, and constant sanguineous discharge. My treatment consisted in the administration of ergot, acids (tannic and sulphuric), with partial relief. On the 15th, I applied a preparation of equal parts of liquor ferri perchloridi fortior and glycerine freely to the inner surface of the uterus. The os was very flaccid, and the cervix readily admitted the passage of a good wad of cotton-wool wrapped round the sound. Little benefit resulted, and on the 23rd I dilated the cervix with a sponge-tent, which allowed the introduction of the index-finger. I discovered three very small warty growths attached to the right side of the uterus, and easily detached them. Very little pain accompanied or followed this operation, the uterine and vaginal parts being very lax. Ergot and acid were freely given, and for about thirty-six hours all hæmorrhage ceased, but on the 25th it recurred. On the 26th, it was considerable, and I came to the conclusion that the muscular tone of the uterus was so enfeebled as to entirely prevent contraction of the organ. I then determined to inject the liquor ferri perchloridi (dispensing strength), which I did with the vaginal tube of a Higginson's enema-apparatus, carrying it to the fundus uteri. I used four ounces, allowing it to escape freely. No pain followed, nor any shock to the system, and the discharge was speedily reduced to a trifling amount. However, on the 28th, I thought it best to repeat the operation, but the cervix was so contracted that only a very small portion of the fluid could possibly have found its way into the uterus through the hole at the top of the tube. On the 4th of November, the sound passed only two inches and three quarters. No sanious discharge escaped, but black inky fluid, evidently the *débris* of the clot formed by the iron injection. This continued till the next menstrual period, which occurred on November 23rd, and was rather profuse, lasting six or seven days. In the meantime, I had applied nitric acid to the ulcers on the os, and liquor ferri and glycerine to the cervix, with the best results. She steadily improved under the alternate use of iron between the periods, and ergot and acid during the periods. On December 4th, as the preceding period had been rather too free, I thought it wise to apply, by means of Atthill's cannula, nitric acid to the interior of the uterus. This gave no pain or inconvenience, and I have reason to hope that it will be entirely successful, having seen her to-day, menstruating very moderately during the last three days, attended only by the ordinary sensations.

I venture to think that nothing but dilatation could have helped me in this case; and I believe it may with advantage be much oftener resorted to in menorrhagia where the cause is merely a contracted condition of the cervix, preventing free exit of the discharge and allowing coagula to form. I should add, that there is some reason for suspecting that an abortion at the third month may have been the exciting cause of the hæmorrhage in this case, but this is not certain.—I remain, sir, yours truly,

JOHN EWENS, Surgeon to the Hospital for Women
and Children, Bristol.
December 23rd, 1879.

FOREIGN DEGREES.

SIR,—For years past, as I have already said, your columns have teemed with communications from holders of foreign degrees, affirming that these degrees were not obtained by English medical practitioners unless they were doubly qualified, and had submitted themselves, in addition, to a rigid and searching examination by Continental universities. If an occasional correspondent ventured to doubt the accuracy of these statements, he was immediately assailed (frequently in offensive terms) by numerous foreign graduates, who, at the same time, declared their own examinations to have been excellent and difficult, whilst others published half pages of well set questions as fair samples, so they alleged, of what aspirants for foreign degrees would be required to answer. It was a knowledge that all this talk was only a deception that induced me to publish my letter in September last. In that letter, I stated clearly and deliberately that the Alliance was in possession of facts which proved that foreign degrees were obtained after an easy examination by persons holding single qualifications only, and by others who held no legal qualifications whatever; and this statement was substantiated by my giving one case in which a licentiate of the Hall only obtained a Brussels degree, and another case in which a person without either medical or general education or qualification obtained two degrees—one from Giessen, the other from Jena. Within a week after the publication of this communication, I received fourteen or fifteen letters from foreign graduates: some of these were anonymous and scurrilous, others were peremptory, only two or three were courteous. There appeared to me to be an arrangement existing amongst these graduates to write down or frighten down by a collective attack any person who might dispute the value of their degrees; and this suspicion was strengthened by my receiving letters almost at the same time from three of the officers of the "Foreign Graduates' Association", as well as from one or two officials of the "Brussels Graduates' Association". A public correspondence then ensued in your columns, during which excited graduates contradicted each other with an alacrity it was quite amusing to observe. One graduate maintained that the Giessen and Jena degrees I specified were forgeries; another, that they were purchased of a widow of a medical man; and yet another (Mr. Wm. Easby), that they had no existence, but were "fictions" of my own creating. Unfortunately for these theories, the possessor of the degrees in question produced them in a coroner's court, and informed the jury, in the presence of several reporters, that they were granted "after examination"; and, consequently, a merciless leader upon the subject of unqualified practice by men holding such "degrees" appeared in the *Daily Telegraph* on the following day. Later on in the correspondence, I published a translation of a degree granted, without any examination whatever, to a venereal practitioner by the Jena University, and for the reason only that he already held a "degree" from an American diploma-selling body, which now has no existence. Hereupon Mr. Herbert Junius Hardwicke grew terribly wrathful, and, having obtained a letter from Dr. Wilbrand, Dean of the Medical Faculty of the University of Giessen (it was a copy of a *Jena* University I published), in which that functionary asserted that no degree had been granted, since the year 1846, without a strict examination, he (Mr. Hardwicke) declared that I had published a diploma of "ancient date", but suppressed its date "in order to defame the good name of a foreign university which it is perfectly well known (so he innocently wrote) grants to the present day an honourable and estimable medical degree"; and then he wound up his paragraph with something very pretty, but very boyish, about "a Briton".

Mr. Hardwicke is anxious to know from me—although he declares he already knows—the date of the published Jena degree. He asserts it to be of "ancient date"; and the Giessen Dean, if we are to believe Mr. Hardwicke, gives its date, as we have seen above, somewhat before the year 1846. I decline to give its date, but I now give the translation and *date (1860)* of the American degree, upon faith of which it was subsequently granted.

"To the friends and maintainers of literature, of the arts and sciences, and of medical reform: the trustees of the Metropolitan Medical College offer these letters patent, chartered by the legislature 1857, greeting. Be it known that X. Y. Z. has attended lectures in the Metropolitan Medical College the full time instituted and required by law; that he has been most assiduous and diligent in the acquisition of all those branches taught in said institute; that he has sustained a creditable examination before the Faculty, and regularly read and defended a dissertation, for all and singular of which he merits their highest commendation, and is justly entitled to the full confidence, faith, and fellowship of the degree of Doctor in Medicine. In testimony whereof we the Professors, the President, and Secretary of the Board of Trustees of said Metropolitan Medical College, have hereunto affixed our names and the seal of the institution, in the year one thousand eight hundred and sixty," etc.

Mr. Hardwicke is a very young practitioner, having obtained from Glasgow his first qualification in 1873; so that, no doubt, to his juvenile mind, the year he names (1862) as the date of the Jena degree is associated with very "ancient" times indeed; but, had he been a little more familiar with the medical politics of those times—times which appear to men of only middle age but as of yesterday—he would have written less, or, more likely, not at all.

Mr. Easby, after making many statements concerning myself, which I care not now to contradict *seriatim*, but all of which are absolutely untrue, goes on to make other statements, which, from his want of knowledge of the subject, are equally untrue. Thus he says that the one thousand Edinburgh licences were sold only to men who had been for years in practice, whereas they were sold to any medical men who liked to buy them; and many young men bought them even before they commenced practice. Then, Mr. Easby says that the Fellowships of the London and Edinburgh Colleges of Surgeons were sold only to men of standing in the profession, whereas they were sold to general practitioners of a very ordinary type indeed, or, as a matter of fact, to men of any type.

In his last letter, Mr. Easby lets out delightfully that he himself corresponded with a seller of of foreign degrees; and he describes one degree that was offered to him as being decorated with stars and stripes and other devices. I suppose this was *before* he suited himself with the foreign degree he now holds (?). The numerous foreign diplomas I have seen during our actions in the superior courts, and our prosecutions in the police-courts, have all been neat and plain, with neither stars nor stripes, so that it is evident from Mr. Easby's statement that there are more foreign diplomas for sale than is known to the Alliance.

I now give a translation of another foreign diploma bought by an ambitious chemist and druggist, and in virtue of which, *like his brother foreign graduates*, he dubbed himself "M.D." without saying whence he obtained the degree; and for not giving this information to the public he had to pay a penalty of £20, and upwards of £60 costs.

"To all to whom this present letter may reach,—the President, Fellows, and Professors of the American University of Philadelphia, founded by the laws of the republic of Pennsylvania, give salutation. Inasmuch as in all universities properly and legitimately constructed, either here or elsewhere in the world, it was a praiseworthy and ancient usage that men who have not less diligently than faithfully paid attention to literature or to ingenuous acts, or to any liberal studies whatever, meanwhile conducting themselves uprightly and honourably, should be adorned with some distinguished honour and raised to merited dignity; and since by the laws of our republic we possess the fullest power of distinguishing and decorating with academical titles, and of advancing to degrees in sacred theology, in arts, and medicine, gentlemen well deserving of them, we, therefore, furnished with this authority, and not unmindful of the ancient usage, have adjudged, and at a meeting of the Council have decreed, the eminent gentleman devoted to the highest pursuits, X. Y. Q. B., about whose proficiency in medical science and honourable character we have sufficiently inquired and scrutinised, to be worthy and fitting to be honoured as a learned man in the highest degree of dignity. Wherefore, with one accord, we have both elected and made him Doctor of Medicine, and have given and assigned to him all rights and privileges which belong to that degree. Now, all and singular, these proceedings we in good faith notify unto you by the present letter, fortified with our seal and the signature of the President of the University, this 20th day of the month of February, and in the year of our Lord 1871."

In one of his letters, Mr. Hardwicke shows how ill informed he is by asserting that certain American medical bodies, which he described, were on a par with any Europeon university. Now, the diplomas of one of the identical bodies he names were purchasable in London. Again, he asserts that the M.D. degree is the only medical qualification in the United States. How about the doctorate in dental surgery? I have known men holding but a single English qualification to whom it was of the greatest consequence they should obtain a second qualification, yet they have been unable to present themselves for examination even in Edinburgh or Glasgow, but have run over to the Continent and returned with Continental degrees as unrecognised abroad as they are in England. Cases of this kind may be greatly multiplied; and what do they denote? Why, simply the ease with which the degrees have been obtained.

Mr. Easby speaks of "ventilating the subject before the Select Committee". He will not find that so easy to accomplish as he thinks. First of all, he will have to send to the Committee a copy of the evidence tendered; then, if it be accepted, he would be examined upon it by the chairman, and afterwards cross-examined, one after the other, by every member of the committee present. I have known the evidence of some excellent men to be declined.

Sir James Paget, apparently with pride, spoke in favour of the superiority of English practitioners; but these foreign graduates, to their shame, are doing their worst to make the profession believe that foreign graduates are a better class of practitioners than the English.

In conclusion, it may be well to point out what the French Parliamentary Committee said last year of foreign degrees in their report of their consideration of M. Roger-Marvaise's Bill for the licensing of foreign medical men in France. "In several European countries, in order to preserve the public health", says the report, "against the too great indulgence of university examining boards, independent of the government, the law attaches no professional rights to the title of 'Doctor', and the right of practising medicine is granted to those only who have obtained a title distinct from that of 'Doctor' from a government examining board acting in the name of the government. Throughout the whole extent of the German empire, in Holland, and in German Switzerland, the title of 'Doctor' confers no professional rights. It has, therefore, appeared to the Committee to be but just that such guarantees as are imposed on them in their own countries should be exacted from all foreign physicians desirous of practising in France. On examining the *Medical Directory*" (of France), "we find the names of a considerable number of doctors who have obtained their degrees from the Faculties of Jena, Giessen, Louvain, and elsewhere, and who are far from being in a position to furnish the scientific guarantees required by our legislation. Further, as has also been remarked by our honourable colleague, a considerable number of sanitary officers go to foreign countries, and having there acquired (often by unjustifiable means) the title of 'Doctor', which they were unable to obtain in France, take this title, omitting all mention of the Faculty by which it has been conferred. This is a fraud, which the law cannot tolerate without serious injury to the reputation of the French medical body." And just such an "injury" is inflicted upon the reputation of the English medical body by the English foreign graduates.—I am, sir, your obedient servant,

130, Stockwell Road, S.W., Jan. 3rd, 1880. R. H. S. CARPENTER.

SIR,—In my letter to you of the 15th November, I related simple facts, and might have stated more, showing how a variety of foreign degrees could be purchased in England, without examination, at prices varying from £3 to £13 each. I alluded to no individual member of the profession, and deny the right of Mr. Herbert Junius Hardwicke to charge me with being ashamed and "afraid" to publish my name. I am a general practitioner, fully qualified by English qualifications, and hold a responsible honorary post on the medical staff of a large London medical charity, which is quite sufficient for Mr. Hardwicke to know. I observe of Mr. Hardwicke in the *Medical Directory*, that although he matriculated at the Durham University in 1867, he went to the Glasgow Faculty of Physicians and Surgeons for his surgical qualification, and to the Edinburgh College of Physicians for his medical qualification, and that he subsequently took the Giessen doctorate. Now, why did he not take his medical degree at Durham? Why did he not take his surgical diploma in London? As he is practising in England, why does he not prefer the time-honoured English qualifications to Scotch qualifications? Why run after an unrecognised degree from a petty foreign university after matriculating at an English university?

Now, although I am not "ashamed" of my name, nor "afraid" to publish it, I should be ashamed to hold an unrecognised foreign qualification, and still more ashamed to use it in such a way that the public might mistake it for a respectable English qualification.—I am, sir, faithfully yours, M.R.C.S. & L.S.A.

ERRATUM.—In the JOURNAL for January 24th, page 119, column 2, line 22, for "unsuccessful cases", read "successful cases".

RAPID PULSE.

A LADY, aged 27, consulted me for attacks of wakefulness, from which she occasionally suffered. She was otherwise in perfect health, and was by no means of a nervous type. I was struck by the frequency of her pulse—150 in the minute. She expressed no surprise at this, as a physician two years before had mentioned it to her. The pulse was compressible and regular; the heart-sounds were normal, as was also the area of cardiac dulness. I examined her six months afterwards, as a matter of curiosity, and found the number of pulsations in the minute 140. She told me the ailment had entirely disappeared, and that she never felt better. She was never troubled with palpitation. J. J. MURPHY, L.R.C.P. & S.E.

18, Harcourt Street, Dublin, December 31st, 1879.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. T. Clifford Allbutt, Leeds; Dr. W. M. Ord, London; Dr. J. W. Moore, Dublin; Dr. J. Hughlings Jackson, London; Dr. A. Hughes Bennett, London; Mr. J. Greig Smith, Bristol; Mr. E. Nettleship, London; Mr. H. Greenway, Plymouth; Mr. T. M. Dolan, Halifax; Dr. T. G. Atkins, Cork; Mr. G. F. Masterman, Ixworth; Mr. W. R. Barker, London; Mr. Edward Cross, Manchester; Dr. J. Rogers, London; Mr. G. D. Brown, Ealing; Dr. A. S. Taylor, London; Mr. G. Homan, Lichfield; Mr. Spence, Edinburgh; Mr. J. C. P. Muir, London; An Associate; Mr. Rushton Parker, Liverpool; Mr. Shirley F. Murphy, London; Dr. Fancourt Barnes, London; Mr. Major Greenwood, London; Dr. J. R. Wolfe, Glasgow; Dr. Sawyer, Birmingham; Mr. Edward Stephens, Ilminster; Mr. E. P. Hardey, Hull; Dr. Channing Neill, Ryde; Mr. R. Cooper Todd, Folkestone; Dr. Norman Kerr, London; M.R.C.S.; Mr. Chamberlain, Leicester; Mr. C. H. Taylor, Bradford; Mr. Richard Jeffreys, Chesterfield; Mr. A. R. Manby, East Rudham; Mr. N. Annman, New York; The Secretary of Apothecaries' Hall; Dr. F. H. Parsons, Hastings; Mr. H. G. Edwards, Bangor; The Secretary of the Medical Society of London; Dr. T. S. Dowse, London; Mr. J. Fowler, Wakefield; The Registrar-General of England; Dr. Joseph Rogers, London: Mr. G. Eastes, London; Dr. J. C. Bucknill, London; The Registrar-General of Ireland; Our Paris Correspondent; Mr Noble Smith, London; The Secretary of the Harveian Society; Dr. Octavius Sturges, London; Dr. Pavy, London; Dr. Thin, London; Dr. Yandell, St. Louis; Dr. Anningson, Cambridge; Mr. Spencer Wells, London; Mr. A. Doran, London; Mr. K. Thornton, London; Mr. F. G. Larkin, London; Mr. J. Marshall, Dover; Dr. E. Hemsted, Wellingborough; Dr. H. C. Cameron, Glasgow; Dr. J. C. Murray, Newcastle-upon-Tyne; Dr. A. Carpenter, Croydon; Mr. G. Bury, Whetstone; Mr. J. Jones, Hornsea; Mr J J. Gawith, London; Mr. John Bernard, London; Mr. H. R. Oswald, Redhill; Dr. J. Morton, Glasgow; Dr. Tripe, Hackney; Dr. J. Stowers, London; Dr. J C. McVail, Kilmarnock; Mr. F. Y. Livy, London; Dr. R. W. Batten, Gloucester; Dr. Bishop, Edinburgh; Dr. Stephen Mackenzie, London; Dr. Brabazon, London; Dr. W. A. Sturge, London; F.R.C.S.I.; Mr. J. Huchinson, London; Dr. A. Samelson, Manchester; Mrs. Baker, Ipswich; Mr. W. E. W. Vaughan, Crewe; Our Glasgow Correspondent; Dr. R. Morgan, Holly Hill; Dr. E. Field, Bath; Our Edinburgh Correspondent; Mr. E. Meacham, Manchester; Mr. C. A. Rayner, Devonport; M.R.C.S.; Dr. Garson, London; Dr. Joseph Petit, Letterkenny; Mr. G. R. Parker, Haslingden; Mr. Graham, Keyworth; Dr. E. Crisp, Chelsea; Mr. J. Raby, Totnes; Mr. F. E. Elliott, Cardiff; Mr. E. L. Jacob, London; Mr. T. R. Allinson, Hull; Dr. J. W. Crowe, Hartlepool; Dr. Quain, London; Dr. W. F. Sweenie, Londonderry; Dr. Dyer, Sutton-in-Ashfield; Dr. J. Williams, London; Dr. J. Carnegie, Chesterfield; Mr. Thos. Dale, Liverpool; Mr. H. Yarrow, Chesterfield; Our Dublin Correspondent; Dr. H. Humphreys, Manchester; Antiseptic and Antisceptic; Mr. Edgar A. Brown, Liverpool; Dr. Diamond, Derry; Dr. R. Munro, Kilmarnock; Mr. E. T. Collins, Wednesbury; Mr. A. S. Duke, Rathgar; Dr. Spedding, Belfast; Dr. Mapother, Dublin; Mrs. M. O'Connell, Cashel; Mr. T. Burnie,N ottingham; etc.

ADDRESS

ON THE

OBJECTS OF THE BRITISH MEDICAL ASSOCIATION AND ITS PROGRESS IN IRELAND.*

By SAMUEL GORDON, M.D.Dubl.,
Ex-President of King and Queen's College of Physicians in Ireland;
Physician to the House of Industry Hospitals;
President of the Dublin Branch; etc.

It must always be a matter of great satisfaction to a president of any society, when resigning that position, to feel that he leaves the society in a more flourishing position, financially and numerically, than when he accepted office, even though, as in the present instance, he may feel how little of the increase is due to himself or to his exertions. Such, gentlemen, is your position to-day. The number of your members is larger, and your financial position is more satisfactory than this time last year; and what is of still greater importance, the Dublin Branch of the British Medical Association is more widely known and appreciated for its exertions in various matters of profound interest to the profession and the public.

The Irish members at large of the Association have every reason to be proud of the great success of the annual meeting which took place at Cork, during the past autumn. While this success was of course mainly due to the indefatigable exertions of the local president, whom we are glad to see amongst us to-day, and of the local secretary, at least some merit may be claimed by the members of the Dublin branch, who contributed largely by their presence, and that of their friends. Those members who were unable to attend suffered considerable loss, for at no previous meeting of the Association was there to be found a greater display of eloquence—a larger number of contributions—or essays more remarkable for their originality and practical nature; nor, though last not least, more conviviality. While the *savoir faire* was most fully attended to, the *savoir vivre* was not forgotten; and we have ample reason to know that our English, Scotch, and foreign visitors still retain a very lively recollection of beautiful scenery, genuine hospitality, profound eloquence, and comprehensive knowledge, imparted and acquired. Thus, one of the great objects of this Association was most fully sustained—"the provision for a means of personal and scientific intercourse among the members of the profession". The next object for which the Association exists (I go from below upwards) I find to be "The maintenance of a high ethical standard of professional conduct". With regard to this point I feel that I may simply say that the Dublin branch of this Association most largely supports it, and in the most efficacious manner—simply by their example—for nowhere is a more high ethical standard of professional conduct maintained and acted up to.

Our next object is "the encouragement of scientific and practical work, and the advancement of original investigation"; and, as the annual report read by our most efficient Secretary has just informed you, we were most ably represented at those very interesting discussions on the subject of "Animal Vaccination", which took place in the rooms of the Medical Society of London, at the instance of the Parliamentary Bills Committee of the Association. The amount of information elicited at those meetings, as to the results of the various modes of vaccination in this and other countries, was most valuable, and will doubtless form an admirable groundwork for Parliamentary discussion when Dr. Cameron introduces his promised bill into the House of Commons. It is to be feared that during the next session of Parliament, be it long or short, there will scarcely be an opportunity afforded for the discussion of even so important a subject. We have no doubt that Dr. Cameron, who has shown himself to be such an admirable representative member, will again be elected by the same most influential and numerous constituency, and be enabled to carry out most fully many prophylactic measures for the health of the community. And now Dr. Moore will favour us with a communication, on another means of preventing the spread of disease, namely, the compulsory notification of infectious epidemic disease. This has been already established in other parts of the kingdom, and, if it can be carried out without infringing unnecessarily on domestic privacy, would certainly be of great advantage. No doubt there are other grievances of a similar nature loudly calling for redress. Perhaps the most prominent amongst those is the permitted letting of unwholesome houses, only to be equalled, as a wise reviewer states, by the permitted sale of unwholesome food—except that the former is not a whit less in degree, but far greater in extent. The high and increasing death-rate of our city will, no doubt, also very soon engage the attention of this Branch of the Association, and we trust be followed as far as possible by satisfactory results.

But these are matters which for their complete and entire fulfilment require what we have not, a Minister of Public Health, if not to originate, at least to conduct all approved measures for the health and welfare of the community. The carrying out of one of our principal objects, "the establishment of a system of Public Medicine, and a staff of Medical Officers of Health", is of course, most intimately connected with this most desirable object. But how this is to be obtained I confess I cannot see; for the most cogent of arguments to my mind have been presented and failed to make any impression on the minds of our rulers. In the first place, they have had men most eminently fitted for such a position—men of experience, men who have given proof of their vast intellect and profound knowledge of all matters affecting the health and energies of the people, whose motto was "*non vivere sed valere vita*". These men, I blush to say it, who would have been prized and honoured and thought worthy of the highest place among cabinet ministers in other countries, have been used and utilised and then cast aside. When we add to this the argument which invariably succeeds in ordinary life—I mean self-preservation—when that fails to produce its usual effect, we may indeed begin to despair; and surely it is a melancholy reflection that among the highest in the land as well as the lowest, disease and death are actually invited by the ordinary neglect of ordinary sanitary laws, which would be an impossibility if there existed a Minister of Public Health—as a separate government department—aided by a staff of competent medical advisers. Had such an office, presided over by such an officer as I have above alluded to, existed some years ago, it is more than possible that the Prince Consort might be still alive, leading the unostentatious but most useful and influential life which we now know was his daily habit; the Prince of Wales would in all probability have escaped the all but fatal attack of typhoid fever, even at the expense of not proving the loyalty and affection of a large-hearted people; and within the last few days the energetic and comparatively youthful Serjeant Parry and his amiable wife would have not succumbed to a preventable illness.

But, to quote the words of that noble but unfortunate Lord Chancellor of England, Sir Thomas More, spoken three hundred years ago on another grievance—However slight may be the hope of obtaining any speedy redress, there is some satisfaction in earnestly protesting against this injustice; and, believing as I do, that if society continues to improve no injustice will long be permitted to continue after it has been fairly exposed and is clearly apprehended, I cannot but believe that a time must come when the rights of the medical profession will be acknowledged and its wrongs redressed.

"The promotion of improvement in medical education and examination" is another of our leading objects. What we have done in this most important matter has been fully detailed by your honorary secretary in the annual report, and does not require comment from me.

I have thus gone through our action during the past year in all but one of the various subjects which I find laid down in this circular as the great objects of this Association, and I think we may, without flattery, congratulate ourselves on the part which we have been enabled to bear in carrying out these objects during the past year. It is a matter of regret that some of those who assisted us have ceased from their labours and can help us no more. Their names are briefly recorded in our report. We have lost Dr. Adams, for many years a Fellow of this College in which we are permitted to assemble—full of years, loved and respected by all who had the privilege of knowing him—Dr. Burke, the energetic Registrar-General, Dr. B. F. McDowell, Mr. Ledwich, and Dr. Bookey, all known as most successful teachers. But in any allusion to those who have been lost to us during the past year, it would be almost criminal for an Irish Branch to pass over the death of Joshua Henry Porter; for, although not directly a member of this Branch, he was only not so because the Branch did not exist at the time when he appreciated the value of the Association, and joined its ranks. To some few of us he was known in his student days as the most intelligent and painstaking clinical clerk of his time, and, at the same time, the most genial companion. His watchful care over the patients entrusted to his charge, and the sense of responsibility which he felt, augured well for the further development of industry, observation, and conscientiousness when he came to be a qualified surgeon; and these three qualities he had, combined in a higher degree than perhaps is often met with; and, as a necessary result, his success in treatment was undoubtedly very great, and only to be equalled by the modesty which would make his greatest successes seem to be mere natural results.

Such was his character as an army surgeon in the days of the system

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* Read before the annual meeting of the Dublin Branch

—now to return no more—when the regimental surgeon's moral and professional qualifications were known to hundreds of watchful observers, high and low, and appreciated by them according to their deserts. I have more than once had the good fortune to meet him professionally in attendance upon his brother officers, and to be fascinated by the manner in which he combined the offices of the tender nurse, the judicious friend, and the skilful physician.

[Having further referred at length to the distinguished services of Surgeon-Major Porter, which have been given in our late obituary notice of this lamented officer, Dr. Gordon continued as follows.]

Mr. Porter was present at all the actions prior and subsequent to the capture of Cabul, and was indefatigable in his exertions to organise and administer the field hospitals and medical arrangements of the Cabul army. And yet, with all this enormous amount of work, he found time to send home to our journal by every post more or less accurate details of whatever was interesting in the medical history of the war.

His death, in the midst of his work, is greatly to be deplored; by officers and men alike he will be sorrowfully mourned. A hard-working painstaking officer; a sound practical surgeon; a careful operator, endowed with great common sense, quick in resource, genial and kind-hearted, he combined the thoroughly useful executive officer with the able administrator—he was, in fact, a *beau-idéal* army surgeon. He has died in harness, with the din of battle sounding in his ears, and he lies in an Afghan cemetery, surrounded by the soldiers among whom he lived, and worked, and died.

I hope and trust that his fatal illness (an unusually rapid pneumonia —on the 8th, the General telegraphed to his wife that he was very ill; on the following day, that he was dead) was not brought on by compulsory overwork, and that he had near him sound medical advice. On these points, we have as yet no sufficient information; but it is certain that, during the past month, the duties of the medical department were more than usually trying, for, in addition to the large number of wounded, small-pox was exceedingly prevalent in the cantonments of Sherpur, thus adding much to their labours and anxieties under these trying circumstances. We have no account of any additional help being sent, and it is greatly to be feared that such help was not forthcoming.

I am not one of those who habitually fall back upon the Government of the day to relieve themselves of responsibilities, and who attach the blame to them for all accidental or providential occurrences; on the contrary, I am always most anxious to give them the fullest credit for any boon or concession to our profession. For instance, I am satisfied that all in this assembly were most grateful for the promotion of our worthy friend Dr. Grimshaw to the appointment of Registrar-General for Ireland, as eminently the best fitted for the place; although I fear it may be the means of depriving our Association of very much of the active assistance which in past years we have derived from his labour. But it is, I fear, unfortunately but too obvious that in no walk of our profession, civil or military, are our services to the State as yet recognised. In the closing paragraph which the leader of English daily periodicals dedicated to our departed friend, it says, "The services of the medical staff are often too scantily recognised by the authorities, though remembered with warm gratitude by their combatant comrades who owe so much to them." Daily experience proves it to be so. Look to that now historic day of Rorke's Drift—one short year ago. The services of all the officers who fought there were recorded and immediately rewarded, excepting one, whom we number here among our ranks to-day. To him at length, when his country, his own profession, our University, this British Medical Association, unanimously award their highest praise, the Government of the day step in, and are shamed into awarding a prize, most noble in itself, but doubly prizeworthy had it been spontaneous. Their motto was rather the opposite of *bis dat qui cito dat.*

I have been led into these remarks by finding that the remaining object of this Association is "the defence of the interests, and the improvement of the position and efficiency of the Medical Services of the Army, Navy, and Poor-law". But time would fail me to enter further into the various measures still required to make these branches of the public service popular as they ought to be. I do not mean places easy of access, or couches of repose, but ground-work, untrammelled by unnecessary or unjust restrictions, upon which gentlemen of education, energy, and self-respect may raise monuments of scientific truth, manly courage, and chivalrous enterprise, redounding to their own honour and to their country's fame; and, until that day comes, while we still labour under all this neglect, and worse than neglect, what is to be our action? I reply, self-reliance. As a profession, we continually show how increasingly unselfish are our aims and motives. Daily and hourly the medical profession is becoming more and more a science of prevention of disease, which is now being cultivated as largely as possible under adverse legislation, but, therefore, as a matter of necessity, of decreasing pecuniary emolument. And while much may be accomplished by means of individual industry and energy, the help which we derive from others in the journey of life is often of the greatest importance; and thus we are brought back, as Wordsworth has it, from our manly independence and manly self-reliance to the manly dependence and manly reliance on an Association like this, to work out together the noble objects which we have at heart—the elevation of our profession to the highest summit of efficiency and renown, and the welfare and happiness of the human race.

REMARKS
ON
TUMOURS OF THE CEREBELLUM.

By J. HUGHLINGS JACKSON, M.D., F.R.S.,
Physician to the London Hospital, and to the National Hospital for the Epileptic and Paralysed.

CHARLES M., aged 35, was admitted under the care of Dr. Sutton, August 30th, 1879. Dr. Sutton made the diagnosis of disease of the cerebellum. The patient was later on kindly transferred to my care. (The notes of the case were taken by Mr. Lawton and Mr. Lloyd Jones, Dr. Sutton's house-physician and medical assistant, and also by my house-physician, Dr. Jones, and by Mr. Richards, medical assistant.) The patient was a healthy-looking man, and had had, except for rheumatic fever, a healthy life until the fatal illness. The duration of the illness altogether was from about January 1879, but at first there was only a complaint of stiffness of the neck. The marked symptoms were of about three months' duration; he was at his work as a law-writer until his admission, August 30th, 1879.

The first thing he noticed, beyond mere slight stiffness, was that, when writing, his neck would become suddenly stiff and painful at the nape, preventing his bending his head over to the desk. The attacks came on irregularly, and at first he ascribed them to excitement caused by having to control what he called the "drunken set" he had to overlook. The attacks of pain in the neck and stiffness generally began with a throbbing pain in front of his throat; and this pain, as he expressed it, flew backwards, drawing his head back. Sometimes, for a day, his head would be drawn a little back, and go further back in paroxysms. He slept well, having no paroxysms at night. About a month before his admission, he felt his feet tottering when he got up to walk, but he walked well when fairly started. About fourteen days before admission, his eyesight became dim.

On admission, August 30th, the patient had pain in the back of the head. He had double optic neuritis, with impaired vision. His other special senses were normal. He had occasional vomiting. His head was constantly drawn back, and occasionally he had paroxysms of greater drawing back, lasting two or three minutes. On one occasion, to relieve himself, he lay on his belly, with his chin resting on the pillow. Sometimes the occiput would touch the spine; and, in the earlier notes of his attacks, his body is said "to be drawn back, and that he is in a state of opisthotonos". On September 25th, he had an attack of greater range, in which there was twitching of the limbs, with great retraction of the head, and opisthotonos; there was also some nystagmus, the exact nature of which is not mentioned.

He was later on transferred to my care. On October 6th, I saw him. His head was then drawn back, but, at my examination, he was not in a paroxysm. When taken out of bed, he could walk, but reeled, although very slightly. When sitting, his legs acted strongly whilst endeavouring to overcome our resistance to flexion, extension, and to raising his knees. His arms were not affected. Patellar tendon-reflex was normal.

He continued subject to the paroxysms. On October 11th, he had paroxysms nearly all day long. A diagrammatic sketch of the patient in one of them was taken by Dr. Stephen Mackenzie, whilst the patient was standing. It was of necessity taken rapidly. I noticed spasm of no other parts than of the muscles of the spine, and in particular that the masseters were not engaged. Possibly part of the incurvation of the back was compensatory. To my astonishment, the patient died the same day.

There was found, *post mortem*, a tumour, about the size of a walnut, in the inner part of the left lobe of the cerebellum, reaching up to the middle lobe. It was a sarcoma, cystic in its interior.

The symptoms may be put in two classes: 1. Those which pointed simply to the existence of local gross organic disease of some kind; 2. Symptoms which localise: (*a*) Retraction of the head; (*b*) paroxysms of increased retraction; (*c*) an unsteadiness of gait.

Before considering either set of symptoms, it may be remarked that tumour or abscess of part of the cerebellum may exist without any marked symptoms. This may be affirmed of the cerebrum also. A patient may for a long time have symptoms so slight that he takes no notice of them, when suddenly he has a convulsive seizure, or becomes apoplectic, or dies suddenly; *post mortem*, we find abscess or tumour of the cerebrum or cerebellum; in the case of tumour, we find occasionally hæmorrhage from that tumour. Or a patient is under our care for some non-cerebral ailment, and we find tumour or abscess *post mortem*, although the existence of any kind of intracranial disease was never suspected during the patient's life.

1. *Symptoms pointing only to Gross Organic Disease of some kind within the Cranium.*—(*a*) Double optic neuritis was found on the patient's admission; his sight began to fail about fourteen days before admission, but no doubt his discs were abnormal before that time. It is well known that very strikingly abnormal ophthalmoscopical appearances may exist before sight becomes defective, and that neuritis may pass away, probably always leaving some relics, without leaving defect of sight. Optic neuritis is of no value in localising disease in any part of the cerebrum or cerebellum. It has been said that tumour of the cerebellum, of the middle lobe especially, produces blindness by pressure on the corpora quadrigemina. Admitting that this may be so, it remains that in all cases I have yet seen or heard of of defect of sight with cerebellar tumour, there has been optic neuritis, and thus the defect of sight may be accounted for in another way than by the pressure hypothesis. In one case of tumour of the middle lobe, there was optic neuritis when the patient's sight (a child) was such that he could see a hair on his pillow. As a matter of fact, a defect of sight from intracranial tumour is not caused, in the majority of cases, because the tumour involves any known part of the optic nervous system (corpora quadrigemina, optic tracts, or optic nerves); it is therefore, in most cases, not caused by destruction of any part of the cerebrum or cerebellum. (It may be that symmetrical disease of Ferrier's centres of vision produces defect of sight.) Optic neuritis results in an indirect way. By some unknown process, the tumour (or other adventitious product) leads to changes in the optic nerves, on which blindness may or may not follow. Again, in some cases of even large intracranial tumour, there is no optic neuritis. It may come on years after the first symptom of intracranial tumour. (*b*) *Headache.* Probably the pain at the back of the head was partly soreness, the result of dragging by the retracting muscles. There appears to have been no excessive pain. Pain at the back of the head is not to be trusted for the diagnosis of cerebellar tumour. (*c*) *Vomiting* is not a symptom peculiar to cerebellar tumour. Probably it depends rather on acuteness of process than on position of tumour.

To summarise: the three symptoms mentioned are of no value in localisation. They are not decisive evidence of local gross organic disease; such disease may exist without them. They are, nevertheless, the best evidence of gross organic disease (renal disease being excluded).

2. *Localising Symptom.*—As aforesaid, there may be no marked symptoms in cases of cerebellar tumour or cerebellar abscess. I have seen a tumour in each lateral lobe of the cerebellum in a man who, fourteen days before death, had no motor symptom except paralysis of one arm, which was accounted for by tumour of the hinder part of the uppermost frontal convolutions. Beyond question, whether we have motor symptoms or not from cerebellar tumour depends on the size of the tumour, on the rapidity of its growth, on the softening it produces, and, of course, on the exact position of the tumour. Then we have to bear in mind that, during the last part of the illness, in most cases, the patient is obliged by pain and misery to keep his bed, and testing his locomotion is not possible. (Tumour under the tentorium probably produces more disturbance by pressure than cerebral tumours do.) I think Nothnagel is right in his opinion that disease of the middle lobe is more likely to be attended by reeling than disease of the lateral lobes. Reeling is the earliest motor symptom from cerebellar disease.

It may be well here to speak briefly of the several motor symptoms or conditions found in some cases of cerebellar tumour.

There are three motor symptoms which may occur with tumour of the cerebellum. They have their analogues in cerebral disease: (*a*) Reeling; (*b*) A certain persisting rigidity; (*c*) Tetanus-like paroxysms. Reeling, I think, is, or at least depends on, a cerebellar paralysis, the analogue of the hemiplegia in cerebral paralysis; persistent rigidity is the analogue of the well-known rigidity in hemiplegia, and the tetanus-like seizures of unilaterally beginning convulsive seizures from cerebral cortical disease. (After some unilaterally beginning convulsion, there is temporary paralysis of the parts first and most convulsed. I have yet no facts as to anything analogous in cerebellar disease.)

(*a*) Reeling is the earliest motor symptom. It is not the gait of locomotor ataxy, nor that of paraplegia. It is like the walk of a drunken man. It occurs in some cases of ear-disease, often acutely in paroxysms (Menière's disease), or sometimes chronically. It is essentially a swaying of the trunk from back to front, and from side to side. It is masked in some slight cases by the patient's walking with his legs apart; by this means, slight inclinations of the trunk are neutralised. The gait is worse when he walks with closed eyes. In early stages, in slight reels, I believe, the real fault is paresis of movements of the spine answering to the swayings of the trunk. The legs act erratically, but, in an early stage, they are blameless; they act erratically because they have to "run after" the trunk, to prop it up in its various over-inclinings. The legs often blamed are really doing more than their duty. In cases of paralysis of the extensor of the feet, the patient lifts his legs highly; to a layman, his defect would appear to be that of lifting the legs highly. But this movement is "necessitated" by the paralysis of the extensors. To blame the legs in an early stage of cerebellar reel would be like blaming the leg-lifting movement. If the true fault in cerebellar reeling be paresis of the movements for bracing up the spine, we see that the essential fault in the reel is a partial paralysis.

I suppose no one nowadays would confess to a belief in a faculty of co-ordination, nor to a belief in a co-ordinating centre, but that all consider every nervous centre, whether spinal, cerebellar, cerebral, or sympathetic, to be a centre of co-ordination, and that only in the sense of its being a part where these or those impressions and movements are represented in this or that degree and order. So those who hold that the cerebellum is the centre for the most special and complex co-ordination of locomotor movements mean, that it is a centre where the most special and complex of those movements are represented. This is only another way of saying that the cerebellum represents especially those movements which are bilateral or alternate. If we take count of all kinds of locomotion (and, indeed, of equilibration, whether statical, as in standing, or continually changing, as in progression), we see that the usual statement as to the chief functions of the cerebellum is equivalent to saying that it represents movements of all parts of the body. We must not use the term locomotion for walking only. In swift running, the body is bent forwards, the jaws and face are in action, the arms swing, and professional runners carry cork in their hands to prevent the nails from hurting the palms. We have to study all degrees of locomotion, from getting up to swift running, with the aim of ascertaining *the order* in which movements of different parts of the body are represented in the cerebellum. We see, I think, that muscles first in action are the spinal; they get into very strong action in swift running; the body would fall forwards if not held up. The reel is, I think, owing to paresis of movements of the spinal column. If so, the true morbid condition in the reel compares with hemiplegia, and not with chorea, the movements of which, even on a very superficial glance, differ *toto cœlo.* If we look at the choreal limbs and at the legs in the reeling man, we may properly say that they are both disorders of co-ordination; but, in the former case, the movements occur at any time (from increased cerebral discharges); in the latter, only when the patient is trying to move, and then they are "necessitated" over-movement, to compensate for the loss of other (spinal) movements. A truer analogue of the cerebellar reel is the tremor of disseminated sclerosis, in which there is also paralysis. (Judging by the analogy of other cases, the condition will be more complex than this. From energising of the diseased centre, there will probably be underdoing of some of the spinal movements, and overdoing of others.)

It is quite true that, in cases of complete paralysis, with atrophy of the spinal muscles, say the erectores spinæ, we have no such reel as in cerebellar disease. But the cases are different. A lesion of the anterior horns of the spinal cord destroys the action of some muscles altogether; this is a very different thing from loss of some movements of the spinal column. Again, in the paralysis with atrophy of some muscles, the patient walks by "dodging" the paralysis (just as we see other patients "dodge" the effects of paralysis of an external rectus); even then, he walks badly, has a veritable inco-ordination of locomotion, although not one so complex as a reel.

(*b*) *Cerebellar Rigidity.*—Just as rigidity ensues in some cases of cerebral paralysis (hemiplegia), so it does in some cases of cerebellar paralysis. In the latter, the spinal muscles first become rigid, drawing back the head, and curving the spine; ultimately the legs and arms are rigid. This universal rigidity as a condition from cerebellar tumour I have seen only when the tumour has been of the middle lobe. I may here say that I am indebted to Dr. Stephen Mackenzie for the drawings of the case, and also for most valuable help in the investigation of cases of cerebellar disease. In cases of hemiplegia, the rigidity is contemporaneous with the ensuing of Wallerian wasting in the spinal cord. Whether there is a "descending" wasting in cerebellar rigidity I do not know. I would remark that the rigidity in cerebellar disease differs from the rigidity of paralysis agitans; in the latter, the body is bent forwards; in the former, backwards.

(*c*) *Tetanus-like Seizures.*—Besides rigidity, we find in some cases of tumour of the middle lobe attacks very like, if not quite like, those of ordinary surgical tetanus. I have only once seen seizures like tetanus in a case of local cerebral disease, and, in that case, they occurred during the last hours of life, during dying. Dr. Gowers discovered no cerebellar lesion; there was large cerebral tumour corresponding to hemiplegia. In the case of extensive rigidity and tetanus-like seizures, the tumour has been of the middle lobe, and has been large. I suppose the cerebellar rigidity to be owing to unantagonised cerebral influx (rigidity in hemiplegia being owing to unantagonised cerebellar influx), and the tetanus-like seizures to be owing to cerebellar discharges analogous to those cerebral discharges which produce unilaterally beginning (epileptiform) convulsions. But there is the obvious objection that the two symptoms with cerebellar disease may be owing to interference with the corpora quadrigemina (electrical excitation of which, Ferrier finds, produces tetanus-like states), or to interference with the medulla oblongata.

Hitzig and Ferrier have convinced most people that some parts of the cerebral cortex represent movements; and Charcot, by a very different kind of evidence, clinical and pathological, has confirmed their opinions. I have long wished to ascertain if the cerebellum cannot be broken up into regions, each representing especially some movements of the body. In the case of the subject of this paper, there was a very local movement—a local tetanus. That the drawing back of the head in paroxysm, was owing to discharge of some part where the movements for drawing back or supporting the head are represented is a truism. But I do not draw the inference that it was the part in which the tumour lay. For, besides objections already stated, I have but one case. If the discharge were of the cerebellum, it may have been of some part of the middle lobe. Of course, the discharge would be of nerve-*cells*, rendered highly unstable by action of the tumour; and it does not follow that the *nearest* cells would soonest become unstable; probably small cells become unstable before large ones. Another important thing is that one would suppose the movements of drawing back or supporting the head to have a wide representation; and we could, I think, only expect to find some part of the cerebellum, on each side doubtless, where movements of the head are chiefly represented. There are clinical difficulties. Drawing back of the head occurs in cases of meningitis. But plainly the best cases for investigation of regional localisation are cases of small tumours producing a chronic illness.

Occasionally we meet with other local tonic spasms, sometimes of the jaws. Of the pathology of these cases I know nothing at all. I would suggest that the cerebellum should be carefully searched, as well as other parts, in all cases of local tonic spasm, including ordinary torticollis. I think there is evidence that, in some parts of the cerebellum, there is an unilateral representation in the order from trunk movements to movements of the hands and feet. I have no doubt that Brown-Séquard is right in saying that tumour pressing on the crus cerebelli produces paralysis of the same side; and I believe this is mainly of movements of the trunk and those passing to the upper parts of the limbs. The erratic movements of the arm in some of these cases partly depend, I think, on paresis of muscles attaching the limb to the trunk.

There are indirect symptoms from tumour of the middle lobe and large tumours under the tentorium. There is vast increase of fluid in the lateral ventricles of the cerebrum in some cases. In children, the head enlarges; there is great hebetude of mind, a slow failure of mental faculties. This I used to suppose to be caused by pressure on the veins of Galen. Dr. Stephen Mackenzie, in an admirable paper on Cerebellar Disease, recently read before the Hunterian Society, suggests as an additional and more important factor closure of the communication between the ventricles and subarachnoid space.

LONDON HOSPITAL SUNDAY.—At a meeting of the Council of the Hospital Sunday Fund, the various committees were re-elected unanimously, Mr. Alfred Willett succeeding the late Mr. Callender on the Distribution Committee. Mr. R. B. Martin and Sir E. H. Currie were reappointed Honorary Secretaries, and Mr. Henry N. Custance Secretary for the current year. It was resolved, in answer to an application from the Royal Hospital for Incurables to participate in next year's fund, to invite them to send a deputation to the Council on the subject.

ADDRESS
ON
PRIVATE LUNATIC ASYLUMS.*

By JOHN C. BUCKNILL, M.D., F.R.S.,
Late Lord Chancellor's Visitor in Lunacy.

THE questions connected with this subject, which your worthy Secretary has requested me to introduce to you, are so numerous and complicated, that I must attempt some delimitation of them by asking you to consider, in the first place, on what grounds medical men generally are interested in the existence of private lunatic asylums, and in the laws under which they are established and to some extent regulated. If it be true, as is maintained in the most recently published work on lunacy law, that "insanity is a purely relative term, at times employed to designate *conditions of the mind* which are only diseases in the same sense that general debility is a disease, or in the same sense that bodily fatigue or want of change of air are diseases, and that every passion and emotion may, in prolonged excess, be said to constitute a degree of mental disorder"—if this be true, I cannot claim for the medical profession the right to arrogate any authoritative judgment upon the manner in which such "conditions of the mind" should be dealt with. But if insanity be a bodily disease, then medical men have a clear right to discuss, and finally to decide upon, the proper manner of its treatment; and the necessity, utility, and management of private lunatic asylums clearly come within the scope of such a discussion. I think that not only the conviction of the profession, but the opinion of the public, will affirm the latter proposition, notwithstanding the operation of laws which have come down to us from times when insanity was thought to be something apart from disease—laws which have indeed been patched and enlarged as the crying needs of the time demanded, but which substantially deal with persons suffering from diseases affecting the mental powers in a different manner from that which is customary with regard to all other diseased persons.

The operation of these laws has tended, and still more and more tends, to sequester the insane from the care and treatment of the medical profession at large; to render more and more perplexing, dangerous, and difficult the medical treatment of any single case of lunacy; to herd lunatics together in special institutions where they can be more easily visited and accounted for by the authorities, and to create a class of men whom these authorities can make responsible to themselves for the confinement and detention of the insane, according to certain regulations, but whom they do not and cannot make responsible for their proper medical treatment. It would, I think, be an excellent subject for one of our future discussions, to inquire to what extent the herding together of lunatics is beneficial or mischievous, even in those most creditably managed institutions for our destitute insane, which are more almshouses than hospitals—I mean the county asylums. But our present inquiry is restricted to institutions for the not destitute insane, institutions which certainly are not almshouses, and which, I am prepared to maintain are not hospitals. In what manner shall we regard these places for the confinement and detention of diseased persons, and to what degree are we called upon to extend our feelings of professional brotherhood and sympathy to the men who own them? Surely, none of us can fail to feel and respond to the "strong claim on the kindly fellowship and protection of the whole profession" of all medical "practitioners" honourably engaged in the treatment of the insane, and surely we should deny and resent any "inconvenient and unfair aspersions which have been made upon their conduct". But surely, also, there is a line of distinction to be drawn between the practitioner and the proprietor; and, although fairness is due to every one, I do not see, unless perchance I may be the proprietor of an asylum, why I should be bound to extend fellowship and protection to every one of that class. To take a parallel instance; say that I am a ship-doctor, one of a most useful class of practitioners, towards whom we all feel the fullest professional fellowship. But I am also owner of the ship, or of shares in shipping; surely, I have no claim upon your fellowship as a ship-owner. Doubtless the cause of the jumble of ideas on this subject which is entertained by the public, and from which the profession is not free, is, that doctors are generally associated with asylums and asylums with doctors; but, in reality, the pecuniary interest of medical men in private asylums is much smaller than you would suppose to be possible. There are ninety-eight private asylums in England and Wales; and of these, forty-nine—being just one-half—are licensed to medical men alone, the remaining half being licensed to lay men or to women, or to medical men in partnership for this purpose with lay men or with women. Moreover, of the asylums licensed to medical men, the proprietors of many of the most important ones are capitalists, or speculators, or trustees, or inheritors, or hilt-deep mortgagees to whom they are not licensed, and whose names do not appear.

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* Read before the South London District of the Metropolitan Counties Branch.

There are, therefore, two classes of persons connected with private asylums who stand towards us in very different relations. First, there are the practitioners, whether paid by fee or by salary, to whom the whole profession owes kindly fellowship and protection; and secondly, there are the proprietors of asylums, who may or may not be medical men, and whom we may fairly be allowed to criticise—whom, indeed, it is our strict duty to criticise—in the interests of our profession, of the public, and of those diseased persons whom they are permitted to hold in confinement.

Now a great deal of misleading analogy has been drawn between the action of medical men, who in the ordinary practice of their profession receive payment in fees for their services, and that of the proprietors of lunatic asylums, who receive payment for the maintenance and detention of their inmates, which payment, in so far as it exceeds the cost of such maintenance, is their profit. I can perhaps scarcely do better, to illustrate this constantly recurring analogy, than by quoting two passages from recent works on the subject of lunacy law reform. Dr. William Wood, in his recent pamphlet on the *Lunacy Law*, expresses his opinion that "if care be taken that no patient shall be improperly placed in an asylum, there is no serious wrong inflicted on him if one who has been admitted under these precautions *be kept for some time after his apparent recovery*"; on the ground, as he explains, of the possibility of relapse. Dr. Wood proceeds to say: "Unworthy motives are not attributed to the surgeon who prolongs his attendance on a patient who has broken his leg, and who thinks it his duty to watch and guard against imprudent and premature use of the limb, *though the bone has united*. Why should not a physician in charge of an insane person, and why should not the friends of a patient, have the same measure of justice meted out to them as is without hesitation accorded to the surgeon." (P. 57.)

Now, without commenting upon the justification of one of the peccadilloes of private lunatic asylums, the detention of patients after their apparent recovery, it must be observed that any surgeon who did act in the manner supposed would most certainly have unworthy motives attributed to him. Only, to make the analogy fit the case, this surgical patient must be put in such a condition that he can in no way help himself, and he must also be supposed to be incapable of saying to the surgeon that he had had enough of him, and also it should be assumed of him that his surgeon was paid by a third party, whose interest it might be that the bone should not speedily unite—of a child away from its parents, for instance, lying at an hotel. But, in reality, the fees of medical men, even under the old system of charging for medicines, are not profits. They are charges for work and skill made upon, and paid by, voluntary agents, whereas the profit of a private asylum proprietor is that portion of the payment which is in excess of the cost, and which is great in proportion to the diminution of cost, and valuable in proportion to its continuance; and, in the well considered words of Mr. Wilkes and Mr. Lutwidge, reporting to Her Majesty on this very question, "We fear it must be confessed by all that, where profit is the aim, it will too generally be pursued to the prejudice of those from whom it is derived." (Report of Royal Commission on Lunatic Asylums in Ireland, 1858, p. 32.) Or, in the vehement words of Lord Shaftesbury: "This *vicious* principle of profit runs through the whole." "I have no doubt that in the majority of instances, where they are acting on that *abominable* principle of profit, they screw them down to the lowest possible point." (P. 100, Select Com. Report, 1859.)

I said that I should make two quotations to illustrate the analogy which is often drawn between the action of medical men in the open profession, and of men, medical or not medical, dealing with diseased persons in asylums. The second quotation is from a speech of the late Mr. Wakley. I quote from that work — full of information and suggestion in lunacy matters—*The Care and Cure of the Insane*, by Dr. J. Mortimer Granville, according to whose quotation from Hansard, 3rd series, vol. 59, Mr. Wakley, in August 1841, said in the House of Commons: "I entreat the House to observe the operation of the law as regards lunatics. Suppose I have a relation who is possessed of a large fortune. I perceive certain eccentricities in the conduct of that individual. From the great affection I have for that relative, and the still greater affection I have for his property, I cause a commission of lunacy to be issued out, and, discovering him to be insane, place him in confinement. Then what motive of action is given, under the present system, to the person in whose charge the lunatic is placed? Why, it calls into operation the principle of selfishness common to human nature. The proprietor of the asylum will argue that he gets £400 a-year for the charge of the gentleman so long as he remains under that roof; and if he recovered, then he, the proprietor, would lose that annual amount. Suppose an honourable gentleman were to go to a doctor, and say, 'My liver is diseased, and so long as it remains so I will give you £100 a-year!' What motive in such case would be given to the doctor?"

The quotation proves how forcibly the situation was even then comprehended by this "clear thinker and bold speaker"; although, to construct his analogy, he was obliged to suppose the existence of such an agreement as is never made in the open medical profession. I have heard that, in China, medical men are paid salaries so long as their patients remain in good health; but a stated income received from a patient during the continuance of disease is, so far as I know, a thing unheard of out of asylums. I beg you to observe that all I have been saying has reference to the unchanging, and I fear unchangeable, principles which underlie human activities. I might have a good deal to say on the details of asylum management, if I thought it needful or desirable to do so; but I desire to put aside every word which may be construed to have a personal reference, and to ask your opinion, on the broad ground of principle, whether it is right that diseased and helpless persons should be detained and confined in asylums for the profit of private individuals; the amount of that profit depending upon what these individuals choose to expend upon the comfort and enjoyment of their inmates, and its continuance upon the duration of the disease, or what they choose to think its duration. May I not fairly ask you to consider what can possibly justify the existence of these institutions for private imprisonment, owned and kept by private people, lay and medical, male and female; there being nothing like a parallel instance in which the liberty of Englishmen is submitted to such control? In former times, indeed, debtors were permitted to be kept in durance by sheriffs' officers; but a sheriff's officer was not quite a private individual, and the thing was felt to be a scandal, and was abolished. Control over the liberty of children is to a certain extent transferred from their natural guardians to schoolmasters; but this only lasts for a few months at a time, and the restraint imposed is a very different thing from the detention of a lunatic until he be discharged or die. But, the existence of these institutions being unquestionable, may I not further ask what good reasons can be given by medical men for sending patients to them? We know pretty well what the motives of relatives are for so doing: separation from and safe guarding of the patient, secresy, and perhaps the hope of cure. But have we, as medical men, any clear knowledge of the medical treatment carried on for purposes of cure in these places? Have we, as medical men, any assurance that secresy will be observed when it is right, and not attempted when it is wrong? Above all, can we have any confidence that when, with or without medical treatment, our patients have recovered in these places, we shall be permitted to know the fact? or, if we should be so bold as to think that we have observed it for ourselves, are we sure that we shall not be contradicted and deceived? Are we sure that our recovered patients will not be indefinitely detained, under the supposition that they only appear to have recovered, and may possibly have a relapse? Perhaps I may be wrong in the opinion that, under the best treatment and the most auspicious circumstances, patients do not often attain to perfect recovery in asylums, any more than they do so in fever-hospitals; the last touch of treatment wanted being the cordial restorative of home or the tonic of liberty. But do not the proprietors of asylums often recognise the persistence of symptoms of insanity in patients who appear to us to have recovered, which no one else can observe? If the matter were not too sad and serious, I could amuse you by descriptions of the manner in which I have myself been kept at bay in my diagnosis of recovery; for although, upon sufficient evidence, you may make up your mind with certitude as to the existence of mental disease, it requires great pains and patience and knowledge of your people to avoid being misled as to the possible existence of symptoms which you may not be capable of observing or of denying. Suppose, for instance, that the proprietor tells you that your patient, who appears to have recovered, has had a slight stroke, with a little facial palsy and some slight mental obfuscation, which passed off the day before yesterday; or that he has had two or three slight epileptic seizures, and has been a little fierce and angry just after them; or that he hears voices at night and denies them in the morning,—upon what principles of diagnosis are you to determine that the gentleman is drawing upon his invention for his statements, and that he will not be inconsolable should the relapse occur which he assures you that he is anticipating?

But, as I have referred, however slightly, to my own unfavourable experience, let me also say that I have met with and had the pleasure of knowing some men who are the proprietors of asylums, who are as honourable and truthful and just as any men in existence; who forget their profits, and, as physicians, treat their patients with unfailing humanity and generosity and skill; whose doors are freely open for patients to leave with the earliest indication that change will be to the patients' advantage; whose asylums are somewhat like lunatic clubs, in which the residence of patients is to a great extent voluntary; whose excellent practice, were it general, would go far to redeem a bad system; and whose active usefulness must survive any reasonable and beneficent change in the lunacy law. Of the present position of such men or of such a man in such a system, one can only say, "Que diable allait-il faire dans cette galère?"

But what to do?

In the first place, I may broadly state my opinion that no change of the law can be satisfactory which does not contemplate the eventual abolition of all private lunatic asylums. The deprivation of the personal liberty of any of the Queen's subjects is an affair of the State, and must only be undertaken by the State. From that axiom there must be no flinching. Such asylums as I have last described may survive, under some other name, as voluntary retreats for persons of defective or damaged mind. For lunatics who must be confined against their will, asylums ought to be provided by the State, and managed by boards of governors. Moreover, the care and treatment of quiet and harmless cases of insanity by the open medical profession in domestic life, as single, or double, or treble cases, ought to be encouraged by the law and its administrators, and not discouraged, as it is at present. It may be very convenient to Commissioners that the insane should be gathered together in large herds or groups; but it is not to the advantage of anyone else except the custodians; and the Commissioners must eventually conform to the requirements of the age, and prepare to inspect the treatment of the insane wherever it is most convenient for the insane to be treated. And the idea of making everything smooth and easy for official visitation, which reached its climax in a proposal that for the convenience of the Commissioners every asylum should be close to a railway-station, must be replaced by wider views of official duty.

The discussion of the large question of certification may well be postponed to another opportunity; only I may observe that I think that no tinkering of the present certificate-system will suffice to make it safe to the practitioner or satisfactory to the public. The medical man ought to be put firmly upon his right footing as the exponent of scientific opinion; and the action taken upon evidence of that opinion in so grave a matter as that of depriving a man of his liberty ought to be no less than that of the civil power, whatever may be determined for the best as to the judge, or the court, or to the form of inquiry.

Moreover, great changes are needful in the administrators of the lunacy laws. The Commissioners in Lunacy are administrators in the metropolitan district, and inspectors only in the remainder of England and Wales; and it is very certain that the worst asylums to be found in the country are under their immediate jurisdiction. If their Board is to survive a thorough reform of the lunacy laws, they ought at least to resign the control of the metropolitan asylums, and to install the justices of the peace of the counties of Middlesex, Surrey, Kent, and Essex in the same authority which the justices of the peace possess in all other counties, the Commissioners themselves exercising everywhere an uniform power of inspection, report, and superintendence. But a more extensive change is still more needful and important, which would render needless this local and partial change. There are socially and logically but two classes of lunatics in the community, those who are destitute and those who are not; and there ought, accordingly, to be only two authorities to administer the lunacy laws, and two laws for them to administer, as they severally regard these two distinct classes of the insane. The present division of authority between the Lord Chancellor's Officers in Lunacy, the Commissioners in Lunacy, the Local Government Board and the Boards of Guardians, the Visiting Justices and Visitors of Asylums, the Boards of Clevedon and Caterham, etc., is intricate, confused, and mischievous. Instead of this, the Local Government Board, or the Minister of Health when he is appointed, ought to be placed in authority over all subordinate authorities having control over the care and maintenance of all destitute lunatics; and the Lord Chancellor's Officers in Lunacy, or, to speak with more technical accuracy, the Lord Chancellor with all his subordinate officers in lunacy, under the Royal Prerogative, ought to have authority over all other lunatics and persons charged with their care and control. This change would leave no sphere of action for the present Board of Commissioners in Lunacy, the members of which might well be distributed between the two new and enlarged authorities, half of them going to the Local Government Board, and half of them to the Lord Chancellor. Upon this broad basis, the details of lunacy law reform could be built up with symmetry, science, and effect; but, without some broad basis of this kind, founded upon a logical principle, any reform of the lunacy laws which we may expect will be but some tinkering of the old pot where the light of day most inconveniently shines through its rust-eaten sides. Be assured, however, that the longer reform is delayed the more comprehensive it will be when it does come; for the history of social politics is the opposite of that of the Sibylline leaves, and generally the longer you wait for it the larger it becomes. In the meanwhile, be it our duty, both collectively and individually, to strive that this most pitiable and helpless class of diseased persons, from whom the profits of private lunatic asylums are derived, shall not suffer longer than we can help under the disadvantages of this worn-out old law. Sequestrated as they have been from our professional care, they are still, as diseased persons, the proper objects of our interest and regard; and we owe it to them, not less than to ourselves and to our profession, to strive that the law which governs their care and treatment shall be conceived and executed in the spirit of benevolence, of the scientific knowledge of disease, and of the true relations which the ethics of our profession teach as being consistent with the true dignity and welfare of both medical practitioner and patient.

ON ERYSIPELAS OF EPIDEMIC TYPE.*

By Sir WM. R. E. SMART, M.D., K.C.B.

The observations I am about to offer are derived from occurrences within the experience of our naval hospital establishments, especially that in this port. Premising that erysipelas in all its forms would seem to have risen into importance, so far as it concerns the navy, within the present century, previously to which it appears rarely in the records of that service, I proceed to offer my remarks for your consideration.

It is found in the records of Haslar Hospital that, during twenty years, from 1856 to 1875 inclusive, there were only two quarterly periods—June 1867 and September 1869—without admissions for erysipelas, which proves that the specific causations of that disease are ever present, awaiting only the action of secondary agencies for their development.

The number of cases treated during that period was 519, giving a yearly average of twenty-six, with minima of twelve, seventeen, and eighteen in 1869, 1870, and 1871 respectively, and a maximum of sixty-one in 1874; the nearest approach to which was forty-one, in 1856. Thus 1874, with its unusual frequency, is singled out as an epidemic year, the preceding and succeeding years, 1873 and 1875, having each only twenty admissions.

Erysipelas is a disease of debility in its surroundings as well as in itself. Its chosen *habitats* are in low courts and alleys, in crowded hospital wards, where it becomes endemic and sometimes epidemic. As regards individuals, it attacks the needy and careworn, or the over-anxious, in preference to those in better circumstances and condition; but the otherwise strong and healthy, as in the instances of sailors and soldiers, are not exempt, as shown in these records. Whether in 1874 they suffered disproportionately to the general population of Portsmouth, there are no data to guide an opinion.

There is scarcely any disease in which the signs of superinduced adynamia are more marked; and, moreover, the comparative results of opposite principles of treatment afford a physiological test of the inherent depression characteristic of erysipelas and all its congeners. It is quite safe to say that, under the old system of treatment by depletory measures, the milder forms were converted into the more severe, and deaths were much more frequent than they have become now, under the contrary principles of treatment. Whether it be idiopathic, traumatic, or puerperal, it is, in all cases alike, a disease of well pronounced debility; and it may be not far wrong to conclude that, with never absent sporules, the causation of epidemic intensity may be in the casual prevalence of some one or other of the depressing physical conditions, perhaps atmospheric and meteorological, that in some indefinable way lower the general tone of health in a community. That there are states under which the disease becomes infectious through aërial media, the past experience of its outbreaks in hospital wards proves; and that it may be contagious, as in the exanthemata, without the presence of inflammatory exudations, admits of scarcely a doubt, as occurs where a man and wife sleeping in one bed are attacked in succession, and where it has been seen to creep from bed to bed along one side of a ward; and it is certain that these properties are intensified on all occasions of its epidemicity.

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* Read before the annual meeting of the Southern Branch.

There is ground for suspicion of its inoculability in the fact that, with slight wounds and merely abraded surfaces, there is increased liability to it where the epidemic type is in force. Whether it is transmissible by "fomites" has not, I think, been substantiated either way. In these general features, and, in its precursory stage, in its tendency to metastasis to serous surfaces, and to pyæmic complications, the disease bears analogies to the exanthemata proper, with which it may very likely have a true alliance; and this idea derives force from the frequency of its epidemic occurrence at the same periods with epidemic exanthems, especially with scarlet fever and measles, as in 1874, and in another remarkable instance to which I shall refer hereafter. In our latest authorised *Nomenclature of Diseases*, we find this deduction approached, but not arrived at, though sufficiently so to indicate the conception of a correlation of the entire group, which was never intimated in older classifications.

In that *Nomenclature*, by the College of Physicians, the disease is defined under three heads: 1. Simple cutaneous (or erythematous); 2. Phlegmonous (or cellulo-cutaneous); 3. Diffuse inflammation of cellular tissue tending to spread indefinitely. Whenever the disease is epidemic, with irritation or inflammation of the lymphatic vessels and glands, these three forms are found to coexist. Of the first form, which is the ordinary sporadic type of the disease, I shall only notice that it is the metastatic, in which the serous surfaces of the brain, lungs, and peritoneum, and even of the testicles, are apt to become involved: of the second, that it is rare without previous breach of surface, although, otherwise, it comes from the extension: by contiguity of the subjacent tissue with a highly inflamed integument of the third, that it is only an extension of the second by continuity of structure throughout the system. Thus we have suppurative action pervading the entire sheath of a limb, or under the scalp, or around the kidneys, or in the mediastinum, or consecutive superficial abscesses. When the lymphatics that are imbedded in the inflamed areolar tissue partake in the surrounding action, or when they absorb the products of the areolar inflammation, and convey these into the general current of the circulation, septicæmic or pyæmic complications are evolved, and visceral abscesses are produced in the liver, the lungs, or the muscular structure of the heart itself, as I have seen in erysipelas of the face from phlegmon of the lip, or abscesses in an upper extremity after phlegmonous erysipelas of the opposite lower extremity, and *vice versâ*. Consecutive abscesses are the sequelæ of phlegmonous erysipelas, whether circumscribed or diffuse; but the visceral forms are, I believe, much more frequently the result of the latter.

As to the pyæmic complications, it must be remembered that they are not peculiar to the erysipeloid forms of disease, that they may arise, and prove very pernicious in their results, from a mere suppurating scratch or abrasion, or from a simple pustule externally, and that they sometimes originate in internal lesions, as the intestinal ulcerations of enteric fever, or other suppurations.

In the *Nomenclature*, hospital gangrene is placed in juxtaposition to erysipelas, but their characteristics differ; and although I have dealt with several cases of the former, there were no coexistent cases of the latter. There is, however, another form of disease seen in the hospitals of camps and ships, to which the term "hospital gangrene" is sometimes applied wrongly. It attacks stumps and lacerated wounds, and its ravages are limited to the areolar and aponeurotic tissues that are discharged in clotted or thready sloughs, leaving the muscular and vascular tissues untouched. This is, in reality, a traumatic erysipelas of the third group, or "diffuse inflammation of cellular tissue" extended to the subjacent fascial structures of a low organisation, and to the periosteum.

The epidemic in question commenced in the middle of November 1873, and it had lost its typical character early in December 1874. During that period, there were 64 cases, of which 58, or 906.5 per 1,000, were discharged; 2, or 31.3 per invalided 1000, and 4, or 62.5 per 1,000, died. In comparing these with the entire results through twenty years, 519 cases with 471 recoveries, or 907.5 per 1,000; 30 invalided, or 57.80 per 1,000; and 18 deaths, or 34.68 per 1,000, there is found to be evidence in the higher mortality of the greater intensity of the disease when epidemic than when of the simply sporadic type; the results of treatment being at the same time shown to be in favour of the epidemic period by the ratios of those rendered "unserviceable", which were 30.7 in the epidemic against 63.3 per 1,000 for the whole twenty years.

If we glance at the epidemic constitution of the exanthematic fevers in this district, there is found to have been a great revitalisation of small-pox from 1871 to 1873, in the spring of which year it disappeared as an epidemic. Its place in the category was at once filled by measles and scarlatina, both of which prevailed more or less through the succeeding three years, 1874, 1875, and 1876, the latter being in great force in the last of these years; and mumps was also epidemic in 1874 and 1875. In the middle of this period of exanthematic excitement, 1873-74, erysipelas became epidemic, dying out in 1875, or rather relapsing into its sporadic form, which it has since retained.

With reference to localities the cases came from, and the order of occurrence in these, they were, roughly speaking, the shore and the ships, the latter holding free intercourse with the former, and the first of the series being from the dockyard, on November 11th; the second from the *Duke of Wellington*, on November 17th; the third from the *Excellent*, on November 27th; and the fourth from the hospital wards, on December 15th; while the Marine Barracks at Forton sent its first case on January 7th, and those at Eastney, none until May 5th. And as to frequency in the several localities, there are found to be, in hospital, seven; from Forton, seven; Eastney, six; dockyard, four; victualling yard, 1; and from ships, *Duke of Wellington*, *Excellent*, *St. Vincent*, six each; *Zealous*, five; *Asia*, four; these being in port constantly, or for long periods; while twelve ships casually there sent only one from each; these data tending to show the district character of the epidemic visitation.

As to the seasons of the year, the September quarter presented fewest admissions; and in the winter half, from October to March inclusive, there were more entries and more deaths than in the summer half from April to September.

As regards the question of age liability, it was remarkable that the training-ship for boys sent many cases; since advanced, or at least adult, age is generally found to be more liable than that of adolescence: in all there were ten cases under seventeen years, or 26.5 per cent. of the total cases. Another interesting fact was noticed, that results became more favourable subsequently to shifting the cases from the long-used erysipelas-ward on the ground floor, facing to the north-east, into one on the second floor with a sunny southerly aspect, showing the value of the simple vital stimuli, sunlight and fresh air, in treating the disease.

Although the hospital contributed seven cases, yet the injury-wards where the carbolic acid treatment was universally employed, remained exempt from erysipelas. On this point, one of the clinical officers remarked, in his report for the year 1874, "as usual, several severe compound fractures have done well, and attest to the favourable condition of the surgical wards, as otherwise the limbs would inevitably have been sacrificed". Of the cases, two had been in direct attendance on the erysipelas-wards; two were from medical wards in a distant block of buildings; one was from a ward on the second floor over the erysipelas-ward, with an intervening unaffected injury-ward between them—the case being an ulcer of the leg in which the disease showed itself on the head; and there were two of the servants who had held no intercourse with the cases. The fatal cases were: 1. A pensioner, under treatment for phthisis; 2. An officer from a ship, who had Bright's disease; 3. A seaman, under treatment for constitutional syphilitic ulcers; 4. A boy, who had, on admission, pyæmia, with a suppurating injury of a toe, and at the same time a slight erysipelatous areola around an ulcerated vaccine vesicle. Neither of these cases proved to be in the smallest degree amenable to treatment, and the second, third, and fourth presented meningeal complication. In all of them alike there was a sickly or broken state of constitution, on which the additional depression told with fatal effect. On the other hand, where the patients had been in previous good health, they recovered notwithstanding the course of the disease being of severe cellulo-cutaneous type. The treatment employed was of the stimulating form, by frequent administration of beef-tea, milk, and eggs, with generous wine or brandy mixture in ample quantities, therapeutic trust being placed in half-drachm doses of the tincture of iron three or four times a-day. The local means applied were warm fomentations and stupes with free incisions of tense integuments and early evacuations of suppurations, on the plan first advised by Copland Hutchinson, at the Deal Hospital, in the first decade of this century.

I will refer now to a very remarkable local epidemic of the severest type occurring in a naval establishment, and almost and literally limited to it. In 1824, there was a very terrific epidemic of the cellulo-cutaneous or phlegmonous form of erysipelas among the workmen of Devonport Dockyard, in which, out of fifteen cases, twelve were fatal. They were all traumatic, and generally of slight injuries, many of which did not prevent the men from working several days after receiving them, up to the time of the setting in of inflammatory action in the wound with severe rigors. The injuries were all received between the end of July and the beginning of October, the weather being very hot and apparently dry. All were dressed at the dockyard surgery, and dwelt at their homes. There was no erysipelas in the towns and district around; but in the following January there were two cases of similar nature among the town population at a considerable distance from the dockyard. The Naval Hospital had no cases of erysipelas in its wards, nor from outside, and the only epidemic disease of the year was measles. The course of the disorder was alarming, and its results were terrible, so that the dockyard men fancied they had the Egyptian plague among them; but not a case of infection occurred in the families of the sick. The origin of the epidemic has been always a puzzle, and its spread may possibly have been through agencies within the dockyard surgery, where the previous treatment and dressings had been given. Its mortality may have been assignable to the treatment, which was at first by repeated venesections, and calomel and antimony with saline purgatives; for, as soon as that was changed for early and free incisions with stimulants, the results changed, and the epidemic shortly came to an end. A more remarkable epidemic than this has rarely been described, and by itself it stands worthy of separate full consideration as a local epidemic confined to the worst conceivable form of cutaneo-cellulitis, with septicæmia or pyæmia developed in most of its cases, and with gangrene in several of them.

It seems to me to be impossible to arrive at any other conclusion than that the results of treatment have been altered in a marvellous degree since the adoption of free incisions before suppuration has commenced, and wherever abscesses shall have formed; and since the complete revolution in medical treatment from the older practice of copious venesections, repeated so long as the blood showed buffiness, or until it could be no longer borne, by cathartics and other depressing agents, to the more modern line, by the assiduous use of strong nutrients and the free use of vinous and alcoholic stimulants, accompanying free incisions.

The summary of these observations is as follows.

Erysipelas of epidemic type is more severe and more fatal than when of simple sporadic type; and that it may then be aggravated into a series of cases, of uniform "cutaneo-cellular" form, without milder erythematic cases, as happened at Devonport Dockyard in 1824, when a series of slight injuries were attended by fatal results; and such conditions may be of a very circumscribed local character.

When epidemic, it has increase of infectiousness.

Within a narrow area, where there are many idiopathic cases under treatment, it does not necessarily become traumatic, under due precautions.

When epidemic, it attacks younger ages than it is accustomed to do when simply sporadic.

It is more amenable to treatment in well aired sunlit apartments than in the reverse.

Its treatment on the stimulant plan is by far more successful in its results, than by the opposite plan of bloodletting and other depressing agencies.

And lastly, the epidemic type possesses some occult correlation with the epidemic exanthems, more particularly scarlet fever and measles. This proposition, as I believe, would be more strongly sustained by a wider investigation into the more general diffusion of all these diseases that occurred successively throughout the whole of the southern provinces of England, as shown in the navy and army returns for the period, the particulars of which the limit of time allowed forbids my entering on on this occasion.

TWO CASES OF SUCCESSFUL OPERATION FOR EXTROPHY OF THE BLADDER BY A NEW METHOD.

By J. GREIG SMITH, M.A., M.B., C.M.,
Surgeon to the Bristol Royal Infirmary.

My first patient, a weakly boy of eight years, was sent from Wales to the Bristol Royal Infirmary with a view to operation. The condition was a moderately severe one of combined extrophy of the bladder and epispadias, and differed in no important particulars from ordinary specimens of this deformity. The testes had just escaped from the abdominal cavity, and could be felt under the skin at the level of Poupart's ligament. The hernial tumour bulged considerably when the patient was in the erect posture, but was only slightly elevated above the surrounding skin when he lay on his back. The mucous membrane was red and irritable, bleeding freely on the slightest touch, and secreted considerable quantities of mucus and pus, which clung tenaciously to the surrounding parts. There was some soreness of the skin over which the urine dribbled. The malformed penis was smaller even than usual.

Preparatory treatment was adopted for a fortnight before operation. The patient was kept lying on his back in hopes that, by removing the weight of the abdominal contents, the tumour might diminish in size. The mucous membrane was covered with oiled silk coated with dextrine, over which was kept a double layer of boracic lint. The atmospheric air and other sources of irritation were thus excluded, and the deposition of phosphates, by prevention of evaporation, was much diminished. Bland and demulcent drinks were freely administered. Under this treatment, the surface of the entroverted mucous membrane soon became less red and angry-looking; and latterly, over its upper half, as low down as the orifice of the ureters, it became covered with true epidermis almost as white as that of the surrounding skin. The mucopurulent discharges diminished considerably in amount, and the excoriations on the contiguous skin entirely disappeared.

Under conditions more promising than on admission, he was operated upon under chloroform on April 25th, 1879. A flap, in shape like the wooden portion of a fire-bellows, its base being next the top of the tumour, was marked out on the abdominal wall. This, turned over, was intended to cover both the extroverted mucous membrane and the upper surface of the penis. In area, it was considerably larger than the surfaces to be covered. Before dissecting this flap from the abdominal wall, its epidermic edge was bevelled off with a sharp razor. Then two groin flaps were raised. The outer edge of each was nearly semicircular; the inner edge above corresponded with the lower half of the abdominal flap, below it skirted the margin of the abdominal opening. The lowest portions of the lateral flaps were dissected from the sides of the penis, as far forwards as the rudimentary prepuce, and involved a piece of the scrotum as well. At the level of the glans penis two small incisions were carried partly round each side of the organ. Finally, the pendulous prepuce was perforated, with the view of drawing it over the glans penis and penile portion of the abdominal flap. Throughout the dissection, I was exceedingly careful not to lay hold of the flaps with my fingers nor to compress them with sponges. Tenacula and tenaculum-forceps took the place of fingers, and warm boracic lotion was used with the sponges. The flaps were then adjusted. Three silver wire sutures with needles at both ends were inserted at each lateral margin of the skin surrounding the tumour, and carried through the over-turned abdominal flap. These sutures were afterwards made to traverse the groin-flaps, and twisted over two gum-elastic bougies. In this way, not only was the abdominal flap kept adherent to the pared margin of skin abutting on the tumour, but the groin-flaps were firmly secured over both. The scraping with a razor of the epidermis at the edge of the abdominal flap was intended to facilitate adhesion with the denuded parts surrounding the tumour. The bougies over which the silver sutures were fixed were placed longitudinally along each side of the abdominal opening, so as to compress the flaps in the direction of, and not across, their blood-supply. Before completing the above part of the operation, I had stitched, with fine catgut sutures, the edges of the abdominal flap to the ring of skin left around the opening in the abdominal wall, and the portion intended to cover the penis to the mucous membrane on the upper surface of that organ. Then the loose skin got from the sides of the penis and the scrotum was stretched over the underlying penile flap, and brought together in the centre with alternating sutures of silver wire and horsehair. The groin-flaps were brought together with three harelip pins, meeting over the middle of the abdominal flap, and overlapping it for some distance all round. Last of all, the hood of prepuce was raised over the glans penis, surrounding it like a collar; and was stitched both to the penile end of the abdominal flap and to the extremities of the pieces of skin which were raised from the sides of the penis. The denuded portions were covered over as much as possible by drawing the integument together with harelip pins, a semilunar area about one-third of an inch in breadth being left uncovered at the top. The new bladder was washed out with warm boracic acid lotion, and a piece of India-rubber tubing was left to carry off the urine. The wounds were dressed with boracic ointment spread on thin gauze. The patient was placed in a sitting posture in bed, his knees being bent on the abdomen, and secured in that position by means of a bandage carried round his neck.

The subsequent history of the case is uneventful. With the exception of a portion of the preputial collar, which sloughed, every part of the transplanted skin survived and healed without the appearance of a drop of pus. In the uncovered portion, the granulations were built up without suppuration—a frequent enough occurrence under the application of boracic acid. In three days, all the pins were removed; and in seven days, all the sutures. A month after operation, every part was covered with epithelium. On the second day, some urine oozed from below the flaps on the right side; this oozing ceased in a few hours; and, with this exception, all the urine flowed through the tube.

The result may be described as a complete cure of the extrophy and a partial cure of the epispadias. The opening in the penis is large enough to admit a No. 5 catheter. As yet, there is no power of retention. No urine may flow for a quarter of an hour or so, if the patient be at rest; but a cough or a contraction of the abdominal muscles makes it flow. The boy was sent out wearing an urinal, which kept him perfectly dry.

My second patient, an undergrown badly nourished boy aged fourteen, was sent me by Mr. Ormerod of Westbury, near Bristol. In him, the deformity was of the most aggravated type; and, to make matters worse, nearly the whole of the skin of the abdomen, from which part of the flaps had to be taken, was replaced by dense cicatricial tissue, the effects of a burn received three years previously. The hernial tumour was as large as a goose's egg, and protruded so much as to entirely conceal the rudimentary penis. Its surface was covered with granulations rather than mucous membrane; the secretion of muco-pus was excessive, and the slightest touch caused great pain and excited free bleeding. The boy was scarcely ever free from pain; but, towards night, his sufferings were so great as to prevent sleep and make him cry out. Excoriations were abundant all round the tumour, and the skin was in some places enormously thickened. The boy walked about in bent posture, with petticoats suspended from the waist, so as to avoid contact with the tumour.

Preparatory treatment, the same as in the previous case, was adopted, but without benefit. All sorts of astringent and sedative applications were made to the mucous membrane, but the excessive secretion of muco-pus and abundant deposit of phosphates continued undiminished. The pain increased rather than abated.

When the patient was put under chloroform, the under surface of the tumour, which could not be seen before, was found to be covered with long pendulous villi, which bled freely on being handled. The whole of the granulating surface was swabbed with a strong solution of alum. Almost the same operation was performed as in the previous case. Part of the abdominal flap was formed of cicatricial tissue. The portion intended to cover the penis was pared off one side of the abdominal flap, and twisted round. No hare-lip pins were used; carbolised silk sutures were substituted. The silver sutures uniting the two thicknesses of flaps to the skin at the edge of the abdominal ring were twisted over two pieces of soft India-rubber tubing. The soft tubing adapted itself accurately to the surface, exerted gentle and equable compression on the underlying transplanted tissues, and readily yielded to the inflammatory swelling which afterwards came on. The tube left in the artificial bladder was of large dimensions, so as to carry off the abundant muco-purulent discharge, which was expected to give some trouble.

On the third day, all the parts had united by first intention, and not a particle of necrosis was seen. On the fourth night after operation, the tubing which carried off the urine, and which had been frequently removed and cleansed to prevent its becoming blocked with the abundant muco-purulent secretion, was not attended to as usual. The result was, that about twelve hours' secretion of urine was bottled up in the new bladder. It was unable, however, to force apart any of the newly united incisions, but escaped by the root of the penis into the scrotum, which was found greatly swollen at the visit next morning. The scrotum was freely incised, and slowly regained its normal dimensions. But a second attack of inflammation, more severe than that directly resulting from the operation, was set up in the transplanted tissues. They bore the strain remarkably well, however, and soon regained their previous healthy appearance. Suppuration set in at the top of one of the groin-flaps, and soon healed up; but part of the union between the transplanted prepuce and penile covering gave way, and a fistula was established which had to be closed by subsequent operation. From the impossibility of bringing the cicatricial skin over the denuded portions, this case was much longer in recovery than the first.

The result in this case may be described as a complete cure both of the extrophy and of the epispadias. Urine can be retained for half an hour at a time; and, as contraction takes place, still further improvement may be looked for.

The better result in the second case, under less favourable circumstances, I attribute to some lessons learnt from the first operation. These, and the general principles on which I proceeded, I shall now shortly describe. It will have been observed that I have made free use of several methods of operating, rather than invented an entirely new plan.

1. I observed a minute, perhaps excessive, care that the flaps should on no account be lifted between the fingers. Seeing that the vitality of the transplanted tissues hangs on a very slender thread, the smallest area of thrombosis from pressure might be sufficient to cause necrosis, and bring on mortification in outlying portions as well. The flaps were tenderly lifted, not dragged, with tenaculum and sharp-pointed forceps; and were lightly wiped, not pressed, with the sponge. To avoid vascular irritation, the lotion was heated to the temperature of the body.

2. The flaps were made larger than is usually recommended. This was done to avoid the necessity of stretching, as well as to give a considerable margin for the lateral flaps to overlap the median flap. The vitality of transplanted tissue depends chiefly on its distance from vascular supply; and, if tension be avoided and a broad base left, there is no reason why the breadth of the flap should be curtailed. The advantage of the upper portions overlapping the lower, thus offering a broader and firmer barrier to the urine and affording more opportunities for union with the denuded portions, is self-evident.

3. I was careful that the necessary compression for securing the flaps should be in the line of, and not across, the direction of blood-supply. The two quilled sutures were inserted longitudinally, and the hare-lip pins in the groin-flaps were not inserted into the underlying abdominal flap. The plan (Professor Wood's) of including both thicknesses of the transplanted tissue, involving as it does a doubly acute flexure, and consequently a greater and more extensive strain on the tissues, cannot, I think, be otherwise than detrimental. The use of the unbending hare-lip pin in cases of this sort, even when carried through only one thickness of tissue, I believe to be so dangerous that I dispensed with it altogether in my second case.

4. The under flap had its edge pared in such a manner that, when it was turned over, epithelium lay in contact with epithelium, and areolar tissue with areolar tissue. Its margins were accurately stitched to the edge of the abdominal ring, as well as to the mucous membrane left to form the floor of the urethra. In this way, not only is retraction, which must take place if the flap be left free, prevented, but the escape of urine is more completely guarded against. When once the urine escapes into the areolar tissue between the flaps and the abdominal wall, it is very difficult to prevent the formation of a sinus. The permanent securing of skin next to mucous membrane goes far to prevent this.

5. The bringing down of the penile flap from the abdomen gives an unity and completeness to the operation, and affords a possibility of confining the track of the urine, which is not otherwise attainable. The weak point of the form of operation usually adopted is the part above the penis; and the penile flap, continuous with the portion immediately overlying the tumour, is a powerful stay and support against a hernial protrusion of the mucous membrane. It may be objected, that to bring down a flap all the way from the abdomen to the penis, and to endeavour to cure the epispadias at the same time as the ectropia, is to attempt too much at one operation. Still, even if necrosis take place, nothing is lost, as compared with other operations; and, if the flap survive, an immense advantage is gained. In these cases, the result proved that I was justified in the attempt.

6. The making one lateral flap of the groin, scrotal, and penile integument covers in and supports the underlying flap so completely and exactly, that no opportunity is afforded for the escape of urine. The lax scrotal skin occurs at the very part where possibility of being stretched is most wanted. If the groin-flaps stop short at the root of the penis, and no penile flap be made, a triangular opening is left, through which the mucous membrane is likely to protrude.

7. Not the least important peculiarity in this operation is the manner in which the flaps were secured to each other and to the margin of the abdominal opening. This was effected, as stated above, by fixing into the skin left around the opening through which the mucous membrane protruded three loops of silver wire on each side; by carrying both ends of each loop, first through the edge of the abdominal flap, and then through the middle of each groin-flap; and by twisting the free ends over two pieces of soft tubing, which lay parallel to each other about an inch on each side of the line where the groin-flaps met. To get the parts fixed in exact apposition by this means is undoubtedly somewhat difficult; but it is worth the trouble. Between the firm skin around the abdominal opening and the soft elastic tubing, the two flaps are gently and continuously compressed against each other and the denuded areas. The compression is exerted in the line of, and not across, the direction of blood-supply. It is made at those points where primary union is of most importance. The under flap cannot retract; and, in the necessary movements of the abdominal muscles, the denuded areas are kept in permanent and exact apposition. Hare-lip pins are not needed in the groin-flaps, because the underlying layer is so fixed as to resist abdominal tension. On these grounds, I regard the tubing sutures around the margin of the abdominal opening as one of the most important contributions to the success of the operation.

Such are the leading principles on which these operations were carried out. Many practical minutiæ in the nursing of the flaps and the general management of such cases, which would be observed by every scientific surgeon, it would be superfluous to mention. The careful observance of every detail prompted by scientific knowledge or practical experience, always indispensable in sound surgery, is peculiarly requisite in operations for ectropia vesicæ.

SURGICAL MEMORANDA.

MR. FURNEAUX JORDAN'S LITHOTOMY.

I HAVE waited a week to see if any criticism upon Mr. Furneaux Jordan's method of performing lithotomy (BRITISH MEDICAL JOURNAL, January 24th) would appear in the JOURNAL. Failing this, I venture to point out a method of obviating the undoubted difficulty caused by the small size of the membranous urethra in children, and shall do this by extracting a paragraph from my *Operative Surgery* (1876).

"The most difficult part of the operation is the introduction of the finger into the bladder. In children especially, the small size of the parts makes it difficult to get the point of the finger between the staff and the urethra; and there is undoubtedly danger of tearing the urethra across, and of pushing the bladder before the finger, as laid down by Sir W. Fergusson. In practice, one is often obliged to take the upper or concave border of the staff as the guide, and to insinuate the finger between it and the upper or fixed wall of the urethra; and it appears to the author that this part of the operation would be greatly simplified by adopting the practice of median lithotomy; viz., to pass a probe or director along the staff into the bladder, and then to withdraw the staff, using the handled director to draw down the urethra, and thus allow the finger to be introduced more readily and safely."

I may say that I have on several occasions adopted this method with perfect success, and it appears to me that the upward incision recommended by Mr. Jordan is uncalled for in the majority of cases.

CHRISTOPHER HEATH, F.R.C.S.Eng.

APPLICATION OF PLASTER-OF-PARIS BANDAGES.

THE following mode of application of plaster-of-Paris bandages for the treatment of spinal disease I have found very successful when the displacement is in the lower dorsal or lumbar region. The patient, stripped to about two or three inches below the hips, is placed on an ordinary strong dining-room table lengthways; a pillow is placed under the head; two jack or round towels are passed under the armpits, and fastened to the opposite legs of the table to the arms under which they pass, so as to cross over the chest. The head end of the table is then raised until the plane of the table makes an angle of 45° with the floor, and is retained in that position by putting a Windsor chair under each leg. In a few minutes, the spine straightens out, and any displacement of vertebræ is reduced, when the bandages can be applied without hurry to the attendants or inconvenience to the patient. The table should be covered with a blanket.

EDWIN HEMSTED, M.D.

Wellingborough.

THERAPEUTIC MEMORANDA.

COD-LIVER OIL AND ALCOHOL.

MR. LIVY'S prescription of cod-liver oil, egg, essential oils, phosphoric acid, and brandy, is probably a very good one, as far as the taste of the patient is concerned; but, while admitting the advantages of making a medical food palatable, I doubt the advisability of giving about an ounce of brandy every day to the majority of the patients requiring oil.

Mr. Livy says, "The preparation specially recommends itself for children"; but, as far as my experience goes, I would say that children especially should not have the brandy. While house-surgeon at St. Mary's Hospital, but chiefly at the Children's Hospital, Bristol, I had to deal with a large number of young patients suffering from the various effects of bad and insufficient food, impure air, and paucity of clothing. Many of these might be considered in a "pretubercular" condition, and cod-liver oil was generally a desirable remedy. By commencing with half a teaspoonful just before the child's sleeping time, the difficulty with regard to taste is generally overcome, and the dose can then be increased.

I remember one case, however, in a child, in which I would have ventured upon Mr. Livy's formula. I tried all kinds of ordinary food without success. Milk was rejected, and port-wine failed to hinder the rapid sinking of the patient. As a last resource, I gave beef-juice with hydrochloric acid (without cooking), as recommended, I believe, by Dr. Tanner. The child recovered.

Possibly Mr. Livy's formula might be very valuable for elderly people who might be failing from inability to assimilate food, and also for "fasting girls"; but, according to my experience, the ultimate result of the employment of so much (if any) brandy will not be beneficial to the patient.

In conclusion, I must own that my opinion is based more upon surgical cases, such as hip-joint disease, Pott's disease, and rachitis, than upon advanced tubercular disease of lungs, etc.

E. NOBLE SMITH, Queen Anne Street.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

THREE CASES OF LATE OR TERTIARY SYPHILIS IN CHILDREN.

(Under the care of Dr. CHEADLE.)

CASE I. *Ulceration of Palate and Nasal Bones: Falling in of Nose: Rupial Sore on the Leg: Nodes: Recovery under Iodide of Potassium.*—Alice P., aged 8, was admitted October 17th, 1877. A year and a half before, she had had a small pimple form on the nose, with a discharge from it; this continued five months, when a piece of bone came away from the roof of the mouth. Since then, the nose had fallen in. Three months ago, a pimple came also on the leg, enlarged to the size of a halfpenny, then softened and broke; and then another in like fashion, forming a deep ulcer. For the last week, she had had tubercular rash on the face, and sore mouth. This child had snuffles when born, and a rash came out when she was about five months old, very bad on the face and buttocks. When two years old, she had sore eyes, the pupils became opaque "like frosted glass"; she had since had similar attacks. No history of syphilis could be made out in either father or mother. They had four other children alive, and had lost two. Of the former, one was paralysed in the legs, one had stomatitis, and another was very ill with bronchitis. Of the other two, one had died of convulsions when teething, the other of diarrhœa and marasmus. The mother had one child born dead at eight months. All the children had had snuffles at birth, and subsequent scaly eruption at from three to five months old.

Condition of Patient on Admission.—The bridge of the nose was quite gone, and the nose flattened almost level with the face. The right nostril was narrowed, the left all but closed. The skin at the junction of the upper lip with the nostril was raised, tubercular, and ulcerated, with foul discharge. There was a cicatrix on the palate. The teeth were extremely irregular and notched; the corneæ were hazy. The gums were spongy, and the breath was offensive. Over the left parietal bone, there was a small depressed cicatrix with thickening of the bone round it. A small bone-like nodule projected from the external angular process of the frontal bone on the left side. There was a depressed cicatrix below, and another behind, the right ear. On the front and upper part of the leg was a large deep ulcer. There were well marked tender nodes on the left tibia.

Five grains of iodide of potassium with two drachms of syrup of iodide of iron were given three times a day. The child rapidly improved in health, the ulceration stopped and quickly healed, and, at the end of five weeks, she was sent to Highgate almost well.

REMARKS BY DR. CHEADLE.—That the ulceration and destruction of bone were the result of syphilitic disease seemed clear enough. The condition corresponded exactly with what we see in the late stage of acquired syphilis in adults. The point of interest in the case is, whether this tertiary condition was a sequel to the secondary condition, congenital disease, or of a poisoning acquired later. The history of congenital affection was clear and unmistakable. The late or gummatous and ulcerative stage is usually omitted in congenital syphilis. I have seen previously only two cases of tertiary syphilitic ulceration in children, and there are, I imagine, few on record. The possibility of casual infection where the disease affects different members of the family, one after the other, who are housed closely altogether, must be borne in mind. Yet in none of these cases have I been able to discover any history of an acquired syphilitic sore. I think it probable, however, that casual inoculation at some period occurred.

CASE II. *Ulceration of Soft Palate: Superficial Scars on the Face: no History of Syphilis: Rapid Cure by Iodide of Potassium*—Mary Jane S., aged 10, was admitted March 24th, 1877. The present illness commenced six weeks ago with shivering and sickness, followed by pain in swallowing and cough, with expectoration of yellow phlegm and blood. The glands of the neck were also enlarged. Since then, her throat had been very sore, and she choked on swallowing, fluids returning through the nose. She had lost flesh considerably during the last five weeks. There was no history of acquired or congenital syphilis; no sore lips, or sores or eruptions of any kind. The father and mother were reported free, and the other children healthy. They never had any snuffles or eruption, and the mother had had no miscarriages.

On admission, the child was extremely thin and wasted. Some small superficial scars were visible on the face. The back of the soft palate, including the uvula, had sloughed away, and the boundary of the fauces was a foul ragged ulcer, extending to the tonsils and pharynx. The teeth were natural; the eyes showed no traces of disease; nor was there any enlargement of the bones. The nose was rather broad, but not flattened.

Eight grains of iodide of potassium in half an ounce of decoction of sarsaparilla were given three times a day. By the 31st (a week afterwards), all signs of inflammation had gone, and the ulcers were clean and healing. Ten days later still, the throat was quite well, and the patient discharged to Highgate.

REMARKS BY DR. CHEADLE.—In this case there was nothing in the history suggestive of congenital syphilis, nor were there signs of it in the patient. The scars on the face, of which no explanation could be obtained, if due to syphilitic destruction, were not likely to have arisen in the infantile manifestation of congenital disease. Yet, that the ulceration of the palate was syphilitic I think is certain, from the special characters of foul phagedænic destruction which it presented, and its rapid cure by iodide of potassium. The taint must have been acquired, probably by unnoticed inoculation from some secondary sore.

CASE III. *Enlargement of the Ends of the Long Bones, probably Syphilitic: Rapid Improvement on Treatment by Iodide of Potassium.*—Edward H., aged 3 years and 11 months, was admitted on June 10th, 1879. About four months ago, the child began to be weak on his legs, growing worse gradually, so that, on admission, he could not stand. For the last two months, he had complained of pain in the knees. He perspired about the head very much, and had lost flesh. He was born at the full time; walked at nine months; and was weaned at fourteen months. Since then, he had had whatever his parents had. The mother had four children who were healthy, but had had five still-born, and one miscarriage of twins. There was no history of syphilitic eruption to ratify the presumption afforded by the abortions. The boy was pale, fairly well nourished; the glands in the neck were enlarged, the ribs beaded, but the chest not contracted. The abdomen was natural. There was tenderness in the splenic region; the spleen was only just palpable. The ends of the radii were much enlarged. The upper ends of the tibiæ still more extraordinarily so, and quite out of all proportion to the enlargement of bones elsewhere; they were tender, and the boy could not stand on account of the pain and tenderness of the knees. The child was silent, morose, and indisposed to move or talk.

From the time of admission, on June 10th, up to July 12th, the patient was treated simply with cod-liver oil and steel wine, and a generous diet. He showed, however, no improvement whatever of any kind; the knees remained as painful as before, and he could not stand. The treatment was then changed, and three grains of iodide of potassium were given in two drachms of steel wine three times a day. In ten days' time, the change for the better was very striking. The boy could now not only stand, but walk, without pain, although lamely and feebly, from long disuse of muscles. Moreover, from being morose and silent, never talking to or playing with other children, he had become one of the liveliest children in the ward. From this time improvement proceeded, although less rapidly; all heat, pain, and tenderness of the joints disappeared, but the ends of the bones remained still decidedly and curiously enlarged. On August 16th, a month after the iodide was commenced, he was discharged to Highgate convalescent.

REMARKS BY DR. CHEADLE.—That this was no ordinary case of rickets was clear from the time at which the affection of the joints set in; the partial character of the changes in the bones; and the extreme development of enlargement at the ends of the tibiæ out of all proportion to the enlargement of the ends of the radii and the ribs. The character of the swelling, too, was peculiar; not only was it attended with local pain and tenderness of the joints, but it clearly involved the lower end of the shafts as well as the epiphyses—*i. e.*, the enlargement was more elongated and gradual than that of the rickety condition. That the affection was due to syphilis was not certainly proved. The history of still-born children and miscarriages was strongly suggestive of it, and the rapid improvement after long stagnation which followed the administration of the iodide was confirmatory; but there was no evidence beyond this. The case differed, too, from those of bone-syphilis recorded by Meissner, Parrot, Taylor, and others, which all occurred, I believe, in the early congenital disease of infancy. Two cases which have come under my own observation previously were also in infants, and recovered under mercurial treatment. This child was nearly four years old.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 27TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

ON A CASE OF ANEURISM OF THE SUBCLAVIAN ARTERY, TREATED BY AMPUTATION AT THE SHOULDER-JOINT AND THE INTRODUCTION OF NEEDLES INTO THE SAC.

BY CHRISTOPHER HEATH, F.R.C.S.

AFTER reviewing the recorded cases of amputation at the shoulder-joint for aneurism of the subclavian artery, the author narrated his case. A man aged 48, subject to fits, and paralysed on the left side, was knocked down in the street on September 12th, 1878, and sustained a comminuted simple fracture of the left clavicle, and had several ribs broken, including, as was found afterwards, the first rib. The patient was admitted into University College Hospital for treatment; and was made an out-patient on September 29th. He was readmitted on October 31st, on account of a pulsating swelling occupying the posterior triangle on the left side, which proved to be an aneurism of the third part of the subclavian artery. It being impossible to compress the artery between the heart and the aneurism, which rapidly increased in size, Mr. Heath amputated the paralysed arm at the shoulder-joint on November 4th, with antiseptic precautions, and tied the axillary artery with a catgut ligature. There was secondary hæmorrhage to the extent of four ounces ten days afterwards, when the antiseptic dressings were necessarily abandoned. The patient made a good recovery, but the effect on the aneurism, if any, was so transient as to be practically *nil.* The aneurism continuing to increase in size, a leaden shield was moulded to it for support. On two occasions, a grain of ergotin was injected into the subcutaneous tissue without benefit. On January 1st, 1879, Mr. Heath introduced into the sac three pairs of fine sewing-needles, making each pair cross within the sac. Considerable clotting of blood took place around the needles, which were withdrawn on the fifth day. The aneurism gradually became solid; but bronchitis supervened, and the patient sank on January 18th. The *post mortem* examination showed the aneurism to be cured, the sac being nearly full of dense fibrine, and communicating with the subclavian artery by a very small aperture close to the broken first rib. Mr. Heath concluded that amputation at the shoulder for subclavian aneurism, in accordance with Sir William Fergusson's suggestion, was not a satisfactory proceeding, and recommended the introduction of fine steel needles as having all the advantages of wire or horsehair, with the gain of being capable of ready removal without hæmorrhage.

The PRESIDENT remarked that the paper presented two principal points for discussion; the value of amputation at the shoulder-joint in subclavian aneurism; and the value of the introduction of needles or other foreign bodies into the aneurismal sac.—Mr. HOLMES said that subclavian aneurisms, beyond all others, presented difficulties in the surgical treatment; and in the present case, the coats of the artery were much degenerated, and the aneurism partook of both the spontaneous and the traumatic characters. In a case of traumatic subclavian aneurism that had been under his care, a cure had been effected by pressure; but in Mr. Heath's case, this appeared to have been hopeless. The treatment of subclavian aneurism was generally very unsatisfactory; and the cases in which recovery took place were probably as much cases of axillary as of subclavian aneurism. He would not infer, from the cases already recorded, that Sir William Fergusson's operation might not sometimes be successful. In Mr. Spence's case of amputation for aneurism, the patient survived four years, and might have derived benefit from the operation; and in the cases of Mr. Holden and Mr. Smith, it did not appear that any harm had been done. He suggested that in these cases, if the condition of the parts allowed it, it would be well to follow up the artery in the stump, and tie it as close as possible to the aneurism, with carbolised catgut or some other animal ligature. He had injected ergotin in six or eight cases of aneurism, and had found it quite useless. He agreed with Mr. Heath in preferring the introduction of needles or pins, which could be easily withdrawn, to that of other foreign bodies; but he had had no experience in this matter. In spite of the failure of the four cases related, the operation of amputation for subclavian aneurism ought not to be banished from practice.—Mr. WILLETT said that, in Mr. Holden's case, the axillary artery was tied before the amputation, so as to enable a ligature to be put on the artery at the distal end of the sac. He would suggest that, in addition to the amputation, the carotid artery might be tied ten or twelve days later. He had had a case of subclavian aneurism under his care, in which the treatment had consisted of bandaging the arm, pressure, and Tufnell's plan of diet. The patient bore the treatment well, but died in consequence of the bursting of the aneurism into the loose cellular tissue.—Mr. MORRANT BAKER hoped that Mr. Heath's case would not discourage surgeons from carrying out Sir William Fergusson's suggestion. Benefit was scarcely to be expected in such a case. If any good were derived from the introduction of the needles, it was probably due in great measure to the previous ligature of the artery and amputation of the limb.—The PRESIDENT said that surgeons ought scarcely to be discouraged from performing the operation by the histories of the four cases that had been recorded. The operation was one of those the value of which might be judged on pathological and physiological grounds rather than on its clinical history, which was at present imperfect. The proceeding, thus viewed, was correct, if it were recognised that ligature on the distal side of the aneurism gave a prospect of recovery, and that, by removing the limb, the flow of blood into the sac in the parts near it was restrained, and the dilatation of vessels intended for the supply of the upper limb prevented. What was the real value of the recorded cases? It would be difficult to say how far the prolongation of life in Mr. Spence's case was due to the operation; but it could not be said that it had not some influence. The case seemed to have been of aneurism of the first or second part of the artery, not a favourable one for operation. In Mr. Holden's case, the amputation was performed as a *dernier ressort*. He knew nothing of Mr. Smith's case. In Mr. Heath's case, the aneurism was probably traumatic, although the vessel was not punctured at first. It appeared to be one of the false sacculated kind, in which not much good could be expected from operation. In this case and in that of Mr. Holden, the disease had advanced so far that one could scarcely expect anything to do much good. As regarded the use of needles, he would say that, if foreign bodies were to be introduced into an aneurism, they should be capable of removal. Fergusson's operation should be done early, while the aneurism was still sacculated and of moderate size, and was still contained within the arterial tissues, and while there was still a chance of consolidation in the usual way; and the artery should be tied as high up as possible.—Dr. ANDREW asked whether ligature of arteries might not do harm. Obstruction of arteries (as in the case of the cerebral arteries) was not infrequently followed by aneurism of the vessels on the cardiac side of the obstruction.—Mr. HEATH did not think that amputation in subclavian aneurism did any good. All that could be said of Mr. Spence's case was, that the patient lived four years. It was not possible to say what effect the ligature had on increasing the pressure on the weak portion of the artery. Regarding Mr. Willett's proposal of ligature of the carotid, Mr. Butcher once tied this artery in a case of subclavian aneurism; the patient died. He agreed with Mr. Holmes as to the inutility of ergotin. He was well satisfied with the result of introducing needles. This might be done more boldly than hitherto. There was very little risk of hæmorrhage, and the only danger (which was also present with other methods) was that of clots being carried into the circulation.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 7TH, 1880.

Sir JOSEPH FAYRER, K.C.S.I., M.D., F.R.S., President, in the Chair.

The Relapsing Fever of India.—A paper on this subject was read by Dr. NORMAN CHEVERS. Relapsing fever, having been recognised in Europe in 1842, was first distinctly observed and described in India by Dr. Robert Lyall in 1852-53. Very extensive and destructive epidemics of Indian relapsing fever, however, occurred in the North-Western Provinces in 1816 and 1836. In giving histories of these epidemics, the author remarked that it was noteworthy that the first visitation of Pali plague prevailed in Western India from 1815 to 1819, and that the outbreak of relapsing fever in 1816, described by Mr. Jameson, occurred in the Upper Provinces only a few months previously to the commencement in Lower Bengal of the great cholera epidemic of 1817. So also when, in 1836, the Pali plague, commencing in Marwar, spread rapidly and attacked thirty-two villages of Megwar, a destructive epidemic, which must have been relapsing fever, made its first appearance in the town of Bareilly, and committed serious ravages in Mynpaorie and in the district round Delhi. The history of the outbreak of relapsing fever in 1852-53 in the Yusufzie valley, situated about forty miles from Peshawur, was then given from Dr. Lyall's narrative. In this epidemic were displayed all the most distinctive characteristics of the relapsing fever in India, which, unlike the cognate disease of Europe, was very destructive of life: an extremely prevalent and fatal epidemic or endemic fever arising among the poor and starved, and spreading to the well-to-do inhabitants by force of its contagiousness. The tendency to relapse was very marked. Convalescence was tardy. There was generally jaundice, and quinine had no specific power as an antidote to the fever-poison. Dr. Joseph Ewart, who was the first person who recognised the existence of true enteric fever in India in 1855, noticed what he considered to be some cases of relapsing fever in Upper India at about the same time. Several years, however, had still to elapse before the occurrence of relapsing fever in the jails of Upper India was generally suspected. A very destructive contagious fever appeared in the Central Jail at Agra in 1860, and was described by Dr. Walker. It again prevailed in a very deadly form in the Agra Jail in 1864, and in that and the following year it appeared in the jails of Umballah, Futtehghur, Allyghur, Jeypore, Malwa, etc. It was described by the several reporters as true typhus, contagious fever, typhoid fever; and, in the words of the Sanitary Report, "some again believed it to be identical with the relapsing fever of Europe". Dr. Gray, Dr. Beatson, and Dr. Dallas clearly recognised this disease as it occurred at Agra, Lahore, and Umballah, as relapsing fever. The whole question was most fully and ably reviewed by Dr. David Boyes Smith in the *Indian Medical Gazette* for 1867 and 1868; and, although his verdict met with a good deal of opposition (especially from the medical side of the Indian Sanitary Commission), he brought forward very strong arguments in favour of the opinion that the contagious fever of the up-country jails was nearly identical with the relapsing fever of Ireland, Scotland, Germany, and America. Indeed, the Sanitary Commission went so far as to admit that the disease resembled the famine-fever of Europe in many important particulars. The history of the outbreak of relapsing fever which commenced in Bombay in April 1877 was then given from the reports of Drs. Hunter and H. Vandyke Carter; and many facts were brought forward in support of the argument that, although relapsing fever had not appeared in Lower Bengal of late years, that country was subject to its ravages up to and beyond the end of the last century.

Remarks on Epidemic Diseases in Animals in the Colony of Natal.—Surgeon-General ROSS, after describing the geographical position of the colony of Natal, pointed out that the inhabitants of the colony were lately believed to have numbered 22,654 whites and 302,858 natives, 12,000 being natives of India. The area in square miles was stated to be 21,150, giving 1.07 whites and 14.7 blacks to the square mile. With so recent a history of colonisation (between twenty and thirty years), and with such a sparse population, no occurrence of epidemics would be anticipated. The climate of the colony had proved exceedingly healthy for men, women, and children. It was, therefore, an anomaly that, with such a healthy climate for whites and blacks, the country should be unhealthy and subject to disease and epidemics among animals. Cholera had never been known. Small-pox only once caused a few cases on the Zulu border of the colony. During 1878, there was a small outbreak of typhoid among the residents of Durban, due to defective conservancy arrangements and imperfect water-supply; and a few scattered cases occurred during the first half of 1879. Typhoid fever was the principal, if not the only, disease which affected the troops during the recent campaign in Zululand. The disease which affected the troops shut up in Ekowe the medical department classified as typho-malarial, being a fever of malarial type, with rose-spots and well-marked lesions of Peyer's glands. There were probably two forms of typhoid fever; the one, which might be called European, arising solely from sewage-contamination; the other, or more Eastern type, prevalent perhaps in certain latitudes where there was the same type of fever more due to climatic than filth causes. Horses and mules were affected by horse-sickness, which was described as anthrax-fever resulting from the action of a poisonous agent ingested in the food, impairing vitality and inducing a morbid state of the system, with congestive inflammation of the lungs, and often external tumours. It was believed to be identical with the Loodianah disease of India, and to be due to some poison in the grass of certain lands—probably parasitic fungi. Horses were also liable to a form of diarrhœa popularly known as "squitters". The diseases of oxen were lung-sickness, red water, and quarter-evil. The first of these was identical with pleuropneumonia; it occurred all over the colony, was worse in some parts than others, and was not affected by climate. Red water, or hæmo-albuminuria, was a blood-affection, attended with more or less derangement of kidney, liver, and stomach. It lasted for five or six days, and was most fatal and prevalent after the rains of early summer. It was supposed to be due (1) to feeding on grass containing an excess of water; (2) to feeding on grass containing parasites or fungi; (3) to bad drinking-water. Quarter-evil was a species of malignant anthrax affecting the legs and trunk. Sheep suffered from heart-water, a disease in which there were fever and effusion into the serous cavities; it was said to be caused by bad pasture, dry rearing, etc. More recently, internal parasites had been discovered. Scab formerly caused great destruction of flocks; but stringent measures were adopted by law, with very good results. Poultry, of which the Kaffirs were great breeders, were liable to a disease known as fowl-sickness, which sometimes emptied a poultry-yard in forty-eight hours.

In the discussion which followed the reading of the two papers, Sir Joseph Fayrer, Surgeon-General Ewart, Inspector-General Lawson, Dr. Buchanan, Dr. Greenfield, Mr. Netten Radcliffe, and Dr. Thorne Thorne, took part.

CLINICAL SOCIETY OF LONDON.

Friday, January 23rd, 1880.

E. Headlam Greenhow, M.D., F.R.S., President, in the Chair.

President's Address.—The President delivered a short address, on his re-election to office.

Subastragaloid Dislocation: Novel Method of Reduction.—Mr. Pick read notes of this case, which was one of ordinary subastragaloid dislocation, where the whole of the tarsal bones, with the exception of the astragalus, were displaced outwards from this bone, which remained *in situ*, in contact with the tibia and fibula. All the ordinary methods, by manipulation, pressure, extension, and rotation, were tried, after division of the tendo Achillis, without success; and, in consultation, it was determined to make one more attempt at reduction, and, failing this, to perform excision of the astragalus, as the foot would clearly be of no use to the patient as it was, and the skin over the prominent head of the bone threatened shortly to give way. At Mr. Henry Lee's suggestion, the following plan was adopted. The middle of a bandage was twisted in a clove-hitch and passed round the foot, just behind the heads of the metatarsal bones; the two ends of the bandage were then tied and passed over the operator's shoulders, the knee of the surgeon, at the same time, being placed in front of the lower extremity of the tibia. Considerable extension in a direction forwards was then made, and the foot, at the same time, moved from side to side, as far as the amount of tension would allow. After about a quarter of a minute's extension in this way, the bones quietly slipped into their places. The patient made an uninterrupted recovery. Mr. Pick stated that he believed the difficulty in reduction in this case was due to the posterior inferior margin of the astragalus being wedged in the interosseous groove, between the articular facets, on the upper surface of the os calcis, and, at the same time, the constricted neck of the astragalus locked by the sharp posterior margin of the scaphoid bone. It was taking this view of the case which induced Mr. Henry Lee to propose the plan of attempting reduction by making extension directly forwards, so as to unlock the bones and cause the head of the astragalus to recede into the cup-shaped posterior surface of the scaphoid.—Mr. Bryant said that, some time ago, he had a case under his care which he considered one of subastragaloid dislocation, and was led to the same conclusions as had occurred to Mr. Pick. The method of reduction employed he considered sufficiently ingenious, and worthy of imitation. He regretted that no drawing had been made of the everted foot, the degree of outward displacement having been apparently extreme.—Mr. Henry Lee could not add much to Mr. Pick's description. The importance of careful consideration of it could not be too much insisted on, since amputation was often too readily assumed to be the only available means at hand of treating this injury. Mr. Lee referred to a case under the care of the late Mr. Hancock, in which only parallel extension had been resorted to, and pointed out the necessity of forward extension at the same time, the bandage being applied along the inner side of the scaphoid bone.—Mr. James E. Adams said the Museum of the London Hospital contained a typical dried specimen, in which, the foot being turned in, the astragalus was dislocated outwards.

A Case of Gunshot Wound.—Dr. Hewan read a paper on this case for Mr. E. Adams. In 1862, A. B., ship's carpenter, aged about 37, a tall stout man, of temperate habits, was shot by a ship's captain in a row on board a palm-oil trading ship, at anchor in a river on the west coast of Africa. The bullet was fired from a large Colt's revolver, at a distance of about five yards, at 10 P.M. Immediately the report was heard, the carpenter gave a loud shriek, clasped his hands over his breast, and rushed across the deck into the forecastle, exclaiming, "I'm shot; fetch the doctor". Mr. Adams was standing close to the captain at the moment of the occurrence, and instantly followed the wounded man. He was lying on the floor of the forecastle deck, and felt in a dying state. Collapse came on rapidly, although there was little or almost no external hæmorrhage. The entrance-wound of the bullet was found above the left nipple, between the third and fourth ribs. A bed was prepared on the main deck, and to this the man was removed as soon as he had taken a dose of brandy and laudanum. The bullet was found on the inner edge of the scapula, at a point opposite to, but on a somewhat lower level than, the point of entrance, projecting under the skin of the back, which was extremely thick. There was a large patch of emphysema all round it, extending up to the level of the shoulder-joint, and towards the spine. As the patient was turned over, he began to cough, and brought up a large quantity of blood, clear and frothy, evidently from a pulmonary vessel. The bullet was removed by means of a tolerably long excision, sufficient to admit two fingers. The operation was performed rapidly, and with little difficulty. A conical ball of lead, grooved at the tip, as if it had struck a hard substance in its passage, was extracted. The operation-wound was treated as a simple incised one, with one suture and adhesive strapping. The wound of entrance was covered with cold water dressing. There was grave collapse, but the patient was well watched, and encouraged by the constant presence of the doctor. During the first twenty-four hours, brandy (with laudanum) was given pretty freely, but, after this time, very sparingly. The laudanum was continued for a week or ten days. It appeared to soothe the patient into a state of happy indifference and freedom from pain and anxiety. The blood from the lungs gradually diminished; there was scarcely any direct pain after the first day or two, and, at the end of a fortnight, the patient was in a condition of safety. He was well fed with soup and mutton-tea, and was allowed to drink lots of cold water. At the end of about six weeks, he was transferred to a homeward-bound ship, and arrived safe and well in Liverpool. Three years later, he was alive, well, and able to make long sea voyages as well as any man. Mr. Adams offered no comment on this case, further than to say that the treatment was the best that could be adopted under the circumstances. It was very rough, very unscientific, and very successful.—Dr. C. T. Williams was surprised that no injury was done to the heart, etc., in wounds of this kind; and he considered the case read by Dr. Hewan to be even more remarkable than that related by himself a short time since to the Society.—Dr. F. Robinson said that many similar cases to this occurred during the Crimean war. He remembered one, that of a lieutenant, who was shot through the lung, and who, with rest and dietetic precautions, recovered and returned to England, where he ultimately died from diarrhœa, contracted from unduly indulging in fruit.—Mr. Henry Lee considered that the treatment denominated rough in the paper was mild compared with the usage of former days. He thought it not impossible to employ antiseptic precautions in treating this class of wounds.—Mr. R. W. Parker remarked that there were several cases of this kind of injury during the Franco-German war, and several recovered. He believed the rapidity with which the bullet entered the body, producing an incised rather than a contused wound, was one chief reason why the cases often terminated favourably.—Dr. Mahomed related the history of a case in St. Mary's Hospital. It was that of a man with a bullet-wound in the lung, complicated by pleuritic mischief, the membrane being seemingly filled out with blood. The patient being subject to rigors, tapping of the chest was discussed. The man, however, ultimately recovered; and he (Dr. Mahomed) thought rest, without operative interference, in similar cases, would effect cure.—Dr. Robinson did not remember any instance of tapping in these cases.—Dr. Hewan, in reply, said that the injury occurred while the ship was at anchor in a malarious district off the coast of Africa. He ascribed the successful result to the good treatment the case received.

A Case of Pyelitis: Discharge of Pus: Incision in the Loin: Recovery.—Dr. S. O. Habershon furnished notes of this case. A man aged 28, was admitted into Guy's Hospital under Dr. Habershon's care, on January 29th, 1879. He was a delicate-looking man, by trade a carman; his mother and four brothers were stated to have died from phthisis. Four months before admission, he first noticed blood in his urine, and he then experienced pain at the end of the penis during micturition. For some time previously, he had had pain in the left arm, left side, and thigh, extending down the inner part of the limb to the knee. The blood passed was mixed with the urine, and gave to it the appearance of light red port wine. He did not pass any clots. About a month after passing blood, he noticed a swelling in his left loin, which increased in size till it reached the size of a goose's egg. The severity of the pain compelled him to remain in bed; he stated that, one night, the swelling burst and suddenly disappeared, and that he then passed about half a pint of pus with his urine, and continued passing a little pus at the end of micturition for three or four weeks. The urine was of a yellowish colour. During the formation of the swelling, the bowels were confined for a fortnight, but afterwards diarrhœa came on. On admission, the patient appeared ill and distressed, his sleep was disturbed, he rested on his back, but movement gave pain; there was occasional nausea; the tongue was red and dry; the bowels were regular; the abdomen was rigid, especially on the left side, and he complained of pain when the slightest pressure was made on the left loin. There was dulness on percussion in the left lumbar region, from the eighth rib to the crest of the ilium, but the dulness did not reach to the middle line. There was also fulness at the part, but no defined tumour could be made out. The voice was weak, respiration harsh at the right apex, no dulness at the apices of the lungs, but there was dulness at the left base, and there was absence there of breath-sounds; respirations thirty-six per minute; the pulse was increased in frequency, and feeble. The urine was clear, of specific gravity 1,022, and free from pus, blood, albumen, sugar, phosphates; it contained a few squamous epithelial casts. The evening temperature was 102°. Morphia was given to relieve the pain. The lumbar swelling was believed to be disease of the pelvis of the left kidney, and was thought to be strumous disease setting up suppuration; but it was doubtful whether there had been tubercular disease at the commencement, and the symptoms did not indicate calculus. On February 8th, a fine trocar and cannula were introduced into the swelling through the left loin, about midway between the ribs and the crest of the ilium; six ounces of a clear light green fluid were drawn off, and these were followed by about two ounces of pus. There was a fœtid smell; the fluid was of specific gravity 1,025; when boiled, it became nearly solid, but it contained no urea nor uric acid, no hydatids, but pus-cells and fibrin. On the 10th, there was a good deal of perspiration. The dulness was less extensive, and there was less febrile excitement. On February 14th, the temperature was high, the abdomen flaccid; the tumour was distinctly felt. Mr. Davies-Colley made an incision under carbolic acid spray in the left loin, about three inches in length, just beyond the edge of the quadratus lumborum muscle. A firm, thick-walled, fluctuating tumour was found; and, pus having escaped when a grooved needle was introduced, Mr. Davies-Colley made a larger opening, and nearly two pints of pus, mixed with a little blood, were discharged. The abscess extended beneath the ribs to about the eighth rib, and downwards about two inches below the crest of the ilium, forward to the edge of the rectus muscle; the walls of the sac were lined with calcareous material, but no calculus was felt. A tube eight inches in length was introduced, and the wound dressed with gauze in the antiseptic manner. Quinine mixture was continued. The improvement of the patient was uniform, the pain and perspirations ceased, and the discharge lessened. On the 27th, three inches of the drainage-tube were removed. At the base of the left lung, there was still slight bronchophony and prolonged expiratory murmur. On March 21st, the patient was feverish, temperature 102°. The drainage-tube had been removed, and the wound had healed. Mr. Davies-Colley again opened the wound, and evacuated half an ounce of pus. From that time, he continued to improve. The discharge gradually lessened, but he remained in the hospital till May 15th. The sinus was still kept open, and he was directed to come to the hospital every third day to have the side dressed. The family history and the appearance of this patient suggested the probability of tubercular disease or caseous degeneration, and the discharge of blood directed attention to the kidneys. It was less easy to give a decided opinion as to the cause of the hæmorrhage. The absence of thoracic disease removed passive congestion from the causes of the complaint. There was no history of any blow or fall, and no proof of cancerous disease. The pain at the end of the penis and during micturition was indicative of vesical irritation as from a calculus, but these symptoms were only transient; and it was thought probable that, if any portion of gravel had passed into the bladder, it had been quickly discharged. Two other modes of explanation suggested themselves to explain the hæmaturia and subsequent discharge of pus and enlargement of the kidney; one was that a calculus had blocked up the ureter, and had led to distension and suppuration in the pelvis of the kidney; and the other was that tubercular disease, or caseous inflammation of the gland, had been followed by chronic suppurative pyelitis. The roughened semi-calcareous state of the diseased pelvis of the kidney when the finger was passed in through the incision, showed that this latter supposition was probably correct, and no calculus could be felt. The patient, on admission, was feverish, and in constant pain and distress; there was hectic, and his strength was rapidly failing, and nothing could be more marked than the relief and almost daily improvement after the evacuation of pus had been made by Mr. Davies-Colley. If the operation had been postponed, Dr. Habershon had no doubt the man would soon have become exhausted; and the operation might, he believed, be more frequently resorted to in these cases with benefit, and with the saving of life. It would be well if the whole gland could be safely removed, for it had become the mere cyst of a chronic abscess, and it formed a persistent source of irritation. From the large size of the abscess, it might be doubted whether the suppuration was external to the gland; but it was well known that the pelvis of the kidney might attain to enormous proportions. Some years ago, a man was under care in Guy's hospital who, from the age of sixteen or seventeen, suffered from periodic discharges of pus from the bladder, the discharge of pus being preceded by the formation of a large projecting sac, extending from the ribs to the iliac fossa on the right side. It was found, after death, that a calculus blocked up the ureter on the right side, and that pus collected in the distended pelvis of the kidney, so as to reach several pints in quantity; when the distension became excessive, there was a sudden discharge, and the swelling subsided. The distension of the ureter had become greater than the obstructing calculus, and the passage was then free. These attacks recurred, sometimes with intervals of several years, and the patient attained the age of sixty-four years. He died in Guy's Hospital from cancerous disease at the upper part of the remains of the kidney on that side.—Mr. Davies-Colley said that the character of the abscess-cavity seemed to indicate that it was formed by the dilated pelvis of the kidney. It consisted of a number of smooth-walled compartments freely communicating with each other, and partially separated by ridges, which were most of them encrusted with a calcareous deposit. With the exception of a short period during which pyrexia returned from the too early removal of the tube, the patient's progress to recovery was steady. He wore the tube for a month after he left the hospital, on May 15th. The discharge at first increased, probably from the discontinuance of the antiseptic treatment. It then gradually diminished, and finally ceased altogether at the end of October. His general health was good, but he had to be careful about his diet. Meat made him sick, so that he lived chiefly upon bread and milk. On November 5th, when last seen, the wound had been quite healed for two weeks, and there were no signs of any abdominal tumour, although he was examined carefully in the recumbent posture.—Mr. Golding-Bird endorsed the opinion that the man's safety in this case was consequent on the action taken. The necessity for surgical interference was illustrated by a case he had seen for Mr. Durham, being that of a man with a swelling in the loin, but having also a bladder-affection. It was a matter of uncertainty at first which indication to treat primarily. He decided, however, to cut down on the kidney, and, when he explored it, he found no stone, but some small concretions. The case did well, and he felt that, the danger being small, and an incision on to the kidney involving no serious evil, in confirmation of diagnosis simply, it ought to be incurred.—Mr. Walsham drew attention to another means of diagnosing in these cases, viz., by introducing the whole hand into the rectum, and exploring the ureter and pelvis of the kidney through the intestinal wall. This method, he said, was productive of no inconvenience to the patient, nor did it involve tearing the sphincter, or the occurrence of any injury.—Dr. Habershon had had no experience of this mode of diagnosis. The late Mr. Maunder had told him the sphincter was often torn in attempting to introduce the hand into the rectum. In the case he had read, however, no necessity for trying this method existed, since there was no doubt felt as to its nature. He thought it might be useful when, at an early stage of disease, difficulty of diagnosis was experienced.

Chylous Urine after Ague in India: Albuminuria: Cessation of Chylous Urine, with the Development of Glycosuria and Polyuria.—Dr. S. O. Habershon read notes of this case. Eliza M. C., aged 59, was in India from the age of two years till she was forty, then, after a stay of two years in England, returned to India for ten years more. She had had twelve children, being married when she was about fifteen years of age, and, at sixteen years of age, she had her first attack of ague, and afterwards had repeated attacks before she left India. For three years, she had noticed her urine to be white, like milk, and very thick. This condition continued till admission into Guy's Hospital on July 12th, 1876; her ankles and legs became swollen during the day. For three months, her sight had failed, and objects appeared misty. The patient appeared healthy; there was no evidence of disease of the lungs or heart, nor in the abdomen could anything abnormal be detected, except that the liver could be felt two inches below the ribs. The tongue was red and dry, the appetite good; there was great thirst. The urine had a specific gravity of 1025; it was milky in appearance, and it contained both albumen and sugar; opium and quinine were given. On July 18th, it was found that the urine which was passed before breakfast was lighter in colour, but that passed afterwards was opaque and milky; the quantity was nearly five pints. She was placed on the restricted diet for diabetic patients, and gluten bread was given. The urine remained milky; but the sugar lessened, and, on July 28th and 31st, was absent. On August 2nd, the urine was still milky, and was described as in "lumps like jelly". On August 7th, the quantity of urine passed was four pints twelve ounces, but it was free from sugar. Various specimens of urine and of her blood were examined for filariæ, but none were found; when allowed ordinary diet, the sugar returned. On August 23rd, the urine passed before breakfast was quite clear and free from sugar, but it contained a small quantity of albumen, but that, during the rest of the day, was milky, and became gelatinous on standing. On September 20th, there was no sugar in the urine; its specific gravity was 1020, but the sugar returned after the allowance of ordinary bread. On October 10th, Mr. Higgens found opacity of the lenses, and, on the 17th, performed iridectomy on the left eye. On November 11th, the urine passed after breakfast became clear; 15th, it was clear, of specific gravity 1012, free from albumen, but it contained sugar; about four pints and a half of urine were passed during the day. When ordinary bread was allowed, the sugar increased; and, on November 23rd, the specific gravity was only 1010, but the urine still contained sugar. On December 2nd, she passed nine pints of urine in the twenty-four hours, clear and pale, of specific gravity 1010, free from albumen, but containing sugar. On the 19th, she passed eight pints and a half of urine, of specific gravity 1014, containing 242 grains of sugar. On January 6th, ten pints of urine were passed, of specific gravity 1008, and a small quantity of sugar was present. The tincture of iron was prescribed, and afterwards ammonia with laudanum. During the whole of January, the urine was about the same, clear, eight to ten pints in quantity, of specific gravity 1010 to 1012, and it contained sugar; and, on January 27th, there were 1,800 grains of sugar found. On February 5th, she passed nine pints, of specific gravity 1010; and, after fermentation, the specific gravity was 1006, giving about 730 grains of sugar. She remained in the hospital till February 21st; her general health had improved, the chylous urine had ceased, the albumen had also disappeared, but the urine continued of low specific gravity, and it contained sugar. On February 17th, it was nine pints, of specific gravity 1014. This case was one of chylous or of lymphous urine, for there was spontaneous coagulation, but it was associated with glycosuria. Albumen soon disappeared, but the sugar remained. At first, the sugar ceased when the diet was restricted, but it afterwards became more decided and permanent. Search was made many times for filariæ, but none could be detected in the blood after careful microscopical examinations. In recorded cases of chylous urine, the condition had been referred to change in some of the lymphatic vessels connected with the kidney; but its association, in this instance, with glycosuria suggested the idea that both conditions, the presence of chyle and of sugar in the urine, might be referred to change in the liver. Of the hepatic disease, there was no positive proof, and the connection with the liver must be regarded as conjectural, at any rate as regarded the chylous state.—Dr. Pavy said that this same patient was subsequently under his care. During the time, however, no chyluria was observed, and he considered it a case of mild saccharine diabetes. The peculiarity of it arose from the association of diabetes mellitus with diabetes insipidus. He had once a similar case, that of a boy, under treatment; and in him he found that, on non-restricted diet, the large quantity of sugar that was excreted when the diet was limited ceased to be passed with the urine. He was convinced the two conditions were a result of vaso-motor paralysis affecting the chylopoietic viscera, and interfering with the due transformations to which the blood within their vessels was submitted. He related a case, under his observation in 1875, of a lady, concerning whom he was consulted by a country practitioner. She showed chylurous symptoms, but, becoming pregnant, she lost them when advanced into the third month of gestation. After delivery, however, the chyluria returned. He concluded that this was due to some abnormal connection set up between the lacteals of the chylopoietic viscera, on the one hand, and those of the renal system on the other. The great inequality of the blood-pressure on the two systems precluded the possibility of any natural connection.

Cupric Test-Pellets for Sugar.—Dr. Pavy introduced to the notice of the Society a new form of test for sugar, which he thought would prove of much service to the medical practitioner. Of the various reagents recommended for the detection of sugar, his experience led him to consider the cupric test by far the most reliable. It had been hitherto the practice, certainly where delicacy and precision were in question, to employ the test in the form of a solution prepared by mixing an alkaline tartrate with sulphate of copper, and either potash or soda. Such a solution contained the oxide of copper in a state ready to be reduced to the condition of the suboxide when in contact at a boiling temperature with glucose. When freshly prepared, this solution fulfilled all that could be desired; but there was the disadvantage that, after being kept for some time, especially if exposed to light and air, it was liable, without the presence of sugar, to throw down a certain amount of reduced oxide on boiling, and thus possibly to mislead unless precautions were taken. Besides this objection, the liquid, unless frequently used, was very apt to cause the stopper of the bottle in which it was kept to become fixed. He had long felt that it would be very desirable if the ingredients of the test could be incorporated and kept in a solid form; and, some years ago, he had made a fruitless attempt to attain this object. Latterly, he had given his attention afresh to the subject, and the test-pellets before the Society were the result of the task. They contained the solid ingredients of the cupric test solution in a dry state, and they were brought into the condition of a coherent mass by compression. The preparation had been placed in the hands of Mr. Cooper, of 26, Oxford Street, who most successfully met the difficulties that were encountered. An article had been produced which met with Dr. Pavy's entire satisfaction, and which he felt was adapted hereafter to render good service in relation to diabetes. There appeared no reason why the pellets should not keep for an indefinite time without undergoing change, if preserved in a closed bottle away from moisture. In using them, all that was necessary was to place one in a test-tube with a little less than a drachm of water, and to apply heat until complete solution had occurred, with the accomplishment of which a clear deep blue liquid would be formed which actually constituted the cupric test solution. At present, it was only as a qualitative test that the pellets were introduced, but there was no reason that hereafter the preparation should not be conducted with sufficient attention to accuracy of weighing to render them applicable for quantitative analysis. Dr. Pavy mentioned that the test-pellets exhibited were sold by Mr. Cooper, chemist, of Oxford Street, in bottles containing twenty-four, at a cost of one shilling.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 14TH, 1879.

W. S. PLAYFAIR, M.D., President, in the Chair.

The Uterus and Appendages from a Case of Internal Hæmorrhage.—Dr. Godson showed a specimen, for Mr. J. K. Barton, of an uterus and appendages of a woman who had died from internal hæmorrhage. Acute sudden pain in the left iliac region was followed by collapse and signs of internal hæmorrhage. She died within twelve hours. The necropsy showed the peritoneum to be full of blood, with large clots in the pelvis. The left Fallopian tube was found distended to the size of a small walnut, in the anterior aspect of which was a small rent, which led into a cavity in the centre of what appeared to be organised blood-clot. No ovum could be discovered, and the uterus contained no decidual membrane. The right ovary showed a well marked corpus luteum. Mr. Barton had sent the specimen as one of tubal gestation and rupture, but Dr. Godson could trace no signs or symptoms of pregnancy. At the same time, he failed to account in any other way for the distension of the tube, both ends of which were patent. Had not death occurred, the blood would have become encysted, and would have formed a large hæmatocele.—Dr. Edis thought it not proved that pregnancy had not existed. The Fallopian tube was not only distended, but also thickened and developed. There was also a corpus luteum characteristic of pregnancy.—A committee, consisting of Drs. John Williams, Godson and Galabin, was appointed to report on the specimen.

Specimens.—Dr. Hilliard showed a one-headed twin monster, which had been born without assistance.

The President showed, for Mr. Clabburn of Turnham Green, a supposed case of superfœtation.

The Report of the Committee on the uterus shown by Dr. Heywood Smith was read. It stated the growth to be cylindrical epithelioma, with a tendency to pass into medullary carcinoma.

Pain in Pelvic Cancer.—Dr. Champneys read a paper on the pain in pelvic cancer, and its relief by morphia. The paper consisted of the clinical study of fifty cases, and was illustrated by fourteen tables of a statistical nature. The seat of pain was carefully ascertained by making the patient lay her hand or finger on the spot. The localities were most various, the region of prevalent uterine pains being, however, bounded by the line of the sacrum above and the knee below. The pains were six times as common on the left as on the right side. In all the painless cases, there was bleeding. Of the methods of administering morphia, the hypodermic injection of morphia was shown to be far the most, and the suppository the least, effectual.—Dr. Matthews Duncan regarded the paper as valuable, and deserving study.—Dr. Graily Hewitt remarked that, in regard to the pain in cancer of the uterus or parts adjacent, there was one feature of great diagnostic value which had not been noticed, that was the spontaneity of the pain in cancer. The pain due to other uterine disorders was caused or aggravated by position or motion. Another important point was the rapidity of the pulse, which would rarely be found under 90. For the relief of the pain, he preferred the injection of laudanum into the bowel.—The President had met many cases in which the disease was far advanced without pain being present. He asked if iodoform had been used locally to relieve the pain.—Dr. Godson thought fifty cases far too few to draw anything like definite conclusions. He had analysed 150 cases of uterine cancer under his own care, and forty-four were between 30 and 40, and sixty-six between 40 and 50, years of age. It was difficult to get information with respect to the first symptom.

The Cotton-Leaf as a Galactagogue.—Dr. J. W. ANDERSON of Jamaica read a paper on a new galactagogue. He made infusion from the green leaves of the shrub which produced the cotton of commerce—the *Gossypium Barbadense.* The author recommended the liquor gossypii corticis as imported by Messrs. Corbyn, Stacey and Co.

Foreign Body in Vagina.—Drs. CARTER and DALY read notes of a case in which a girl had passed a reel into her vagina, at the age of thirteen, to stop the menstrual flow. She suffered for four years from a fœtid watery discharge. The reel became firmly imbedded, and surrounded by cicatricial tissue. This was cut through, and the reel removed. Two years later, as marriage was contemplated, the cicatrices in the vagina were incised. Shortly after marriage, she became pregnant, and labour was induced by Dr. Daly at the eighth month, the vagina being still strictured. The cicatricial tissue had to be again incised, and the forceps was applied. The child was born alive, but soon died. Her second labour was allowed to proceed to full term, the cicatricial bands were incised, and delivery occurred naturally. The child survived.—Dr. CARTER read the notes of a case of the metal cup of a drinking-flask which had been passed into the vagina by the patient. It was there retained. At first, it caused great pain and some bleeding, but this soon ceased, and she became regular. Six months afterwards, the urine began to dribble away. The author removed the foreign body, which, with the phosphatic deposit encrusting it, weighed nearly six ounces. A month after, the resulting vesico-vaginal fistula was closed by operation.—Dr. EDIS mentioned the case of a large oval pessary, of the size of a goose's egg, which he had removed from a woman who had worn it for eleven years, ignorant of its presence. She had many symptoms of cancer. It illustrated the importance of the cardinal rule, when applying a pessary, of giving full directions to the patient in respect to its presence in the vagina.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, DECEMBER 10TH, 1879.

ALEXANDER ROBERTSON, M.D., President, in the Chair.

Hydatid Mole.—Dr. DUNCAN showed this specimen. Menstruation ceased last July. The abdomen gradually enlarged, and, at the end of three months and a half, the woman imagined she felt the movements of the child; after this, the abdomen enlarged rapidly, and the hydatid came away easily on December 6th. The patient had now a little œdema of the feet, and was anæmic, but there was no albuminuria.

Sarcoma of Orbit.—Dr. THOMAS REID showed a tumour which he had removed from the upper wall of the orbit of an elderly man. It occupied the situation of the lacrymal gland, and extended backwards between the eyeball and the supra-orbital plate.

Circumcision.—The instruments used in the performance of this operation as a Jewish rite and for phimosis were exhibited by Dr. DUNLOP, and the various methods of performing the operation itself were compared and commented on.

Ruptured Perinæum.—Dr. HECTOR CAMERON showed the instruments used in Simon's operation for ruptured perinæum (see Ziemssen's *Cyclopædia*). The great advantage of this operation is that it does away with the deep-quilled suture. He also showed the stitch used by Aveling in this operation, by which the difficulty of removal and irritation produced by the ends of the ordinary suture becoming embedded are avoided. Aveling runs the stitch home by a little coil of wire through which the ends of the suture are passed, and then he clamps the wire on the distal side of the coil with a small leaden pellet. This can always be easily found and removed with the fingers.

Dissecting Aneurisms.—Dr. COATS showed three specimens removed from the same subject. The first aneurism was on the first portion of the aorta; the aperture was narrow, but, in connection with it, there was a tear in the internal and middle coats of the aneurism. The second aneurism involved both the thoracic and the abdominal portions of the aorta; it had two apertures, the blood passing in at the one and out at the other. The upper part of the aneurism contained stratified clot, the lower was empty. The third aneurism was situated on one of the mesenteric vessels. All the aneurisms were situated in the middle coat of the artery. The middle coat of the femoral and other vessels were found infiltrated with calcareous matter; and, although Dr. Coats did not think the calcareous infiltration the cause of the aneurism, still it showed a congenital vulnerability of the middle coat.—Dr. GAIRDNER thought the case unique in the number of dissecting aneurisms, and that atheroma had not much to do with their production.

Tracheal Casts were shown by Dr. GEORGE BUCHANAN and Dr. HECTOR CAMERON. In both cases, the casts were coughed up, and Dr. Buchanan's patient, a little boy of eight years, recovered; the other died.

Union of Peritoneal Surfaces.—Dr. GEORGE BUCHANAN showed a preparation from a case of Cæsarean section, in which the peritoneal edges had united in twenty-four hours. The process could not be called "immediate union"; it was rather a glueing together of the two surfaces which were folded against each other.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, DECEMBER 5TH, 1879.

E. D. MAPOTHER, F.R.C.S.I., President, in the Chair.

Recent Specimens.—Mr. WHEELER showed a Calculus, weighing six *grammes*, which he had removed from the bladder of a man aged 30; also a Clavicle, which he had recently extirpated from a woman aged 30. It was broken in two, and showed extensive carious disease. He also showed a Scirrhous Tumour, which, on examination with the microscope, was found encapsulated, contrary to the dictum of Paget and others, who hold that this never occurs in scirrhous tumours. Sections of the tumour were exhibited under the microscope.

Tumour of Breast. — Mr. CROLY showed a tumour, removed by him from the breast of a girl aged 15, which he described as a cystic adenoid fibroma, and exhibited sections of it under the microscope. He expressed himself at a loss as to what better name to give it, as it could not from its structure be placed in any of the divisions of Paget's or Billroth's classifications of tumours.

Ovarian and Uterine Tumours.—Dr. ATTHILL exhibited two ovarian tumours, and another tumour, which before operation was believed to be ovarian, but which proved to be uterine. The patient had been for a long time under treatment for uterine disease; but, on examination, the uterus seemed perfectly healthy, but she had dysmenorrhœa. The diagnosis made was ovarian tumour with adhesions. The third tumour proved to be attached to the uterus by a small pedicle; it was fibro-gelatinous in character.

Litholapaxy, or Lithotrity at a Single Sitting.—Mr. STOKES read a paper on this subject, in the course of which he read the notes of a case in which he had crushed, eighteen months ago, for stone four times at short intervals, removing in all eighty-six grains of calculus *débris.* Temporary relief followed; but in July last, ten months after the previous operation, he had again to operate; this time he performed Bigelow's operation—for the first time in Ireland—using a straight evacuating catheter, No. 18. The operation lasted an hour and ten minutes, and fifty-six grains of calculus were removed; and twelve days afterwards the man was discharged from the hospital cured. He had since had no return of the symptoms. Litholapaxy, *i.e.*, a washing out of the stone, was not a new operation. It had been practised by Sir Philip Crampton in the Meath Hospital many years ago, and the method of operation was described by Mr. Porter in his paper on Lithotrity. Mr. Stokes showed the original instrument devised and used by Crampton, which was similar in principle to that of Bigelow. The great liability to cystitis after lithotrity was undoubtedly due to irritation caused by sharp fragments of the stone left in the bladder; hence the great value of the evacuating apparatus. He (Mr. Stokes) thought the reason why the evacuating apparatus was so disliked was because the tube used was too small—the calibre of the urethra was much larger than was generally supposed—and it was not realised that a straight tube presented no difficulty, but great advantage, in the operation. The apparatus as used by Bigelow was then explained, and its advantages pointed out. Mr. Stokes considered Bigelow's real merit lay in—1. The strength of his elastic bottle; 2. The large size of the tube employed, and its being straight; 3. In having proved the tolerance of the bladder to endure prolonged operative manipulation, provided all fragments of the calculus were removed at the time of operation. He did not think the term litholapaxy an useful one; it only meant what was done years before by Crampton and others. He, therefore, preferred to describe the operation as "lithotrity at a single sitting".—Dr. CRUISE pointed out that Irish surgeons had been working in the same direction as Bigelow, who had by his improved method crowned their labours with success. Mr. Porter's teaching was always "Leave the stone in the bladder, and you will have cystitis; remove it, and you will have less in proportion to the amount removed". He recounted some cases in which he, with Mr. Porter, had removed stones at the time of crushing before any paper of Dr. Bigelow's appeared on the subject.—Mr. PORTER, Dr. BARTON, Dr. ATTHILL, and Mr. BENNETT also took part in the debate; and Mr. STOKES replied.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 7TH, 1880.

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THE GENERAL MEDICAL COUNCIL AND THE MEDICAL LICENSING BODIES.

I.

IN pursuance of directions given by the Select Committee on the Medical Act Amendment Bill, the Registrar of the General Medical Council has applied to the licensing bodies in the United Kingdom for full details in regard to the questions: whether their regulations are or are not in accordance with the recommendations of the Medical Council; and, if not, wherein the difference consists? To this application, answers have been received from all the bodies excepting the Queen's University in Ireland; and the details given in the replies have been carefully classified in a tabular form by the Registrar. The subjoined analysis will show the general position of the licensing bodies with regard to each of the recommendations.

1. "That it be recommended to the licensing boards not to accept the certificate of proficiency in general (preliminary) education from any of the bodies, the names of which are contained in the list annually circulated, unless such certificate testify that the student to whom it has been granted has been examined in: 1. English Language—including Grammar and Composition; 2. Arithmetic—including Vulgar and Decimal Fractions; 3. Algebra—including Simple Equations; 4. Geometry—first two books of Euclid, or the subjects thereof; 5. Latin—including Translation and Grammar; 6. One of the following optional subjects: Greek; French; German; Elementary Mechanics of Solids and Fluids (meaning thereby Mechanics, Hydrostatics, Pneumatics, and Hydraulics)." It does not appear that the regulations of any of the licensing bodies on these matters fall below the recommendations of the Medical Council. On the other hand, the universities in general go beyond it. In Oxford, the subjects 3 and 4 are optional; but the standard for Latin and Greek is high, and the candidates for the M.B. degree must have passed the examinations for B.A. The matriculation examination of the University of London covers more ground, requiring four books of Euclid, two languages (besides Latin), Chemistry, and Natural Philosophy, as compulsory subjects. In the University of Edinburgh, the five compulsory subjects are required, but a higher knowledge of Geometry is demanded; Mechanics also is compulsory; and Logic and Ethical Philosophy are among the optional subjects. The Royal College of Surgeons of Ireland has always required candidates to pass an examination in the compulsory subjects mentioned in the recommendations, and also in Greek. The Apothecaries' Hall in Ireland also requires Greek. With regard to these two bodies, it must be stated that their regulations regarding preliminary examination have been in force for a great number of years; while, by most of the other bodies (including the universities of Scotland), preliminary examinations of intending medical students have been instituted only since the passing of the Medical Act, in 1858, and the issuing of recommendations by the Medical Council. The matriculation of the University of London was, as is well known, instituted long before; and the preliminary examination of the Apothecaries' Hall of London was formed mainly on the same lines as at present in 1850. The practice of the University of Dublin is, and has long been, in advance of the recommendations.

2. "That it is desirable that the examination in general education be left to the Universities and such other bodies engaged in general education and examination as may from time to time be approved by this Council; and that it be delegated to the Executive Committee to confer with the Licensing Bodies on this subject." The College of Physicians of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow object to giving up the preliminary examinations which are conducted by their own special boards of Examiners in Arts. The University of Aberdeen approves of the recommendation, while the University of St. Andrew's disapproves of it. The Royal College of Surgeons of Ireland would not surrender its control over the preliminary examination so long as the examinations were not under the supervision of the Medical Council; but "it would be willing to act upon the recommendation of the General Medical Council, if a sufficient examination should be established accessible to students without undue cost, and independent of any professional educating body". The Apothecaries' Hall of Ireland would approve of the recommendation, provided that Greek were made compulsory. With regard to the remaining bodies, some—as the Colleges of Physicians in London and in Ireland—have ceased to hold preliminary examinations, but require evidence that they have passed; and others make no comment.

3. "That it be recommended to the various licensing bodies to instruct their examiners in professional subjects to report to them any cases in which decided ignorance in the subjects of general education has been displayed by the candidates, with the name of the board or boards before which the preliminary examinations have been passed; and the licensing bodies are requested to transmit such reports to the Registrar of the General Medical Council." The only examining body which appears to object to this recommendation is the Apothecaries' Hall of Ireland "on account of its seemingly invidious character", but it "will proceed to carry it into effect as soon as the other medical bodies agree to do so". The Edinburgh Colleges and the Glasgow Faculty approve of the recommendation, and have carried it out. A large proportion of the licensing bodies state that there has been no occasion to make such a report as is recommended. The examiners of the Society of Apothecaries in London have received no instructions; but, if decided ignorance were manifested, the licence would not be granted.

4. "No medical student shall be registered until he has passed a preliminary examination, as required by the General Medical Council, and has produced evidence that he has commenced medical study." The registration of medical students is not now carried on by the medical corporate bodies, which have relinquished the task since the institution of registration by the General Medical Council and Branch Councils. The practice of the Universities is in conformity with the recommendation.

5. "The commencement of the course of professional study recognised by any of the qualifying bodies, shall not be reckoned as dating earlier than fifteen days before the date of registration." In regard to this, no comment is made by the Universities of Oxford and London. The regulations of other bodies are stated in general terms to be "conformable". The College of Physicians in Ireland approves; but has no regulation bearing on the question, "as students in Ireland do not always register at the commencement of their studies".

6. "The several Branch Councils shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory." In their replies, most of the licensing bodies state that this is a matter which does not concern them, or that their practice is in accordance with the recommendation. The only bodies which disapprove of such power being given to the Branch Councils are the King and Queen's College of Physicians in Ireland, and the University of Dublin.

7. "The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts, any candidate (not exempted from registration) whose name has not been entered in the medical students' *Register* at least forty-five months previously. In the case of candidates from other than schools of the United King-

dom, the Branch Councils shall have power to admit exceptions to this recommendation." According to the replies, there is a general conformity with the recommendation. The College of Surgeons in Ireland, however, states that it "has always held the opinion that four years is the least period which can be deemed sufficient for acquiring a competent knowledge of the profession, but is aware that students are enabled by the regulations of most licensing bodies, and will be able under the present recommendations of the General Medical Council, to present themselves for examination upon a less period of *bonâ fide* study than even three years." The only apparent exception to strict compliance with the recommendation is in the University of Aberdeen, where candidates who take the final examination at the April term do so after at least forty-two months of medical studies.

8. "That the age of twenty-one shall be the earliest age at which a candidate shall obtain a licence to practise; and that the age shall, in all instances, be duly certified." The practice of the great majority of the licensing bodies is, and has long been, in conformity with this; the Royal College of Surgeons of Ireland, however, seems to have no regulation on the subject, "but will be happy to adopt the recommendation". The King and Queen's College of Physicians in Ireland has no regulation as to the limit of age, as "the vast majority of candidates for the licence of the College have already obtained one or more registrable qualifications". The University of Cambridge does not think a certificate of age necessary, as "no man ever gets a medical degree at Cambridge till he is some years older than 21".

9. "That no licence shall be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student." The replies regarding this recommendation are of the same tenor as those relating to the last recommendation but one (No. 7).

10. "That the course of professional study required for a licence shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at any school recognised by any of the licensing bodies mentioned in Schedule (A) of the Medical Act." According to the regulations of the various licensing bodies, this recommendation is almost universally carried into effect. The regulation of the King and Queen's College of Physicians in Ireland is curiously stated to be *not* conformable as regards hospital practice, "as the College considers that *three* winter and *three* summer sessions are required".

11. "That it is undesirable that any teaching or licensing body should insist on the student taking more than one course of lectures on any one subject." On this recommendation, there are various expressions of opinion. The Royal College of Physicians of London has it under consideration with a view to adoption. It has never been brought under the consideration of the Council of the Royal College of Surgeons of England. The Society of Apothecaries adopts it, except in the case of Anatomy. The regulations of the Universities of Oxford and London, and of the Scottish Universities, are in conformity with the recommendation. In Cambridge, candidates for the degree of Master in Surgery must attend a second course of Anatomy. The Royal College of Physicians of Edinburgh complies with the recommendation in regard to its single licence; but from candidates for the double qualification of the Colleges of Physicians and Surgeons, or of the College of Physicians and the Faculty of Physicians and Surgeons of Glasgow, besides a course of Surgery and one of Clinical Surgery, a third course—either systematic or clinical, is required; and in the regulations for the double qualification of the two Colleges, a third course of Medicine—either systematic or clinical—is required. In the Edinburgh College of Surgeons and the Glasgow Faculty, a second course of Anatomy or of Dissections, and a second course of Surgery or of Clinical Surgery, are required. The Royal College of Surgeons in Ireland does not approve of the recommendation, as it requires three courses each of Anatomy and Physiology, Surgery, and Dissections. The Apothecaries' Hall in Ireland has hitherto required two courses of Anatomy and Physiology, but in future will require one only. The University of Dublin requires two courses of theoretical and operative Surgery.

12. "That the following are the subjects, without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered: 1. Chemistry, including a knowledge of the principles of Chemistry, and of those details of the science which bear on the study of Medicine, and Chemical Physics, meaning thereby Heat, Light, and Electricity; 2. Anatomy; 3. Physiology; 4. Materia Medica and Pharmacy; 5. Pathology, including Morbid Anatomy; 6. Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; 7. Surgery, including Surgical Anatomy and Clinical Surgery; 8. Midwifery; 9. Forensic Medicine." In the Royal College of Surgeons of England, provision is about to be made for examination in the subjects numbered 1, 4, 5, 8, and 9. The examinations of the Society of Apothecaries include all the subjects except Surgery. The Universities in Scotland require in addition Botany and Natural History (or Zoology). The Royal College of Surgeons in Ireland holds a special examination and grants a distinct diploma in Midwifery. The Apothecaries' Hall in Ireland requires Botany and Hygiene as additional subjects. The University of Dublin requires, in addition, that the candidate pass an examination in Ophthalmic Surgery and in Botany, and give evidence of personal attendance on Midwifery and Fever cases. The regulations of the other bodies are stated to be in conformity with the recommendation. Most, if not all, require evidence of personal attendance on cases of midwifery, though they do not specially mention this in their replies.

13. "That the Council will view with approbation any encouragement held out by the licensing bodies to students to prosecute the study of the natural sciences before they engage in studies of a strictly professional character." The practice of the licensing bodies seems to have been but little if at all affected by this recommendation, although it was first made several years ago. The Royal College of Surgeons of England states that it is in conformity with the regulations which have been prepared for a conjoint scheme. In the University of London, the Preliminary Scientific Examination fulfils the conditions. The College of Physicians of Edinburgh has taken no steps in the matter; while the College of Surgeons of Edinburgh "incorporates in its rules a strong recommendation to this effect". Botany and Natural History or Zoology are included, as above stated, in the professional examinations of several of the licensing bodies; while they are optional subjects in some of the preliminary examinations.

14. "That a certificate be required, by each licensing body, from every candidate for its degree, diploma, or licence to practise medicine or surgery, that he has studied vaccination under a competent and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle and with the methods of preserving lymph, and that he is thoroughly informed in every necessary part of the subject." 15. "That such a certificate should be received by any licensing body only from an institution where the appointed teacher of vaccination is recognised by the Local Government Board." From the replies, it appears that the regulations of the licensing bodies are mostly in conformity with the recommendations. In England, the practice is conformable to the recommendations; except that the University of Oxford does not require a certificate, on the ground that it is already possessed by the majority of candidates for the degree of M.B. as members of the Royal College of Surgeons; and the University of Durham has not hitherto required certificates of proficiency, but will do so in future. The Scottish Corporations and Universities require certificates; but the Corporations, and the University of Aberdeen (where, it is stated, there is no specially recognised vaccinator) accept them from other sources than that specified. In the King and Queen's College of Physicians, certificates are not required, but the candidates "are usually subjected to strict examination in the subject". The College states that it is not practicable to carry out the second recommendation, "as in Ireland no such office exists"; while the Apothecaries' Hall in Ireland receives certificates "only from the medical officers approved of by the Local Government Board". The Royal College of

Surgeons in Ireland has adopted the principle of the recommendations, “but “reserves to itself the function of determining the qualification of teachers of vaccination”.

THE GOVERNMENT BILL FOR THE AMENDMENT OF THE MEDICAL ACT.

We stated some time since that it was understood on good authority to be the intention of the Government to reproduce the Medical Amendment Bill of last year with but slight alteration, with a view to its being referred again to a select committee to continue the consideration of the subject; the committee of last year having left their labours incomplete. Subsequently, however, pressure of other business rendered it probable that this might be postponed or left aside altogether, as of less importance than many other public questions which press for solution during the approaching session. It would have been a serious misfortune if the latter course had been pursued. To leave the pending questions of medical education and examination, and of the constitution of the General Medical Council, unsettled, as they now are, by incomplete inquiry not followed by report, would have been detrimental to the public not less than to the professional interests. The Crown members of the Council, feeling naturally the position in which they were placed in relation to the Government, and the unsatisfactory position in which the Council stood, pending the result of the unfinished inquiry, waited upon the Duke of Richmond a few days ago, to urge the necessity of having the inquiry which was commenced by the Select Committee renewed and completed with all despatch. The Lord President, who was accompanied by the Chancellor of the Exchequer, after hearing the expression of the views of the gentlemen present, undertook that the Bill of last year should be reintroduced in the House of Commons and referred to the Select Committee, which should be reappointed at the earliest possible moment.

A LOST MEDICAL SCHOOL.

We have been favoured with a copy of the *Oxford University Gazette* for January 16th. It contains a marked paragraph which we cannot forbear quoting as it stands. It runs thus:

> “*Mathematics and Physical Science.*—Regius Professor of Medicine: Henry W. Acland, D.M. The Professor will receive members of the University in the Medical Department of the Museum on Monday, January 26th, and every Monday in February, at noon, to give assistance and information with regard to the study of medicine in any department. Mr. W. F. Donkin, M.A., of Keble College, will give instruction in the Sanitary Laboratory on the Analysis of Water and Food, in relation to the Public Health. Arrangements will be made for a course of instruction on the Action of Poisons by Mr. S. D. Darbishire, M.A., M.B., of Balliol College, and on the use of various means and instruments of Diagnosis by Mr. W. L. Morgan, B.A., of Christ Church and Exeter College. Members of the University who desire information with respect to these several courses are requested to call on the Professor on Monday, January 26th, at noon.”

Such a notice may well make reasonable people, who know that there are at Oxford no teaching of medicine, no systematic courses of lectures on anatomy, no systematic lectures on medicine, no lectures on pathology or therapeutics, no clinical teaching, and therefore no medical students, rub their eyes with astonishment, and ask themselves whether this is a serious announcement or a pasquinade. Is it possible for serious people to continue to play with a great university in broad daylight? “Information and assistance”, forsooth, in regard to “any department of medicine”, in a place where the first elements—the daily bread—of medical study are wanting; where there is a systematic abandonment of the main requirements of a medical school; and then comes the exquisite offer of teaching little outside arbitrarily selected bits of *dilettanti* subjects, for which there is of course no audience: “the action of poisons” to a man who is unprovided with lectures on the action of drugs; “the analysis of water and food” in a place where neither pathology, nor medicine, nor human physiology, nor systematic anatomy, nor pharmacology, is taught. It is possible that the mathematical professors, who are here obliquely instructed that medicine is a department of mathematics and physical science, may feel flattered, and may assume that a really laudable and coherent system of medical teaching is carried on in the University. It is quite time that they should know that such announcements will seem to the profession as nothing else than a most distressing burlesque and a serious reproach to the University in the eyes of instructed persons throughout the world. There is not a third-rate university in any part of Germany, or a fourth-rate medical school in any part of this country, which would tolerate such a fantastic and unsubstantial programme.

THE ARMY MEDICAL SERVICE OF INDIA.

In the Journal of January 24th, we gave a brief notice of Mr. Cornish's Letter on the Past, Present, and Future of the Medical Service of India. It is Mr. Cornish's opinion that the time has come when it is impossible to maintain the mixed military and civil service known as the Indian Medical Department. Mr. Cornish by no means advocates violent or sudden changes, although he is constrained to admit that, however such a change as the amalgamation of the British and Indian Medical Services is brought about, it must affect the interests of some prejudicially, more particularly of those who elect to remain for local service in India. But he expresses a confident hope that, when individual wrong is done in carrying out any measure of public policy, an effort will be made, as far as possible, to redress it. We admit that such has always been the custom of the Government of India in dealing with its servants—an example, regarding which we wish we could add that it was always followed by the Home Government, in dealing at least with the medical branch of the public services.

Mr. Cornish proposes to effect the amalgamation of the British and Indian Medical Services, first, by facilitating the retirement of senior officers of both services whose claims to promotion cannot be met; second, by keeping in distinct *cadres*, for the three Presidencies, all those officers who are willing to elect for general army service, and by selecting, for promotion to administrative ranks in the combined service, the proportion due to the Indian service from those cadres, so long as any names remain in them. From such cadres, on account of the rules of the British service, all natives of India and Eurasians would be excluded; nor is it likely that they would, even if allowed, volunteer for general service. So it is proposed that they should be embodied in a local corps, and that from this corps all the appointments in the civil, medical, and sanitary departments should be filled up. Under this scheme, all men entering the Army Medical Department, from a certain date, “would of course be required to serve with either British or native troops, and to comply with all regulations of the Government of India in regard to qualification in the vernacular languages. They would, as at present, be detailed for a tour of five years' duty in India, the time being extended on special grounds, if necessary for the public good; all medical staff appointments in India, of a military nature, being open to all members of this General Army Medical Staff.” Mr. Cornish goes with care into the monetary part of the question; and shows how largely the Government of India would gain, in a pecuniary point of view, by tempting the seniors in the Indian Medical Department to retire, by granting a liberal bonus in addition to their pensions. He shows that such has been the block in promotion, of late years, that a large number of senior officers on high pay are employed on duties which could be quite as well done by juniors drawing a much smaller rate of pay; and he demonstrates that, for every surgeon-major of twenty years' services and upwards induced to retire with suitable compensation, the Government would be an immediate and permanent gainer of about 5,000 rupees (£500) a year by filling up his place with a duly qualified graduate of the Indian Medical Colleges for civil duty, or by recruiting juniors for the Army Medical Department. These financial points lie outside the scope and sphere of this Journal; but they will doubtless receive due consideration from those whose business it is to deal with the financial aspects of this by no means easy question. We observe that Mr. Cornish deprecates a sudden sweeping away of the seniors, and recommends that the proposed reductions, in the interests of the service, should be extended over four or five years.

Mr. Cornish has some good remarks on the now pressing necessity for having an administrative Board of Health for every province in India; and urges the Government to look the question in the face of making laws for the registration and control of the yearly increasing number of medical men turned out by the medical schools and colleges which have been so ably conducted by the medical officers of the service. It is, indeed, high time, as Mr. Cornish expresses it, "that the minimum qualification, to enable a man educated in India to practise, should be fixed; that all candidates for licences should be examined on an uniform system, and not merely as at present by their teachers; that their legal rights and obligations should be defined; and that means should be provided to disqualify those found guilty of dishonourable and unprofessional conduct." Lastly, Mr. Cornish points out the hardship to the natives of India, who wish to enter the public service, of forcing them to go to Europe to compete for admission. They are not anxious to have army duties thrust upon them, and should be allowed to qualify in India solely for civil service, which they would be content to do, if relieved from the necessity of coming to England, on a more economical scale of payment. Mr. Cornish, addressing his brother-officers, thus concludes his letter: "It is because we have done our work so well that a *foreign* Civil Medical Department in India is doomed to extinction; and, in this view of the case, there is more cause for pride than for regret."

TWO Chinese lepers have been discovered at Sydney. One of them has since died; the other has been isolated.

WE are glad to learn that the testimonial to Mr. Luther Holden is making favourable progress.

THE Duke of Connaught will preside at a dinner festival at Willis's Rooms, King Street, St. James's, on Wednesday, February 25th, in aid of the funds of the Samaritan Free Hospital for Women and Children.

THE annual dinner of the Hunterian Society will be held at the Albion, Aldersgate Street, on Friday, February 13th, when Dr. Braxton Hicks, the President, will take the Chair.

THE *Indian Daily News* says that recently a medical subordinate at Balesh Kheyl gave a sick sepoy carbolic acid for cough-mixture. The dose killed him. Cannot some method be devised for preventing the frequent mistakes of this kind?

A BILL has been laid before the Jersey States for the registration of chemists and druggists duly qualified in accordance with the provisions of the English Pharmacy Act. Out of sixteen persons practising as druggists on the island, only three are said to possess more than the simplest qualifications.

THE deaths returned in the city of St. Petersburg for the week ending January 17th showed a very large increase in the number of deaths from infectious diseases, the mortality thus occasioned being twice as great as usual, or 19 per cent. of the total number of deaths during the week.

THE Medical Officer of Health of Southend writes to us to contradict the statement that typhoid is prevalent in that town. He states: "Without the slightest hesitation I can positively affirm that there is not a single case (neither has there been one for nearly two months) in Southend."

ON January 20th, Hector Mackenzie, chemist, was fined £10 and court expenses for having contravened the Medical Act by inserting in the *Shetland Times* an advertisement in which he styled himself Dr. Mackenzie (U.S.A.), thus "wilfully and falsely pretending to be a physician or doctor".

EARL SHEFFIELD has made the munificent donation of £1000 to the Sussex County Hospital.

THE rise which took place in the latter part of last year in the price of common teas has caused the shipment from China of large quantities, some say as much as 100,000,000lbs. of rubbish utterly unfit for use. Dressed up and passed as sound tea, this stuff is now, it is alleged, finding its way into consumption here without, apparently, any interference on the part of the Custom House authorities.

ACCORDING to a recent memoir of MM. Moutard-Martin and Richet, presented to the Académie des Sciences, Paris, sugar injected into dog's veins always causes polyuria and glycosuria, and does not affect the blood-pressure. Gum has an opposite effect; it diminishes the polyuria previously produced by sugar, and at length completely stops the secretion of urine; it also increases notably the tension of blood in the arteries.

DEPUTY WELLMAN presented a proposition at the annual sessions of the States Assembly, Jersey, for making the provisions of the Contagious Diseases Act applicable to that island, urging the necessity for the measure from what he had witnessed in his professional capacity. The proposition was seconded by Judge Langlois, retired surgeon; but the proposal met with some opposition, and eventually was withdrawn in favour of a motion for referring the question to a committee to prepare a measure having special reference to the island.

ROYAL COLLEGE OF SURGEONS.

PROFESSOR W. K. PARKER, F.R.S., will commence his annual course of lectures in the theatre of the College on Monday next; on the completion of which, Professor W. H. Flower, F.R.S., will commence his course of nine lectures. The lectures are delivered at 4 P.M. on Mondays, Wednesdays, and Fridays. The subject of Mr. Parker's lectures is the Structure and Functions of the Vertebrate Skeleton. The following is the syllabus. Lecture I. Definition of a Vertebrated Animal: Comparison of the type with the higher Invertebrata ("Arthropoda"): Development of the Embryo in the Vertebrata. Lecture II. Classification of the Vertebrata: I. Amniotica; II. Anamniotica; I. Ichthyopsida—(*a*) Fishes; (*b*) Amphibia; II. A. Sauropsida—(*a*) Reptiles; (*b*) Birds; B. Mammalia—(*a*) Non-placental; (*b*) Placental. Lecture III. Comparison of the Skull with the Spine, and of the oral appendages with the extra-axial parts in the trunk: Typical *numbers* of segments and organs: Special *forms* of the types as modified, adaptively, to diverse surroundings. Lecture IV. The Skeleton of Cartilaginous and Ganoid Fishes. Lecture V. The Skeleton of Osseous Fishes. Lecture VI. The Skeleton of the Amphibia. Lecture VII. The Skeleton of the Reptilia. Lecture VIII. The Skeleton of Birds. Lecture IX. The Skeleton of the Mammalia: Summary and Conclusion. The subject of Mr. Flower's lectures will be the Comparative Anatomy of Man.

THE OBSTETRICAL SOCIETY OF LONDON.

AT the annual general meeting of the Society on Wednesday, February 4th, the new rules regarding the admission of Fellows, which have been found unsatisfactory, were rescinded, and the old laws reverted to. We ventured to predict that this would be the result when the new rules were last year adopted, believing the objections to them to be great, and to have been insufficiently considered at the time.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

THE annual meeting of this Association was held on Wednesday, January 28th, when the treasurer's report was received and adopted, showing the society to be in a highly prosperous and flourishing condition. The following officers and council for 1880 were duly elected.—*President:* Mr. W. A. N. Cattlin. *Vice-Presidents:* Messrs. J. A. Baker, S. Cartwright, A. Coleman, S. J. Salter, F.R.S., and Dr. Smith, F.R.S.Ed. *Treasurer:* Mr. Edgelow. *Honorary Secretary:* Mr. Craigie. *Council:* Messrs. E. Bartlett, S. H. Cartwright, Fairbank, F. Fox, W. Napier, C. Gaine (Bath), W. Ranger, and A. Winerbottom. At the first dinner of the Association, which took place in the evening at the Langham Hotel, Mr. S. Cartwright in the Chair, over fifty Fellows and their friends were present, amongst whom were: the Presidents of the Royal Colleges of Physicians and Surgeons, Sir William Gull, Mr. Young, M.P., Dr. Quain, Dr. Cholmeley, Professor Lister, Mr. Ernest Hart, Mr. Edwin Saunders, Mr. Ransford, Dr. Andrew Clark, the President of the Medical Society of London, Mr. Timothy Holmes, and others.

THE MANCHESTER MEDICO-ETHICAL ASSOCIATION.

At the annual meeting held on January 29th, the following office-bearers were elected. *President:* H. Simpson, M.D. *Vice-Presidents:* R. W. Ledward, M.D.; J. Roberts, M.D.; P. Royle, M.D.; and J. Thorburn, M.D. *Honorary Treasurer:* J. Stone, M.D. *Honorary Secretaries:* A. Wahltuch, M.D.; and J. Broadbent, Esq. *Committee:* E. Bishop, Esq.; A. C. Clarke, M.D.; C. J. Cullingworth, Esq.; A. M. Edge, M.D.; J. S. Fletcher, M.D.; R. D. Fox, Esq.; A. Emrys-Jones, M.D.; T. Jones, Esq.; W. N. Maccall, M.D.; F. M. Pierce, M.D.; J. Tatham, M.D.; and J. Watson, M.D. *Parliamentary Subcommittee:* D. J. Leech, M.D.; F. M. Pierce, M.D.; P. Royle, M.D.; J. Tatham, M.D.; and J. Watson, M.D.

GOVERNMENT MEASURES.

We believe that, among the Bills which the Government is prepared to bring forward this year, if time and occasion serve, are the Medical Acts Amendment Bill (reviving the Bill introduced last year, and referred to a Select Committee of the House of Commons), a Bill for consolidating the Lunacy Law, and a Coroners' Act Amendment Bill.

THE LATE INSPECTOR-GENERAL W. T. DOMVILLE.

It is proposed to erect a memorial at Haslar to the late Inspector-General W. T. Domville, C.B., Honorary Surgeon to the Queen. Many of his friends have agreed to support the proposal. A Committee of Management has been appointed, and subscriptions are now invited to promote the object in view. The Committee consists of Deputy Inspectors-General J. W. Reid, M.D.; G. B. Hill; and A. Watson, M.D.; Fleet-Surgeons G. Mason, M.D.; H. Fegan, C.B., M.D.; J. Breakey, M.D.; and D. M. Shaw; Staff-Surgeon H. C. Woods, M.D.; and Surgeon E. A. Lucas. Staff-Surgeon Alexander Turnbull of Haslar is the Secretary and Treasurer. The following sums have been already subscribed: General Sir Patrick Grant, G.C.B., £10; Admiral Sir A. Cooper-Key, K.C.B., £1; John Hay, Esq., £1 1s.; Deputy Inspector-General J. W. Reid, £5; Deputy Inspector-General G. B. Hill, £2 2s.; Deputy Inspector-General A. Watson, £2 2s.; Fleet-Surgeon H. Fegan, C.B., £2 2s.; Fleet-Surgeon J. Breakey, £2 2s.; Fleet-Surgeon D. M. Shaw, £2 2s.; Staff-Surgeon A. Turnbull, £2 2s.; Surgeon E. A. Lucas, 12s. 6d.; Lieutenant S. M. Eardley-Wilmot, £2 2s.; Surgeon C. Pearson, 10s. 6d.; Surgeon J. Donovan, 10s. 6d.; Fleet-Surgeon C. A. Lees, £2 2s.; Staff-Surgeon R. Turner, £1 1s.

DR. BARHAM OF TRURO.

On Monday, January 28th, at a largely attended public meeting in the Concert Hall, Truro, a full length portrait of himself was presented to Dr. Barham. The painting, which is a striking likeness, represents the doctor as addressing a meeting, the left hand raised in an impressive and thoroughly characteristic manner, the right hand resting on a table covered with green Genoese velvet, on which are placed a microscope, meteorological charts, and other objects. The artist is Mr. H. T. Dunn, who is also a Truro man. The meeting was presided over by the Bishop of Truro; and at its close Dr. Barham presented the portrait to the city.

SIR HUMPHRY DAVY.

The writer of an article in *Temple Bar*, January 1880, speaking of Davy's moral courage, says: "His discovery that *nitrous gas, the vapour of aquafortis*, is not injurious to health, resulted from experiments on his own life. He obtained the gas in a state of purity, and, though well aware of the danger he ran if the received theory of its deadly powers was true, which he doubted, he resolved to inhale it in its pure form. Gradually increasing the dose, he ultimately succeeded in breathing four quarts of the gas from and into a silk bag"; the result was a "highly pleasurable thrilling in the chest and limbs, etc." It was nitrous oxide gas which the chemist was inhaling, not the fatal nitrous acid vapour. This serious blunder might have unfortunate consequences; for some boy-chemist might be tempted to emulate the supposed feat of Sir Humphry, and inhale the vapour of his aquafortis bottle with deadly results.

DEATHS FROM ETHER.

The death of a patient while under the influence of ether is reported in the *Boston Medical Journal* of January, as having occurred in Providence, United States, on the 17th ultimo, under the following circumstances. The patient, a man aged about fifty-five years, was knocked down by a runaway horse, and sustained some injury about the hip. The next day, sulphuric ether was administered to facilitate the diagnosis, and after taking it for about fifteen minutes, the man, without any warning, ceased to breathe. Artificial respiration was resorted to, but without success. The necropsy showed effusion of serum beneath the arachnoid, with thickening of that membrane, valvular lesions of the heart, and cystic degeneration of the kidneys. The *Canada Lancet* reports the death of a lady from ether, administered by a physician for the purpose of extracting a tooth. Scarcely an ounce had been used. The coroner's verdict was paralysis of the heart, caused by inhalation of ether.

THE CREMATION SOCIETY OF MILAN.

The inauguration of the new crematorium at Milan took place on December 26th, 1879, under the presidency of Dr. De Cristoforis, who is president of the society. The members of the society now number more than two hundred. During the three years it has existed, forty-eight cremations have taken place, among which was that of Alberto Keller. Most of these cremations were either at the expressed testamentary wish of the subjects themselves, or by desire of their friends. The special furnace used at Milan is that of Gorini, and it bears on it the number two; the first of the kind having been erected at Lodi, where there are already ten cinerary urns. The subject of the cremation was the body of a young girl, which was completely reduced to ashes in less than two hours.

SCARLATINA AT DR. BARNARDO'S VILLAGE HOMES.

A remarkable epidemic of scarlatina has broken out at Dr. Barnardo's Village Homes for Girls at Ilford. In the beginning of December, a parcel of old clothing—which would appear to have been infected with the poison of the disease—was received at the homes; and so far as can at present be ascertained, this was the immediate occasion of the outbreak. The type of the disease is of the mildest possible kind, so that, in all probability, it was spread from one child to another before the specificity of the outbreak was ascertained. The first case occurred a few days before Christmas, and other cases soon followed. Notwithstanding that every precaution was taken for immediate disinfection and the isolation of the sick, the epidemic spread so fast that there are now one hundred and fifty children lying ill, and fresh cases occur daily. In response to Dr. Barnardo's request, the Local Government Board sent Dr. Thorne Thorne to inquire into the outbreak, and it is understood that this gentleman has expressed his unqualified approval of the measures that had been already taken for coping with the disease. Certain recommendations which Dr. Thorne Thorne made were also at once acted upon. The village, as is well known, consists of a considerable number of cottages, now numbering nearly thirty, built on a large plot of land at considerable intervals from each other. The opportunities, however, are of course manifold for the mixing together at school or at play of the children of different families, for it is so arranged that girls of all ages shall be placed in each house, in order to make it as homelike as possible. Ten of the cottages are now given up for use as hospitals, two or three are being used for convalescents, and one for the temporary isolation of doubtful cases. The explanation of the reasons for this curious epidemic wave of scarlatina in the village will be awaited with interest. From personal observation, we are enabled to state that nothing could be better in its way than the arrangement at these homes. Every sanitary requirement in the village itself is scrupulously observed, though the ultimate method of disposing of the sewage admits of improvement. But every cottage is scrupulously clean, and the children look rosy and well on the severely plain diet to which the resources of the establishment limit them. Pure water is obtained from an artesian well three hundred feet deep, and the supply is constant to all the cottages. The water for domestic use is drawn direct from the mains, a small cistern in each house being used only for flushing. The house-refuse is systematically and frequently removed, and generally nothing has been omitted to make the homes as healthful as possible. It is true that the infirmary which has been provided is of an inadequate and temporary kind; but before the present epidemic, there had been no outbreak of infectious disease, and in the event of any such outbreak occurring, the unoccupied cottages were apparently regarded as affording sufficient accommodation for isolation purposes. How the present epidemic attained its present dimensions before the disease was recognised and checked, it will be interesting and important to learn.

THE WOUNDED IN THE STREETS.

"SECOURS AUX BLESSÉS" is the inscription on every French police-station. A recent case, on which an inquest was held by Dr. Hardwicke, shows clearly the necessity for the provision at all our police-stations of a system of ambulance conveyance to the nearest hospital, for persons found either sick, injured, or insensible. The poor fellow was a cabman, who had fallen backwards while lifting a heavy box on to his cab. He was conveyed by a policeman in his cab to the hospital, and on the way fell twice into the bottom of the cab; and on arrival, was found to be dead. Police-constable 303 C deposed that, whilst going along to the hospital in the cab, the deceased coughed once or twice, and slipped down from the seat to the bottom of the cab, and he could not raise him without opening the door of the cab. In answer to questions as to why he did not procure a police-ambulance instead of letting a man in such a case lie in a heap at the bottom of a cab, he said they had not one at Marlborough Street, and he did not know if there was one at Marylebone Lane, but there was one at the Vine Street Station. Mr. E. Fardon, resident medical officer of the hospital, said, on the deceased's arrival, he was dead. He had made a *post mortem* examination. There were no injuries to the back of the head, although the membranes of the brain were congested. The lungs were congested, and there was slight bronchitis, and there was disease of the mitral valves. The immediate cause of death was congestion of the brain, accelerated by the fall and the way in which deceased was brought to the hospital. The system of "help to the wounded" by our police needs reorganising; the practice of treating insensible people as "drunk and incapable", and of conveying men with fracture of the skull or in swooning from failure of the circulation, upright in a cab, is often little short of murderous.

ACUTENESS OF VISION AND PERCEPTION OF COLOURS IN UNCIVILISED NATIONS.

DR. COHN, in a contribution to the *Centralblatt für praktische Ohrenheilkunde* for 1879, states that he examined the visual powers of eleven Nubians, and found the acuteness of vision twice as great in them as in the healthy eyes of Europeans. Only their chief and priest, who had studied Arabic for nine years and had read much, was myopic. The perception of colours in the Nubians was found to be excellent. As Virchow has already observed, they are deficient in verbal expressions for different colours, there being no distinctive words for green and blue. Experiments with coloured wools, however, showed the incorrectness of the opinion of Geiger, Gladstone, and Magnus, that the linguistic deficiency indicates a defect of vision for colours. Virchow also found, on examination of some Lapps who were in Berlin, that their vocabulary does not enable them to express the differences in colour which they perceive, although their sense of colour is well developed. In connection with this, a remarkable fact was observed. While all the Lapps used the same word—*aliicht*—for blue, and had no hesitation in selecting the colour, the Nubians had the greatest difficulty with this colour. Even green was distinguished by the Lapps pretty accurately, though with less certainty. The coloured ribbon, also, which the Lapp women wore, indicated the acuteness of their perception of colours. According to Dr. Almqvist, the Tschuksches of the East Cape in Siberia have a well-developed perception of colour. Among the Georgians of the Caucasus in the Russian army, Reich found the acuteness of vision to be higher than normal in 83.5 per cent.; in 32.1 per cent. it was double, and in 3.5 per cent. more than double, the normal average.

ACCIDENTAL POISONING.

ANOTHER case is reported in which accidental poisoning has occurred under the most painful circumstances, a wife being the involuntary instrument of her husband's death. The necessity of the more general adoption of coloured and fluted bottles for dispensing poisonous medicaments, liniments, etc., is once more emphasised by this distressing incident. The cases are so numerous, and the precautions so obvious and simple, that, but for the still recurring evidence of the neglect to adopt these precautions, and the peculiar shocking character of the accidents which thus arise, we should be wearied of repeating this oft-told tale. In this case, Mr. Collier, deputy-coroner, held the inquest at Lewisham, on the body of W. C. Penny, aged 63, a builder, living at Lewisham Hill, who died from the effects of poison. Mr. George Penny, son of the deceased, said his father had been suffering from a bad leg for some time, and was attended by a doctor. Fanny Richards, servant to the deceased, said on Thursday night the deceased, who was confined to his bed, asked for a sleeping-draught he had been in the habit of taking, pointing to the mantelpiece, on which was a bottle. Her mistress poured it out, and witness handed it to the deceased, who drank it off. A moment afterwards, the bottle containing the sleeping-draught was found at the foot of the bed, and it was then seen that the deceased had been given a liniment he had been using for his leg. Witness ran for some salt and water, which was given the deceased and made him sick, and she then ran for Mr. Shute. On her return, the deceased had expired. There was one candle alight at the time, but it was at the opposite end to the mantelpiece. When Mrs. Penny poured the liniment out, her eyes were suffused with tears, because of the pain her husband was in. Mr. Shute, surgeon, said he supplied both the liniment and the sleeping-draught; they were in similar bottles. The liniment was composed of two-thirds aconite and one-third soap-liniment. The liniment and draught were of different shades in colour. The jury returned a verdict of "Death from misadventure", but strongly recommended that some additional precautions should be used in sending out bottles containing poison, both as to colour and shape, which should be different from those made to contain ordinary medicines.

THE CAGOTS.

AT a recent meeting of the Anthropological Society, Dr. Hack Tuke read a paper on "The Cagots". The author showed that the popular etymology of the word Cagot, from "Canis Gothi", is probably inaccurate, and accepted the suggestion of M. de Rochas, that Cagot is derived from the Celto-Breton word *cacod* (leprous); it is easy to see how readily this would assume the form of cacou (as it is in Brittany actually applied to these people), and so the French Cagou or Cagot. The conclusions at which the author arrived as to the origin of the Cagots were as follows. 1. The Cagots are not the descendants of the Goths; they are not a distinct race, but a despised class among the people of the country in which they live. 2. They are not more subject to goître or to cretinism than the inhabitants of the adjacent district—in short, cagotism and cretinism are in no way allied. 3. The present representatives of the Cagots are now recognised by tradition, and not by their features, and are not distinguished by any peculiar mental or physical disorder. 4. Although nothing like leprosy, or leucoderma, has for a long time affected the Cagots, and no one on the spot regards them in this light, there is evidence to show that they were originally either lepers labouring under a particular variety of leprosy, or were affected with leucoderma, the form of the affection accounting for their being regarded as in some respects different from ordinary lepers, though shunned in the same way. 5. Many were, no doubt, falsely suspected of leprosy in consequence of some slight skin-affection; others, again, in later centuries, were members of families in which the disease had died out.

QUIET FOR HOSPITALS.

AT Marlborough Street Police Station, Superintendent J. J. Thompson, of the E Division, acquainted Mr. Newton this week that he had given directions to the police on duty in the vicinity of the Middlesex Hospital to use their utmost endeavours to check the noises of which complaint had been made to the magistrate. He added that, if the secretaries of the various hospitals could adopt an uniform board, to be placed in a conspicuous place outside the hospitals, reminding passers-by of the suffering patients within and asking their considerate compassion, no doubt the nuisance would be greatly diminished. The superintendent, in reply to Mr. Newton, stated that he had seen such boards at some of the hospitals, and had noticed that much feeling was shown by all classes, and that great quiet had resulted. Mr. Newton said he was glad immediate attention had been paid to the complaint of the Middlesex Hospital.

SMALL-POX.

SMALL-POX last week caused fifty-six deaths in Paris, nine in Vienna, and two in Dublin, but not one in any of the nineteen large English provincial towns. The deaths from small-pox in London and its outer ring of suburban districts were twelve, a higher number than has been returned in any week since the beginning of July last. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been seventy-five and eighty-four at the end of the two preceding weeks, were eighty on Saturday last. Twenty-two new cases of small-pox were admitted to these hospitals during the week, against eight and twenty-one in the two previous weeks.

WHOOPING-COUGH AND SCARLET FEVER IN LONDON.

THE fatal cases of whooping-cough in London, which had been 114 and 140 in the two preceding weeks, further rose last week, possibly under the influence of the severe cold, to 193, a far higher number than has ever been registered in any previous week on record. Of these 193 deaths, no fewer than 92 occurred in the south group of registration districts. The annual death-rate from whooping-cough was equal to 2.7 per 1,000 in London, and was so high as 4.2 in the south districts. The 193 fatal cases of whooping-cough last week included 7 in Fulham, 7 in Chelsea, 8 in Marylebone, 15 in Pancras, 15 in Islington, 25 in Southwark, 15 in Newington, 23 in Lambeth, and 15 in Camberwell. The 70 deaths from scarlet fever showed a further decline from the numbers in the two previous weeks, but included 21 in the north and 22 in the south groups of districts; 10 of the deceased scarlet fever patients had resided in Pancras, 7 in Islington, 8 in Lambeth, and 6 in Wandsworth district.

DEATH FROM CHLOROFORM.

THE *Boston Medical and Surgical Journal* reports that G. A. N., aged 20, mechanic, of St. Johnsbury, Vermont, desired to have several teeth extracted. He was examined by a competent physician, and his heart and lungs were found in good condition. On Friday, December 26th, the patient for one hour inhaled sulphuric ether without the desired effect. On Tuesday, December 30th, chloroform was inhaled from a napkin within a paper funnel. The pulse 80, and regular; the action of the heart and lungs was good. The patient soon went kindly under the influence of the vapour; one tooth was extracted; sensibility partially returned; the mouth was cleaned; more chloroform was administered; two teeth were extracted; sensibility again partially returned; another tooth was extracted *without* more chloroform. The patient then began to struggle, and exhibit signs of pain; his head was brought forward, and his mouth well cleared. He was then returned to his former position, when he suddenly threw up his arms, rolled up his eyes, and ceased to breathe. He was then instantly placed in an inverted position, his tongue drawn forward, and artificial respiration applied. The heart still continued beating, yet there was no pulsation at the wrist; face very livid, and no natural respiration. The heart continued to act very feebly and irregularly until forty-five minutes after breathing ceased. Efforts were continued until, at the end of one hour, the patient was pronounced dead. Artificial respiration, inversion of the body, electricity, iced water, and all other known remedies were faithfully employed. The amount of chloroform used was three ounces by weight. No *post mortem* examination was made.

DIPHTHERIA IN RUSSIA.

A CORRESPONDENT gives a terrible account of the ravages of diphtheria in Russia.

"Diphtheria is carrying off from fifty to seventy per cent. of the population in the south. Up to the present, it has attacked only the peasant class, and especially the peasant children. In certain localities, not a child under twelve is to be seen; they have all died off, and in the districts of Kharkoff and Woronege, thousands of infants have succumbed. Gargling and cauterising the throat are, in the case of infants, just as impracticable as the introduction of disinfectants would be into the huts of Russian peasants. Filth, poverty, and climatic causes have apparently given rise to the disease, and ignorance of the densest description has spread its seeds far and wide. A gentleman from the south told me to-day of one of the means employed by the villagers to avoid contagion. When a child dies of diphtheria, a little cake is put into its mouth, and left there for a few moments, during which everyone present makes the sign of the cross. It is then taken out and administered in tiny morsels to the other children of the family! As vaccination preserves them from small-pox, they conclude that a crumb steeped in the infected saliva will save them from diphtheria! In by far the greater number of country localities, there are neither doctors nor hospitals, but even in the stray instances where they are to be met with, they seem of no earthly avail, either in lowering the rate of mortality or in staying the rapid spread of the epidemic. The peasants have not any faith in them, very often cannot even understand their efforts to do them good, and in many cases obstinately refuse to send their children to the hospital. In the village of Ossoefk, in the district of Koursk, for instance, there is an hospital, but unfortunately the greater part of the children brought to it have died. The peasant mothers have come and forcibly carried away the lifeless bodies, wailing and lamenting over them, and crying out that the doctors had poisoned them by pouring vitriol down their throats, and sprinkling lime in their eyes! The well-known society of 'The Red Cross' has despatched thirty doctors and three hundred Sisters of Mercy to this great battle-field of life and death, and has granted one hundred and ten thousand roubles towards defraying immediate expenses. Each doctor receives two hundred roubles per month, each sister thirty, and any attendant hired in the country ten roubles per month. The Zemstvos of the various local governments have also voted large sums to be spent on medicaments and in hiring doctors and nurses. The Moscow Society of Doctors has offered a prize for the best pamphlet on diphtheria, to be written in plain familiar language, with a view to sending it among the people, describing the symptoms, the dangers and consequences of contagion, the simplest and most convenient mode of treatment."

DEMONSTRATIONS AT THE PARKES MUSEUM.

FOOD was the subject of the demonstration on Saturday, January 31st, when, in spite of the thick fog which enveloped the metropolis, there was a fair attendance of representatives from the working men's clubs, for whose benefit the present series of demonstrations has been arranged. Dr. G. V. Poore, the lecturer, was introduced by Professor W. H. Corfield. Dr. Poore began by comparing the human body to a machine, and showed that as, by a proper consumption of fuel, an engine could be made to give off heat and do work, so the animal body, by a proper consumption of combustible food, was enabled to maintain its proper temperature in all climates, to perform its internal and external work, and likewise (and in this it showed its superiority to the machine with which it had been compared) to maintain its tissues in a state of health and due development. The composition of the body was next alluded to, and it was claimed for a food, 1, that it must be combustible; and 2, that it must contain materials which were capable of building up the body. The classification of food-elements into water, nitrogenous elements, fats, starches, and sugars and salts, was then reviewed, and the necessity for the presence of each element was insisted upon. Milk, the only single article of diet upon which the human body can be properly nourished, was then shown to contain a due admixture of food-elements. In a natural state, it had been shown that man might be left to his natural appetites as to the selection of his diet; and many popular foods—such, for example, as bread and cheese and pork and peas-pudding—were thoroughly in accordance with scientific teaching. Some persons were so situated that an obedience to the appetite was impossible; for example, soldiers and prisoners. Scientific dietaries had improved the health of our soldiers, and had converted our prisons from pest-houses into veritable abodes of health. There was still too little science in the feeding of young children, and the ignorance of parents in this respect was truly lamentable. His experience as a physician had taught him that the great majority of children's ailments were traceable to the inability of the mother to make a proper selection of food for her offspring.

REGISTRATION AT BRANCH COUNCILS.

THE difficulties which have arisen, owing to the Registrar of the Branch Medical Council for Ireland refusing to take notice of changes of residence of any member of the profession originally registered by that Branch if transmitted to the Registrar of the General Medical Council, have culminated in that gentleman's striking off the Branch Register the name of a gentleman who, having removed to Wales, sent notice to the Registrar for England and Wales, and not to the Registrar in Ireland. He went to the further extent of requiring the Registrar of the General Council to remove the name from the *Medical Register*, which of course the latter could not do. The nice points of law raised have for the third time been submitted to counsel; this time to the Solicitor-General and Mr. Vaughan Hawkins, who have returned the following opinion.

"We are of opinion that a registered practitioner, who desires to have a higher degree or additional qualification obtained by him inserted in the *Register*, must apply to the Registrar of one of the Branch Councils for that purpose; and that the provisions of Section 25 of the Medical Act as to registration apply to the entering in the *Register* of such higher degrees or additional qualifications. But we are of opinion that such application, and the consequent entry in the local Register, need not be made to, or by, the Registrar of the particular Branch, in the local Register of which the original qualification of the applicant was first entered, but may be made to and by any one of the local Registrars. Thus a practitioner whose name was originally entered in the Irish Local Register may, in our opinion, apply to the Registrar for England for the purpose of having an additional or substituted qualification inserted in the *Register*, and such qualification may thereupon be entered in the Local Register for England, and be thence copied into the general *Register*; and conversely, a person whose name was originally entered in the English Local Register may obtain the insertion of a subsequent qualification by application to the Irish Local Registrar.

"(Signed) HARDINGE GIFFORD; F. VAUGHAN HAWKINS.

"Temple, December 11th, 1879."

It may be hoped that this will set the matter finally at rest.

DEATH OF THE REV. H. MOULE.

WE regret to record the death of the well-known Vicar of Fordington, the Rev. Henry Moule, M.A. As the inventor and perfecter of the system of earth-closets, Mr. Moule's name has been long before the public, and his efforts to secure a more wholesome system of excrement disposal than prevailed when he first brought earth-closets into notice will be well remembered. The village of Fordington, in which his parish labours were so zealously carried on for more than half a century, became, under his guiding care, a model in sanitary matters; and in every respect his loss will be very greatly felt. Mr. Moule, who was born in 1801, received his college education at Cambridge, and was instituted to the living of Fordington in 1829. Two outbreaks of cholera which occurred in the village drew his attention very forcibly to the subject of hygiene, and since that time his labours in improving the dwellings of the poor have been unceasing. He died on the 3rd instant, after only three days' illness, from an attack of bronchitis, at the age of seventy-nine years.

SCOTLAND.

EDINBURGH UNIVERSITY STUDENTS' CLUB "SOCIAL".

THE Edinburgh University Students' Club, which has been in existence for fully two years now, and which has been productive of much good feeling among students, and has tended to promote social intercourse among them (an absence of which was formerly too noticeable a feature in Scotch university life), gave the outside world a glimpse into the inner life of the club on January 30th, in the Waterloo rooms, in the form of a "social". Lord Provost Boyd presided, in the unavoidable absence of Sir Robert Christison. Concerted songs by a large number of the members of the club, solos by others, and performances on the piano, violin, and violoncello formed the staple of the entertainment; while there were also two recitations, and an enthusiastically performed and received "Kinder Sinfonie". The majority of the performers were students of medicine. Many of the professors of the Faculty of Medicine, assistants, and teachers were present, and six hundred other auditors.

EDINBURGH ROYAL PUBLIC DISPENSARY.

THE annual meeting of the supporters of the Royal Public Dispensary was held in the City Chambers on Saturday. The report submitted showed that, during the year, 7,220 patients were treated at the dispensary, and 1,778 visited at home; while for vaccination, midwifery, etc., there were 1,686 cases. There had been a falling off in the subscriptions during the year. The income from all sources was £307 1s. 11d., and the expenditure £343 1s. 3d.

EXAMINERSHIP IN BOTANY, EDINBURGH.

DR. HUGH CLEGHORN has been appointed additional examiner in Botany in Edinburgh University, in succession to Professor Isaac Bayley Balfour, removed to Glasgow. The appointment is yearly, but may be held for five years.

PERTH INFIRMARY.

THE annual meeting of the contributors to, and directors of, the Perth County and City Infirmary was held on Monday; the total number treated as in-door and out-door patients was 1,415. The income was £2,020, and the expenditure £2,379, thus showing a deficiency of £359. Certain modifications were agreed to as to the admission of patients and the charges for the board of paying-patients.

EDINBURGH INFIRMARY SAMARITAN SOCIETY.

THE first annual meeting of this very useful institution was held in the Chapel of the New Infirmary last week. The Lord Provost presided and there were present many ladies, clergymen, and medical men. Professor Maclagan, Rev. Dr. Sandford, and others spoke highly of the good work done by the Society. This work consists in aiding the families of those who are incapacitated by illness and confined to the Infirmary, providing clothes for patients when they leave the institution, and assisting those to go to their homes who may have come a distance. The number assisted during the year was 170, the money distributed amounted to £173, and 1,425 articles of clothing had been provided. A satisfactory balance of £78 was carried forward.

EDINBURGH DENTAL HOSPITAL AND SCHOOL.

THE first annual meeting of the contributors to and directors of the Edinburgh Dental Hospital was held last week. In the report by the Secretary, it was stated that the teaching staff has been fully organised, and the full curriculum recommended by the Medical Council in conformity with the Dental Act, 1878, could now be obtained in Edinburgh. Special classes had commenced in November last, and had been well attended. The report of the medical secretary shewed that 4,500 patients have received advice and treatment during the year; also that the use of anæsthetics in protracted and difficult operations was largely adopted. Financially, the institution was thriving; the total income was £369; of this, however, more than half was contributed by the profession, and included £60 from Lord Rosebery, so that the public have not done so well as might have been expected.

REGISTRAR-GENERAL'S RETURNS.

FROM the Registrar-General's returns issued for the week ending January 24th, it appears that the death-rate in the eight principal towns during the week was 25.2 per thousand of estimated population. This rate is 3.5 above that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 17.0—and the highest in Paisley—viz., 36.1. The mortality from the seven most familiar zymotic diseases was at the rate of 3.4 per thousand. Whooping-cough is still the most prevalent of these diseases, having caused 35 deaths, of which 20 occurred in Glasgow. A considerable increase is observable in the number of deaths in Glasgow from scarlet fever. Acute diseases of the chest caused 185 deaths, being an increase of 48 on the number recorded the previous week. It was in Glasgow that the increase chiefly occurred. The mean temperature was 32.3, being 1.3 under that of the week immediately preceding.

THE GLASGOW EYE INFIRMARY.

THE fifty-sixth annual meeting of the subscribers to the above institution was held on January 27th. The report of the directors, which was read and adopted, showed that the amount of work accomplished by the institution had been larger than in any previous year. Including the cases remaining on the books of the Infirmary at the close of 1878, the total number of cases dealt with during the past year was 8,814, against 8,410 in 1878. Of these, there were dismissed cured by ordinary treatment, 4,460; cured by operation, 834; relieved, 1,045; relieved by operation, 114; incurable, 61; irregular, 30; and there were remaining on the books, 2,270. The number of in-door patients during the year was 945, and the average number of beds occupied daily was 65.39. The gross expenditure had been £2,034, and the income £2,069, showing a decrease of revenue as compared with the previous year.

THE GLASGOW TRAINING HOME FOR NURSES.

THE opening of the new Home in connection with this valuable institution took place on the 2nd instant. These new premises have been so arranged that there is suitable accommodation for the ladies in charge and for twenty nurses, together with seven rooms for private patients, two wards with beds for ten patients, a waiting-room, a parlour for convalescents, and other necessary conveniences. The progress of the institution, which has been in existence for about six years, has been very satisfactory, and the usefulness of its sphere of action is shown in the fact that it has received the warm support of the medical profession in Glasgow. Originally started with the object of inducing women of high character to devote themselves to the work of nursing the sick and of training them thoroughly for the work, and thus providing a staff of trained nurses to wait upon cases of sickness in private families, it was found that it was necessary to have patients to afford the requisite material for practical experience in the art of nursing. Accordingly a few were secured and received into the Home, some being admitted gratuitously while others paid a small weekly sum. By-and-bye as the number of nurses increased and the nature of the institution became better known to the community and among the medical profession, there was less difficulty in obtaining patients who were both able and willing to pay for the benefits conferred; and ultimately the directors were forced to still further increase the scope of the institution's work by taking larger premises so as to allow of the admission of young men living in lodgings who might be overtaken with illness; of ladies, who when laid aside with sickness, and having no relatives to attend on them and their household affairs might desire to enter such an institution, where they might have all the comforts of home; and, also, of patients from the country, who might wish to be for a time under the care of a city physician or surgeon. The extent to which the public have availed themselves of these facilities is shown by the fact that while the revenue from in-door patients in 1874 was £59, last year it amounted to £308. The institution is thus not only conferring great benefits on the community by providing them with efficient nurses, but it is also meeting the want which has been so much felt in other large towns of a paying hospital where patients can be received and be attended by their own medical man, as is the case with the Glasgow Training Home.

IRELAND.

FOR the vacant coronership of the County Antrim, Dr. Mussen of Glenavy will be opposed by Dr. McCrea of Templepatrick.

THE LATE SIR DOMINIC CORRIGAN, BART., M.D.

THE funeral of this distinguished physician—an obituary notice of whom appears in another column—took place last Thursday. The *cortége* was one of the largest that has been seen in Dublin for some years. Following the chief mourners were the carriages of the President and Fellows of the College of Physicians, of which Sir Dominic was an Ex-President, and a carriage conveying the College mace, draped in crape, borne by the beadle. After leaving the deceased baronet's residence, the procession made a *détour* through Kildare Street, past the College of Physicians, opposite to which it halted a few seconds, and then proceeded round by Stephen's Green and Merrion Square to the Roman Catholic Church of St. Andrew's, in Westland Row, in the vaults beneath which building the remains were interred.

HOSPITAL ADMINISTRATION.

A CIRCUMSTANCE which, trivial as it may appear, shows considerable carelessness in the administrative department of a Dublin hospital, is reported in the daily press; and we particularly draw attention to the subject, because it is alleged, with some authority, that there is a general deficiency in the management and internal economy, not alone of the hospital in question, but of the majority of similar institutions in the Irish metropolis. In some rubbish in a garden near Dublin, the leg and foot of a child were recently found. On inquiries being made by the police, it was ascertained that the rubbish was brought from a hospital in the city. Further inquiries at this hospital showed that, about six weeks previously, a boy was admitted into it with a compound fracture of the leg; and some time afterwards, the limb was amputated, and, as is stated, removed to the dead-house. A dust-heap is certainly not the place to throw amputated limbs and *post mortem* remains into; and we trust that hospital authorities will direct the fulfilment of their duties by their subordinates, especially as similar occurrences have been known to give rise to much trouble and annoyance.

HEALTH OF DUBLIN: QUARTERLY REPORT.

THE number of births registered in the Dublin Registration District, during the fourteen weeks ending 3rd January last, amounted to 2,394, being equal to an annual ratio of 1 in 35.3, or 28.3 in every 1,000 of the population; and the deaths to 3,010, affording an annual ratio of 1 in 28.1, or 35.6 in every 1,000. Omitting the deaths (63) of persons admitted into public institutions from localities outside the district, the rate was 34.8 per 1,000; but the deaths during the past quarter show an excess of 785, or 35 per cent. over the average of the corresponding quarters of the previous ten years. The deaths from zymotic diseases were 629, being equal to an annual rate of 7.4 per 1,000, a number considerably in excess of the average for the past ten years; the increased mortality from this class of diseases being principally due to the prevalence of scarlatina and measles. Small-pox caused 77 deaths, measles 94, scarlatina 160, diphtheria 20, whooping-cough 37, and fever 68. The deaths from phthisis amounted to 235, from mesenteric disease to 59, and from hydrocephalus to 40. Diseases of the respiratory organs (exclusive of phthisis) caused 731 deaths, which included 547 from bronchitis and 99 from pneumonia. Two hundred and seventy deaths of children were ascribed to convulsions, a number nearly double the average for the December quarter of the past ten years—a result which may, to a certain extent, be explained by the improvement effected by means of the burial-returns which are now furnished. To heart-disease, 131 deaths were attributed, to cephalitis 33, apoplexy 44, paralysis 48, epilepsy 11, liver-disease (unspecified) 39, and cancer 49. The mean of the mean weekly temperature for the quarter was 42.6°, and the rainfall for the same period measured 4.400 inches.

SMALL-POX IN BELFAST.

DR. J. SEATON REID recently reported to the Belfast Board of Guardians that he had admitted into the small-pox wards of the Workhouse Hospital a family of eight, who had arrived some days previously from Ballymena, where small-pox prevails. One death, that of a child, has taken place, and three others of the family are ill. As space is limited for males, Dr. Reid has directed that no more female non-contagious cases be taken into the wards formerly appropriated to small-pox cases. He also directs attention to the fact that the Belfast Town Council, who are the sanitary authorities, are converting the workhouse into a quarantine and disinfecting establishment for the town—a most dangerous procedure; and he suggests that the Board should again request the Council to establish a quarantine and disinfecting establishment, as it is urgently required; and he is convinced that from fifty to sixty lives would be saved by it every year, and three or four times as many when epidemic disease prevailed.

ULSTER EYE, EAR, AND THROAT HOSPITAL.

DURING the past year, the number of patients amounted to 1,962, of which 128 were under treatment in the intern department of the hospital. The subscriptions were less last year than they were on many previous occasions; the Committee have, therefore, exercised the most rigid economy, and are trying to make the hospital to a large extent self-supporting. During the year, 31 operations for cataract, in persons from fifty to ninety years old, were performed, with restoration of excellent vision in 28 cases. In only one case was there an absolute negative result, and that was, Dr. McKeown believes, due to causes beyond the control of the operator. Dr. McKeown, in his report, considers that the restrictions necessitated by want of funds act injuriously, as he comes into contact with many requiring immediate admission as intern patients who have neither money nor friends; and he earnestly trusts that funds may be provided to enable such cases to be admitted without charge and without delay.

SAMARITAN HOSPITAL, BELFAST.

THE annual meeting of this benevolent institution was held last week, presided over by the Mayor of Belfast. The report of the Committee showed that, during the past year, there was an increase in the income derived from the patients, as well as in the donations and annual subscriptions. During the year, some alterations and repairs were executed, and additions made to the facilities provided for the treatment of patients in the extern department, and for the comfort and health of the inmates. Four beds were open last year for the treatment of patients without any charge, the necessary expenses being defrayed by some friends of the hospital. The medical report states that, during the year, 1,445 were treated as outdoor and 120 as indoor patients; and that only two deaths occurred, one patient being in a dying state when admitted. Dr. McMordie suggested in a previous report a graduated scale of charges for patients, and the arrangement has proved a satisfactory one, the funds of the institution being much increased from this source of income; and he believes that, with skilful and economical management, the hospital can in a great measure be made self-supporting. He believes that the addition of a wing for the reception of lying-in cases would be of great benefit. No fewer than 53 cases of cancer of the uterus came under observation during the year; but nearly all were in an advanced stage. A vote of thanks to the Visiting Physician was adopted, and the meeting shortly afterwards terminated.

PRIVATE LUNATIC ASYLUMS.

AT a meeting of the South London District of the Metropolitan Counties Branch on January 21st, Dr. ALFRED CARPENTER in the chair, Dr. BUCKNILL read a paper on Private Lunatic Asylums, which is published at page 198.

Mr. NELSON HARDY, honorary district secretary, read a letter from Dr. Lush, M.P., in favour of the abolition of private asylums.

The CHAIRMAN said that he protested strongly against any of the work referred to being thrown upon the Local Government Board. There ought to be a Minister of Health in this country, on whom should devolve the care of all institutions connected with the health of the people. He did not think that it was a matter that the Local Government Board could possibly deal with in a proper spirit. The medical profession should themselves take the matter in hand, and should press strongly upon the Government the views that were put forward lately by Mr. Powell in his address on Public Health, so as to obtain from the Government a recognition of the rights of the medical profession and the appointment of a minister of health. One of the things that should be placed under his care was the management of the insane. He supported the observation made by Dr. Bucknill with reference to the multitude of authorities that had the control of the poor lunatic. The expense that those authorities threw upon the State was much too large. He was taking part in the building of a third asylum for Surrey, to hold one thousand patients; and the requirements of the Commissioners and of the Local Government Board had been such, in his opinion, as to lead to an enormously increased, and he thought unnecessary, expense in connection with that building. He had strong opinions with regard to the herding together of large numbers of lunatics: still the law required it; but the sooner some of the lunacy laws were altered (which ought to be done by medical aid) the better.

Dr. NEWINGTON (Ticehurst) said that the question was not whether proprietors of private asylums had honesty of purpose, but whether they were obliged by law to have honesty of action—whether there was not a sufficient guarantee for their honesty. Several charges had been made against them. One was made some years ago, and it originated in some terrible facts. It was said, first, that sane people were shut up, and secondly, that they were ill-treated by those who had charge of them. No doubt, previously to Mr. Warburton's Bill (he believed in 1828), there was a vast amount of wrong done. But since then there had been various Select Committees, and those charges were practically abandoned by all who had any right to speak in the matter, including Dr. Bucknill himself, the Visitors, and also the Commissioners. Even the philanthropists did not state that there was now anything like shutting up of sane people, or cruelty to those who were shut up. A third charge was, that the patients were detained after they were cured. If that had been true for many years, one absurd effect would be that the asylums would be blocked up. He would put before the meeting a few figures extending over ten years, which he thought would put the case rather the other way. The average yearly residence in county asylums was in round numbers 32,000, and the admissions were 10,000—a proportion of $3\frac{1}{5}$. In the hospitals there were 785 admissions, and an average residence of 1,887; showing a proportion of $2\frac{3}{8}$. In private asylums there was an average residence of 4,445, the yearly admissions being 1,835; giving a proportion of $2\frac{3}{7}$. Thus, in county asylums the proportion was $3\frac{1}{5}$, and in hospitals and private asylums together, $2\frac{3}{8}$. In other words, supposing the various classes of asylums were absolutely empty, and there were no deaths or removals, it would take $3\frac{1}{5}$ years to fill the county asylums; $2\frac{3}{8}$ years to fill the hospitals; and $2\frac{3}{7}$ years to fill the private asylums. Another view was still more convincing. The average residence in the county asylums was 32,231; the discharges and deaths together amounted to 8,893. The average residence in hospitals was 1,887; discharges and deaths, 786. In private asylums, the average residence was 4,445; discharges and deaths, 1,856. These proportions showed that, supposing no more admissions took place for a certain time, it would take three years and seven months to empty county asylums; two years and five months to empty hospitals; and two years and four months to empty private asylums. He found also that there were nearly 12,000 more in county asylums than there were ten years ago. In hospitals there were five fewer patients than there were ten years ago. In private asylums there were fewer now than there were ten years ago by 237. That showed that there was neither a stagnation nor a tendency to block up. It had been said that proprietors of private asylums did not wish to cure their patients, because it was better to keep them as patients. The average rate of yearly cure was calculated by dividing the admissions by the cures; that was, supposing an asylum admitted one hundred patients in a year, and discharged forty-two, the rate of cure was put down as forty-two. The average rate of the cure of lunatic patients was between 38 and 40 per cent.; in private asylums it was about 32 per cent. Those figures, however, must not be taken alone. Dr. Thurnam brought out some tables, and Dr. Needham had followed, taking twenty-six or twenty-eight years of the more recent results. On the Select Committee of 1877, Mr. Wilkes, in his evidence, produced some figures which he had elaborated from reports of thirteen county asylums; and it was shown that 54 per cent. of the patients taken into asylums within one year of the seizure should be cured, and that between 5 and 7 per cent. was all that could be expected to be cured after the first year. To compare with these figures, he had not any extended returns from private asylums, as these did not publish printed reports; and he had therefore been obliged to take one hundred cases from his asylum at Ticehurst. Of these patients, 31 were already cured, and 6 were patients that were curable; if 4 were cured, there could be 35 cured out of 100. That would answer the objection that there was not a wish to cure the patients. If the figures were read in a proper way, the private asylum proprietors did as much work towards recovery as their colleagues did in the public asylums or hospitals. As to the question of self-interest, the great fallacy in all this argument was that, because a man's interest might lead him to do wrong, he was bound to do it. He did not see why private asylum proprietors should be necessarily wanting in honesty. A man's interest might lie one way, but there was no necessity for him to follow it. It was assuming that he had no moral integrity whatever. As to private patients, there were only about three thousand really private patients; a considerable number ought not to be placed in that category. For instance, at Grove Hall, there were 452 soldiers paid for by the Government, and who therefore ought not to be regarded as private patients. With regard to single patients, it appeared that the cures were 9 per cent. With regard to the originators of the charges, there were patients who always had grievances against the private asylum proprietors, and a few of these had lately abused them; but against their statements could be put the kindness shown by other patients. As to the lay newspaper writers, their experience must be borrowed, and their information came through the narrow channel of a few people. The medical profession must depend for most of their knowledge on what they were told by other people. A writer in a medical paper had started weighted with an old editorial tradition; but he (Dr. Newington) believed he had not had any practical knowledge of insanity to back up his theoretical opinions. He would answer Dr. Bucknill by quoting his opinions given before the Select Committee. He had expressed in his paper a wish to abolish private asylums. In answer to Question 1,910 before the Select Committee, "Would it not be desirable to get rid of private houses by degrees?" he observed, "I should be very sorry to see them got rid of."

Dr. Bodington (Kingswinford) said that he desired to bear testimony to the endeavour which Dr. Bucknill had made to treat the subject in a moderate and temperate manner. A great deal of heat had been imported into the controversy, not by the private proprietors of asylums, but by agitators against them. It was very desirable that members of the same profession, occupying different callings, should treat one another with temper, moderation, and forbearance. Dr. Bucknill did not quite bear out his argument with regard to the analogy between private asylum proprietors and their profits and ordinary practitioners and their profits. In all callings there were some dishonourable men, but it was hoped many more honourable ones. Dr. Bucknill first stated that a number of charges might be made against proprietors, and then he took as exceptions a certain number of honourable men whom he had known. If private asylums were to be defended, they must be defended upon the ground of the medical proprietors being equally honourable with the rest of the profession. It seemed to him hard that, because the present private asylum proprietors happened to be the incumbents of offices which had been handed down to them from time immemorial, they should be attacked as if they were a special race of pariahs not worthy to be associated with ordinary decent people. In the last report of the Commissioners, there was some excellent testimony that medical proprietors of asylums were men of at least equal honour and equal sensitiveness to their honour with any other body of men. Dr. Bucknill had disclaimed anything like a personal attack upon any man; but he had mentioned a case then before Vice-Chancellor Malins. The patient there mentioned was a patient of Dr. Bodington. The report from the *Times* which Dr. Bucknill had read was very incorrect. It seemed to him that it was scarcely fair in Dr. Bucknill to bring this forward without further inquiry. He was sure that, in his reply, Dr. Bucknill would acknowledge that he had been mistaken.

Dr. Hicks said that he was one of the proprietors to whom Dr. Bucknill had referred. He was not prepared to hear all he had heard; but he was not surprised. He was anxious to hear what statements Dr. Bucknill was going to make, and what facts he was going to bring forward to support those statements. Dr. Bucknill had brought forward cases in support of the system of private patients. If Dr. Bucknill had any facts to bring forward, he ought to have done so; but he had not. Two years ago, he (Dr. Hicks) appeared with Dr. Bucknill to prosecute a medical man for keeping a single case. It was a case under the care of a private medical man, and Dr. Bucknill's report proved that it was a most detestable one, such as could not possibly have occurred in any private asylum in this country, and such as he would venture to say had never been reported in this country. He believed Dr. Bucknill had appeared on other occasions to prosecute cases of this kind; and yet he now stated that private asylums were most detestable places; that the proprietors were the black sheep of the profession; and that their patients should be scattered far and wide, leaving them without government, protection, or anything else. The private cases were not perhaps visited once a year, while the private asylums were visited six times in a year, and every possible contingency had to be reported to the Commissioners. Dr. Bucknill had told him, on the occasion referred to, that he would like to have a private asylum in the suburbs of London, but that the Commissioners would not sanction it. [Dr. Bucknill denied that he had said this.] Dr. Hicks said that he was a proprietor, and he did his utmost to act honourably, and had never given cause of complaint. There were also other proprietors who had had no complaint brought against them; and yet Dr. Bucknill charged them with keeping patients longer than they ought to do, and that they did it from personal motives; that the proprietors had not attempted to discharge cases when they were cured.

Mr. W. G. Balfour did not think that the argument for and against private asylums was likely to do much good. Last session, Mr. Dillwyn introduced into Parliament a Bill containing every one of the things which Dr. Bucknill had proposed as remedies for existing evils. He did not see what was the use of keeping up this sort of warfare. He would rather bring before the meeting a resolution that it accepted Mr. Dillwyn's Bill as a measure of reform in lunacy law, and that they should proceed to consider its clauses.

The Chairman said that the meeting could hardly take up that resolution, because no notice had been given. What they were discussing was Dr. Bucknill's paper. Any matters brought forward in the paper Mr. Balfour would be justified in opposing.

Mr. Balfour said that the meeting had before it a set of one-sided facts or half-truths. What Dr. Bucknill said about asylums was in a great measure true; but he had given only half-truths. He did not say how many patients the proprietors had for £40 or £60 a-year, which would not pay for their keep; he did not tell of the good actions of the asylum proprietors. These statements that were being made were only agitating the public, and keeping the patients and the asylum proprietors in a state of dissatisfaction and discontent. He disapproved of the articles which had appeared in the British Medical Journal on the subject. A new Bill would be introduced next session, founded upon Mr. Dillwyn's. He suggested the appointment of a Committee to take Mr. Dillwyn's Bill into consideration.

Mr. Nelson Hardy said that they could not go off from the discussion of the paper read into another thing, which would require some time. There were two courses open: they might adjourn the discussion for a fortnight; or, on the other hand, after hearing Dr. Bucknill's reply, they might consider this discussion closed, and start on the next occasion with the consideration of Mr. Dillwyn's Bill.

Dr. Wood moved the adjournment of the discussion.

Dr. Bodington seconded the motion for the adjournment. He would ask Dr. Bucknill to acknowledge that he had made a mistake in the recent trial to which he had referred in regard to Vice-Chancellor Malins. He believed that the great majority of medical asylum proprietors were in favour of abolition. In that he quite agreed with Dr. Bucknill.

Dr. Bucknill entirely concurred in what the Chairman had said with regard to the Minister of Health. He had only mentioned the Local Government Board as the authority in possession; but, if the Government were determined to appoint a Minister of Health, it would be quite right that that minister should have authority over the destitute insane throughout the country. Dr. Newington's speech had made a great impression upon him. His statistics were exceedingly interesting and valuable; but there was a difference in the statistics of a large number of small institutions scattered over the country, many of which had neither clerks nor boards to regulate the movements of patients. He remembered a superintendent of a county asylum in the old days who got a reputation for a great proportion of recoveries; but, after a while, it was found that he had a certain number of patients whom he discharged as cured every December and readmitted them every January. He was very much struck by what Lord Shaftesbury said in his evidence in 1877, that they sent out a great number of patients on trial whom they never heard any more of. What became of them? They were certainly not understood to be cured. He regretted that he took the extract from the *Times* newspaper in reference to the case which attaches to Dr. Bodington. But it was not surprising that one put faith in words which were reported to have fallen from a vice-chancellor. He did not know in what he could put confidence if he could not in a report in the *Times*. He had not referred to Dr. Bodington's name; and, if Dr. Bodington had not spoken about the matter, probably no one in the meeting would have known to whom it referred. As regarded Dr. Hicks's statement, if he had thought fit to apply for a licence, the Commissioners in Lunacy would have been most willing to give him one.

The resolution for the adjournment was carried unanimously.

STATEMENT OF YEARLY PAY OF NAVAL AND ARMY MEDICAL OFFICERS.

The folllowing particulars are obtained from the latest Orders in Council regarding the Services.

Year of Service.	Navy.				Army.			
	Rank.	Pay *per Ann.*			Rank.	Pay per *Annum.*		
		£	s.	d.		£	s.	d.
1st ……	Surgeon	200	15	0	Surgeon.	200	0	0
2nd ….	,,	200	15	0	,,	200	0	0
3rd ……	,,	200	15	0	,,	200	0	0
4th ……	,,	200	15	0	,,	200	0	0
5th ……	,,	200	15	0	,,	200	0	0
6th ……	,,	228	2	6	,,	250	0	0
7th ……	,,	228	2	6	,,	250	0	0
8th ……	,,	228	2	6	,,	250	0	0
9th ……	,,	255	10	0	,,	250	0	0
10th ……	,,	255	10	0	,,	250	0	0
11th ……	,,	255	10	0	,,	273	15	0
12th ……	,,	282	17	6	,,	273	15	0
13th ……	,,	282	17	6	,,	—		
14th ……	,,	282	17	6	,,	—		
15th ……	,,	310	5	0	,,	—		
On promotion ….	Staff-Surgeon	328	10	0		—		
13th ……	,,	328	10	0	Surgeon-Major.	365	0	0
14th ……	,,	328	10	0	,,	365	0	0
15th ……	,,	365	0	0	,,	365	0	0
16th ……	,,	365	0	0	,,	410	12	6
17th ……	,,	365	0	0	,,	410	12	6
18th ……	,,	383	5	0	,,	410	12	6
19th ……	,,	401	10	0	,,	410	12	6
20th ……	,,	401	10	0	,,	410	12	6
On promotion ….	Fleet-Surgeon.	419	15	0	,,	—		
21st ……	,,	438	0	0	,,	456	5	0
22nd ……	,,	456	5	0	,,	456	5	0
23rd ……	,,	474	10	0	,,	456	5	0
24th ……	,,	492	15	0	,,	456	5	0
25th ……	,,	511	0	0	,,	456	5	0
26th ……	,,	529	5	0	,,	501	17	6
27th ……	,,	547	10	0	,,	501	17	6
	No corresponding	rank in Navy.			Brigade-Surgeon.			
					On promotion ………	547	10	0
					After five years ………	602	5	0
On promotion ….	Deputy Inspector-General	565	15	0	Deputy Surgeon-General: on promotion to rank after at least ten years' service abroad, uniform annual pay of	730	0	0
23rd ……	,,	584	0	0				
24th ……	,,	602	5	0				
25th ……	,,	620	10	0				
26th ……	,,	638	15	0				
27th ……	,,	657	0	0				
28th ……	,,	675	5	0				
29th ……	,,	693	10	0				
On promotion ….	Inspector-General.	821	5	0	Surgeon-General: uniform annual pay of	1003	15	0
26th ……	,,	839	10	0				
27th ……	,,	857	15	0				
28th ……	,,	876	0	0				
29th ……	,,	894	5	0				
30th ……	,,	912	10	0				

A candidate for the Naval Medical Service receives while at Netley 5s. *per diem* with quarters, or 7s. without quarters; for the Army Medical Service, 8s. *per diem.*

Surgeons in the Army are promoted after twelve years' service; in the Navy when vacancies arise in the senior ranks. This may be under twelve years or over; it is also dependent on passing a qualifying examination for the rank of staff-surgeon. The increase of the pay of surgeons in the Navy after eleven years' service is conditional on passing this examination while under ten years' service.

Naval medical officers are subject to loss of time on half-pay owing to impaired health or exigencies of service. Hitherto, as a rule, this has amounted to about two years before completing twenty years' service. The half-pay disability is more common in the higher ranks than in the lower.

In no rank have the naval medical officers colonial, Indian, or tropical pay.

The following are the conditions of retirement in the Medical Services of the Army and Navy.

Navy.	Army.
Inspector-General.—Compulsory at 60 years of age, on £2 per day (£730 *per annum*) if over 32 years' service.	*Surgeon-General.* — Compulsory at 60 years of age, on £2 *per diem* (£730 *per annum*), not dependent on time of service.
Deputy Inspector-General.—Compulsory at 60 years; if in first six of rank, on 33s. per day (£602 5s. *per annum*); others on 30s. per day (£547 10s. *per annum*) if entitled by service to maximum amount of half-pay.	*Deputy-Surgeon-General.*—Compulsory at 60 years, on 35s. *per diem* (£638 15s. *per annum*), independently of time of service.
	Brigade-Surgeon. — Compulsory at 55 years, on 30s. *per diem* (£547 10s. *per annum*) after 30 years' service; 27s. 6d. *per diem* (£501 17s. 6d. *per annum*) after 20 years' service.
Fleet-Surgeon and Staff-Surgeon.—Compulsory at 60 years; maximum £540 *per annum*, dependent on an amount of service rarely obtained even at this age, in consequence of half-pay time. Optional (for Fleet-Surgeon) after 25 years' full-pay service, on 21s. *per diem* (£383 5s. *per annum*); after 20 years' service, on 15s. *per diem* (273 15s. *per annum*); subject in all cases to approval of Admiralty.	*Surgeon-Major.*—Compulsory at 55 years, on 25s. *per diem* (£546 5s. *per annum*) after 30 years' service; 22s. 6d. *per diem* £410 12s. 6d. *per annum*) after 25 years' service; 20s. *per diem* (£365 *per annum*) after 20 years' service.

SCHEME FOR THE IMPROVEMENT OF THE NAVAL MEDICAL SERVICE.

THE following is a draft of the scheme for the improvement of the naval medical service, which has been prepared for submission to the First Lord of the Admiralty by the Chairman of the Parliamentary Bills Committee, in accordance with a resolution of the last meeting of the Committee. It is requested that any further suggestions towards the final form of this scheme may be forwarded at once. The draft has been prepared after much consultation with officers of various ranks, and the consideration of a great mass of communications on the subject. It is requested that any further communications may be sent without delay.

1. *Naval Candidates at Netley.*—Pay to be equalised to that of candidates for the army.

2. *Surgeons.*—Promotion to staff-surgeon not to be later than twelve years from entry into the service. No qualifying examination to be required for staff-surgeon's rank. Pay to be not less than, but in advance of, new army scale.

3. *Fleet-Surgeons.*—To attain that rank, seventeen years from entry into the service to be sufficient, instead of twenty years' service on full pay as heretofore. Pay and half-pay to be not less than, but in advance of, new army scale. Retirement on twenty shillings a-day after twenty years from entry into the service, and at the other epochs as laid down in the new army scale, and at the same rates of retiring pay as therein laid down. All compulsory half-pay time to count. Fleet-surgeons list to be divided into two categories. The senior forty to have not less than, but in advance of, the pay, half-pay, and retired pay of brigade-surgeons. The remaining fleet-surgeons to have pay, half-pay, and retiring pay not less than, but in advance of, surgeons-major of over twenty years' service. Fleet-surgeons to be retired compulsorily at the age of fifty-five.

4. *Inspectorial and Deputy-Inspectorial Ranks.*—No qualifying service of any kind to be required. Pay, half-pay, and retiring pay to be not less than, but in advance of, corresponding ranks in the army.

5. Instruments and the surgical appliances to be provided by Government, as in the military service.

6. Cabin accommodation to be provided, according to rank and seniority.

7. Medical officers' allowances in flag-ships and hospitals (corresponding to charge-pay in the army) to be retained as at present.

8. Sick-leave on full pay should be granted to naval medical officers as to military medical officers.

ERNEST HART,
Chairman of the Parliamentary Bills Committee, British Medical Association.

February 3rd, 1880.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE ordinary quarterly meeting of the College was held on January 29th, 1880.

The chief subject of discussion, after the admission of members, was the proposal to hold an International Medical Congress in London in 1881. It was the unanimous opinion of the Fellows that it would in every way be advantageous to hold such a conference; and the proposal that the President, in conjunction with the President of the Royal College of Surgeons, should invite delegates from the medical and other scientific societies and corporations to a preliminary meeting, was unanimously supported. The first step would thus be taken to consider the best scheme for organising the details of the Conference.

The report of the Censors on the best means of utilising reports collected at the Colonial Office was received. The value of these materials was noticed by the President, and the two plans suggested by the Censors were stated: either for the Crown to appoint a salaried officer for the special purpose alluded to, or that a small committee should be nominated by the College, who should receive an adequate honorarium for their trouble.

It appeared, from the annual report of examiners, that there had been considerable improvement in the acquirements of candidates for the College licence during the past year. It was suggested that a tabular statement should be published showing the number of candidates, successful and unsuccessful, with the respective medical schools from which they came.

The nominations of Drs. Wilks, Stone, Wilson Fox, and G. Buchanan as councillors followed.

A small committee, composed of Drs. Dickinson, Lauder Brunton, and Ferrier, was nominated to examine the papers sent in for the Benett-Stanford Prize.

The subject of the by-laws and regulations for the College Licence was deferred till the next meeting of the College.

VACCINATION AND SMALL-POX.

ON the afternoon of Wednesday, January 27th, Mr. ERNEST HART, Chairman of the Council of the National Health Society, delivered a lecture in the theatre of the Society of Arts on the above subject. Dr. ANDREW CLARK occupied the Chair.

The CHAIRMAN, in opening the proceedings, said that it seemed to him that, in face of the increasing population of our towns, with the increasing civilisation therein; in the face of the rights, duties, and denials which this question involved; and in face of the great and growing conflict of opinion on the subject of vaccination and small-pox,—the National Health Society had done well in having a public lecture delivered free to persons of all opinions, who might controvert the facts, if they could, which the lecturer would submit. Ever since the introduction of vaccination, there had been two opinions about it. One party had said that vaccination was almost an unmixed good to mankind; that it had checked the ravages of a loathsome disease; that it had greatly lessened the fatality which formerly arose from it; that it had given almost entire immunity from the danger of being affected by the disease to those who had properly and efficiently undergone the operation; and that, indeed, where the vaccination system had been fully carried out, this horrible disease had been banished. On the other hand, there were those who said that the system of vaccination was almost an unmixed evil. They denied that it had lessened small-pox; held that the disease was as virulent now as formerly; and declared that the system had been the means of introducing into the human system other and greater diseases. This conflict of opinion had imported into it not only passion which belonged to all strong conflicts of opinions, but also the passion, which perhaps had arisen on both sides, from an inadequate and unjudicial view of the whole subject. As this question passed from the press and the platform and came into Parliament, the views which were held by the public would be likely to influence the legislation which might follow; and, as that legislation would be of infinite good or infinite evil to society generally, the National Health Society had done well to lay the facts on the subject before the public in a calm and judicial manner; and the Society had chosen for this task Mr. Ernest Hart whose peculiar training and long experience in which he had had to exercise his admirable and discriminating judgment over many matters, had placed him in the forefront when a matter involving the relations of medicine to the state had to be decided by facts; and his sympathies with mankind had habitually brought him into that kind of work which enabled him to judge and speak with authority upon the bearing of those facts. It now merely remained to ask for a patient hearing for the lecturer.

MR HART commenced by stating that his advice and assistance had been asked for over and over again by all sorts of people, under all sorts of conditions, for the purpose of refuting the statements of the anti-vaccinators, and quite recently by the candidates in two of the late elections. He had, of course, been able to refer his inquirers to the standard works on the subject, and to the statistics of the Registrar-General; but what seemed to be wanted was some plain, practical, and direct answer to the specific allegations of the anti-vaccinators. On making careful inquiry into the matter, he found that there was no book or pamphlet giving these particulars in a convenient form; and he, therefore, set himself to prepare such an answer. Mr. Hart explained that he had attempted, by much reading of the writings of anti-vaccinators, to make himself master of their assertions; and certain specific statements brought forward in their numerous tracts on the subject he had set himself to combat. But, before commencing his reply, he thought it only right to draw the attention of his auditors to what small-pox was in the olden time, before it came to be modified by vaccination; and to point out that, inasmuch as sanitary measures (except the prevention of overcrowding) had only the smallest effect upon small-pox, we might fairly have expected just as severe epidemics now as occurred in pre-vaccination periods. The lecturer then entered upon an historical *résumé* of the ravages which small-pox was wont to commit in bygone days, both in remote and uncivilised climes and amongst populous communities. He glanced at the havoc which it made amongst royal families—in the family of William III, for example; and asked his auditors how it was that we heard nothing of this mortality in high places now-a-days.

He then went minutely into each of the allegations of the anti-vaccinators, and showed their fallacy, strengthening his case by quotations from the Registrar-General's statistics, from Mr. Simon's letter to the President of the General Board of Health, and from the evidence taken before the Select Committee of the House of Commons in 1871. In particular, he devoted much time to the allegations that vaccination had not diminished the mortality from small-pox, that it did not ward off an attack of small-pox in the individual, and that it caused increased mortality from other diseases. He brought forward copious statistics to show the inaccuracy of these allegations, and showed, on the contrary, from the accumulated facts of the last eighty years, how large an influence vaccination has had in checking small-pox and in modifying its course in those vaccinated individuals who caught it. He gave figures to show that a thoroughly vaccinated person had only one-seventieth of the chances of catching small-pox that an unvaccinated person has; and that if he were attacked by the disease, he had fifty times as many chances of recovery as a person unvaccinated. He explained the inaccuracy of the idea that vaccination inoculated other diseases, and pointed out that as regards syphilis the danger was infinitesimal, whilst, on the other hand, there was the enormous assured advantage in vaccination of prevention of mortality from small-pox. Mr. Hart insisted strongly on the necessity of vaccination being thoroughly performed, and of revaccination at puberty; and he made certain suggestions designed with a view to make vaccination more general and thorough. In conclusion, he summed up the evidence in favour of vaccination, which he described as overwhelming.

A rather noisy discussion by "anti-vaccinators" followed, in which, however, no attempt even was made to meet the figures brought forward.

DR. WILLIAM FARR, F.R.S.

AT a meeting of the Sheffield Medico-Chirurgical Society, Mr. Arthur Jackson, President, in the Chair, held on January 29th, the following resolution was unanimously adopted.

"That the members of the Sheffield Medico-Chirurgical Society desire to express their high sense of the great services which Dr. William Farr has rendered to his country in promoting sanitary progress, and to record their deep regret that his paramount claims to the Registrar-Generalship have been overlooked by the present Government, and to hope that those services will shortly be recompensed in a suitable manner by that Government."

Copies of the resolution were ordered to be forwarded to Lord Beaconsfield and Mr. Sclater-Booth.

The following resolution was passed at a meeting of the Norwich Medico-Chirurgical Society on February 3rd, 1880; W. Cadge, Esq., President, in the chair.

"The Norfolk and Norwich Medico-Chirurgical Society desires to express its sense of the great services rendered to the country by Dr. William Farr, who, by his unrivalled abilities and long and successful work as a statist, has not only done more than any other man to stimulate our national sanitary progress, but as well to advance the study of vital statistics throughout the civilised world; and to record its surprise and regret that his paramount claims to the office of Registrar-General have been disregarded, and the post bestowed on a gentleman whose name is yet entirely unknown to the country in connection with statistical science. And this Society, while suspending its judgment on the reasons which may be assigned to justify this singular appointment, cannot but feel alarm and dissatisfaction that a Government department, by its conduct of affairs, should have caused in succession the retirement and loss to the public service of two such pre-eminent men as Mr. Simon and Dr. Farr."

HOME FOR INEBRIATES.

It has been determined to make an effort to establish by voluntary effort an institute for the purpose of treating inebriates according to the provisions of the Habitual Drunkards Act, 1879, which came into operation with the commencement of this year. This determination was come to last week at a meeting of the committee of the British Medical Association on Habitual Drunkards, and of the committee of the independent society formed to promote legislation on the subject. The institute, when established, is to be supported by payments from the patients. It is proposed to call it the Dalrymple Retreat for the Treatment of Inebriates, and the special committee includes Dr. A. Carpenter, Mr. C. A. Govett, Dr. N. Kerr, and Mr. S. S. Alford.

At the Social Science Rooms, on Tuesday, Dr. A. Carpenter, in the absence of the Earl of Shaftesbury, presiding, Mr. S. S. Alford read a paper on the Habitual Drunkards Act of 1879, the class of persons for whom it is intended, and how it may be administered, with an account of a recent visit to the American Inebriate Homes. The Earl of Shaftesbury, in a letter expressing regret that he could not preside, said: "The truth is that I have been (for the first time in my life) very seriously ill; and I have not yet recovered strength enough for the duty of the evening. I heartily wish well to the movement, and I shall be very glad to give any strength that God may spare to me in aid of your operations." The Archbishop of York wrote: "I shall watch with much interest the report of your meeting", adding his regret that he should not be in London in time for it. Letters of sympathy and regret at their absence had also been received from Lord Aberdare, the Archbishop of Canterbury, the Earl of Harrowby, Lord Selborne, and Lord Beauchamp. There was a full attendance of members.—Mr. ALFORD first sketched the origin and history of the movement which led to the passing of the Act, and said that, as 94 per cent. of the occupants of American homes are voluntary inmates, it is believed much good will result from this tentative but incomplete Act. From the numerous applications received by him, as honorary secretary of the society for promoting legislation on the subject, he was confident that well managed retreats would succeed as a pecuniary investment, and from his observations in America, he anticipated a fair percentage of recoveries. The frequency of inebriety in America Dr. Beard attributes to the climate, the dryness of the air, and the extremes of heat and cold. Inebriety and other neuralgic disorders are most common in the north and east, where there is so much total abstinence. Indeed, Dr. Beard says there is no country in the world where there is so much total abstinence from the use of stimulants, and at the same time so much inebriety as a disease. The drinking habit has been diminishing for the last twenty or thirty years among the better classes, and yet the disease has been on the increase among them. Therefore Dr. Beard considers that the disease should be treated on the same principle as nervous diseases; first, by keeping the patient from exposure to the exciting causes; and, second, by fortifying the system with nerve sedatives and tonics. Homes have been established in America for twenty-two years. Most of the local governments, in both Canada and the States, have laws recognising the necessity for control and treatment; some States do not authorise detention, but subsidise the homes. The chief obstacle to their more general establishment arose from the want of a more recognised uniform plan of management. A like difficulty may occur here. If our Act could be brought to bear on the criminal and working classes, it would greatly contribute to the lessening of drunkenness. If the charitable public would start institutions to receive these classes, magistrates might, in drunken cases, give the option of going into an inebriate retreat instead of to prison. In this way, magistrates would be relieved of difficulty, and an infatuated, helpless class put in a position to recover their lost moral and intellectual power.

Dr. NORMAN KERR warmly urged the necessity for something being done, and mentioned the distressing case of a gentleman of education who had written to him from a workhouse, declaring that he was willing to be put anywhere.—Mr. POTTER said the police-court agents of the Church of England Temperance Society were always meeting with prisoners who would be willing to submit to restraint.—Mr. ZIERENBERG, of the St. James's Home for Women in Kennington, said that it had reclaimed sixty-two per cent. of its inmates for four years.

The discussion closed with the adoption of the following resolution, moved by Mr. HOLTHOUSE, and seconded by Dr. HARDWICKE:

"That, to establish a home for the treatment of habitual drunkards, in which it is proposed that the managing committee shall have no pecuniary interest, appears to be the best way by means of which the Habitual Drunkards Act, 1879, is likely to be made useful. This meeting, therefore, recommends the society by whose means the Act was obtained, to proceed with the course which they propose to undertake, and that the term 'Dalrymple Retreat' appears to be an appropriate name for the same."

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The fifth meeting of the session will be held in the Examination Hall of the Queen's College on Thursday, the 12th instant. The Chair will be taken by the President, Dr. JOHNSTON, at three o'clock P.M.

The following papers are promised.

1. Mr. J. V. Solomon: Ophthalmic Notes of interest to the "Family Doctor".
2. Dr. Carter: Notes on the Diagnosis and Treatment of Pleurisy in Children.
3. Dr. Hickinbotham: Midwifery two hundred years ago.

Members are invited to exhibit patients, pathological specimens, new drugs, instruments or appliances, at the commencement of the meeting.

E. MALINS, M.B.,
E. RICKARDS, M.B., } *Honorary Secretaries.*

Birmingham, February 4th, 1879.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

The next meeting of this district will be held at the Myddleton Hall, Islington, on Thursday, February 19th, 1880, at 8.30 P.M., when the following papers will be read.

Mr. Brown: Some Remarks on Tumours of the Breast following Injuries.

Mr. French: On Carbuncle.

Mr. Mann: On Lupus.

THOMAS STRETCH DOWSE, M.D., *Honorary Secretary.*

2, Old Burlington Street, February 4th, 1880.

SOUTH OF IRELAND BRANCH.

The usual quarterly meeting of the Branch will be held in the Royal Cork Institution, on Wednesday, February 25th, at 4 P.M.

Members intending to read papers, or send communications, will kindly intimate their intention to the Secretaries.

P. J. CREMEN, M.D.,
T. G. ATKINS, M.D., } *Honorary Secretaries.*

Cork, January 22nd, 1880.

STAFFORDSHIRE BRANCH.

The second ordinary meeting of the present session will be held at the Board Room of the Infirmary, Stafford, on Thursday, February 26th, at 3.30 P.M.

VINCENT JACKSON, Wolverhampton
J. G. U. WEST, Stoke-upon-Trent } *Honorary Secretaries.*

Wolverhampton, February 2nd, 1880.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A meeting of this District was held at the Myddelton Hall, Islington, on Thursday, January 15th.

The following papers were read.

1. A Case of Extra-uterine Fœtation. By J. W. Mason, Esq.
2. The Diagnosis of Paralysis of the Motor Division of the Seventh Nerve, arising from Centric (Cerebral) and Peripheric (Neural) Disease. By A. Morison, M.D. A discussion followed, in which Drs. Wiltshire, Henty, Cree, and Dowse, and Mr. Archer, took part.

CORRESPONDENCE.

THE PROTECTIVE INFLUENCE OF COW-POX.

SIR,—It seems remarkable that, in all the illustrations given by recent writers in favour of the protective influence of vaccination against small-pox, no one, so far as I have seen, has quoted the original essay of Jenner, in which the actual experiments in proof of this protection are given. At the present day, we are only declaring that vaccinated persons do not take small-pox when they are in all probability often exposed to its influences; but in Jenner's time, when inoculation with the virus of small-pox was being practised, the value of vaccination was put to the test by positive trial. For the sake of those who may not have at hand Jenner's "*Inquiry into the Cause and Effects of Variolæ Vaccinæ*", I will give quotations from the work. Mr. Fry, surgeon, writes as follows to Jenner. "During the spring of the year 1797, I inoculated fourteen hundred and seventy-five patients of all ages, from a fortnight old to seventy years; amongst whom there were many who had previously gone through the cow-pox. The exact number I cannot state; but if I say they were near thirty, I am certainly within the number. There was not a single instance of the variolous matter producing any constitutional effect on these people, nor any greater degree of local inflammation than it would have done in the arm of a person who had before gone through the small-pox, notwithstanding it was invariably inserted four, five, and sometimes six different times, to satisfy the minds of the patients. In the common course of inoculation previous to the general one, scarcely a year passed without my meeting with one or two instances of persons who had gone through the cow-pox resisting the action of the variolous contagion. I may fairly say that the number of people I have seen inoculated with the small-pox who at former periods had gone through the cow-pox, are not less than forty, and in no one instance have I known a patient receive the small-pox, notwithstanding they invariably continued to associate with other inoculated patients during the progress of the disease, and many of them purposely exposed themselves to the contagion of natural small-pox; whence I am fully convinced that a person who had fairly had the cow-pox is no longer capable of being acted upon by the variolous matter."

Mr. Tierney, assistant-surgeon of the South Gloucester Militia, writes to Jenner, "That, in the summer of the year 1798, he inoculated a great number of the men belonging to the regiment, and that among them he found eleven who, from having lived in dairies, had gone through the cow-pox; that all of them resisted the small-pox except one; but that, on making scrupulous inquiry, it clearly appeared that he aimed at an imposition, and that he had never been affected with cow-pox."

Mr. Clive writes in the same year to Jenner, informing him that he had vaccinated a child, which succeeded admirably, and afterwards tried to inoculate him with small-pox, but in vain.

These, then, were perfect experiments which cannot be gainsayed. I may remark that Jenner was aware of the difficulty in regarding the disease in the cow as a constitutional affection, since it was local, and only affected the female. He thought that the cows "had been exposed to the contagious matter brought by the menservants from the heels of horses."—I am, etc., SAMUEL WILKS.

Grosvenor Street, February 1880.

NURSING ORGANISATION IN HOSPITALS.

SIR,—I venture to ask your permission to say a few words on this subject, which some recent events have caused to be largely discussed in your columns and elsewhere. All or most of the communications I have read have emanated from members of the medical profession, and appear, many of them, to be based on the assumption that an antagonism exists between the lay administration representing the nursing staff, and the medical staff. Such an assumption I believe to be entirely unfounded, whether in the case of a great hospital which has been brought prominently forward, or generally as regards the governing bodies; and it is very much to be deprecated, in the interests of hospital management, that any discussion of a nature to promote this feeling should take place.

Allow me to state briefly the principles on which a sound system of administration can alone be based—principles which I am justified in saying that both a common sense view of the question and experience dictate.

The object to be attained being the cure of disease, and the remedies to be applied being necessarily under the direction of a professional body, the medical staff, all must be agreed that the organisation of the hospital should be such as to provide the most effective means of carrying out their orders respecting the treatment of the patients. The regulations of the governing body are directed to this end, and are made after consultation with the staff. There can be no question that, as regards this, the exclusive function of the medical authority, there can be no interference permitted on the part of matron or lady superintendent, sister or nurse; it is the duty of the nursing staff, from highest to lowest, to obey implicitly the directions of the medical officers in charge of the patients. That is what they are there for.

Where, then, does any difficulty arise? It arises from this, that, in matters of discipline, *i.e.*, of order, obedience, behaviour, conduct generally, it is essential for the proper working of the system that the nurses shall be responsible solely to their own female superior, and not to the medical officer or any other male official.

There is nothing new in this proposition. It arises out of the principle on which every administrative system is based, and is most especially applicable where women are concerned. The enforcement of it is essential to the due attainment of the very object for which the skilled professional man is employed; for without it, you will never be successful in training up and maintaining a class of respectable and trustworthy as well as intelligent nurses, women really capable of fully carrying out the orders of the medical staff, really worthy of acting as genuine handmaids of the physician and surgeon. The matron is responsible to the governing body for her own conduct and for the efficiency of the nurses; and as regards the medical officers, she is responsible that their orders respecting the treatment of the sick are strictly carried out. Any remissness or neglect of duty on the part of a nurse must be dealt with by her. In all matters relating to the wards, she communicates freely with the medical officer concerned, seeks his opinion, and endeavours to meet his wishes. If the matron fail in these duties, and do not exercise her authority with judgment and discretion, it is for the governing body to interfere, and, if need be, to remove her. On the other hand, if members of the medical staff interfere in matters of discipline, and insist, for instance, on the retention of a nurse against the judgment of the matron, then all discipline is at an end. One main cause of the unsatisfactory condition of the nursing service in hospitals has been, that mere technical skill in a nurse has been regarded as the sole essential qualification; and with the want of any organisation in the nursing department to be found in most hospitals, in all, I may say, without exception, twenty years ago, this was not to be wondered at. The physician or surgeon was necessarily the only authority as to the character of the nurse, and was guided by the evidence which came before him, which could only be partial and imperfect.

Faults of tact and errors of discretion will occur on the part of matrons and also of doctors; and no doubt, in the present condition of the nursing profession, if I may be allowed so to call it, the class from which qualified matrons can be obtained is, notwithstanding considerable progress, yet a small one, and therefore disappointments will happen. Experience has, however, proved beyond question that, where the lay administration and the medical respectively keep within their proper sphere, as indicated by the application of the general principles I have endeavoured to point out, no clashing of authority need ensue.

In these remarks, already too long, though far short of what the subject requires, I have desired not only to remove the impression which appears to exist in some minds, that the changes advocated in the nursing service of hospitals are in any degree incompatible with implicit obedience on the part of the nurse to the medical man, and with due deference to the great medical profession, but also to show that it is to this very end that these changes are directed.—I have the honour to be, sir, your obedient servant,

HENRY BONHAM CARTER, Secretary to the Nightingale Fund.

January 31st, 1880.

THE MANCHESTER CHILDREN'S HOSPITAL AND DR. HUMPHREYS.

SIR,—Dr. Thomas Barlow of London, in your last issue, has published a letter attacking me severely; to do so, he asserts that, though my letter in the JOURNAL of January 24th was ostensibly a defence of the Committee of Management, it was a defence of myself; and he tries to prove this unproven assertion by another equally unproven one, that I have shown in my letter, that my own influence in the control of the hospital was paramount. My letter states that "My warm support was given to the candidature of his friend and *protégé* Dr. Humphreys, in consequence of which he was elected assistant-physician"; a statement which proves nothing more than that the Board of Management at Pendlebury are guided in making medical appointments by the opinion of their medical officers; a proceeding for which I, as a medical man, have always felt thankful to them, and for which I expect our profession will neither blame the board nor me. Otherwise, my influence in the management of the hospital is the natural and legitimate influence which belongs to a medical officer who, for twenty-five years, has served loyally, voluntarily, and not unsuccessfully, the interests of a charity. The reason why I wrote the letter published in the JOURNAL of January 24th is plainly stated in it.

It is beyond my logical power to see that I have given my "*imprimatur*" to the suspension of Dr. Humphreys, because this was decided upon at a meeting of the House Committee held in my rooms. Many meetings of the House Committee, medical staff, and Board of Management, have been held in my rooms, because they are centrally situated; and the absurdity of Dr. Barlow's assertion on this point will be clear, if I were to be made responsible, as he wishes to make me in this case, for every decision which has been come to in those four walls. I, not being a member of the House Committee, took no part in their decision. The charges of the lady superintendent and the consequent action of the House Committee, would have come under my consideration and decision as member of the Board of Management, had not Dr. Humphreys prevented it by preferring to resign, rather than meet the charges before the board.

Dr. Barlow, not I, ignores that Dr. Humphreys, in his interview with the lady superintendent, stated his intention to communicate the contents of the conversation to the sister, not "in seeking the interview", but after the conversation had lasted for some time, and after it had assumed the "warm tone" of which Dr. Humphreys speaks in his letter to the board.

I decline to follow Dr. Barlow in his diatribe about "espionage" and "private hints", etc., at the hospital, but I protest against his charge of medical autocracy exercised by me. He has not a single fact by which to substantiate this charge; if he have, I challenge him to bring it forward.—I am, sir, your obedient servant,

LOUIS BORCHARDT, M.D.

SIR,—The letter containing the defence of the Board of Governors of the Pendlebury Hospital, signed by Mr. Cross, is neither correct nor candid. The assertion that the address to Dr. Humphreys was founded on a one-sided statement, and without inquiries as to the correctness of its allegations, I am in a position to meet with a direct denial. The board declare they have no desire to disparage the medical qualifications of Dr. Humphreys. Then why, I ask, do they make a damaging insinuation against him, which one of their own reports disproves? "The Board of Governors", says the letter, "discovered, very soon after Dr. Humphreys' appointment, that a medical investigator and experimentalist, however accomplished, was not necessarily gifted with energy or judgment, nor fitted for a position requiring such qualities". The evident intention of this sentence is to convey the impression that Dr. Humphreys was merely a medical investigator and experimentalist, and unsuited, by reason of want of activity and judgment, for the office of physician to the hospital.

Compare this, however, with the following allusion to Dr. Humphreys, which appears in the report published by the Board in 1878, when he had held office for more than a year. At page 7, the report says: "The board cannot speak too highly of the strong sense of duty, professional skill, and great kindness shown by Dr. Humphreys;" and in two other passages of the same report, the confidence of the board in Dr. Humphreys is specially dwelt upon. Comment on the divergence between the insinuation in the letter and the statement in the report is unnecessary.

The letter further asserts that, owing to Dr. Humphreys' want of energy and judgment, the Medical Board did not, after the first year, re-elect him as chairman. Dr. Humphreys (who is prevented by illness from writing himself) absolutely denies that the action of the medical committee was based on any such grounds. He tells me that the facts of the case are as follows. It was suggested that he should be re-elected; but, as he was not on friendly terms with an important member of the Board of Governors, with whom, as chairman, he would have been brought into contact in the preparation of reports, etc., he expressed a wish not to again act as chairman. Hence the appointment of his junior, Dr. Ashby, to the post. It is a pity that a board, so anxious as they say not to disparage Dr. Humphreys' qualifications, and so full of consideration for him, should, nevertheless, publish damaging statements concerning him without fully ascertaining the facts.

Dr. Humphreys has so well explained his agreement to the appointment of Dr. Ashby as medical administrator, that the sneer about his being reduced to the position of ward-physician loses its point. In most hospitals, this position is the highest which a physician can hold, but Pendlebury seems an exception to most rules. Altogether, a more unsatisfactory defence than that published by the Board of Governors could hardly have been made. Moreover, though it is asserted that the facts enumerated in your editorial remarks are inaccurate, this assertion is nowhere substantiated.

Dr. Borchardt's letter is chiefly remarkable for his acknowledgment of the extraordinary fact that, at Pendlebury, the nurses, when they cannot understand the directions of the physician, apply to the chairman of the hospital. Can we wonder at the chaos in both medical and nursing departments which has existed at Pendlebury under such conditions?

It is with extreme surprise and sorrow that the medical profession in Manchester have seen the position which Dr. Borchardt has taken in this matter; but they do not in the least complain that, in order to prevent the closure of the hospital, and injury to the cases under treatment, Dr. Borchardt should have again taken office, and Dr. Ashby and Mr. Jones should have consented to remain at their posts.—Yours truly,

D. J. LEECH.

Manchester, February 3rd, 1880.

SIR,—In Mr. Cross's letter, which appeared in your JOURNAL of the 31st January, the following occurs. Speaking of Dr. Humphreys, he says, "His want of clearness and decision in instructions given with regard to the treatment of patients became a frequent cause of anxiety and embarrassment".

Having been a resident at the hospital for the greater part of last year, I wish to state that, when in charge of Dr. Humphreys' wards, during the absence of my colleague Dr. Watson, on no occasion have the nurses had to come to me for explanation of any direction left by Dr. Humphreys, which they would have at once done had it been necessary.

Dr. Humphreys was universally liked in the hospital, and no physician could possibly have bestowed more care and attention on his patients than he did.—Yours, etc.,

CHARLES WOOD, M.R.C.S.,
Late Junior Resident Medical Officer, Children's Hospital, Pendlebury.

February 1st, 1880.

THE HABITUAL DRUNKARDS' ACT.

SIR,—The report of the licensed victualler's application to Mr. De Rutzen, at the Marylebone Police Court, last Tuesday, and published in the current number of our JOURNAL, furnishes a good illustration of the way in which this Act is likely to work, or rather not to work. Until some amendment is made in it, I do not believe a single individual in the middle or upper middle rank of life will voluntarily enter a licensed retreat. There is only one condition in which it may happen; that, namely, where the person, through some act committed while drunk, has brought himself within the pale of the law; he may then be glad to accept the alternative of a retreat rather than a prison.

The legislature, in its anxiety to protect the victim of intemperance against the possible abuse of the power of restraint conferred by the Act, has provided so many safeguards against this as to render it practically inoperative. For instance: the habitual drunkard has not only to make application in writing to the licensee of the retreat to admit him, as seen in Section 10 of the Act, quoted by Mr. De Rutzen, but he has to do this in public, before two justices of the peace, with witnesses, and in the form No. 3 in the second Schedule as below.

"To Dr.   .—I, the undersigned, hereby request you to receive me as a patient in your retreat at   , in accordance with the above mentioned Act; and I undertake to remain therein for   at least, unless sooner duly discharged, and to conform to the regulations for the time being in force in the retreat."

The magistrates have then to certify that—

"The above-named   signed this application in our presence, and at the time of his (or her) so doing we satisfied ourselves that he (or she) was an habitual drunkard within the meaning of the Habitual Drunkards' Act, 1879, and stated to him (or her) the effect of this application, and of his (or her) reception into the retreat, and he (or she) appeared perfectly to understand the same. Dated, etc."

What, let me ask, is the probability of any lady or gentleman submitting to such an ordeal? Would they not shrink from it? Why, many of these poor creatures are among the most sensitive of mortals. I have known them shut themselves up in their bedrooms, for the first two or three days after they had entered a private "home", because they were ashamed to face the family at meals; and every one who has had anything to do with them knows well the difficulty of inducing them to place themselves under restraint, however mild the discipline or however private the establishment in which it is carried out. If such, then, be their repugnance to enter retreats, where no forms have to be gone through and every privacy is observed, what is the likelihood of their submitting to the public exposure required by the Act? But there is another difficulty. It is a peculiarity of most habitual drunkards that they will not admit they drink to excess, and any vagaries or peculiarities of conduct of which they may be guilty are invariably attributed to a different cause. Hence it happens that those for whom the Act was specially needed cannot he brought under its operation.

What, then, it may be asked, has been gained by the passing of the Habitual Drunkards' Bill? Not much, certainly, as regards the cure and reformation of the drunkard; but it is something that the necessity for this restraint has been recognised by the legislature, and power, under certain conditions, given to enforce it. With slight amendment, the present Act may eventually become an useful measure.

Yours obediently, CARSTEN HOLTHOUSE.

January 23rd, 1880.

OBITUARY.

SIR DOMINIC JOHN CORRIGAN, BART., M.D.

SIR DOMINIC JOHN CORRIGAN, Bart., M.D., died on February 1st, 1880. This eminent man, who has just passed away, was the last (but one) representative of the great physicians and surgeons who, by their writings and oral teaching, during the second and third quarters of the current century, made the Dublin school of medicine one of the most famous in Europe. To this generation of eminent surgeons belonged Crampton, Colles, Carmichael, Cusack, Adams, and many others; and of physicians, Graves, Marsh, Stokes, and Corrigan. Amongst the great Dublin obstetricians of that period were Collins, Johnson, Montgomery, Churchill, Beatty, and Kennedy; the last of whom, though no longer a resident of Dublin or engaged in the practice of his profession, is still, we rejoice to learn, in the enjoyment of excellent health. Of the eminent teachers, as distinguished from practitioners, of that period, only two survive—Sir R. Kane and Dr. Apjohn.

Haud minimus inter magnos was the subject of this notice. Indeed, in originality of conception, which, confirmed by later and independent observation, is the true test of genius; in a correct appreciation of the operation of physical laws in producing and modifying the phenomena of disease; in a rare aptitude for testing his hypotheses by actual experiment, and in a forcible exposition of them, he had probably no equal amongst his cotemporaries. As a practitioner, he exhibited in a striking manner the distinguishing traits of his character, decision and boldness; tempered, however, with kindness and tenderness towards the sick, and guided by the most scrupulous honour in his professional relationship. The sturdy manner in which, in pursuance of these characteristics of his nature, he occasionally asserted his opinions and bore down opposition, of which he was not in anything remarkably tolerant, necessarily made a few enemies for him, and not unfrequently embroiled him in public controversy. But neither did he dislike this; on the contrary, he seemed to regard discussion, pushed even to the extreme limits of parliamentary form, as serving, like the tides, an useful purpose in keeping the agitated medium in a state of healthful activity. The acerbities growing out of these petty differences were occasionally prolonged beyond what seemed necessary; but Sir Dominic has been known to make the *amende* in the most frank and handsome manner.

In debate he was at his best. Always fluent and impressive, and capable of marshalling his facts with a skill possessed by few public men, he was occasionally eloquent. To these qualities, enhanced in no small degree by his easy and dignified action, his fine erect figure and intellectual countenance, which, when he rose to the full height of the occasion, glowed with enthusiasm and conscious power, lent considerable force. The writer has a vivid recollection of several such occasions. One will be familiar to many of the readers of this JOURNAL; namely, that of the delivery of the Address in Medicine at the meeting of the Association in Dublin in 1867. The address was itself in no respect remarkable, except in the subject chosen—namely, Medical Education and Examination; but the orator and the delivery were not to be forgotten.

Sir Dominic was not, however, free from faults as a public speaker. Amongst these was the habit of repetition by way of "clenching" his argument: a habit which, pressed beyond narrow limits, has usually, by ruffling the temper of the auditor, an effect the opposite of that contemplated by the speaker. It may be that this was, in some instances, only an oratorical *ruse* to gain time to recollect the next point in the argument. His temper was, moreover, easily discomposed; and he was too ready to interrupt an opponent on "a point of order" not always valid, with the occasional effect of disconcerting him. Finally, in the heat of debate, and apparently with no definite object before his mind, as the subject was not unfrequently indifferent, save that of succeeding in whatever he undertook, he occasionally exhibited a disposition to snatch a vote *quocunque modo*, and quite irrespectively of the merits of the question under discussion. This no doubt imparted a lively air to the debate, and was amusing to his friends as an illustration of his skill in detecting the weak points of his adversaries' armour; but, in the estimation of the thoughtful, it did not raise him who, as a leader and a senior, should have set the example of seeking unbiassed and irrefutable conclusions as his primary object.

Dominic John Corrigan was born in Thomas Street, Dublin, on December 1st, 1802. He had, therefore, at the date of his death, just entered on his seventy-ninth year. Like his illustrious friend and fellow-student Stokes, he did not receive an university education. Having passed through a respectable course of study at the Lay College, Maynooth, in which he exhibited a strong predilection for mathematics, and having been subsequently apprenticed for some years to Mr. O. Kelly, a respectable practitioner of that town, he proceeded to Edinburgh, where with Stokes he prosecuted his studies for the usual period, and with him graduated M.D. in 1825. He immediately afterwards commenced practice in Dublin, and filled the chair of Medicine in the old Digges Street School, next in the Peter Street School, and subsequently in the Richmond Hospital (now the Carmichael) College of Medicine, the latter of which he continued to hold till increasing practice compelled him to resign.

About the year 1830, he became Physician to Jervis Street Hospital, where he had only six beds at his disposal (hear it ye Oxford councillors and professors); yet, out of the meagre material supplied from this limited source, he elaborated his famous memoir on "Permanent Patency of the Mouth of the Aorta". He has been heard to remark that, having obtained this appointment by election over several competitors, and been obliged by the standing rules of the institution to pay over a large sum of money to its credit, he the more keenly appreciated the value of his beds, admitted only selected cases to them, and made thorough use of these for the purposes of study and teaching. He further remarked that from these six beds, thus utilised for some years, he drew the most valuable portion of his clinical knowledge.

Dr. Corrigan was subsequently appointed one of the physicians to the Cork Street Fever Hospital, and in 1840 Physician to the House of Industry Hospitals. He became a M.R.C.S.Eng. in 1843, his examination consisting in an oral dissertation on patency of the aortic valves, given on the invitation of the Court of Examiners; and in 1849 the degree of M.D. (*honoris causâ*) was conferred on him by the University of Dublin.

Dr. Corrigan, having been a member of the Senate of the Queen's University from its foundation in 1850, was in June 1871 chosen Vice-Chancellor, in the room of the late Sir Maziere Brady; and in 1859 its representative on the Medical Council. In defence of the Queen's University and the united system of education which it was founded to promote, he wrote about this time an able pamphlet, which, from the freedom of its strictures, gave deep offence to many of his friends. He held the office of President of the King and Queen's College of Physicians for five consecutive years, and was, by his energy and business tact, the virtual founder of the present College building in Kildare Street, where a colossal statue of him in white marble, by Foley—one of the finest works of that eminent sculptor—now stands, in company with those of his great cotemporaries Graves, Marsh, and Stokes, as a well-merited tribute by his many friends and admirers to his professional eminence and great services to his College. This statue was erected many years before his death. An oil painting of him by Catterson Smith may be seen in the same hall. He was one of the original members of the Dublin Pathological Society, founded in 1838, and subsequently filled the office of its President. He has been President of the Royal Zoological Society of Ireland, in which to the end of his life he continued to take a deep interest, frequently contributing marine specimens from his aquarium at Dalkey; and in 1875 he was elected first President of the Pharmaceutical Society of Ireland. He was a member of the Royal Irish Academy, corresponding member of the Académie de Médecine of Paris, and of the Harveian Society of London.

Sir Dominic Corrigan retained his literary activity until the last, the very interesting "Reminiscences of the early working of the dissection-rooms, prior to the Anatomy Act" which we published last year, were from his veteran pen. He distributed copies largely among his friends, privately signing the article, although at his request it appeared unsigned in our columns. We have also in hand a MS. written only two months ago, in which he discusses "the use of a crutch".

In February 1866, Dr. Corrigan was created a baronet, not only in recognition of the high position he held in his profession, but of his services in the interest of public health and education as promoted by Government.

For many years, Sir Dominic Corrigan held the office of Physician to the College of Maynooth; and for the last ten years of his life, those of Physician in Ordinary to the Queen in Ireland and of one of the Commissioners of National Education in Ireland.

In August 1870, Sir Dominic was elected M.P. for the City of Dublin in the Liberal interest, after a sharp contest, in which, owing to the impending disestablishment of the Church, which he warmly advocated, somewhat more than the ordinary amount of difference was exhibited. He held his seat till the dissolution of 1874, taking an active part in the business of Parliament, and frequently addressing the House. Though holding a respectable position in the House of Commons, and occasionally speaking with effect, he never achieved there the success predicted by his friends. Many of these had grave misgivings, not only from the age (sixty-eight) at which he entered Parliament, but from the mode of his address not being of a character to conciliate that fastidious assembly. It was further feared that late watching, loss of sleep, and the fatigue of frequent travel to and from London, would ultimately impair his health, which, though previously vigorous, had latterly given indications of yielding in frequent and severe attacks of gout. By these attacks, which left his feet somewhat stiff and swollen, his capacity for active exercise was diminished. In 1874, he might have been re-elected for Dublin, but, to his honour be it said, he declined to accept his seat on the terms proposed by the Vintners, the then dominant interest in the city—namely, that he should forego his advocacy of the Sunday Closing Bill then before Parliament.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL BOARDS.

A CORRESPONDENT calls our attention to a statement made in a military journal, to the effect that every Surgeon-major will have to show to the satisfaction of a Medical Board "that he is fit for service at home and abroad before he can be promoted to the new rank of Brigade-surgeon"; and alleges that, inasmuch as the proceedings of these Medical Boards are secret, there are no means of testing their honesty or accuracy. We have not observed any clause in the Army Warrant recently published that lays down a rule for Brigade-surgeons before their promotion to pass through the ordeal just mentioned; but we presume it to be an admitted principle in all instances of promotion to a higher rank, that the officers promoted are fit for service in all respects. Our correspondent mentions some instances in which surgeons who have been examined as to their physical fitness for service in a higher rank, have been declared unfit for promotion; and others in which they have been declared fit for promotion, with what appears to be a strange disregard of evenhanded justice. We cannot credit that a "Medical Board"—that is, a committee of medical officers—would combine to give a dishonest professional opinion regarding fitness for service, or any other matter affecting the interests of an officer whose case may be submitted to their judgment, especially when the officer is one of their own body; at the same time, we cannot see why the grounds on which a decision is based should be kept secret in any instance. On the contrary, we think that every surgeon whose welfare is seriously injured by the decision of a board of officers, is fully entitled, in common justice, to be made aware of the circumstances which have led to that decision.

BRUSSELS MEDICAL GRADUATES' ASSOCIATION.—The first annual dinner of this Association was held on Wednesday, January 28th, when about twenty of the members and their friends were present. The President, Dr. J. Beresford Ryley, in proposing prosperity to the Association, referred to the great difficulty which beset British practitioners who were desirous of obtaining a degree; and said that, were some native university to open its doors to any practitioner able to pass its examination, without insisting on residence, it would supply a want felt throughout the whole of the profession, and would obviate the necessity of men seeking abroad what they were prevented from obtaining at home. Dr. F. E. Pocock, Honorary Secretary, in replying to this toast, with which his name had been coupled, gave a short sketch of the origin of the Association, and congratulated the members present upon the success of this the first annual dinner. The toast of the "Country Members" was responded to by Dr. Huthwaite of Nottingham. Dr. Stretch Dowse, in responding for the "Visitors", congratulated the members on having been able in so short a time to get up such a flourishing Association as the present. He had inquired carefully about the Brussels examination, and felt sure that it was a good one; and, for his own part, "his great regret was that he could not be a Brussels graduate".

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL APPOINTMENT.

NORTHEY, W. C., M.R.C.S.Eng., appointed Medical Officer to the Tavistock District and the Workhouse of the Tavistock Union, *vice* R. Eliot West, M.R.C.S., deceased.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having passed the required examination, were elected members at the quarterly meeting of the College, on January 29th, 1880.

Fowler, James Kingston, M.B.Cambridge, 35, Clarges Street, W.
Huggard, William Richard, M.D.Queen's University, Hammersmith, W.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on January 22nd.

Butler, George R., Yarmouth, Nova Scotia (St. Thomas's Hospital)
Farmer, Ernest W. W., Boulogne-sur-Mer (University College)
Gubbin, George F., Brixton Road (Westminster Hospital)
Harper, Charles J., Hadleigh, Suffolk (Guy's Hospital)
Harris, Frederick W. H. D., Ivy Bridge, Devon (University College)
Hatton, George S., Newent, Gloucestershire (St. Thomas's Hospital)
Hawkins, Frederick D. C., Clapham (St. George's Hospital)
Jacob, Henry G., Southsea (Charing Cross Hospital)
Peck, Edward G., Cambridge (St. George's Hospital)
Powell, Henry A., University Street (University College)
Winterbottom, Charles, Sloane Street (St. George's Hospital)

Fifteen candidates were rejected.

The following gentlemen were admitted members on January 23rd.

Atkin, Charles, Sheffield (Guy's Hospital)
Billiald, Richard A., Nottingham (King's College)
Bissill, Arthur K., L.S.A., Sleaford (St. Bartholomew's Hospital)
Buckell, Arthur E., Chichester (University College)
Gilkes, Malin D'O., Leominster (Guy's Hospital)
Harries, Arthur J., Llanelly (University College)
Henty, Sydney H., Camden Road (University College)
Knight, William, Sutton (St. Bartholomew's Hospital)
Mathews, Sidney R. H., Bickley (Guy's Hospital)
Palmer, John, Langport, Somerset (King's College)
Phelps, Philip, Weston-super-Mare (St. Bartholomew's Hospital)
Phillips, Lawrence H. K., Brighton (Guy's Hospital)
Sers, Clement H., Lewisham Road (St. Thomas's Hospital)
Smith, James S., Salisbury (Guy's Hospital)
Towlson, Harry J., Wingfield, Derbyshire (St. Bartholomew's Hospital)
Whitworth, William, St. Agnes (Guy's Hospital)

Ten candidates were rejected.

UNIVERSITY OF DUBLIN.—At the Winter Commencements, held on Wednesday, December 17th, 1879, in the Examination Hall of Trinity College, the following Degrees in Medicine and Surgery were conferred by the University *Caput*.

Bachelor in Surgery.—George Henry Manning, Beatty Wallace, John A. de Courcy Williams, Joseph Dallas Pratt, and Robert Henry Johnston.

Bachelors in Medicine.—George Henry Manning, Wallace Beatty, Malcolm Henry Moore, and Richard Henry Stewart Sawyer.

Master in Obstetrics.—William Henry White.

Master in Surgery.—William Ireland Wheeler.

Doctors in Medicine.—Thomas Kinley Hamilton, Nicholas John Halpin, Edmund Sharkey, William Alexander Fitzgerald, and Stephen Flood (*in absentiâ*).

The Honorary Degree of *Doctor in Utroque Jure* (LL.D) was also conferred on James Henry Reynolds.

UNIVERSITY OF DURHAM.—Primary examination for degrees in Medicine and Surgery. The following have satisfied the examiners.

Cheetham, Walter Henry, M.R.C.S.
Giles, Bernard Faraday, M.R.C.S., L.S.A.
Lloyd, George Jordan, M.R.C.S., L.S.A.
Mantle, Alfred, M.R.C.S., L.S.A.
Pardington, George Lucas, M.R.C.S., L.R.C.P., L.S.A.
Porter, William Smith, M.R.C.S., L.R.C.P.
Roué, William Barrett
Seager, Herbert West, M.R.C.S., L.S.A.
Wills, Joseph Pearce Budgett
Wray, Charles

One candidate referred in botany, and two candidates referred in all subjects, will be permitted to re-enter for examination in April next.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

*ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon. Salary to commence at £80 per annum, with residence and maintenance. Applications not later than February 25th.

*BURY ST. EDMUND'S FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £180 per annum, with house, coal, gas, and additional fees for Midwifery. Applications, stating age, testimonials, etc., on or before February 23rd.

*GENERAL LYING-IN HOSPITAL, Lambeth—House-Physician. Applications on or before the 14th instant.

GRANTHAM UNION—Medical Officer for the Spittlegate District and Workhouse. Salary, £90 per annum.

GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary, on or before March 18th.

HUNGERFORD UNION—Medical Officer for No. 3 District. Salary, £80 per annum, and fees. Applications on or before February 10th.

*KING'S COLLEGE—Professorship of Ophthalmic Surgery, also Ophthalmic Surgeon. Applications to the Secretary.

*LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance in the house. Applications and testimonials to be addressed to the Chairman of the Committee not later than February 21st.

*LONDON FEVER HOSPITAL—Physician and Assistant-Physician. Applications, with testimonials, to the Secretary, not later than February 7th.

*LONDON HOSPITAL MEDICAL SCHOOL—Lectureship in Botany. Applications on or before the 23rd instant.

MIDDLESEX HOSPITAL—Assistant-Physician. Applications on or before February 7th.

*NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC—Physician for the Out-patient Department and two Assistant-Physicians. Applications to the Secretary on or before February 7th.

*RICHMOND HOSPITAL, Surrey—House-Surgeon. Salary, £80 per annum for first year, with annual increase of £10 up to £100, with board and furnished apartments. Applications to the Secretary on or before February 18th.

*ROYAL SEA-BATHING INFIRMARY, Margate—Resident Surgeon. Applications on or before the 21st instant.

*ST. LUKE'S HOSPITAL—Clinical Assistant. Applications, with testimonials, to the Secretary, on or before February 12th.

*WEST LONDON HOSPITAL, Hammersmith—Assistant Surgeon. Applications on or before the 21st instant.

*WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY AND DISPENSARY—Surgeon. Applications on or before February 7th.

*WILLITON UNION, Somerset—Medical Officer for the Porlock District of the Union. Salary, £50 per annum, with extra fees for operations, etc. Applications, with testimonials and qualifications, on or before February 9th.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

OGILVIE.—At 13, North Street, Kingston, Jamaica, on December 9th, 1879, the wife of James Ogilvie, F.R.C.S.Ed., of a son.

DR. GEORGE GIBSON, Surgeon to the Royal Naval Hospital, Port Royal, Jamaica, was killed, on January 21st, by a fall from his horse.

VACCINATION.—Mr. Morgan Lloyd, of Conwil-Elvet, Carmarthenshire, has received a government grant of £16 8s. for successful vaccination in his district.

MEDICAL MAGISTRATE.—Dr. William Maclachlan, of Doonbank, Dalmellington, has been, on the recommendation of the Lord Lieutenant of the County, appointed a Justice of the Peace for the County of Ayr.

THE will and codicil of Dr. William Chamberlain Hood, formerly of South Lambeth, and afterwards of Dublin, who died on the 14th ulto., has been proved under £45,000.

THE Wakefield Guardians have increased the salary of Mr. William J. Lorraine, as Medical Officer for the Sandal Magna district, from £10 to £20 per annum.

THE FRENCH HOSPITAL.—The twelfth annual dinner of this excellent institution took place on Saturday at Willis's Rooms. The Comte de Florian, one of the Secretaries of the French Embassy, presided in the absence of the French Ambassador. It was stated by the Honorary Secretary that since the day of its opening the hospital has afforded relief to 2,043 in-patients and 48,240 out-patients, divided into twenty different nationalities. The list of subscriptions at the dinner amounted to about £2000.

DR. JOHN WATT REID has assumed the duties of Director-General of the medical department of the navy.

WE have received an excellent photograph of the late Dr. Seaton from Mr. Fradelle of Regent Street.

BEQUESTS TO MEDICAL CHARITIES.—Mr. Duncan Hoyle has left £1,000, and Miss Hunter £100, to Greenock Infirmary. The late ex-Bailie Kedzlie of Portobello has left to the Portobello Destitute Sick Society, £100; to the Royal Infirmary, Edinburgh, £100; and to the Sick Children's Hospital, Edinburgh, £150, in addition to other benevolent bequests.

MR. JAMES NAYLOR, the Medical Officer to the Provident Dispensary at Stockport, died very suddenly on Thursday, January 22nd. He appeared to be in better health than usual in the morning, and proceeded by omnibus from his residence to the Dispensary; but, on getting out, he was seen to fall. He was immediately put into a cab, to be taken home; but expired on the way.

SUPERANNUATION.—At a meeting of the council of the Poor-law Medical Officers' Association, held on February 3rd, at their rooms, 3, Bolt Court, Fleet Street, attention was directed to the hardship of the case of Mr. J. J. Terry of Wittersham, Kent, who after upwards of forty years service as Poor-law medical officer was refused superannuation allowance, when incapacitated for further duty. It was resolved that a communication be addressed to the President of the Local Government Board on this subject, he having promised to a deputation of Poor-law medical officers on June 12th, 1876, his willingness to investigate any case of this nature which might be brought before him.

THE *United Service Gazette* is glad to find that the question of exchanges in the Army Medical Department is being ventilated. Combatant officers are allowed to make an open declaration on exchange, without entering into detail of expenses incurred, whereas medical officers are under the necessity of making out statements as if they were stewards rendering accounts to their masters. Our contemporary has heard of cases in which it has been suggested that even the outfitter's bill for an increase to the medical officer's 'family wardrobe should be attached, and it remarks: "Such statements of expenses should not be required any longer. One and the same declaration should apply to the whole army."

PUBLIC HEALTH.—During last week, being the fourth week of the year, 4,964 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 30 deaths annually in every 1,000 persons living. The annual death-rate was 25 in Edinburgh, 26 in Glasgow, and 49 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Wolverhampton 16, Portsmouth 21, Sheffield 21, Bradford 24, Sunderland 25, Bristol 25, Norwich 25, Birmingham 26, Leeds 27, Newcastle-upon-Tyne 27, Brighton 27, Leicester 29, Oldham 30, Nottingham 30, London 31, Liverpool 32, Plymouth 32, Salford 32, and the highest rate 35 both in Manchester and Hull. The annual death-rate from the seven principal zymotic diseases averaged 4.2 per 1,000 in the twenty towns, and ranged from 0.0 and 0.4 in Wolverhampton and Portsmouth, to 9.7 and 11.2 in Plymouth and Hull. Whooping-cough showed the largest proportional fatality in Salford, Plymouth, and London; measles in Hull, Plymouth, Nottingham, and Leicester; and scarlet fever in Norwich and Sunderland. In London, 2,200 deaths were registered, which exceeded the average by 607, and gave an annual death-rate of 31.3. The 2,200 deaths included 11 from small-pox, 33 from measles, 70 from scarlet fever, 10 from diphtheria, 193 from whooping-cough, 19 from different forms of fever, and 5 from diarrhœa—altogether, 341 deaths, which were 92 above the average, and were equal to an annual zymotic rate of 4.9 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 455, 512, and 556 in the three preceding weeks, further rose last week, under the influence of the severe cold, to 757, and exceeded the corrected weekly average by 341: 531 resulted from bronchitis, and 149 from pneumonia. Different forms of violence caused 48 deaths: 46 were the result of negligence or accident, including 13 from fractures and contusions, 9 from burns and scalds, 3 from drowning, and 16 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 29.2°, and 10.9° below the average. The mean was considerably below the average on each day of the week; the coldest day was Wednesday, when the mean was only 23.4°, and showed a deficiency of 16.7°. The general direction of the wind was easterly, and the horizontal movement of the air averaged 4.2 miles per hour, which was 9.8 below the average in the corresponding week of sixteen years. No rain was measured during the week. The duration of registered bright sunshine in the week was equal to 34 per cent. of its possible duration. No ozone was recorded during the week, except on Sunday.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S, 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30 Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. A. Pearce Gould, "A Case of Melanotic Sarcoma of the Penis"; Dr. Woakes, "On Ear-sneezing and Ear-giddiness"; Dr. Farquharson, "Some Therapeutic Superstitions".

TUESDAY.—Royal Medical and Chirurgical Society. 8 P.M.: Ballot. 8.30 P.M.: Mr. Lawson Tait, "The Antiseptic Theory tested by the Statistics of One Hundred Cases of successful Ovariotomy"; Dr. V. Carter, "Contributions to the Experimental Pathology of Spirillum Fever".

WEDNESDAY.—Hunterian Society. At 7.30 P.M., Annual General Meeting for the election of Officers. At 8 P.M., Dr. Pye-Smith will deliver the Hunterian Oration.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Henry Morris, "Traumatic Salivary Fistula, treated by passing a fine Catgut Bougie from the Mouth along Stenson's Duct"; Mr. Hulke, "A Case of Sutural Junction of the Median Nerve in the lower part of the Forearm, five weeks after its division by a broken Glass-bottle, followed by return of Function"; Dr. Sangster, "Disturbed Nutrition, with Suppuration and Exfoliation of the Nails, probably of Strumous origin"; Mr. Heath, "Two Cases of Popliteal Aneurism, cured by the application of Esmarch's Bandage".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE NURSING AT GUY'S HOSPITAL.

SIR,—In an article in your JOURNAL of January 24th, Mr. Paul, as an old house-surgeon of Guy's Hospital, comments on the nursing of his time. In the absence of testimony from those more qualified to speak than myself, will you allow me, as a house-surgeon of the present day, to make reply, lest misunderstanding arise as to the actual condition of the hospital prior to Miss Burt's arrival?

In the first place, I have been assured on all sides (in full agreement with my own experience, so far as it goes) that for some years—and especially since the introduction of the probationary system and the relegation of the scrubbing to regular "scrubbers" two and a half years ago—there has been visible a steadily increasing improvement in the tone and efficiency of Guy's Hospital nurses. For myself, I can testify to the fact, that during my house-surgeoncy last autumn, far from Mr. Paul's experience being repeated, the large majority of the nurses on the surgical side were excellent. Most of them, alas, are now scattered to the winds. Next, with regard to women being taken from Patience Ward to become nurses, I have made the closest inquiries, with the result that during the last eleven years only five instances of the kind are known to have occurred, that all of these performed their duties as nurses thoroughly well, and never (with one single exception) did the conduct of any of them give to the authorities cause for complaint.

Finally, Mr. Paul remarks on the want of methodical training to the nurses. But if I may draw a conclusion from my own comparatively short experience, it would be that (with good sisters) the system did not fail to produce good nurses; the advice to be remembered being (to paraphrase the proverb), "Take care of the sisters, and the nurses will take care of themselves". But one wonders of what nature can be that training which is now offered at Guy's Hospital, when one knows that to such a nurse as that in Cornelius (after eleven years' good and faithful service), the new head of the nursing department applied the epithet "untrained"; and when further one hears that, as an inducement to remain, there was held out to this same nurse the promise of a certificate as "trained" if she would remain but one year under her (Miss Burt), one can only marvel at the assurance which claims for a system the magic of a name to do in one year what the surgeons of Guy's Hospital and such a sister as "Cornelius" had failed to accomplish in eleven.—I am, sir, your obedient servant,

EDWARD PENNY, late House-Surgeon.

A DISTRESSING CASE.

THE following is a list of the donations received for Mr. Dalton since last week.

	£	s.	d.
January 29th.—W. E. W. Vaughan (Crewe)	1	0	0
" 31st.—T. Burnie, L.R.C.P.Ed. (Nottingham)	0	10	6
February 4th.—Jukes de Styrap, M.K.Q.C.P. (Shrewsbury) ..	0	10	0

February 4th, 1880. HEYWOOD SMITH.

TEXT-BOOKS.—A Young Practitioner must make his own choice. Among the standard text-books of Medicine are Watson, Aitken, Bristowe, and Roberts; and Barnes, Graily Hewitt, and Thomas, in Gynæcology.

MIDDLE-CLASS HOSPITALS.

THE following letter has just been issued. It gives the views of the Committee of the Home Hospital Association for Paying Patients on the recent decision of the Master of the Rolls.

We beg to recommend to your careful consideration the enclosed papers relating to a public movement of great importance for establishing hospitals for paying patients. You will observe that one-half of the preliminary capital fund has already been subscribed. The managing committee having experienced insurmountable difficulties in converting the house they had secured in the centre of the "W." district into a "pay hospital", are now fitting up an eligible freehold house, which they have purchased in Fitzroy Square. A recent decision of the Master of the Rolls proves that none but freehold premises can be utilised without the consent of the ground-landlord. This decision forces the committee to make a strenuous effort to obtain the second half of the preliminary capital fund; and it has been decided to confer on those who assist them in this task the privileges of governors or members. It is hoped that the many who are interested in the progress of this most successful and beneficent movement will show their practical sympathy by assisting to raise the additional sum required (£10,000) without delay. Such a sum will enable the committee to proceed vigorously with the scheme they have so carefully elaborated. The pay hospital will be the means of rendering inestimable service to many who are unable, when ill, to obtain the skilled nursing and hygienic surroundings, without which recovery is scarcely possible. The committee rely upon the sympathy of the public in the difficulties they have had to overcome, and they look forward with confidence to its continued approval and support to enable them to carry their undertaking to a successful issue.

(Signed) NORTHUMBERLAND, President.
FREDERICK COX, Treasurer.
HENRY C. BURDETT, Hon. Sec.

Home Hospitals Association, 246, Regent Street, W.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

THE CATHOLIC BENEFIT CLUB.

WE are glad to state that Dr. Diamond has, with the utmost promptness, offered a satisfactory explanation of his letter to the Secretary of the Catholic Benefit Society. He had, as he tells us, no thought of underbidding Dr. Byrne, but "was of opinion that his (Dr. Byrne's) proposal to the Catholic Benefit Society would be lower than his own"; nor had he any intention of restricting the midwifery fee, or of departing in any way from the usual charges. This being the case, Dr. Diamond must be considered to have acted with all due regard to the interests of the profession, for he merely tendered at what he thought a fair and reasonable rate: indeed, we are pleased to gather from his letter that he quite agrees with us in the importance of medical men acting in harmony with regard to club appointments, and thus upholding the just claims of the profession.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the clinical cases submitted to the candidates at the recent examination for the diploma of membership of this institution. The patients, who averaged about twelve each evening, were selected from the following hospitals:—St. Bartholomew's, Guy's, St. Thomas's, the Westminster, St. George's, King's College, and University College. Among the interesting cases were the following:—Rupture, with undescended testis; syphilitic sores on the leg; inguinal hernia; large hydrocele; parotid tumour; gangrene of the toe; synovitis of the knee; hare-lip; psoriasis of the sole and hydrocele in the same patient; urticaria; undescended testis; old ununited fracture repaired; syphilitic iritis and psoriasis in the same patient; tumour in the axilla; cancer in the tongue; disease of the radius; disease of the elbow-joint; syphilitic ulcer on the hand; hernia in inguinal canal; tumour in the neck; severe burn with cicatrix; disease of the palate; syphilitic sore on the thigh; fracture of patella; axillary tumour; hernia testis; necrosis of the humerus; nodes on the tibia; incipient hernia; bubonocele; etc. Of the one hundred and twenty-eight candidates examined, forty-eight were referred to their professional studies for six months; and six gentlemen having passed in surgery, will be admitted members of the College when qualified in medicine. Of the recognised medical degrees produced by those candidates not required to be examined in that subject, there were twenty-eight licentiates of the Society of Apothecaries, five licentiates of the Royal College of Physicians of Edinburgh, four licentiates of the College of Physicians of London, one M.D.Paris, one L.K. & Q.C.P.I., and one L.F.P. & S.Glasgow.

L.R.C.P.—1. Harvard University (Boston), or Bellevue Hospital Medical College (New York). 2. October.

A QUESTION OF TREATMENT.

SIR,—Perhaps some of your readers would kindly assist me in the following case. My patient is a young (unmarried) lady aged 26, fair, slight, and of nervous temperament. She enjoyed good health till three years ago, when she had rheumatic fever (subacute). For some months after this, she had pains occasionally in her wrists and ankles. Eighteen months ago, ovarian irritation and menorrhagia commenced, and lasted for eight or nine months. Nine months ago—*i.e.*, just after the ovarian irritation seemed to have been overcome—her present distress commenced; and it is for what follows I wish advice. On being exposed to even a light draught of cold air, as in going from the parlour to the drawing-room, her hands become quite cold and bloodless: they are first pale, then livid and painful, and as cold as snow. Circulation seems to be quite stopped for the time, and her hands look like those of a corpse. She has become very irritable and peevish, and is very hard to live with. I have tried nux vomica, arsenic, cod-liver oil, Euston's syrup, valerian (different preparations), bromides, iodides, cold sponging, flesh-brushes, electro-magnetism, and out-door exercise, all to no purpose. I would also like to hear of a Continental watering-place or spa (cheap), suitable for such a case. The whole family would like to go from May till September.—Yours truly, M.B.

WE have received a satisfactory intimation that the differences between Mr. Davies and Mr. Welsh, which we have been called upon to adjust, are now amicably settled.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

SIR,—A pupil of mine, who unfortunately failed in the primary examination for the College of Surgeons, held on July 18th last, found, on applying to go in for the examination to be held on January 6th, 1880, that his papers were returned, marked "ineligible". On his applying at the College for an explanation of this point, he was informed that it was "because six clear months had not elapsed between the two dates". The result is that he is kept in suspense, and prevented from working at other subjects for three months longer. On his complaining of the hardship of this, he was told that examinations were not arranged for those who had been "plucked", but those who had not yet been examined. I should have thought that it would be a small matter for the College authorities so to arrange matters that there should be a clear six months between the dates of the examinations. It appears to me also that it is a great injustice to the parents and friends of young men, if not to them, to practically refer the unsuccessful candidate for nine months.—Trusting you will give this your early attention, I remain, yours sincerely,

Plymouth, Jan. 28th, 1880. GEO. JACKSON, F.R.C.S.Eng., Exam.

P.S.—When one remembers the considerable percentage of students who are "plucked" for the primary examinations, it appears somewhat absurd to say that examinations are not to be arranged with any regard to them.

CRÊCHES.

SIR,—The experiment of establishing crêches, or nurseries for the reception and care of the children of the poor whilst their mothers are out at work, having been tried in some places with success, in others with failure, I should be extremely grateful if any who are practically acquainted with the most common causes of failure will kindly communicate them. The benefits of a successful working out of the idea are obvious.—I am, etc., J. FOWLER.

Wakefield, January 25th, 1880.

⁂ Information on this subject is much needed, and we should be glad if any of our readers having experience on the subject or cognisant of the working of any such institutions would reply to this query in some detail.—ED.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

COLONIAL APPOINTMENTS.

"WEST INDIAN" would feel obliged if any member of the profession who has had experience of colonial appointments in the West Indies or British Guiana would express an opinion as to the desirability of such appointments. Are they worth applying for? Are they desirable appointments for a married man with a wife and family to accept?

POSTNASAL CATARRH.

SIR,—I should feel obliged by your giving insertion to the following, with a view of eliciting from some of your readers who have met with similar cases a curative mode of treatment, if any. My patient is a gentleman of robust healthy appearance, of middle age, who has suffered for many years past, off and on, from a troublesome spasmodic cough, caused by some mucus or watery substance running down the posterior nares. At night especially he is occasionally almost suffocated from this discharge passing down the larynx, and awakes with a fit of coughing, which is only relieved after the expectoration of the watery substance. During the day, at times the discharge takes place through the anterior nares, and partakes much of the nature of an ordinary cold—always, however, confined to one side, viz., the left. On examination, no growth or abraded membrane can be detected; the discharge, whatever its nature, coming apparently from one of the sinuses. Inhalations of carbolic acid and various drugs have been tried without relief, as also the sniffing up of tannic acid, alum, morphia, bismuth, etc. He derives the greatest benefit, according to his own account, from a glass of port at night. He is, to all appearance, in otherwise perfect health. Stomachics have been of no use; and I am now advising bromide of potassium in twenty-grain doses at night, with the view of combating a probable nerve origin.

Should any of the readers of the JOURNAL be enabled from this short description to enlighten me on the probable nasal condition and the means to be adopted for "permanent" relief, they will oblige, yours faithfully, SCHNEIDERIAN.

Devon, January 26th, 1880.

ANGINA LUDOVICI.

SIR,—"Cellulitis" will find a graphic description of the above named disease in the English translation of Niemeyer's *Text-Book of Practical Medicine*, vol. i, page 459. One or two typical cases of this disease have been recorded in the BRITISH MEDICAL JOURNAL.—I am, etc., M. B. M. A.

YAWS AND SYPHILIS.

SIR,—In the excellent description of "Yaws" by Dr. Nicholls of Dominica, in the JOURNAL of December 6th (a description which gives as good an idea as words can of the disease), "the French physician" is said "to have described the affection as syphilitic". From what I have seen of yaws in the West Indies (though it is not common in St. Kitts), I can entirely coincide with Dr. Nicholls in his opposition to this view. There is no syphilitic eruption except condylomata which in the least degree resembles yaws, and they only resemble it remotely. The eruptions of syphilis are always secondary; those of yaws are primary. That mercury and iodide of potassium are useful in both diseases may be true, but the very worst cases of yaws are those to whom mercury has been freely given, and this is a very slender peg on which to hang a theory of importance. The points of difference are so numerous, that they are quite conclusive as to the distinctness of the two diseases. Syphilis takes years to run its course; the duration of yaws is a few months (see Milroy's *Report on Leprosy and Yaws in the West Indies*, p. 51, *et seq.*). The number of actual cures of syphilis, when it has once become thoroughly engrafted in the system, are comparatively few; in yaws, all, or nearly all, cases recover under proper care, the disease only being dangerous when neglected and aggravated by filth and poverty. Yaws may coexist in the same patient with syphilis, and the one disease disappears independently of the other being affected by treatment (*Report*, p. 60). The throat, palate, or nasal bones, are rarely affected in yaws (*Report*, p. 74, Dr. Imray). The geographical distribution and history of the two diseases also show their distinctions, yaws being entirely confined to the tropics and subtropical regions (though unknown in many parts even of them, as India, where syphilis is prevalent); syphilis is seen in every climate. Yaws is peculiarly a negro disease, though not confined to them, while Livingston points out that syphilis does not spread among native African tribes. Syphilis has been known from the earliest times, while there is no mention of yaws before the time of Haly Abbas in the tenth century.—I am, yours, etc., W. MUNRO, M.D., late Medical Officer,

Manchester, December 1879. St. Kitts, W.I.

COD-LIVER OIL WITH ALCOHOL.

SIR,—In a letter under the above heading, which appears in your JOURNAL of to-day, there appears to be an error, which might lead to serious consequences if the formula were copied and prescribed by a busy practitioner without due consideration. In all probability, however, the dispenser would at once detect the error. Your correspondent recommends one drachm of essential oil of almonds in eight ounces of the emulsion—one ounce for a dose twice or thrice daily. Now, as one drachm of this oil is equal to about four of prussic acid, the effect which would follow on taking an eighth part of this is sufficiently obvious. It is true the oil, deprived of its prussic acid, might be intended; but even so, the quantity is more than ten times as much as is agreeable, or necessary for flavouring purposes.—Faithfully yours, CHARLES SYMES.

14, Hardman Street, Liverpool, January 31st, 1880.

ANIMAL VACCINATION.

DR. EDWARDS CRISP writes: I am reported in the JOURNAL of January 10th, p. 63, to have said that "I had performed with vaccine matter and with small-pox matter more inoculations than any man living; that I had performed more inoculations upon animals than any one present". I said that I had probably inoculated a greater *variety* of animals with vaccine and small-pox matter than any one living, and I spoke not of the operations upon the lower animals irrespective of inoculation.

THE USE OF THE GUM-LANCET.

SIR,—As there is much difference at the present day upon the value of the above instrument, it would be interesting to have some scientific data to guide us in the disorders of dentition. I should be glad to hear the opinions of some of your readers upon the following points. Is the gum-lancet ever required? If useful, at what stage in the irruption of the teeth? What particular symptoms call for its use? and do any ill effects result from its indiscriminate employment?—Yours,

Bramshott, Liphook, Hants, Jan. 24th. T. FRED. PEARSE, M.D.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. Fowke, not later than *Thursday*, Twelve o'clock.

Tinnitus Aurium.

Sir,—Allow me to say that, as I have suffered severely for seven months from tinnitus aurium, I should be glad of any advice from a fellow member. During last winter, I had to sit up much of every night from severe domestic illness. After the death of the patient, I gradually recovered from the habit of waking up frequently. Like your correspondent "A New Member", I took doses of quinine in hydrobromic acid for general debility. Early in July, I first discovered I had tinnitus aurium, and attributed it to drinking much tea and coffee, or to damp applied to the back of the neck. I again took quinine, not supposing my having previously taken it had produced the noises. No good resulted. The noise seemed to be on both sides of the head. It resembled the "burr, burr, or click", of Ruhmkorff's coil-machine—generally intermitting for about a fourth of a second, twenty times in a minute. There often accompanies it a very soft gentle sound, generally diffused over the whole head, and is like the sound of many watches ticking in a watchmaker's shop. The first class of noises are very distinct when lying on the bed-pillow. My hearing is perfect, and nothing is amiss with the outer ear. The "burr" now is exclusively confined to the right ear. Pressing the tragus into the right external meatus always stops the perception of the burr. I have found that sometimes a light supper with a little sparkling wine has prevented the perception of the burr a whole night. At times, the burr is quite continuous for several minutes. Forcing air into the Eustachian tubes slightly modifies the sounds for a brief time. In past years, I heard similar sounds temporarily from not sufficiently drying the hair of the back of the head after bathing. I have had some slight attack of gout in the great toes. I am practically a total abstainer from strong drink. I have a small pulse, from a weak but otherwise healthy heart. No treatment has yet relieved me. I have now better health, and am free from care.—Yours, A Member of Thirty Years.

An Unusual Exostosis.

A. B., a girl aged 5, was admitted to the Red Hill Cottage Hospital on October 6th, 1879, complaining of a swelling on the back. It caused no pain. On examination, I found a small hard tumour situated on the posterior border of the scapula, between its spine and inferior angle. Near the tumour, which was about the size of a small marble, and attached by a pedicle, could be felt, running upwards towards the spine of the scapula, its abnormally raised posterior border, a firm ridge of bone. The child was evidently suffering from a simple exostosis. On October 12th, ether having been administered, I made an incision over the tumour, and parallel with the posterior border of the scapula, about an inch in length. With the bone-pliers, I easily removed the growth, as well as a portion of the ridge mentioned. The edge of the trapezius muscle was nicked by the incision. By November 10th, the wound having healed, and no trace of the deformity remaining, the child was discharged cured. Up to the present date, there has been no return of the swelling. H. R. Oswald, M.B. & C.M.Edin.

Red Hill, January 26th, 1880.

Eczema of the Nipple.

Sir,—In your last issue (p. 128, col. 1, line 4 from the bottom of the page), Dr. Thin is reported to have said that my case died "two years after the operation of obscure symptoms, without local relapse". If correctly reported, I must have omitted to inform him of the important fact that the "obscure symptoms" were to my mind traceable to the fear of a second operation I suggested some months before her death, for the removal of a line of cancerous nodules recurring along the old cicatrix.—I am, sir, yours obediently, Allan Reeve Manby.

East Rudham, Swaffham, January 24th, 1880.

The New Burials Act.

Sir,—In your last edition, you state the Milton-next-Sittingbourne Rural Sanitary Authority was the first rural authority to take action under the New Burials Act. Last Michaelmas, the rural sanitary authority of the Chard Union instructed me to report on the condition of the burial grounds in the thirty-two parishes comprised in their district. When I advocated the closing of several over-crowded churchyards, I most strongly recommended the formation of cemeteries, for the advantage of all religious denominations, as well as on sanitary grounds.— I am, etc.,

Edward Stephens, L.R.C.P., etc., Medical Officer of Health,
Ilminster, January 24th, 1880. Chard Union.

Effects of Chloral.

Sir,—The circulars of the Investigation Committee of the Clinical Society of London regarding the action of chloral were unfortunately issued at a time when few medical men had leisure to attend to them. It was so with me. I prescribe from three to four pounds of chloral hydrate *per annum*, chiefly for delirium tremens and epileptic convulsions, in ten-grain doses, with bromide of potassium three or four times a day, and with dilute hydrochloric acid in cases of enlarged prostate and ammoniacal urine; also sometimes, though more rarely, to procure sleep. Never since its introduction have I seen chloral do injury to the system; but five of my patients have always œdema of the upper eyelids after its use, and two have each had a hordeolum after the congested state of the lids subsided, which it always did within forty-eight hours from leaving off the chloral. It is proper to observe that in every instance when I give chloral as a sedative only, I tell the patient to leave it off as soon as possible.—I am, etc., J. Carrick Murray, M.D.

Newcastle-on-Tyne, January 26th, 1880.

Anthropometry.

Sir,—Your correspondent Mr. R. E. Power will find some tables and charts showing the relation between height, weight, girth, and age in my *Manual of Anthropometry* (Churchill). They are based on upwards of fifty thousand observations which I have collected recently, and are arranged in two series, to form standards for the professional and upper classes, and for the labouring and lower classes of our English population, and they are, I believe, the only tables of the kind which have been published. Professor Bowditch of Harvard, United States, has published in the eighth and tenth Annual Reports of the State Board of Health of Massachusetts some tables showing the relation between the height, weight, sex, and age (but not girth) of children between five and eighteen years; and there is an immense mass of statistical matter of the same kind in a report published by the United States Government, entitled "Statistics, Medical and Anthropological", edited by Dr. Baxter of the United States Army. In the last Report of the Anthropometric Committee of the British Association (see *Report of British Association*, 1879), I have compared and combined together my English with Drs. Bowditch and Baxter's American statistics (about 200,000 observations), for the purpose of forming common standards of height and weight for the whole British, or so-called Anglo-Saxon, race. As a prison official, Mr. Power may find of use some statistics of the height and weight of criminals analysed and tabulated by Mr. Francis Galton for the Anthropometric Committee, a copy of which can be obtained by applying to the Assistant-Secretary of the Committee at the office of the British Association, 22, Albemarle Street, W. As a member of the above-mentioned Committee, I venture to avail myself of this opportunity of calling the attention of medical men holding official positions like that of Mr. Power, and, indeed, of every member of the profession, to the work which the Anthropometric Committee has taken in hand, and to solicit help from those who have time and opportunity to give it. Dr. William Farr is the chairman, and the committee includes the names of Dr. Beddoe and Professor Rolleston, besides a number of well known statisticians and scientific men. The subjects of investigation are the height, weight, chest-girth, breathing capacity, strength of arm, eyesight, colour of hair and eyes, and their relation to each other, and to birth-place, occupation, social origin, etc., of the inhabitants of Great Britain. Already a large mass of statistics has been collected, for which we are very largely indebted to medical men. Instruments, instructions, and printed forms are supplied gratuitously to any one who is willing to contribute to the committee's store of facts; and the results, when classified and analysed, will be published in the Annual Reports of the British Association. These investigations cannot fail to be of the highest interest and value to the members of our profession, and I feel sure that the existence of the committee only requires to be made known through your columns to secure for it a large amount of voluntary assistance. I enclose a copy of the last report of the committee.—Your obedient servant,

2, Bolton Row, Mayfair, Feb. 2nd, 1880. Chas. Roberts, F.R.C.S.

Relation between Height and Weight.

Sir,—Will you kindly allow me, in reply to a note in the British Medical Journal of January 31st by Mr. Power of Portsmouth, to refer to a paper on this subject printed in the Journal on March 4th, 1876, and written by myself? On the same date this year, I am going to read a paper before the Harveian Society, which will be a further development of the same subject, and showing the relation of anthropology to hygiene.—Yours faithfully, Percy Boulton, M.D.

6, Seymour Street, W., January 1880.

Cerebral Pneumonia.

Sir,—If Dr. Dick will take the trouble to look over page 65 of the *Guy's Hospital Reports*, series i, vol. ii, he will find that this species of pneumonia was described by Dr. Addison in 1837.—I am, sir, your obedient servant, E. Field, M.B.

12, Queen Square, Bath, January 27th, 1880.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Matthews Duncan, London; Dr. T. Clifford Allbutt, Leeds; Sir William Smart, London; Dr. J. Hughlings Jackson, London; Mr. J. Greig Smith, Bristol; Dr. J. C. Bucknill, London; Dr. Munro, Kilmarnock; Mr. P. T. Collins, Wednesbury; Dr. Grose, Melksham; Dr. Maclachlan, Patna, Ayr; Dr. W. R. S. Jefferiss, Isle Ornsay, Skye; Mr. W. Castle, Liverpool; Dr. W. Easby, March; Mr. W. Watson Cheyne, London; Dr. L. Armstrong, Newcastle-upon-Tyne; Mr. P. Q. Karkeek, Torquay; Dr. Duffey, Dublin; Dr. A. G. Balfour, Edinburgh; Dr. C. P. Coombs, Castle Cary; Dr. A. Wahltuch, Manchester; Mr. C. Wood, London; Dr. J. L. Miller, London; Mr. J. A. E. Stuart, Dunse; Dr. J. Wyllie, Edinburgh; Mr. S. Snell, Sheffield; Mr. C. Symes, Liverpool; Dr. H. J. Hardwicke, Sheffield; Dr. Dobell, London; Mr. H. B. Carter, London; The Secretary of the Hunterian Society; W.; Dr. M. G. Evans, Cardiff; Mr. J. I. Mackenzie, Rugby; Dr. T. Partridge, Stroud; Dr. W. Strange, Worcester; The Secretary of the Medical Society of London; Dr. P. Boulton, London; Mr. T. M. Stone, London; Mr. J. Storr, London; The Secretary of Apothecaries' Hall; Mr. J. Deakin, Sale; Dr. J. J. Ridge, Enfield; The Registrar-General of England; Dr. Fancourt Barnes, London; M.B.; The Registrar-General of Ireland; Mr. G. Eastes, London; Dr. Joseph Rogers, London; Dr. D. J. Leech, Manchester; Mr. T. Holman, London; Mr. Hodgson, Brighton; Mr. Wickham Barnes, London; Mrs. O'Connell, Cashel; Mr. Spence, Edinburgh; Dr. Bastian, London; Messrs. S. M. Burroughs and Co., London; Our Paris Correspondent; Mr. A. S. Duke, Rathgar; Dr. Diamond, Londonderry; Dr. Borchardt, Manchester; Mr. T. Comfield, London; Dr. James Donaldson, London; Our Dublin Correspondent; Our Edinburgh Correspondent; Dr. Wilks, London; Mr. E. Noble Smith, London; Mr. J. Locking, Hull; Mr. F. E. Pocock, London; Mr. George Budd, Edinburgh; Mr. C. Heath, London; Sir W. Gull, London; Dr. G. Filley, Brownhills; Mr. E. M. Grace, Thornbury; Dr. MacDonald, Cupar Fife; Mr. S. F. Murphy, London; Mr. C. Roberts, London; Mr. H. H. Graham, London; Dr. Purves, London; Mr. W. D. Hemming, Bournemouth; Mr. John W. Davies, Clun; Mr. Ashley Bird, Clevedon; Mr. Vincent Jackson, Wolverhampton; Dr. Wolfe, Glasgow; Dr. J. M. Finny, Dublin; Mr. W. B. Mackay, Sandyford; Dr. Shuttleworth, Lancaster; Mr. R. J. Orton, Great Malvern; Mr. A. B. Smyth, London; Mr. J. Hogg, London; Dr. Henry Kennedy, Dublin; Dr. J. H. Stallard, San Francisco; Mr. M. H. Judge, London; Mr. Edward Penny, London; Dr. R. Elliot, Carlisle; Mr. Herbert Page, London; Dr. A. S. Taylor, London; Mr. A. H. Lawton, York; Mr. W. F. Lovell, Compton-Martin; Mr. S. F. Murphy, London; Our Glasgow Correspondent; Mr. C. Soloman, Shirlaugh; Mr. F. C. Kelsey, Twickenham; Mr. M. Morris, London; Miss Wray, London; Dr. W. J. Mackie, Turvey; Mr. A. J. G. Waters, Okehampton; Mr. Good, St. Neot's; Mr. Vacher, Birkenhead; Dr. Quain, London; Dr. L. Henry, Melbourne; Mr. H. Burdett, Greenwich; etc.

CLINICAL LECTURE
ON
TRAUMATIC CATARACT, AND OTHER INJURIES OF THE EYE.

By J. R. WOLFE, M.D., F.R.C.S.E.,
Surgeon to the Glasgow Ophthalmic Institution; Lecturer on Ophthalmic Medicine and Surgery in Anderson's College.

Gentlemen,—Since the return of activity in our collieries, shipbuilding-yards, and workshops, we have admitted a large number of accidents, and at this moment we have under treatment a number of cases of injury of the eye, including four of traumatic cataract. I propose, therefore, to devote this lecture to the consideration of the management of accidents, and especially of traumatic cataract.

When we examine the standard works on diseases of the eye, which have appeared either in this country or abroad, we are astonished to find how little space is devoted to injuries of the eye. Even in books where we see "Injuries" figuring on the title-page, the subject receives a very cursory notice. The reason is obvious. The ocular muscles which rotate the eyeball perform also the function of retracting it into the orbit on the approach of danger; hence the comparative rarity of accidents or traumatic cataract even in large cities. Observe this patient—a child eight years of age—who was brought into the institution ten days ago, with serous chemosis of the upper and lower eyelids, the result of a stab with a fork, which entered behind the eyelid into the orbit. From the external appearances, you would have thought that one at least of the prongs had a chance of piercing the eyeball; but it is remarkable how the points have grazed round the sclerotic without cutting it. An orbital abscess has been the most we have had to deal with, and the patient has made a good recovery. Accidents like this; or a stroke with a penknife or prick with a needle; or cases such as we had on two occasions last year, where young children were trying to undo a shoestring with a fork, which slipped and penetrated the eyeball—make up the ordinary run of cases which we meet with in civil practice. And these are of such unfrequent occurrence, that our eminent authorities have no opportunity of bringing them into regular systematic consideration. It is only in places like Glasgow, where there are collieries, iron-foundries, and shipbuilding-yards, and where pieces of iron or coal are flying about, that injuries become numerous, and we have any chance at all of classifying them and treating them systematically. They may be considered to bear the same relation to ordinary cases, that military bears to civil surgery. In August 1872, I had an opportunity of bringing before the notice of the International Ophthalmological Congress in London a list of eighty-two such cases, and classifying them; to my knowledge, the first attempt made to reduce them to a system.

Injuries to the eye, whether inflicted by hot metal or sharp instruments, which have not penetrated the eyeball, are generally comparatively simple in their treatment; but, as an exception to this, I may show you a very interesting case lately under my care. Jane L., aged 17, had her eye injured by a beard of barley on November 1st, 1879. She was brought to me on November 25th, with multiple abscesses of the cornea, giving it somewhat the appearance of punctative keratitis. The whole cornea was opaque, and the iris invisible; but the worst feature about the case was the absence of any cyclitis or reaction in the neighbouring parts: the inflammation seemed to be asthenic in its character. Pus exuded as it were from interrupted points throughout the whole substance; and it was the occurrence of these interrupted points which enabled me to pronounce the case not altogether hopeless. There was constriction at the ciliary border, and I determined to make a limited sclerotomy. I introduced a narrow lance to evacuate the aqueous humour, but very little issued. The course of treatment upon which I then determined was the direct application of hot steam to the eyeball; and under this it began to recover. The first appearance of improvement was the formation of blood-vessels proceeding from the periphery to the cornea proper, first at the inner segment, and then extending over the whole of the corneal circumference. Now, after two months' daily use of the vapour, the cornea has cleared up, and vision is nearly normal, and it is only by oblique illumination that we can bring into view the deep cicatrices of the cornea, showing the narrow escape which the eye has had.

The instrument for fumigation I first saw, three or four years ago, in the *clinique* of my friend Professor Landolt of Paris.* We have been in the habit of using it for all rebellious cases of kerato-cyclitis, and Dr. Pickering reports very favourably of its efficacy; but I have never seen its effects so charmingly manifested as in the above case.

In explanation of the serious nature of wounds from beards of corn, I would say that I consider them analogous to the injuries caused by coal-dust, which generally prove so fatal to the cornea, the bad results of which I believe to be due to the mechanical irritation set up by the extremely pointed angles and sharp edges of the particles, which resemble shivers of glass. (*Report of International Ophthalmological Congress in London*, p. 81.) In this case, I would consider the cause to be also mechanical; the woody spicula penetrate and irritate the cornea, causing sloughing of its substance. The hot steam may act by washing out the part and assisting the disentanglement of these spicula, while at the same time it produces reaction in the neighbouring parts, thus favouring the formation of new blood-vessels to regenerate the lost tissue.

When a foreign body penetrates the cornea, and leaves a wound through which the iris protrudes, the case is more serious, and it then becomes necessary to remove the protruding part of the iris, and to set the rest afloat in the aqueous humour.

But the injury is still more complicated when the laceration involves the iris and ciliary margin, and produces hernia of that region; in which case, the iris which protrudes through the cornea should alone be removed, whilst the ciliary circle must on no account be interfered with, but the conjunctiva and subconjunctival tissue should be brought together with fine sutures to favour the return of the hernia. For, from my own practice, as well as from reports received from others, I have come to the conclusion that an excision of the tissues of the ciliary region is apt to terminate in suppuration of the globe.

Mr. D. M'C. was admitted January 1880, with a tear in the upper and outer margin of the cornea and ciliary region; the iris and ciliary muscle protruded, and the anterior chamber was filled with blood; the eyeball was soft, and there was no vision. I resected the iris at the margin of the cornea, but the rest I brought together with two silk ligatures (as shown in Fig. 1). I made at the same time a puncture in the lower margin of the cornea, letting out the blood in the anterior chamber. Forty-eight hours after the operation, the patient was able to see well; and on the fourth day the ligatures were removed.

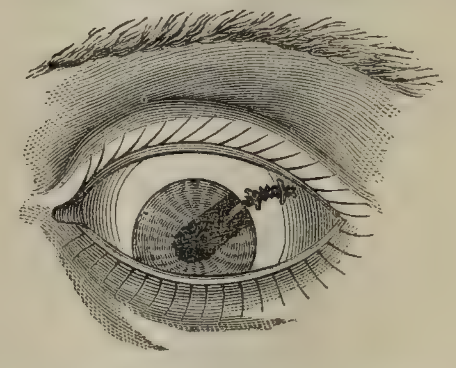

Fig. 1. was taken before removal of ligatures.

In cases where a foreign body is lodged deeply in the cornea, looking into the anterior chamber, and offering little surface to lay hold of, I follow the advice of M. Desmarres, to introduce a lance into the anterior chamber, and support the foreign body from behind; then to enlarge the point of entrance, and push it forwards. The best instrument for the prehension of a foreign body is the toothed forceps (Fig. 2), for which we are indebted to von Gräfe; indeed, no oculist's case should be without this instrument. With it we may lay hold of a foreign body and extricate it from positions where, with any other forceps, it would be apt to slip out of sight.

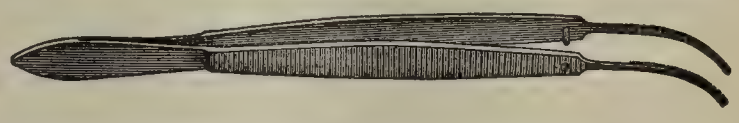

Fig. 2.

It is astonishing to what an extent tears of the sclerotic, if not very coarse, with prolapse of the vitreous, sometimes heal without prejudice to the sight. I had, not long ago, under my care Mr. R., a large mill-owner, who, when superintending a new engine, was struck by a piece of iron, which made a horizontal section of the sclerotic of the left eye, to the extent of a quarter of an inch. I was immediately in attendance, and stitched up the wound, which healed without the least detriment to vision.

When a foreign body penetrates the sclerotic and lodges in the vitreous humour the eye is generally considered lost. When the body is small, there is some chance of its becoming encysted without doing immediate harm; but there is only a question of choice between instant enucleation and waiting the course of events. When the body is large, however, the risk of sympathetic inflammation is so great, that no other alternative but immediate removal remains. Lately, however, a most interesting paper on this subject has been published by Professor Hirschberg, written in unequalled style, furnished with beautiful figures and charts. In it he records a case where he removed a foreign body from the vitreous humour, by means of a galvanic magnet, with preservation of sight, except a scotoma at the place of incision. The credit of this procedure is due to Dr. McKeown of Belfast, who published a paper in the BRITISH MEDICAL JOURNAL for June 27th, 1874. He removed a piece of iron from the vitreous humour, by means of a bar-magnet eight inches long, one inch broad, and one line thick, which he tapered at both extremities to a blunt point. I have never availed myself of this suggestion, because, in reading his paper, it occurred to me that, when a permanent magnet is tapered to a point, so as to enter with facility into a small puncture of the sclerotic, the power of attraction must necessarily be very small, and, in order to make it of any strength, it would require a large magnetic surface, for which a large scleral opening is requisite. But, by means of the instrument introduced by Professor Hirschberg (Fig. 3), which is connected with a galvanic apparatus, we can get a large power with a thin point. This is a valuable addition to our armoury, and will prevent the sacrifice of some eyes.

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* It is made by Collin, Rue de l'Ecole de Médecine.

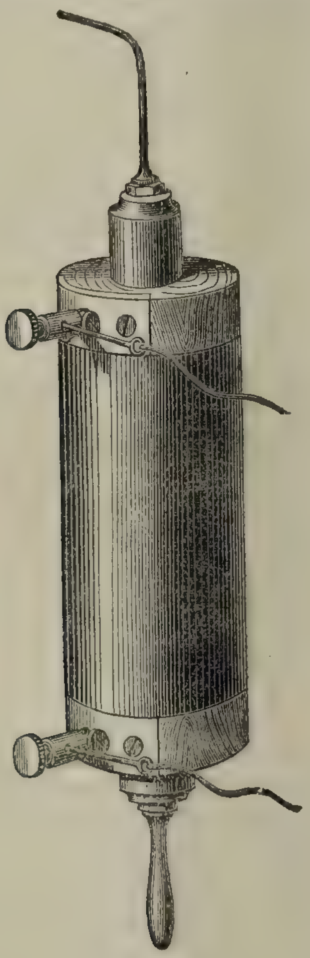

Fig. 3.

We shall next enter upon the consideration of traumatic cataract. These accidents are various in form and gravity, ranging from the most simple prick of the lens or lens-capsule to the most serious complications. I have elsewhere characterised our procedure in these last cases as "an endeavour to save vision from the *débris* of injured eyes". (*Loc. cit.*)

As an instance of the simpler form, I would direct your attention to

CASE I. *Partial Dislocation of the Lens forwards: Linear Extraction without Iridectomy: Sight Good.*—George A., aged 39, engineer, got a stroke on the eye with a piece of iron, which resulted in rupture of the suspensory ligament and partial dislocation of the lens forwards into the anterior chamber. He did not feel much inconvenience immediately after the accident, but by-and-by his sight became dim, and when he came here for advice the lens was entirely opaque. This was a case highly favourable for linear extraction, and accordingly I adopted that method (see Fig. 4). Separating the lids with a speculum, I introduced a needle through the cornea, opened the capsule widely, and broke up the lens-substance; then, fixing the eye with forceps at the lower vertical meridian, I introduced the lance obliquely through the cornea into the anterior chamber, and behind the lens. The aqueous humour escaped, and the lens advanced forwards, and was pumped out by alternate pressure and relaxation of the forceps and depression of the lance. In this way, I got rid of nearly the whole of the lens-substance without interfering with the integrity of the pupil. Both eyes were closed in the usual way with small strips of adhesive plaister, and, on opening the eye in forty-eight hours, we found vision restored. There was a thin layer of the lens-substance lodging in the anterior chamber, which, however, did not obstruct the pupil, and disappeared after a few days. Three weeks after the operation, we found his sight good; he reads No. 8 of Jäger.

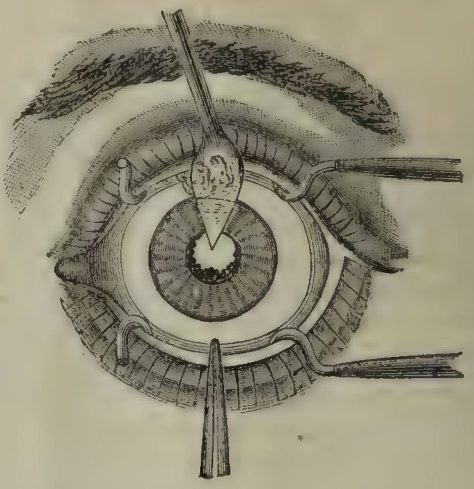

Fig. 4 shows the place of the incision and the exact shape of the lance.

CASE II. *Traumatic Cataract with Laceration of the Cornea and Iris: Flap-Extraction with Iridectomy: Vision Good.*—And. A., aged 30, engineer, was struck by a chip of iron in the outer and lower part of the cornea, tearing the iris and injuring the lens, which was opaque when he presented himself. I made an iridectomy, and extracted the lens at the same time by a small flap. His vision was good; although the upper margin of the lens-substance was adherent to the iris; this I subsequently broke up with a needle and removed. He reads No. 10 Jäger.

CASE III. *Traumatic Cataract with a piece of iron in the lens.—Iridectomy: Subsequent Extraction by small Flap: Good sight.*—D. M'D., aged 28, riveter, was struck by a chip of iron, which passed from the inner side obliquely through the cornea, and lodged in the lens behind the outer margin of the iris, causing traumatic cataract. I made an iridectomy downwards when he was admitted, and in three weeks' time I extracted as much as I could of the lens, with the piece of iron in it. Two days later, I found some cortical substance had become opaque: but, as it gave rise to no disturbance, I did not interfere with it until three weeks afterwards, when I removed it also. His sight is good; he reads No. 10 Jäger.

CASE IV. *Traumatic Cataract with Laceration of Cornea and Iris, and Hypopion: Iron embedded in Lens: Evacuation of Pus and Iridectomy: Extraction: Good Sight.*—W. G., aged 33, boiler-maker, presented himself with an injury of the eye. While he was engaged in cutting a piece of iron, a chip from the chisel flew up and struck him. On examining his eye, I found the cornea and iris lacerated, and the lens opaque; there was also a little pus in the anterior chamber. I opened the cornea and let out the pus, and also removed a portion of the iris (Fig. 5). Watching the case for several days, I noticed what is un-

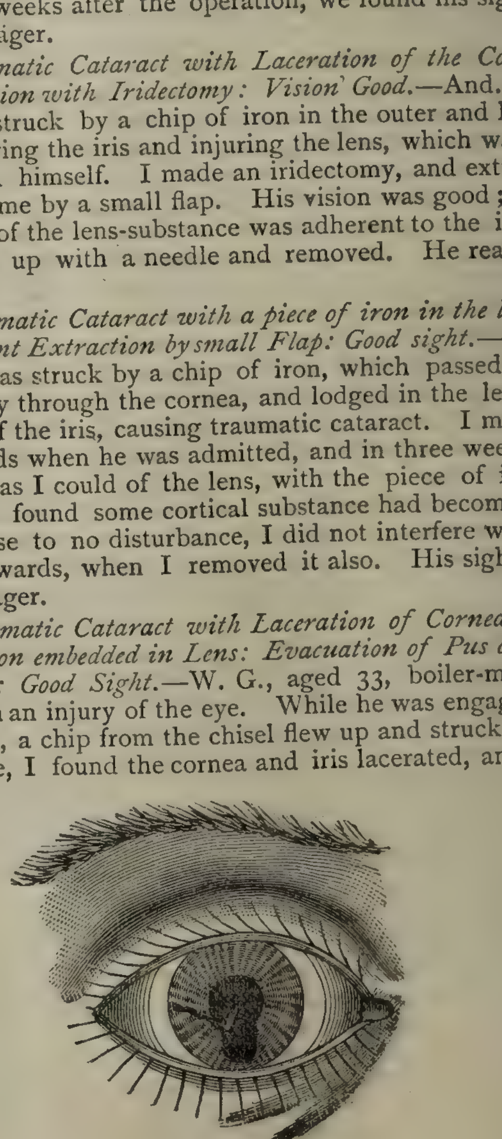

Fig. 5.

usual in such cases, that the little blood in the anterior chamber did not make any progress towards absorption; and this inactive condition caused me to suspect that there must be a foreign body lodged in the interior of the eye. Now the test for detecting the presence of a foreign body in the eye is touch. When the eyeball is gently touched in every direction, if the patient start as if pricked, you may assume with certainty that a foreign body is there; if he be passive, then it is possible that a foreign body may be embedded in the lens-substance, in such a manner as not to cause pain on pressure: this is likely to be the case when the tear in the cornea is small; but when the tear is large, marking the existence of a large surface, the possibility of such a substance lodging there quiescent must be excluded. Reasoning, therefore, from these premises, I came to the conclusion that a foreign body of sufficient size to inflict such a tear could not lodge in the lens-substance without indicating its existence by causing starting on pressure. Yet, when watching the behaviour of the anterior chamber, the dryness of the iris, and inactivity of the aqueous humour, I became suspicious that a foreign body must be lodged there. Indeed, by-and-by, when examining the eye by oblique illumination, I noticed a small black speck at the margin of the iris, which was at first taken to be a pigment-spot; but I came to the conclusion that this must be the offending body. I opened the cornea at the original wound with a needle, and touched the spot, which I found to be a foreign body. I drew it forwards, and, in withdrawing the instrument, I enlarged the corneal opening. I then, with the toothed forceps, seized and removed a piece of iron, of the shape and size represented in the figure (6), weighing 1½ gr.; but to this moment I am perfectly at a loss to explain how such an angular body could be lodged in the lens without betraying its existence on pressure. Three weeks later, I extracted the lens; and you can satisfy yourselves that the patient enjoys good sight. He reads No. 10 of Jäger. From the form of his pupil, you would never suspect that the eye had such a narrow escape.

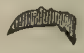

Fig. 6.—Piece of Iron.

In cases like this, the line that divides the region of safety from the necessity of sacrificing the eye is so faint, that it requires great watchfulness on your part to lay hold of the phenomena, and judgment to balance the conflicting evidence on each side, in order to arrive at a satisfactory conclusion.

Respiratory Troubles in Syphilitic Affections of the Larynx.—In a paper reprinted from the *Annales des Maladies de l'Oreille et du Larynx*, 1879, Dr. Krishaber describes the following syphilitic accidents: 1. The consecutive and secondary lesions; 2. Those which result from the more profound changes which are produced later on, and known as tertiary. Both give rise to dyspnœa, hoarseness, and sometimes progressive or rapid asphyxia, calling for energetic interference. The narrowing of the larynx in the second period is due to œdema of the glottis; and this œdema is variously constituted, according as the lesion which has given rise to it itself occupies the vestibule of the larynx, the aryteno-epiglottic folds, or the vocal cords. In any case, the nearer these lesions are to the bronchi, the more serious they are. Lesions of the vocal cord are more serious than those of the vestibule, and those of the trachea are still more grave than those of the vocal cords. The narrowing of the larynx, and the symptoms of asphyxia to which it gives rise, may be so complete as to necessitate tracheotomy. Usually, however, it is less sudden and severe; and, when the specific nature of the lesions is ascertained, the immediate application of energetic antisyphilitic treatment may suddenly suppress the accidents and avoid tracheotomy. Mercurials and iodide of potassium are often very useful in such cases; and Dr. Krishaber thinks it useful to consider most non-tuberculous individuals attacked with acute œdema of the larynx as suspected of syphilis. Finally, it must be remembered that the so-called secondary lesions of laryngeal syphilis may be produced at a period relatively distant from the outset of the disease; and this consideration is the more important, as the respiratory symptoms of tardy laryngeal disease are very exceptionally determined by œdema of the glottis; and, on the other hand, the treatment which can be opposed to them, in spite of the slowness of the symptoms, must be much more radical. The ravages of the destructive processes at this period of profound syphilis leave after them gaps to be filled up; and their cicatrisation, with the contraction to which it gives rise, is the only advantage which can be expected from the treatment. But, if this retraction have a tendency to obliteration of the larynx, that obliteration will take place, whatever may be done to prevent it. In such a case, it is necessary to open the trachea, and to keep the cannula in it indefinitely, under pain of serious relapse.

CLINICAL LECTURES
ON
NERVOUS DISEASES.

By A. HUGHES BENNETT, M.D., M.R.C.P.,
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Lecture III *(concluded from page 163)*.

Electricity as a Method of Physical Diagnosis in Diseases of the Nervous System.

III. *The Employment of Faradism and Galvanism as Diagnostic Agents.*—From a consideration of the action of electricity in health and disease, we may draw inferences which are sometimes valuable in forming a diagnosis; at the same time, it must be admitted that alone we cannot place exclusive dependence upon it. Like all other methods of physical research for investigating disease, its use must be combined with a careful consideration of the case in all its bearings; and although it may thus assist, and valuably assist, our reflections in estimating the nature of nervous affections, by itself it does not claim to demonstrate the existence of any individual lesion. On this account, its help is not to be despised, any more than that of the stethoscope or the thermometer, neither of which diagnoses any morbid state, but simply acts as an exact instrument for scientific research, for aiding and improving our senses, and for enabling us to measure and record physical conditions with accuracy. It has been said that electricity tells us nothing that cannot be ascertained by other means. This is only partially true, and the same argument equally applies to all other methods of clinical inquiry. For example, we feel that the skin is hot, but trusting to our unaided senses is uncertain and inexact, individuals having different notions as to the extent of the symptom. By the thermometer, we demonstrate and record with exactitude the precise degree of temperature, thus avoiding all vague statements and individual impressions. It is true that, in well marked instances, we can see muscular atrophy and guess at nervous degeneration, but by electricity we are enabled to prove and measure these with some degree of accuracy; and, although the science has not yet advanced sufficiently to permit us to do so with absolute precision, there is enough to warrant us in employing that agent for practical purposes. It is by the encouragement of such physical methods of inquiry that our hopes are to be realised of making medicine as much as possible an exact science.

What, then, does electricity actually prove? It demonstrates the functional activity of nerve and muscle, and in consequence their histological condition, a knowledge of which, in many nervous diseases, combined with the other circumstances of the case, often enables us to arrive at a diagnosis.

From the preceding observations on the effects of electricity on different morbid states, it will be seen that much useful information is gained, that we can definitely ascertain the extent of the excitability of nerve and muscle, and can infer with great accuracy the stage of histological degeneration which exists. A diagram, as it were, of such pathological changes is thus physically displayed. Although it is a general knowledge of the relations which the electrical reactions bear to the various anatomical changes in nerve and muscle which take place in disease that we depend upon to assist us in diagnosis, we shall mention a few of the special phenomena which appear to be of practical clinical value.

1. *Normal Electrical Reactions in Disease.*—In abnormal states, such as paralysis, the presence of healthy electrical reactions is by itself of diagnostic value. It may be stated that, as a general rule, in paralysis from brain-disease, the nerves and muscles are normal to both faradism and galvanism. In doubtful cases, such knowledge may prove of great assistance in determining whether a given palsy is due to disease of the brain, as opposed to lesion of the cord, nerve, or muscle. For example, if in chronic paralysis of the face, the electrical reactions be normal, the symptom is due to disease of the higher centre. The same applies to paresis of any other set of muscles in the body.

In many diseases of the spinal cord, especially when the posterior roots and the posterior and antero-lateral columns only are affected, the electrical reactions to nerve and muscle are normal, as is seen in locomotor ataxy, lateral sclerosis, etc. This may be the means of diagnosing these diseases in their early stages from those of a more extensive distribution. So long as the grey matter is not extensively affected, and the anterior cornua and roots are intact, there are no characteristic alterations of electric excitability. If, therefore, in a case of spinal paralysis the reactions be everywhere normal, we may infer that these portions of the cord are not seriously involved.

In some cases of paraplegia, obviously from disease of the grey matter of the cord, the electrical reactions of the lower limbs may be normal. This shows that the portion of the cord from which the nerves to the lower extremities take their origin is healthy. Careful examination of the muscles higher up, would probably end in the discovery of some point where abnormal electrical changes were found, and according to their extent we would infer the limits of the lesion.

In certain instances of slight peripheral paralysis, there are no abnormal reactions which indicate that the disease, although capable of causing diminution of voluntary motion, has not induced anatomical changes in the motor nerve-fibres. This is sometimes seen in cases of rheumatic facial palsy.

The whole class of so-called functional paralyses are, as a rule, also accompanied by negative electrical reactions. For example, in a chronic case of hysterical paraplegia, the responses to the faradic and galvanic currents would be everywhere normal in both nerve and muscle. In organic spinal disease of the same standing, there would most probably be evidences of degeneration of nerve or muscle.

In cases of malingering, electricity is occasionally of service. Apart from the emotional and sensational effects, evidence of degeneration of nerve or muscle is proof of the reality of disease. In claims for compensation after accident, and in other such circumstances, electricity may sometimes be utilised with great effect, as a demonstration of fact is always more convincing than individual opinion. Absence of abnormal reactions does not, however, prove that no disease exists. In such a negative position, the diagnosis must be made from the other general circumstances of the case.

There are certain nervous and other conditions in which persons may be mistaken for dead. It is said that people have, under such circumstances, been buried alive. Electricity furnishes us with an absolutely certain method of determining life from death. As soon as the heart ceases to pulsate, there is an immediate diminution in the electric muscular contractility, which rapidly progresses, so that, in from half an hour to two hours, the muscles have completely lost their excitability. Hence if all the muscles, on application of faradism, show no traces of contractility, the patient is dead, as there is no disease in which this could occur. If, on the other hand, they all contract freely, and this continue for more than a few hours, the patient is certainly alive, or was when the observation was begun. In medico-legal practice, this may be important, for if, after death, any muscular contractions remain, it can be certified that the individual died within three hours.

2. *Abnormal Electrical Reactions in Disease.—a. Simple increase* of electric excitability, if slight, uniform, and temporary, at the outset of the disease, is in favour of its cerebral origin; and if the increase be considerable, there is probably some irritating lesion. Moderate increase, lasting a long time, indicates usually a spinal affection, and more particularly disease of the lateral columns, in which the inhibitory fibres from the brain appear to run. Increase of excitability accompanying paralysis in the lower part of the body, with normal reactions above, evidences localised disease of the spinal cord, and if excessive, is in favour of an irritating lesion. Excess of action in any particular nerve or set of muscles supplied by it, is also due to local irritation of its fibres, and, if very temporary, may be the result of sudden and complete section. Increased response of muscular fibre to the slowly interrupted galvanic current, especially if associated with diminished reaction to nerve, indicates commencing degeneration of muscle.

b. Simple diminution of electric excitability demonstrates loss of functional activity in the nerve or muscles. It is rare in paralysis from cerebral disease, but, if it occur at an early stage, it is probably due to affection of the crus or of the origins of the cranial nerves. In paralysis from brain-disease of long standing, diminution in nerve and muscle may arise from two causes, namely, simple disuse and secondary degeneration. The first may readily be distinguished by applying faradism for a few days to the paralysed limbs, after which the normal reactions to both nerve and muscle return, without change in motility. In the latter case, they retain their abnormal reactions, and are probably associated with qualitative changes, thus indicating permanent organic disease of the cord, nerve, or muscle. Diminution of electrical response occurs in many diseases of the cord, especially if chronic. This, taking place in a case of paralysis without any qualitative changes, would indicate that, although the central tracks were interrupted, the anterior roots and the cornua of the grey matter were not involved. Simple diminished reactions to nerve or muscle serve to show that, although their motor functional activity is impaired, there are no serious disturbances of their nutrition or anatomical structure.

c. Qualitative changes are always accompanied by the quantitative disturbances of increase or diminution of electrical excitability, but chiefly the latter. If these be present, cerebral affections as their cause may be excluded; so also diseases of the white columns of the cord. They always occur in entensive disease of the grey matter of the cord, especially its anterior cornua and anterior roots, and in all serious affections of peripheral motor nerves.

If, therefore, in a case of spinal paralysis there be found loss of excitability to all the nerves and muscles, with the reaction of degeneration in the latter, we may conclude that the whole of the grey matter of the cord is diseased, and certainly its anterior cornua. If the upper limbs present these abnormal reactions, and, although paralysed, the lower extremities have normal or increased excitability, we conclude that the grey matter of the cord in the upper dorsal region is disorganised in a limited area, and that the cord below is healthy.

From the extent of the signs of degeneration, we can, therefore, infer the amount of spinal disease, the two bearing a constant relation to one another. The completeness of the electrical reactions will also, to a certain extent, indicate the stage of the lesion. If there be complete loss of excitability of nerve, with atrophy and well developed reaction of degeneration of muscle, the centres are probably entirely disorganised. If the abnormal responses, on the other hand, be not fully displayed, the disease is only partial.

In certain cases of spinal disease, there is no paralysis proper, but there is atrophy of muscle, with corresponding motor weakness, due, it is supposed, to a modification of the nutrient centres of the muscle in the spinal cord. Such is indicated electrically by the muscles contracting under direct faradic irritation according to their bulk, and exhibiting reactions of degeneration to galvanism, while at the same time the nerves are healthy to both forms of the current. This is seen in progressive muscular atrophy, thus distinguishing it from paralysis due to disease of the motor centres, such as infantile paralysis. The electrical reactions are here the same as in amyotrophic lateral sclerosis; the clinical distinction between the two being that, in the latter, owing to the affection of the lateral columns, paralysis is the main feature of the case, and it precedes the atrophy. In the former, the wasting appears before the altered movements, and is the cause of them.

Paralysis on one side of the body from disease of one half of the spinal cord would be distinguished electrically from hemiplegia as a result of brain-disease, by the fact that, if the grey matter were involved in the former case, there would be signs of nervous or muscular degeneration, while in the latter the reactions would be normal.

To distinguish between paralysis from disease of the cord, as opposed to that of nerve, is not possible by electrical tests alone; other circumstances must be considered, which, combined with them, may help us to arrive at a true diagnosis. Reactions of degeneration on both sides of the body would be, as a rule, in favour of central disease. If confined to one nerve and the muscles supplied by it, there is likelihood of its being of peripheral origin; and if to this we find that the nerve and muscle supplied by a branch from above the seat of paralysis are normal, this is made almost certain. In peripheral paralysis, the abnormal electrical reactions in both nerve and muscle are usually more complete than when it is the result of spinal disease.

Loss of response by the nerve to both currents, faradism and galvanism applied directly to the muscle being followed by normal reactions, indicates that the trunk of the nerve is alone diseased, its peripheral portion and the muscle being healthy. This occurs in commencing rheumatic and other local paralyses of nerve.

Loss of response by nerve to both currents — faradism applied directly to the muscle producing no results, galvanism to the muscle being followed by normal reactions—indicates that the trunk of the nerve, with its peripheral intramuscular branches, is paralysed; and that the muscular fibres are intact. This is seen in nervous paralysis from cold, and also in the earlier stages of disease in the grey matter of the cord.

Loss of response by the trunk of the nerve to both currents—faradism applied directly to the muscle producing no results, quantitative and qualitative changes on direct galvanism to muscle—indicates disease of the entire nerve, and also muscular degeneration. This occurs in cases of traumatic section of nerve, in the late stages of infantile paralysis, etc.

If, on irritating the nerve, the muscular contractions be normal to both currents; if faradism applied directly to the muscle induce no action; and if galvanism, when also thus applied, be followed by quantitative and qualitative changes,—these indicate that the trunk of the nerve is healthy, but that its peripheral branches, with the muscles, are disorganised, as may be seen in some cases of lead-poisoning.

If the nerve act normally to both currents while faradism, when applied directly to the muscle, excites contraction according to its bulk, but galvanism is followed by the reaction of degeneration—these signs show that the nerve is healthy in its whole extent, and that the muscle alone is diseased, which is seen in progressive muscular atrophy, pseudo-hypertrophic paralysis, etc.

If the nerve act normally to both currents, faradism applied directly to the muscle produce no result, and galvanism to the muscle be followed by normal reactions—these indicate that the trunk of the nerve and the muscles are healthy, but that the peripheral intramuscular branches are paralysed. This is seen in some forms of facial paralysis from exposure to cold.

In peripheral paralysis, all the elements of the nerve-structures are not always equally affected. If the nerve and muscles show perfectly normal electrical reactions, it is evidence that the voluntary motor fibres have been altered only in function, and not in structure, as seen in the slight forms of rheumatic facial paralysis. If the nerve exhibit great diminution or loss of electrical response, the nutritive influences to its motor fibres must be involved; and, if there be degenerative reactions of muscle, it shows that, in addition to the motor fibres, the trophic conductors to the muscles are involved; either of which may be seen in the middle form of facial paralysis. Finally, both nerve and muscle may exhibit abnormal reactions, demonstrating that the whole nerve, including the motor conductors and the trophic fibres to nerve and muscle, is degenerated, as instanced by the severe form of facial paralysis.

In many doubtful cases, electricity may decide our diagnosis before there are other symptoms sufficiently definite. For example, in an incipient case of lead-poisoning, the bulk of the muscles and their voluntary power may be apparently normal. On testing with the faradic current, diminished nerve-excitability may be found; and with the galvanic, commencing degeneration in muscles may be demonstrated—thus confirming our suspicions; for, in this disease, the histological changes precede apparent impairment of function.

In estimating the condition of sensation, electricity is of great service, and delicate shades of increased or diminished sensibility may thus be detected. The faradic current is indispensable for determining muscular sensibility, and galvanism applied to the tongue is the best method for testing the sense of taste.

Many instances might be given to show how electricity practically assists diagnosis. Of these, we shall only mention three as illustrations.

A young woman had, among other symptoms, almost complete paralysis of the left leg, from which she had suffered for many months. Electrical tests failed to elicit abnormal reactions in any part of the body. This greatly assisted in the diagnosis of cortical cerebral disease, which was confirmed after death by the discovery of a tumour in the right hemisphere, in the posterior parietal region.

A man, previously in good health, fell on a pitchfork, a prong of which passed through his upper arm. After the wound healed, the limb was weak, and, a month after the accident, had greatly lost power; and the muscles of the hand had wasted. The diagnosis of his physician was local injury to the nerves, with corresponding loss of function. Tested electrically, the nerves were found perfectly normal. With faradism, the muscles contracted according to their bulk; and those which were atrophied exhibited with galvanism the reaction of degeneration. On investigating the muscles of the apparently normal arm, precisely the same conditions were found, only not so definitely marked. Here, then, was a case, not of injury to the nerve from an accident, but an instance, probably, of commencing progressive muscular atrophy; the fall being a coincidence, and merely attracting the patient's attention to his right hand.

A house-painter entered the hospital suffering from general debility and vague dyspeptic symptoms. The question arose, Is this man suffering from lead-poisoning? There were no symptoms except those stated above; no colic; no blue line on the gums; and he had never observed any weakness or wasting of the muscles of the arms. Electricity applied to the extensors of the wrist demonstrated slight but distinct reactions of degeneration, which, under the circumstances, definitely confirmed an otherwise doubtful diagnosis.

These are three examples in which the diagnosis of a lesion respectively of the brain, spinal cord, and peripheral nerves and muscles, was practically established by electrical tests. Others similar might be multiplied, which brevity compels us to omit. It is, however, to be hoped that, in the foregoing discussion, enough has been said to show that our knowledge of electricity, although as yet imperfect, is even now sufficiently advanced to afford us valuable assistance in the diagnosis of nervous diseases.

MR SPENCE ON SURGICAL STATISTICS.

By JOSEPH LISTER, F.R.S.,
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Mr. Spence's article on Surgical Statistics, which appeared in the Journal of the 24th ult., consists of two elements; one tending to disparage my character as a surgeon; the other calculated to diminish the effect of the statistics which I lately adduced in favour of antiseptic surgery. The former of these elements I shall take leave to dismiss without further notice than the remark that, as Mr. Spence never did me the honour to witness the practice which he criticises, so that his knowledge of it, beyond my brief descriptions of the cases, must have been derived entirely from hearsay, the exercise of a little charity towards a late colleague might have induced him, in every one of the points to which he refers, to accord a more generous and at the same time a more just interpretation.

But, in direct proportion as Mr. Spence succeeds in persuading the readers of the Journal of his own superiority and of my inferiority as a surgeon, must his argument tell in favour of antiseptic surgery; for if, in spite of such disadvantages, I am enabled, by the application of a new principle, to obtain results superior to his, the fact must speak volumes in favour of the principle.

First, then, of amputations; Mr. Spence produces a table of excellent results from his own practice. But I have first to remark that they are not derived from the period during which mine occurred, but from a time long antecedent. What is the reason for this selection? We can hardly suppose that Mr. Spence took his illustrations from the practice of many years ago because he thought his method of treating wounds then superior to that which he employs at present. We are, therefore, forced to the conclusion that he has selected a set of cases in which good fortune came greatly in aid of good surgery.

Next, I have to observe that the cases which he compares with mine are not similar to them in kind; for he omits primary amputations, which are by far the most dangerous class, and which are included in my numbers. And the manner in which his statement is made is somewhat apt to mislead, although, I am sure, without any such intention on his part. After the mention of my general results of nine deaths in eighty major amputations, he proceeds to make what I venture to regard as a lame apology for the selection of a different period from mine, and then gives his own figures in a tabular form calculated to strike the eye; and it requires a somewhat close reading of the text to notice that these cases are only amputations for disease, and therefore not fairly comparable with mine. In order to institute a just comparison, I must deduct the primary amputations from my own list. These were sixteen in number, with four deaths, leaving sixty-four amputations for disease and secondary amputations for injury, with five deaths; and thus my percentage of mortality is at once reduced from 11.2 to 7.8. But here I must repeat the observations which I made on these cases in the discussion at St. Thomas's. Of the five deaths, two were after amputation at the hip-joint, followed by death within twenty-four hours after the operation; and, whether Mr. Spence be correct or not in his idea that the patients might perhaps have been saved by better surgery, these cases have no bearing whatsoever upon the question under discussion, which is the relative safety of different modes of dressing. Both succumbed from the immediate effects of the operation. Those two cases, therefore, should be excluded as irrelevant. But I cannot take leave of them without raising a protest against the view which Mr. Spence must be supposed from his remarks to entertain, that every case of myeloid disease of the lower end of the femur should be summarily treated by formal amputation at the hip-joint. We know how greatly these cases differ among themselves as to the degree in which the bone is implicated beyond the obvious tumour; and many a man would be deprived of life unnecessarily, and many another would lose the advantage of an useful stump, if such a doctrine were allowed to prevail.

My other deaths arose from accidental causes wholly unconnected with the operation. One took place in a woman who presented herself with a swelling of no large size under the right deltoid, so extremely soft that I was unable to satisfy myself whether it was a collection of fluid in the bursa or a solid of jelly-like consistence, without an exploratory puncture, which was made antiseptically; a malignant tumour was diagnosed, and the patient was requested to submit to amputation. This, however, she refused to do, and one day tore off the antiseptic dressings, with the result of causing putrefaction in the tumour and an aggravation of both local and general symptoms that convinced her of the necessity of amputation. By taking the flaps chiefly from the skin, I succeeded in entirely avoiding the putrid element. The amputation-wound followed a typically aseptic course; and I regarded the patient as already safe, when, three days after the operation, bleeding took place in very large amount from a tumour of the same nature in the right thigh, and she died of this internal hæmorrhage. The *post mortem* examination showed that the tumour which had furnished the blood, though it involved the greater part of the thickness of a limited portion of the upper end of the femur, was of such very small dimensions that it could hardly have attracted the attention of a surgeon, supposing him to have examined her from top to toe for the chance of so unlikely a complication.

Of the remaining two deaths, one occurred among my amputations of the thigh, which were twenty-six in number. The amputations of the thigh constitute the main glory of Mr. Spence's table; for, though it contains twenty-two cases of amputation at the ankle-joint without a death, yet that operation, in the hands of a good surgeon, is so eminently safe, that such a successful series is not very remarkable. But his twenty-five amputations of the thigh with only two deaths are certainly fair subjects of just pride, more especially when we learn from the context that one of these cases died of "albuminuria from scrofulous kidney". We must not, however, assume, without more detailed information as to the precise nature of the renal affection, that death would be inevitable at the present day in such a case, supposing strict antiseptic treatment to be employed; for soundness of the excretory organs becomes a matter of much less essential moment when septic agencies are entirely prevented from entering the organism through the wound, and therefore do not require to be eliminated from the system. And, though Mr. Spence tells us that "the stump healed almost entirely by first intention", we must remember that there is here a mighty difference between almost and altogether, more especially as the operation was performed in the old days of septic silk ligatures.

The other cause of death in Mr. Spence's amputations of the thigh, though it almost appears as if put down under the old notion that it formed a sufficient excuse for mortality, is tragical enough—pyæmia on the twentieth day! I say, then, that in that which constitutes the main glory of Mr. Spence's table there is one melancholy blot; while, merely numerically, his twenty-five cases with two deaths are surpassed by my twenty-six cases with one death. But this one death I must claim as a recovery from the amputation; for the patient died of a totally independent cause—diphtheria—when the stump was almost entirely cicatrised, nine weeks after the operation; for the nine *months* which afford Mr. Spence occasion for such sarcasm are, like other inaccuracies to which he refers, a reporter's error.

The other death was in a boy seven years old, after amputation at the ankle. The stump certainly was slow in healing, as must, I fear, now and then be the case under any treatment where we operate through unsound textures in a feeble constitution. But the cicatrising process was, at the end of three months, almost absolutely perfected, when he died of a cause very rare at such a period of life, but confirmed by *post mortem* examination—cerebral hæmorrhage. Now, I contend that it is only strictly just to regard that case also as one of recovery from the amputation.

Thus, excluding as irrelevant the two cases of amputation at the hip-joint where death took place within twenty-four hours of the operation, the results of my amputations other than primary may be thus given in a tabular form.

	Number.	Recovered.	Died.
Thigh	26	25	1[*]
Leg	5	5	0
Ankle	16	15	1[*]
Shoulder	1	0	1[†]
Arm	6	6	0
Forearm	8	8	0
	62	59	3[‡]

It thus appears that, even in my lame hands, the application of the strict antiseptic principle has led to results surpassing those attained in a specially selected period by an excellent surgeon, who prides himself upon his success in the department of amputation, but who has not adopted the principle.

Mr. Spence asserts that "much of my practice was in the same hospital and under the same hygienic conditions" as his own. *All* my practice referred to by Mr. Spence took place in the same hospital as his; but my hygienic conditions were exceedingly inferior, and I am surprised that Mr. Spence was not aware of the fact. In visiting his wards, I have been struck with the much greater space between the beds than prevailed in my own. When I first took charge of the clinical wards, I was so dissatisfied with what appeared to me the over-crowding of the patients, that I had the beds considerably reduced; but, finding that the step had been rendered nugatory by mattresses being put down at night for the accommodation of patients who could be up during the day, while the wards continued healthy, I allowed the beds to be replaced. Afterwards, the demand for accommodation becoming excessive, the system of putting down the mattresses at night again crept in; and, besides this, children were frequently placed two and sometimes three in a bed; so that, while my beds, quite too numerous in proportion to my space, according to prevalent hygienic ideas, were fifty in number, my patients were very rarely under sixty, and sometimes amounted to seventy. And, further, the annual cleaning of the wards, which took place, I believe, under all the other surgeons, was for three years omitted in my department, because, while the perfect healthiness of the wards rendered it unnecessary, the process entailed a risk of injury to individual cases in moving them from place to place. All this was not only notorious in Edinburgh, but it was fully described in my address on opening the Surgical Section of the meeting of the British Medical Association in that city, published in the BRITISH MEDICAL JOURNAL. (See BRITISH MEDICAL JOURNAL, December 25th, 1875.)

The truth is, therefore, that, so far from Mr. Spence's results being fairly comparable with mine on the ground of similarity of the hygienic conditions under which we worked, the converse is the case in an exceedingly remarkable degree; and the fact that the strict antiseptic principle renders the surgeon independent of such unfavourable surroundings, constitutes a signal triumph for the principle.

After describing his own successes in removal of the breast for scirrhus, and declaring that he has "never felt at liberty to test the spray-system in this class of operations", Mr. Spence inquires, "What are Mr. Lister's results in excisions of the mamma?" I feel it needful to reply to this question, because it seems to hint not obscurely that the antiseptic treatment has been followed in my hands by great failure in this important operation. Such, however, is very far from being the fact. Those who have visited my wards can testify that the general course of such cases has been one of absence of suppuration or febrile disturbance, not only after removal of the gland and dissecting out the entire contents of the axilla, but also with a degree of traction of sutures to approximate cutaneous margins, when a large amount of integument has been taken away, such as it would be out of the question to employ except under strict antiseptic management; for it is remarkable how much dragging upon the skin may be practised with impunity, if the excitement and swelling due to septic inflammation be avoided. Stitches, instead of cutting their way out quickly, as would otherwise be the case, retain their places till cicatrisation is complete, the integument gradually yielding and accommodating itself to its altered circumstances.

Mr. Watson Cheyne, to whom I am much indebted for the labour he has bestowed in compiling complete statistics of my operations in the Edinburgh Infirmary from the latter part of 1871 (in which year the spray and gauze were introduced) till I left the institution in 1877, informs me that my operations for mammary tumour during that period were thirty-eight; viz., twenty-four cases in which the axilla was cleared out, besides the removal of the gland; three in which the mamma only was removed; four of recurrent scirrhus; and seven of simple tumours excised without the mammary gland. Of these thirty-eight operations, three were followed by death. Now, I freely admit that this is too high a death-rate. I mentioned in the debate at St. Thomas's that I had two deaths from blood-poisoning after this operation; and Mr. Spence has put his finger upon what, in that respect, was an unlucky bit of my practice; for the *only* two deaths from blood-poisoning which occurred during the entire period from 1871 to 1877, after operations antiseptically performed, fell upon this group.

The cause of the fatal event in one of the cases was erysipelas, which, according to my experience, like that of Volkmann of Halle and Nussbaum of Munich, is generally banished entirely by strict antiseptic treatment even in wards otherwise very liable to the disease.

In the other case, the entire contents of the axilla having been removed as well as the mammary gland, a practice which I almost invariably adopt in scirrhus of the mamma, all went well for ten days, when, having removed the drainage-tube from the axilla in dressing the patient, I was grieved to observe that the gentleman in charge of the spray had failed to direct it over the part. That very evening, she became feverish, and next morning the axillary wound was observed to be putrid; two days later she had a rigor; and other rigors occurred at varying intervals during the remaining nine days of life. Although on *post mortem* examination no pus was found in the veins of the region, nor any abscesses in the lungs or elsewhere, yet there was no doubt whatever that the patient died of a form of blood-poisoning, which, according to present nomenclature, we should term septicæmia. But, when I say that this was the only instance of septicæmia among antiseptic cases during the six years, and that not a single example of pyæmia occurred during that long period among patients to whom the strict antiseptic principle was applicable, including not only 553 major operations, but also a multitude of minor ones among in-patients and out-patients, and a host of trivial injuries besides those admitted into hospital on account of their severity, such as compound fractures and wounds of joints, and this in spite of hygienic conditions which, except for the strict antiseptic principle, would have been highly unfavourable, I state a fact at which I think every unprejudiced friend of mankind must rejoice.

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[*] Recovered from the amputation, but died from an independent cause.

[†] The cause of death was wholly independent of the operation.

[‡] Mr. Spence is mistaken in supposing that there was any other fatal case besides those referred to in the table.

[*To be concluded.*]

PROFESSOR SPENCE ON SURGICAL STATISTICS.

By W. WATSON CHEYNE, M.B., F.R.C.S.,
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PROFESSOR SPENCE'S paper on surgical statistics, published in the number of the BRITISH MEDICAL JOURNAL for January 24th, is probably one of the most powerful replies which will be made to those produced by Mr. Lister at the recent debate on antiseptic surgery. In two ways, this attack may be called powerful; for, on the one hand, Mr. Spence is well known as a most careful surgeon—careful in his diagnosis, careful in the selection of cases for operation, and careful in avoiding all irritating applications to the wounds during the after-treatment; while, on the other hand, Mr. Spence has acted as surgeon in the Edinburgh Royal Infirmary during the period in which the results which Mr. Lister has published were obtained. His remarks seem, therefore, to call for careful criticism.

The chief object of Mr. Spence's paper is to show that at least as good results have been obtained without the adoption of any strict antiseptic measures; and, in support of this, he produces a table of amputations performed long ago, and evidently selected on account of its excellence. This selection of results for comparison must, however, be strongly protested against, and contrasts very unfavourably with Mr. Lister's complete statement of the cases occurring since the more recent improvements in antiseptic treatment have been introduced. Mr. Spence, indeed, attempts to say that Mr. Lister's is also a selected period; but in this I venture to think he is wrong. For, in judging of the usefulness of a certain method of treatment, one must look at results obtained when that method has been more or less perfected. But if the method employed by Mr. Spence in the treatment of the cases referred to were a perfected one, I would ask how it is that he has come to modify it with, as seen in his later reports, very unfavourable results.

With regard to the table itself, the results are undoubtedly excellent, and, if constant, would go far to show that strict antiseptic treatment is not so necessary for ordinary cases as has been asserted. But, on looking at it more closely, we recognise an old friend; for this same table was produced by Mr. Spence in his address on surgery at the Edinburgh meeting of the British Medical Association; and, on referring to his various publications, it will be found to be an especial favourite. Seeing, however, that the results were obtained as long ago as the years 1860, 1861, and 1862, it seems high time that a new table had been constructed.

In order to obtain a complete idea as to the entire state of the facts in this important matter, it appears to me that it will be well to examine shortly what are the results which Mr. Spence usually obtains; and with this object, I shall refer, in the first place, to those more recently published by him.

In the *Medical Times and Gazette* for March 13th, 1875, is the report of his major operations from October 1872 to October 1874. Again, in the same journal for October 28th, 1876, is the report from April 1875 to the end of September 1876. And, lastly, in the November and December numbers of the *Edinburgh Medical Journal* of last year, is that from October 1876 to the end of the winter session 1878. Thus we have a record of Mr. Spence's practice from October 1872 till April 1878, with the exception of the report for the winter session 1874-75; and, as this period corresponds in greater part to that during which Mr. Lister's results were obtained, I shall state what I find.

During the first period, there were 115 major cases treated, of which 21 died; during the second, 76 cases, with 16 deaths; and, during the third, 140 cases, with 21 deaths; thus making a total of 331 major cases treated between October 1872 and April 1878 (with the exception of the winter session of 1874-75), of which 58 died, or a percentage mortality after major operations of 17.5, as contrasted with Mr. Lister's mortality after major operations of 5.1 per cent.*

On attempting to ascertain what is the cause of death in Mr. Spence's cases, and more especially what is the proportion of blood-poisoning, I find the task hopeless; for, in 16 out of the 58 deaths, the cause is not definitely stated, though, in several instances, we are led to surmise from the facts mentioned that blood-poisoning, in some form or other, had occurred. Thus, to give two examples, we are told, in connection with a fatal case of amputation of the upper arm, that "the prognosis was favourable, as the patient was under middle age. However, he had suffered from rheumatic fever, and was stated to have had a stroke of palsy." These are, no doubt, very interesting facts, but they do not explain why the patient died. Again, the remarks on a fatal case of amputation at the shoulder-joint are the following. "At the time of the accident, the patient was out on pass from the medical house, where he was under treatment for mitral and aortic disease with bronchitis. He had also lost much blood prior to admission." An incautious reader might, in all probability, set down the cause of death, in the first instance, to rheumatic fever or to the reported stroke of palsy; and, in the second, to mitral and aortic disease. Does Mr. Spence really mean that these were the causes of death? or did the patients die of blood-poisoning, and are these facts stated as affording some explanation of that circumstance? Of the remaining 42 cases, five died within thirty hours after the operation, and may therefore be left out of consideration. In eight, the fatal result is assigned to septic poisoning: while, in several, such indefinite causes as the following are mentioned; "irritative fever", "unhealthy action in the wound", "diarrhœa and vomiting" (in several cases), "uræmia, although without any marked symptoms", "hæmorrhage, generally in the form of uncontrollable oozing" (a well-known symptom of blood-poisoning), etc.† It will thus be evident that any attempt to gain, from these statements, some true idea as to the frequency of blood-poisoning after this method of dressing would be hopeless; and it would therefore be well, as the matter is one of the greatest importance, if Mr. Spence furnished the cause of death in those cases where it is not mentioned, the pathologist's report of the *post mortem* examinations in all cases as far as practicable, and the report of his practice during the winter session 1874-75.

Looking, for a moment, at the amputations during these years, we find that 97 major amputations were performed, of which 25 died, or a mortality after major amputations of 25.7 per cent., as contrasted with Mr. Lister's mortality of 11.25 per cent. I give Mr. Spence's results in a tabular form.

TABLE I.

	Primary.		Secondary to Injury.		For Disease.		Total.	
	No. of Cases.	Deaths.	No. of Cases.	Deaths.	No. of Cases.	Deaths.	No. of Cases.	Deaths.
Hip-joint	0	0	0	0	3	1	3	1
Thigh	5	3	1	0	25	6	31	9
Knee-joint ..	1	0	0	0	0	0	1	0
Leg	4	0	1	1	8	1	13	2
Ankle	1	0	1	1	23	1	25	2
Partial of foot.	0	0	0	0	6	2	6	2
Shoulder-joint	1	1	1	0	2	1	4	2
Arm	2	1	2	0	5	2	9	3
Forearm	2	2	0	0	2	2	4	4
Partial of hand	0	0	0	0	1	0	1	0
	16	7	6	2	75	16	97	25
	or 43.7 per ct.		or 33.3 per ct.		or 21.3 per ct.		or 25.7 per ct.	

In constructing this table, I have followed Mr. Spence's division of his cases into "primary", "secondary", and "for disease": a division which he adopts, chiefly because the former groups are more liable to die of blood-poisoning than the latter. In this he is undoubtedly correct; but, if I understand Mr. Lister aright, he contends that, with his method of treatment, he is independent of these considerations; and that blood-poisoning ought not to occur under any circumstances. When, therefore, Mr. Spence, in giving his table of amputations, confines himself to those for disease, and excludes those performed primarily or secondarily to injury, because, among other reasons, they are more liable to blood-poisoning, he begs the question entirely; and it would be very interesting to know how many primary and secondary amputations occurred during 1860-61-62, and what were the results.

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* As far as I can see, there ought only to be 114 major cases with 20 deaths; for in one of the fatal cases amputation was first performed through the leg for disease of the ankle-joint, and afterwards osteomyelitis setting in amputation of the thigh was done. The patient died of diarrhœa (?) five days after the latter operation.

† The number of cases which died of bronchitis and pneumonia is very remarkable. Were *post mortem* examinations made in all these instances?

The percentages given in the foregoing table, though obtained from but few cases, are much the same as those mentioned by Mr. Spence in the second edition of his *Lectures on Surgery* as the result of his practice up to 1875. He had then performed 503 major amputations (I presume in hospital practice),* of which 141 had died, or a mortality of 28 per cent. Of these 503 cases, 134 were primary amputations, of which 57 died, or 42.5 per cent.; 37 were performed secondarily to injury, with 15 deaths, or 40.5 per cent.; while 333 were for disease, with 68 deaths, or 20.4 per cent. The causes of death are not given; but Mr. Spence states (p. 644) that in primary amputations, where the patient recovers from the shock, pyæmia is the most general cause of death.

With such a heavy mortality it is not to be wondered at that Mr. Spence congratulates himself upon, and constantly remembers, the wonderful run of successful cases which he had in 1860-61-62; for in truth it would seem to be the only bright spot in a long and melancholy record of disastrous amputations. But, instead of being an argument against antiseptic surgery, it, on the contrary, when read in the light of Mr. Spence's general results, shows that the treatment adopted was not able to prevent the development of septic diseases when the conditions were favourable to their occurrence; for, indeed, we cannot imagine that a treatment which promised so much would be thrown aside for another unknown and untried method when these sixty-three cases were completed; nor that Mr. Spence would not have resorted to it again when the disastrous consequences following its abandonment became manifest. Mr. Spence may well congratulate himself that these cases occurred and were so successful, for without them we should have had a still sadder picture presented to us: a record of 440 amputations with 138 deaths, or a mortality of 31.3 per cent.

Mr Spence's feeling of satisfaction at these results is the less remarkable when the following facts are taken into consideration. I have already stated that no definite information can be obtained from Mr. Spence's writings as to the relative amount of blood-poisoning in cases treated by so-called simple methods of dressing; but it so happens that a record, and a most instructive one, is published in Dr. Braidwood's work on *Pyæmia*†, in which he gives the number of cases of that disease which occurred in Mr. Spence's wards during the years 1859-65. As the results given in the table produced by Mr. Spence were obtained in 1860-61, this report is especially interesting, and I therefore give it in detail. (See Table II.)

It may be well, if for the sake of contrast, I here reproduce Mr. Spence's table of major amputations for disease, during the years 1860-61-62.

	No.	Recovered.	Died.
Hip-joint	1	1	0
Thigh	25	23	2
Leg	5	5	0
Ankle	22	22	0
Shoulder (injury)	3	3	0
Arm	3	2	1
Forearm	4	4	0
Total	63	60	3

TABLE II.—*Deaths from Suppurative Fever (Pyæmia) in Professor Spence's Wards in the Royal Infirmary of Edinburgh during the Years 1859-65.*

Date.	Total No. of Cases.	Nature of Operation.	No. of Deaths from Pyæmia.	Part Operated on
1859-60..	4	Primary amputations.	2	Both were amputations of the leg.
	14	Secondary amputatns.	1	An amputation of the thumb.
	4	Excisions of diseased joints.	1	Excision of the knee-joint.
	2	Perineal section.	1	For stricture of the urethra.
1860-61..	11	Primary amputations.	1	An amputation of the thigh.
	14	Secondary amputatns.	1	An amputation of the arm.
	11	Excision of diseased joints.	1	Excision of the elbow-joint.
1861-62..	12	Primary amputations.	3	All were amputations of the leg.
	30	Secondary amputatns.	3	All were amputations of the thigh.
1862-63..	20	Secondary amputatns.	5	Of these, four were amputations of the thigh, and one was an amputation of the forearm.
	2	Primary excision of joints for injury.	1	Excision of the knee-joint.
	5	Excision of the mamma.	1	....
	9	Cases of removal of malignant tumours of the face and neck.	1	Removal of a malignant tumour of the lower jaw.
1863-64..	10	Primary amputations.	2	One was an amputation of the arm, the other of the leg.
	18	Secondary amputatns.	4	One of the forearm, two of the thigh, one at the ankle.
	8	Excisions of joints for disease.	2	Both were excisions of the elb[illegible]-joint.
	17	Removal of tumours.	1	Fibrocartilaginous tumour in [illegible]g head of crural biceps.
	5	Wounds into joints.	1	A case of wound into the k[illegible]-joint.
	3	Lithotomy.	1	....
1864-65..	7	Primary amputations.	1	Amputation of the leg.
	17	Secondary amputatns.	8	One amputation at the shoulder, two of the forearm, two of the thigh, one of the leg, two of the ankle
	4	Excisions of the elbow for disease.	1	Excision of the elbow.

Looking now at Dr. Braidwood's statement, we must in the first place notice that he only speaks of death from pyæmia, and he tells us that of 227 of the patients operated on during these six years no fewer than 43 died of pyæmia, or a mortality of 14.5 per cent. from this disease alone, leaving out of consideration the mortality from septicæmia, erysipelas, and other forms of blood-poisoning. He further tells us, that of 44 primary amputations performed during these six years, 9, or 20.4 per cent., died of pyæmia alone; while of 113 cases of *secondary* amputation (by which I presume he means amputations for disease and secondary to injury) no fewer than 22, or 19.4 per cent., succumbed to this disease. Further, we learn that during the years 1860-61, 1861-62, and 1862-63, there were 64 secondary amputations performed, of which nine died of pyæmia alone; or, if we substitute the year 1859-60 for 1862-63, there were 58 secondary amputations—of which five died of pyæmia; and taking these four years together there were 78 secondary amputations, of which ten died of this disease alone. But in three of these years Mr. Spence tells us that, of 60 cases operated on for disease, only one died of pyæmia; and therefore of the 18 remaining cases nine, or one half, must have succumbed to that disease, unless indeed we suppose that some of the 60 patients were operated on in private practice. However that may be, it is quite clear that immediately before and after this period several cases of amputation for disease did die of blood-poisoning, while during it more than one case of primary amputation fell victims to it. The three cases of amputation at the shoulder-joint for injury which Mr. Spence has introduced into his table of amputations for disease, must be assumed to be secondary to injury. But we learn from Dr. Braidwood's table that, to take two out of the three years, in 1860-61, one case of pyæmia occurred after "secondary" amputation of the arm, and during 1861-62, three cases of pyæmia followed "secondary" amputation of the thigh, and I have already shown that whatever three years are taken, more than two cases occurred after "secondary" amputations. As, however, Mr. Spence states that during the three years, 1860, 1861, and 1862, only one, or at most two (it is not certain from Mr. Spence's description whether the second patient died of erysipelas or of pyæmia) cases of pyæmia occurred after amputation for disease, we must conclude that the others followed amputations secondary to injury. On what principle therefore Mr. Spence includes in his table of amputations for disease three successful secondary amputations, and omits those which died of pyæmia, is to me quite unintelligible. It may be that these cases of pyæmia occurred immediately after the 63 cases mentioned by Mr. Spence. If so, I would ask on what principle he brings forward these 63 cases alone, and does not tell us that when they were concluded several cases of pyæmia occurred.

It is with considerable diffidence that I have entered into the controversy against one for whom I entertain great respect and to whom I owe so much. But when Mr. Spence attempts to prevent the spread of a system which I know to be efficacious against septic poisoning by bringing forward an exceptionally favourable series of cases treated by a method which I know to be, even in Mr. Spence's hands, often followed by pyæmia and other allied diseases, I feel that I should not be doing my duty if I remained silent. I might have made the case against so-called simple methods of dressing as compared with strict antiseptic treatment much stronger had I, using Mr. Spence's published description, traced the progress of those cases which recovered; or had I referred to the struggle for life which I know more than one of his patients had to pass through. I have, however, preferred to meet Mr. Spence on his own ground—on his numerical results; and even though such statistics have not as a rule the power of proof possessed by cases related in detail, yet I think there can be no doubt as to their force in this instance.

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* Since the above was written, I find that Mr. Spence includes here operations performed in private practice as well as those done in hospital. Now, as many surgeons state that pyæmia is practically unknown, or at least much rarer in private than in hospital practice, the general result is thus rendered more favourable than would otherwise have been the case. But as Mr. Lister only spoke of his hospital practice, Mr. Spence, in producing results for comparison obtained "under the same hygienic conditions" ought to have omitted the cases treated in private. It is indeed possible that, although Mr. Spence had excluded amputations performed in private practice, the general result would have been but little affected; for he leads us to believe from the remarks following his tables of amputations in his *Lectures on Surgery* that, in his experience, pyæmia is by no means so unfrequent in private practice as has been supposed.

† Dr. Braidwood was personally conversant with the circumstances, having studied in Edinburgh during part of the period to which he refers, and having himself acted as house-surgeon under Mr. Spence, to whom he dedicates his work.

ANTISEPTICS IN CATARACT EXTRACTION.*

By SIMEON SNELL, M.R.C.S.,
Ophthalmic Surgeon to the Sheffield General Infirmary.

MY attention was drawn to a short reference in the BRITISH MEDICAL JOURNAL of September 7th last, to an article by Dr. Alfred Gräfe of Halle on the Antiseptic Method of Cataract Extraction. He stated that "the percentage of failures in the cases so treated was $1\frac{4}{7}$, while it varied from 5 to 6 in the cases operated on before the adoption of the antiseptic plan".† On my return from my holiday shortly afterwards, I determined to adopt the plan he suggested in some of the cases presenting themselves for operation at the Sheffield General Infirmary; not that I was in any way dissatisfied with the success attained by the usual methods; indeed, I hold the opinion that in careful hands cataract extraction can hardly be expected to be successful in a much larger number of instances than it is, with the various operative procedures at present in vogue; but antiseptics being largely used in general surgery, it seemed to me desirable to test their efficacy in ophthalmic practice.

The plan carried out in all the cases, except the last, has been, with slight modifications, that recommended by Gräfe. Shortly before the time of operation, the eye was carefully washed with a two per cent. solution of carbolic acid; the eye being then closed, the external surface was well cleansed, and covered until the operation with a sponge wetted with the carbolic solution. The instruments, before being used, were permitted to remain for a short time in absolute alcohol, and afterwards were dried on lint or cotton-wool. The sponges also required during the operation were soaked in the carbolised solution, and kept applied to the eye until the *débris* or coagula, if any, were removed. A pad of lint, wetted with a four per cent. solution of boracic acid and covered with a piece of fine gutta percha tissue, was then applied, while a simple pad of lint was put over the sound eye, and over all a closely-fitting bandage was placed. Gräfe changed the dressings every twenty-four hours, but in my cases the lint was kept constantly soaked by dropping the boracic solution on to it, and only removed on about the fourth day, when it has been my custom to ascertain the condition of the eye. The dressings were renewed for the next three or four days, and then discarded for a shade. The instillation of atropine, also recommended by Gräfe, was not adopted, as I have only been accustomed to use it in exceptional cases.

No difference has been made in the method of extraction it has been my practice to adopt for a considerable time, viz., a shallow lower flap with the puncture and counter-puncture in the sclerocorneal junction, the summit of the section being situate midway between the lower edge of the pupil and the corneal border. No iris is, as a rule, removed, but if it fail readily to return and the pupil to resume its rounded form, a portion has been excised; though it is better, if possible, that it should be avoided, if merely for appearance sake.

The first case operated on by me according to the antiseptic method was on September 16th; and, since then, seven other extractions have been done; the last being, however, by a somewhat different method, and which will be referred to later on. Of the first seven, four were men and three women; three were in the right eye and four in the left. The women were aged respectively 63, 47, and 25; and the men 63, 56, and 62; this last having had both eyes operated on. In all the cases, the results were good. Three were, with suitable glasses, able to read J. 1; while, in the others, sufficient time has not yet elapsed for them to return after leaving the Infirmary, in the usual manner, to be fitted with spectacles, and the state of their vision to be accurately tested. The immediate results, however, left little to be desired. Each of the patients complained of a good deal of pain and discomfort at the time and after the eye was washed with the carbolic solution; and in every instance, on being placed on the table for operation, the conjunctiva was found to be deeply injected and chemosed. In addition, there was some amount of thick gummy secretion, which had to be wiped away before the operation. No pain or discomfort was caused by the subsequent dressings.

The swelling of the conjunctiva occasioned by the carbolic solution is a serious hindrance to the performance of the operation, especially as in my own case, where one is accustomed to operate without fixation forceps and speculum, and merely to draw up the upper lid and fix the globe by gentle pressure with the ball of the middle finger of either hand, according to the eye undergoing operation. It conceals the corneal margin, and deceives one somewhat as to the situation of the puncture and counter-puncture.

I have said that the cases had been successful, but not more so than others operated on without such precautions; and, in some, the convalescence has certainly seemed prolonged; and, on the whole, the stay in hospital has been somewhat longer. Whether or not cases will do better in the aggregate from the adoption of this method, these cases are of course not sufficient to decide; but while it may easily be carried out in hospital practice with the assistance of an able and willing resident staff, the difficulties attending its use in private practice are obvious.

The pain and discomfort complained of by the patients, as well as the swelling of the conjunctiva noticeable at the time of the operation, induced me to substitute, in the last case, No. 8, thymol for carbolic acid, as one was led to believe its application was not irritating. The eye was washed with a solution of one part of thymol to a thousand of water. Thymolised sponges were used during the operation, and boracic acid applied on lint subsequently, and the instruments placed in absolute alcohol, as in Gräfe's plan. The thymol caused no pain nor uneasiness to the patient; and at the time of operating, the conjunctiva was in no way injected. The patient was a woman aged 69; and the operation was performed on October 28th. Since then, she has been passing through a severe attack of plastic iritis. This, however, is now showing signs of subsiding, but still it is doubtful whether the case will be able to be counted a success. (A subsequent iridectomy gave her useful sight.)

I propose, in subsequent cases, to give a further trial to the thymol method, omitting, for the future, the boracic acid, and using the thymolised solution in its place.

In conclusion, in a day like the present, when so much is heard of the treatment of wounds generally, and Listerism is so extensively adopted, I trust I shall be pardoned for troubling you with these remarks on antiseptics in cataract extractions, especially in the necessarily incomplete manner I have been able to lay the cases before you.

HOW A YOUNG CLAIMANT MAY ARISE: A MEDICO-LEGAL WARNING.

By THOMAS A. G. BALFOUR, M.D., F.R.C.P.E., Edinburgh.

ABOUT two months before the period to which my article refers, I attended Mr. X., who died of ischuria renalis. During his illness, his wife seemed to be assiduous in her attentions to him; but I was subsequently given to understand that the feelings then exhibited were very different from those which had been manifested previously. I merely mention this fact, as its importance will immediately appear.

On the 29th of December last, I received a note requesting me to call on Mrs. X. sometime during the day. As no urgency was expressed and I had many other patients to see, I did not make my professional visit to her till the afternoon. On entering the room in which she lay in bed, I was astonished to find a nurse sitting before the fire with an infant in her arms, and expressed to my patient my deep regret at not having called sooner; but at the same time I explained that I had no idea that it was a case of confinement to which I had been summoned, as there was no mention of it in the note, and as I was not even aware that she was pregnant. I was much pleased to witness the kindly spirit in which she received my explanation, especially when I thought of the severe pangs of childbirth through which she had just passed without any friendly obstetrical hand having been stretched out to help her. On making inquiries as to the time at which the child was born, I was still more astonished to learn that that event had taken place on the previous day at 5 P.M.; but, as that day had been very boisterous, I discovered that the same considerate kindness had prompted her rather to suffer the pains alone than to expose me to the inclemency of the weather. She informed me also that the child was born before the arrival of the nurse, and that a neighbour had kindly performed for her the necessary duties. I at once told her that no condition of weather would have prevented me from being with her, if she had only sent for me.

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* Read before the Yorkshire Branch, November 1878.

† Since the above was written, the recent number (No. 1, vol. vii) of Knapp's *Archives of Ophthalmology and Otology* has come into my hands, in which is a review of Gräfe's antiseptic plan. The reviewer says that, "on a visit to Halle, he was authorised by the writer (Gräfe) to add to his report that the recent results of extractions performed and treated in the same manner have been less favourable than before, showing an inordinate number of disastrous suppurative processes."

Up to this point, no suspicion of anything being wrong ever entered my mind; but, on now reflecting on all the circumstances of the case—the information which I had previously received regarding Mrs. D.; the fact of my having never observed any indications of pregnancy at the time of her husband's death; her never having bespoken my attendance at her approaching accouchement; and the extraordinary amount of consideration for my comfort, which had overborne all the pangs of a first labour, etc.—I began to think it possible that some deception was being attempted to be practised on me; and, having sent the nurse into an adjoining room, I proceeded to make an investigation of the case, on the pretext of seeing that she had been judiciously attended to. As her usual condition was that of anæmia, no special information could be gained from her appearance. The binder was properly applied, and the chemise was well stained with blood; but, on making an internal examination, the condition of the parts at once proved to me that no birth had taken place on the previous day; and I therefore immediately said to her that the child was not hers, and that she had never born it. In reply, she assured me with a solemn oath that the child was hers, and that she had born it on the previous day. I repeated my statements, and told her that she need not attempt to deceive me; but she again as solemnly as before denied my assertion. I then recalled the nurse, and, on examination of the condition of the remains of the cord, found that the age of the child did not correspond with the date which was assigned to its birth. Having again dismissed the nurse, I informed the patient of this fact, and asked her if she still adhered to her former statement; to which she now in a somewhat modified tone replied, "Do you say that it is not mine?" I then informed her that I was perfectly certain that such was the case. In a low voice, she then attempted to bind me over to secresy, to which I would not consent, and gave her to understand that, if she did not give me a true account of the matter, I should call in the aid of the authorities. She now confessed that the child had been born by an unmarried woman in Leith Walk, whose name and address she gave me, and which I afterwards proved to be correct. The real mother had given birth to the child a day before this spurious one took to bed; and I subsequently discovered that, though this latter had, by her own account, given birth to the child at five, the arrival of the baby at its destination did not occur till between seven and eight o'clock.

I need not here enlarge on the equivocations, prevarications, direct falsehoods, and manifest contradictions, by which she sought to assign a reason for the course pursued. Suffice it to say that perhaps the most touching of all was that she wanted a baby on whom to bestow her love. So exuberant in her case was this maternal affection, that it embraced even the after-birth, which, as I subsequently learned, had been requested to be sent along with the child, and seemed to have been as ardently desired as it. The following circumstance, which has since been communicated to me by a gentleman who was a friend of her late husband, will be seen to supply the true motive for the act. Mr. X. had left some property, and, as he had died intestate, she was of course only entitled to the widow's third; but, had she succeeded in her scheme, her husband's relatives would have been defrauded of their lawful rights. I have learned that, at the death of her husband, she had informed the gentleman to whom I have referred, and her husband's law-agent, that she expected to be confined in two months from that date; and thus the property had been tied up in expectation of this important event.

I at first suspected that the nurse was *particeps criminis;* but, on further inquiry, I was satisfied that she had been duped by the deep-laid scheme, of which her absence at the so-called parturition was a valuable factor.

I have called this a deep-laid scheme, and with what justice I have done so the following considerations will prove:

1. Her announcement to the legal agent, etc., that such an event was expected at such a date;
2. The date thus mentioned corresponding to her menstrual period;
3. The careful selection of the child, whose birth must correspond to that period; so that the available time was comparatively limited.
4. The method taken to secure the services of a respectable nurse, without admitting her to her confidence;
5. The long delay in summoning the nurse, as the placenta, though earnestly desired, had not been obtained, it having been thrown on the fire in the room in which the child was born, immediately after its birth.

There is yet another phase in the plot which I have accidentally learned, viz., the hope which she from time to time expressed that the expected baby should have blue eyes. Though her wishes, of course, could not determine the result, I immediately suspected her motive, and ascertained from her brother-in-law that the colour of the eyes of her late husband, when an infant, had been light blue; and that the blue predominated in after-life. The substituted child really had blue eyes, so that his claims to be the heir of *his deceased father* would have had another corroboration.

I have thought it right to record this case; for, though it is the only instance of the kind which, to my knowledge, has occurred in my practice, extending over twenty-eight years, it is only due to my professional brethren to put them on their guard as to the possibility of such an occurrence in cases of confinement in which they happen not to have been present during any of the stages of labour. To ask for a sight of the placenta, and to examine the abdomen of the child, would in most instances be reckoned all that was necessary to give full satisfaction; but even these might, in the case of a dexterous deceiver, fail to expose the fraudulent action.

OBSTETRIC MEMORANDA.

TWINS BORN WITH AN INTERVAL OF FORTY-FOUR DAYS.

A LADY requested me to visit Mrs. D. of Coleraine, who had once been a servant in her house. I went, and found as follows. Mrs. D., aged 40, was the mother of four children. On December 22nd, 1879, she was taken ill in labour, without any apparent cause, about a fortnight before the time when she expected to be confined. She was attended by a midwife, and was safely and easily delivered of a male child. The placenta came away without any trouble, and seemed to be all right; there was no hæmorrhage. The child seemed to be perfectly formed, with perfect nails, but was remarked to be rather small and weak; it died in six hours. After this, the mother never became healthy or natural in appearance. She was supposed to be dying in dropsy. The whole affair, however, was cleared up by the birth of a fine well-grown healthy daughter February 4th. Mother and baby are both doing well. There were just forty-four days between the birth of the two children.

JAMES C. L. CARSON, M.D., Coleraine, Ireland.

PATHOLOGICAL MEMORANDA.

WHY DOES TUBERCLE FREQUENT THE APEX OF THE LUNG?

THE apex of the lung is the chosen site of tubercle in that organ. Some reason must obviously exist for the selected situation. Tubercle, whatever may be its nature, originates in the perivascular lymphatics; and although the distribution of those vessels at the apex differs in no marked manner (as far as I am aware) from their arrangement at the base of the lung, they are, nevertheless, in virtue of the position they occupy, placed under different mechanical conditions, as I will now endeavour to show.

The blood-vessels at the base of the lung (like those at the lower extremity of the leg) are probably habitually in a more distended condition than those above, as, indeed, the prevalence of pneumonia in this situation would seem to indicate. The lymphatics cluster closely around the blood-vessels, and are themselves surrounded by tissue. Roughly speaking, then, we have a state of matters which may be graphically represented by a tube within a tube. The inner tube contains blood; the outer tube contains lymph. The inner tube represents the elastic wall of the blood-vessel; the outer tube the more or less unyielding tissue surrounding the lymphatics. Now, did the two tubes contain fluids of equal weight, the force of gravity would act upon them in a precisely similar manner; but such is not the case, for blood is considerably heavier than lymph. The heavy blood will gravitate and will force the lighter lymph (surrounded by tissues of more or less rigidity) into the higher lymphatics. The blood-vessels will be comparatively distended at the base, the lymphatics at the apex of the lung. May not this fact in a measure account for the preference which tubercle exhibits for the latter locality?

GEORGE BUDD (junior), Edinburgh University.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 10TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

THE ANTISEPTIC THEORY TESTED BY THE STATISTICS OF ONE HUNDRED CASES OF SUCCESSFUL OVARIOTOMY.

BY LAWSON TAIT, F.R.C.S.

IN commencing his paper, the author referred to the purely empirical character of the basis of medical opinion generally, and the difficulty of obtaining a physical basis of reasoning. He ventured to indicate a more definite line of research, which he should apply to the antiseptic system. He assumed that the germ-theory was substantiated; but it was to be noted that experiments had been made on dead matter, and that no corresponding putrefactive changes had resulted from the admission of germs to living matter. This had been pointed out by Dr. W. Roberts. In rotting and decaying fruit, the minute forms of life were confined to the decaying parts. How, then, could it be assumed that their invasion was the cause of the decadence of vital phenomena, while it appeared that such decadence, due to some unknown cause, excited the germs to do what during full vital action they could not effect? If the views of the germ-theorists were correct, no surgical operation could be successful without rigid antiseptic precautions. The three factors on which the success of the operation depended were the condition of the patient, the condition of his surroundings, and the nature and extent of the operation. In ovariotomy, apparent perfect health was not a certain indication of power to resist septic poisoning. The surroundings of the patient contained elements of far greater certainty, as was shown in the danger from density of population. As regarded the third factor, the author believed that, in minor operations, germs had no influence on the result; and, in major, that the condition of the patient to resist their influence was of most importance. He admitted the difficulties in determining what constituted a major operation, and the different rates of mortality in such operations; and the consequent necessity for carefully grouping of similar accidents together. Statistics by themselves could not prove anything, but they could be made to show the direction in which individual analysis should be made. In ovariotomy, a group of one hundred cases must present more features similar to another hundred, from the same attention to minute details, and the same state of the surroundings common to both groups, than probably in any other surgical operation; and the growth of personal experience and skill in the operator would show a gradual decrease of mortality, as was notably illustrated in the practice of Dr. Keith, where it fell successively from 11 to 8.6 per cent. before he used antiseptics; and also in the experience of Mr. Spencer Wells and the author (from nineteen in the first to three in the second fifty). In the three deaths of the author's second fifty cases, two were due to details beyond his control, and had no relation to the antiseptic system; and the third, with full antiseptic details, was due to the irritating effects of thymol. In twenty-nine cases treated antiseptically, there were two deaths; and in twenty-one cases, without antiseptic precautions, only one. Mr. Spencer Wells's statement, relating to the marked improvement in his results since he had used antiseptics, must be qualified by the fact that he had concurrently adopted the intraperitoneal method of dealing with the pedicle—a method which had been very successful in the hands of Dr. Keith and of the author. Some of the details of the antiseptic method prevented the healing of wounds; this was the uniform experience of the author, and was opposed to the success attending Mr. Wells's dressing of dry lint. The author then referred to a method for indicating the value of the antiseptic system, from an examination of the method of recovery of the patients; the basis of the antiseptic claim being that it prevented septic poisoning, or fever—the usual cause of death in ovariotomy. The antiseptic system, therefore, should uniformly facilitate recovery, as, in non-antiseptic cases, the germs would enter the peritoneum, and theoretically produce fever in every case. The presence, then, of a marked difference between the pulse and temperature curves of cases treated antiseptically, and those not so, in favour of a less febrile course of recovery in the former, would go towards establishing Mr. Lister's views. If there were no difference, the question remained where it was; but if a difference were found in the other direction, then the germ-theory would probably fade away from professional acceptance. The author then gave details of the system of temperature and pulse observations, which he had taken by trained nurses for ten days succeeding ovariotomy. He attached more value to the pulse-curves than to those of temperature, as a rise in them more gradually and certainly indicated something wrong. The temperature also rose uniformly at night during recovery, whilst the pulse did not so after the fourth night; and in cases ending badly, while the temperature did not rise much, the pulse rose continuously. The non-antiseptic cases had a better pulse-curve than the antiseptic, and their time of recovery was one day shorter; and, judging from both temperature and pulse-curves, the non-antiseptic method with the short ligature gave a better and shorter recovery than any other—the nocturnal acceleration of temperature in the antiseptic cases being caused by the suppuration due to the irritating effects of the gauze dressings. The author had found more satisfactory results from dry lint dressings, and had given up antiseptic dressings (when used) after the seventh day, and used oxide of zinc ointment to facilitate the healing of the wounds. The Listerian method, regardless of methods of dealing with the pedicle, had no paramount influence, the high temperature in the sixth and seventh evenings being derived from the use of the clamp, and the curve of temperature being decidedly higher for the antiseptic cases; while, in the pulse-curve, the recovery of the non-antiseptic cases was more even and shorter. In conclusion, the author did not attribute delayed recovery to the use of Mr. Lister's processes; but he said that the recovery of his patients was not facilitated by them. He was at first strongly impressed by the influence of the antiseptic system; but, after a large experience, he began to suspect that he was attributing to it effects due to other causes, and his suspicions were confirmed by the facts given in the paper. While he modified his method of dressing, he would still employ antiseptic precautions during operation, unless wider experience showed that they also might be given up.

Mr. SPENCER WELLS said that the operation of ovariotomy was altogether made up of details, and the employment of the antiseptic system was only an additional point. As regarded the intra- and extra-peritoneal methods of dealing with the pedicle, he had arrived at opposite conclusions to those of Mr. Tait. Up to two years ago, his rate of mortality by the intraperitoneal method was double of that by the extraperitoneal. He had followed the intraperitoneal method with antiseptics, because he could not use them with the extraperitoneal method. His conclusion was that the use of antiseptics enabled the intraperitoneal method to be carried out without septic results. He agreed very much with Mr. Tait as to the advantage of dry dressing, for which he used thymol. But it was remarkable that Mr. Tait should find any dressing necessary after seven days. In his own practice, he could not remember having seen a single drop of pus in two years. As regarded the pulse and temperature, he had not made elaborate investigation; but his impression had always been that the pulse was more affected by accidental influences; and he attached less importance to its variations than to those of temperature. Since he adopted the antiseptic method, the temperature had been markedly lower, seldom rising over 99° or 100°; and the use of the ice-cap had become very rare.—Dr. MATTHEWS DUNCAN, though not an ovariotomist, had paid much attentioa to ovariotomy, and was familiar with the antiseptic theory. He dissented altogether from Mr. Tait. The antiseptic theory was more complete than the theory of any set of diseases in surgery or in medicine. It was useless to speak of any surgeon as being now opposed to antiseptics. Whether by heat, by carbolic acid, or by thymol, every surgeon would purify his sponges; and no one would go on dressing one wound after another and operating without purifying his hands. All used antiseptics, though they did not all employ Listerism. The late Mr. Callender had been much spoken of as having obtained success without antiseptics; but his treatment went within a hair's-breadth of Mr. Lister's. Between Listerism and non-Listerism, the argument was greatly in favour of the former. Mr. Spencer Wells had reported that his success was greater since he used the spray. In St. Bartholomew's Hospital, before the adoption of the spray, ovariotomy had been very unsuccessful; but since its use, Mr. Thomas Smith had operated in twelve cases, with only one death (from injury of the liver). Dr. Thomas Keith had also had seventy recoveries in succession since he began to use the spray.—Mr. KNOWSLEY THORNTON found that, as a rule, there was no fever after antiseptic ovariotomy; and, when the nurses were competent, the patients recovered without any rise of temperature. Whenever he found a rise of temperature and pulse, he suspected his own care, or that of some of his nurses or assistants; and he believed this was in accordance with the general experience of ovariotomists. He agreed with Mr. Tait that the wounds did not heal so well under the protective; he now simply applied carbolic gauze, leaving it for a week or more; and he did not remember seeing any pus in his last seventy or eighty cases. The wound in ovariotomy ought always to be healed by the ninth or tenth day.—Mr. MAC CORMAC said that the temperature-curves of Mr. Tait differed much from the curves after other antiseptic operations, the variations being usually very slight. He was surprised to hear that Mr. Tait had never seen the healing of the wound in ovariotomy under antiseptic dressing. He had inquired into the statistics of ovariotomy.

and had found an uniform testimony in Germany and elsewhere—with the exception of Mr. Tait—to the extreme value of the antiseptic method.—Mr. THOMAS SMITH asked whether Mr. Tait's cases were in hospital or in private practice, or both. Was not the pulse often influenced by such slight causes as the visit of the surgeon? and could the temperature be affected by slight emotional causes of this kind?—Mr. TAIT said that he did not feel his position shaken by the remarks that had been made. He used the spray because it did no harm; but he had given up Lister's plan of dressing, and, since he had returned to the old dressing, he had had no suppuration. The opinions of his colleagues were also, he believed, against the gauze-dressing. His general impression used to be that the temperature was of more importance than the pulse; but, since he had caused careful observations of the pulse to be taken by nurses, he had never met with a rise (such as 110 to 150) without some strong reason; while there might be great changes in the temperature without obvious cause. With regard to the extraperitoneal and intraperitoneal methods, Mr. Wells had somewhere said that he used the short ligature only in cases where the clamp could not be applied. There were also a number of cases in which the short ligature had been used for adhesions, masses being tied that were thicker than the pedicle, while at the same time the pedicle was clamped. He thought that the success with the clamp had much blinded ovariotomists to the success with the ligature. As regarded the higher temperatures, the change, before antiseptics, was coincident with the employment of the intraperitoneal method; the antiseptic treatment had not given a better pulse and temperature-curve than the intraperitoneal method without the antiseptic system.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 3RD, 1880.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

Osseous and Articular Lesions in Locomotor Ataxy.—Dr. BUZZARD exhibited three patients suffering from osseous and articular lesions in the course of locomotor ataxia. The history of one of these patients, a man, had been published. He was a typical example of tabes dorsalis, in whom the right hip-joint was completely disorganised (the head and neck of the femur having entirely disappeared) within a space probably of three months. He presented besides a curious bony process, nine inches long, developed in the superior tendon of the rectus femoris muscle of the same side. Of the two other patients, one was a widow, aged 50, an in-patient of the National Hospital for the Paralysed and Epileptic. The patient, who had suffered for about eleven years from typical lightning pains in her legs and arms, had been affected for an equal time with attacks of the *crises gastriques* of Charcot, attacks in which there was pain in the stomach and chest, with continual retching and vomiting, occurring at irregular intervals. Other symptoms of tabes which she presented were ataxic gait, very small pupils not reacting to light, analgesia of the extremities, defective muscular sense, and absence of patellar tendon-reflex. In October 1878, whilst walking quietly along the ward, her right femur was fractured through its neck. In July 1879, whilst retching in bed, the left hip-joint suddenly "bulged out". Since then, she had been unable to use either leg. Mr. Adams, who examined the patient at Dr. Buzzard's request, reported the movements of both hip-joints free, but limited in some directions, with crepitation more marked in the right than in the left. On the right side, the top of the great trochanter was nearly level with the anterior superior spinous process; and on the left, the trochanter was extremely prominent and the bone enlarged. The conditions observed might be due, he thought, either to spontaneous fracture of the neck of the bone on each side, or to complete disorganisation of the joint with atrophic changes and absorption of the head and neck of the bone on the right side, and similar changes on the left, associated with enlargement of the great trochanter from throwing out of new bone. The other patient was a married woman, aged 36, an out-patient of the National Hospital for the Paralysed and Epileptic. For the opportunity of observing this patient, Dr. Buzzard was indebted to Mr. Henry Smith, under whose care she had previously been. Like the other woman, she had been subject (for upwards of ten years) to attacks, not only of typical lightning pains in her extremities, recurring at intervals of a month or two, and lasting three or four days, but also of very characteristic *crises gastriques.* These occurred at irregular intervals, between which she felt quite well. Her other symptoms had been staggering gait, diplopia, inability to stand with the eyes shut, partial colour-blindness, pupils insensitive to light, analgesia of the extremities. Three years ago, the right leg became red and swollen, though not painful; these symptoms subsided under rest, but in June 1878 they recurred. In September, the swelling had gone down, but the knee-joint was useless. At the same time, the left leg began to swell, and was larger than natural when she was admitted into King's College Hospital at the end of the year. During her residence of one month in the hospital, the left leg became dislocated outwards and backwards on the femur. The muscles of the lower extremities were wasted. The patient was discharged at the end of January 1879, with leather supports to each knee, which enabled her to move about with help. Mr. Broster, resident medical officer to the hospital in Queen Square, reported that it felt as though all ligamentous connections had disappeared from the right knee-joint. The ends of the bones could not be brought into apposition, and they were so loosely connected that the patient, before she put on the leather casing, had to bandage them together. It seemed as though the condyles had been bevelled off, and the end of the femur turned into a rounded and smooth stump, whilst the upper end of the tibia was bevelled off inwards. The patella was two inches above, and to the outside of, the end of the femur. Along the outer side of the inner hamstring was a firm, smooth, rounded mass, one inch by half an inch. On the left side, the tibia and fibula were dislocated backwards and slightly outwards. The condyles were rounded off, the inner one being enlarged. The patella lay over the end of the femur in front. The right shoulder had lately shown swelling, and there was crepitus on movement. Dr. Buzzard remarked that, although nearly twelve years had elapsed since Charcot first described the arthropathy which was apt to occur in tabes, the subject had hitherto engaged but little attention in England. The first case described in England was by Dr. Clifford Allbutt in the *St. George's Hospital Reports* for 1869. The second was published by Dr. Buzzard in the *Lancet*, August 22nd, 1874. It was a typical example of tabes, with enormous swelling and disorganisation of the knee-joint, which began when the patient had been affected at least five years with the disease, and proceeded with great rapidity. Besides the four examples which had occurred in Dr. Buzzard's practice, he had seen a few others of similar nature, but less broadly characteristic. In 1873, Dr. Weir Mitchell alluded incidentally to the frequency of fractures in tabetic patients; and about the same time Charcot brought to the Société Anatomique of Paris the case of a woman (affected with tabes dorsalis) in whom, concurrently with great disorganisation of certain joints, multiple spontaneous fractures of the neck of the left femur and of both bones of both forearms had occurred. At the present time, Charcot was disposed to consider the joint-changes and the spontaneous fractures as secondary manifestations of the fault of nutrition of the osseous tissue, dependent on an influence of the nervous system. According to him, the extremely rapid wearing away of the articular extremities was the principal character which distinguished tabetic arthropathy from arthritis deformans. In cases of spontaneous fracture due to tabes, it was common to find a more than usually exuberant callus thrown out. In the three patients present, there were, or had been, all the conditions which had been described as characterising the osseous and articular lesions of locomotor ataxia. Extensive swelling, more often than not painless, and never confined to the joint itself, but extending also down the long axis of the limb, disappearance or disablement of the articular ligaments, rapid erosion and absorption of the ends of the bones, were the features which marked two of the cases. In the other, spontaneous fracture certainly of one femur and, as he believed, also of the other, was coupled with the formation of what was probably a voluminous callus. The *crises gastriques*, which were comparatively rare in tabes were frequent in cases of arthropathy. Altogether, in eight out of twenty-one cases of arthropathy, *crises gastriques* were also present. As the gastric symptoms were probably due to sclerosal invasion of the roots of the vagus nerve, Dr. Buzzard suggested the probability that change in some structure contiguous to them in the medulla oblongata might be the lesion giving rise to the altered nutrition in the osseous system, and he thought that it was in this quarter that pathological anatomy might usefully direct its energies. —Dr. GOWERS showed an elbow-joint from a patient with locomotor ataxy (aged 45), who, four years after the disease commenced, and when the symptoms were well marked in both arms and legs, fell, striking the elbow. He used the arm next day without inconvenience, but the joint rapidly swelled, and a medical man whom he consulted thought some bone had been broken. Two months later, when seen, the joint was enormously swollen, fourteen inches in circumference, abnormally mobile, and loose bone could be felt. There was not, nor had there been, any pain. The swelling slowly lessened. Six months later, he died from a painless but extreme pleural effusion. The cord presented the usual lesion. In the elbow-joint, the external condyle of the humerus had been split off, and the coronoid process of the ulna was also fractured. The ends of the bones had lost most of the cartilage and were eroded. The synovial membrane was covered, between the bones, by villous projections, some fine, others large.

There were also two pieces of bone which could not be accounted for by fracture; one, about half an inch square, was above the coronoid process, and projected into the cavity of the joint; the other was a plate of bone in the outer wall of the synovial sac, about an inch square, but apparently in two pieces.—The PRESIDENT exhibited a series of casts of bones presenting changes in locomotor ataxy, which had been sent over by Professor Charcot. There were the bones forming an elbow-joint which showed all the changes described by Dr. Gowers. Another cast showed a wearing away of the upper part of a femur, associated with an ununited fracture of the neck of the bone. A third showed extreme shortening of a femur after fracture. He showed also some casts taken from a living patient in the Salpêtrière. The left humerus was dislocated beneath the clavicle, the head of the bone being apparently little altered. There was no pain in the joint, and the arm could be freely moved in all directions without pain. The opposite humerus was dislocated on to the dorsum of the scapula, the head of the bone being partly absorbed. There was dislocation of the right knee-joint, the tibia and fibula being twisted out and displaced upwards behind the femur, the lower end of the latter bone being also partially absorbed. He had seen a case of locomotor ataxy which had begun with severe *crises gastriques*, that rendered the patient quite unable to work. This symptom passed away, and was followed by pain and weakness in the right hip-joint, which symptoms were attributed to rheumatoid arthritis. Three years later, amaurosis set in, beginning with defective sense of colour, and rapidly going on to blindness, with white atrophy of the disc. Subsequently, many other symptoms of locomotor ataxy became developed, and the condition of the right hip was such that either dislocation on to the dorsum ilii and absorption of the head must have taken place, or there existed an ununited fracture of the neck of the femur. The patient had latterly very much improved, and, except that the right leg was considerably shortened, he walked about very well. The President narrated another case which had been under observation for fifteen years. The symptoms began with amaurosis, which, however, never became complete. Subsequently, various symptoms of locomotor ataxy developed. The patient walked with a limp. After death, an ununited fracture of the neck of the femur was found. There was no history to show when the fracture had taken place.—Mr. DORAN reminded the Society that Professor Charcot had sent a specimen of a real bone to the museum of the College of Surgeons, in addition to the casts exhibited by the President. He referred also to a humerus which was sent to the museum by Dr. Allen of Mauritius, and which had been taken from a boy suffering from oriental leprosy. The bone appeared to have been spontaneously divided into two parts before spontaneous amputation of the soft parts had taken place.—Mr. MACNAMARA thought the disease of the bones was probably the result of the synovial distension rather than of any central nervous condition. He considered the condition to be not unlike that seen in chronic rheumatoid arthritis. He narrated a case of joint-disease occurring in locomotor ataxy that had come under his own notice.—Dr. ALLEN STURGE narrated a case of locomotor ataxy which had been recently under his care, in which the earliest symptom was the occurrence of *crises gastriques* of a very intense character, lasting over a period of three years. These were followed by great enlargement in the right knee-joint, and somewhat later by very well marked symptoms of locomotor ataxy. The knee-joint recovered without much alteration in the bones. He had seen two cases of spontaneous fracture in locomotor ataxy; in one case, a man with well marked symptoms of the disease had fractured the right femur at the middle of the shaft whilst putting on his boot, and he had subsequently fractured the left leg by an equally slight movement. Both fractures had reunited. The other case was a woman in the Salpêtrière, who had sustained a spontaneous fracture in the left leg whilst under observation, and a few days later had fractured the right humerus, whilst trying to move her position in bed.—Mr. HULKE stated that, a few years ago, Mr. Campbell De Morgan had shown the hip-joints, knees, shoulders, and elbows of a patient who had died under his care. The joints had become distended, the ligaments relaxed, and the joints became flail-like. Then deformities had set in; the neck of the femur was broken, and large outgrowths of bone occurred. It would be interesting to know whether this patient had shown symptoms of locomotor ataxy.—Mr. BAKER asked Dr. Buzzard how these cases can be distinguished from osteo-arthritis, and whether the occurrence of bone-disease in locomotor ataxy may not be due to the association of the latter disease with rheumatoid arthritis.—Dr. CURNOW related the case of a man at the Seamen's Hospital who had presented symptoms of ataxy for four or five years, and who had developed multiple fatty tumours in various parts of the body.—Mr. BUTLIN thought it would be difficult to explain the occurrence of synovitis by referring it to atrophic changes in the articular ends of the bones. He thought it more probable that the primary lesion was a general arthritis involving all the structures of the joint, and leading to atrophy of the bones, instead of the continued enlargement generally seen in rheumatoid arthritis.—Dr. BROADBENT had treated one of the patients exhibited by Dr. Buzzard through some of the earlier stages of her illness, and he gave further details of the case, a remarkable point being that, during her attacks of gastric pain, she frequently ran about the ward without giving any sign of ataxy of the legs. He was not inclined to accept Dr. Buzzard's view of the connection of the *crises gastriques* with joint-disease. He had seen six cases of *crises gastriques* associated with locomotor ataxy, and in only one case was there joint-disease.—Dr. BUZZARD, in reply, said he was prepared to find that surgeons would not consider there was anything remarkable about these joint-affections. In rheumatoid arthritis, in by far the larger number of cases, the smaller joints were first affected, but they were never affected in locomotor ataxy. The amount of liquid effused in the latter disease was often much more than was seen in rheumatoid arthritis. In many of the cases of ataxy, moreover, there was a remarkable retrogression, which did not occur in anything like the same degree in the rheumatic affection. The rapidity with which the changes were produced in ataxy was also peculiar, a few days sometimes sufficing for the complete destruction of a joint. He agreed with Mr. Butlin in thinking that probably all the structures of the joints might be primarily affected.

Tumours from the Abdomen.—Dr. DRESCHFELD (Manchester) showed three tumours taken from the abdomen of a female, two of which had been removed during life, and the third after death. Of the former, one had occurred in each lumbar region, one of the tumours being osseous, and the other fatty-fibroid; both were encapsuled, without pedicle, but connected with a subjacent fatty mass. The patient died five days after the operation, and at the necropsy a large fatty mass was found occupying a considerable portion of the abdominal cavity, and weighing twelve pounds. The tumours that had been removed had been connected with this mass; and in the neighbourhood of the osseous tumour were several small fatty osseous masses. The fatty mass was not connected with any of the abdominal organs, but appeared to grow from the peritoneum. Fatty tumours of the abdomen were very rare. Mr. Spencer Wells had removed one that had weighed twenty pounds, and another had been recorded in the Pathological *Transactions*, weighing forty-one pounds.

Varicella Gangrænosa.—Dr. ABERCROMBIE showed the body of a baby that had been ill two weeks with what at first appeared to be simple chicken-pox. There were several other cases of chicken-pox in the house. The head and face presented many sharply cut circular ulcerations, varying in size from a split pea to a crown-piece. *Post mortem*, a small ulcer was found in the small intestine, and there were caseous mesenteric glands. Dr. Dickinson had remarked to him that, in all cases of this disease, tubercle was found.—The PRESIDENT had several times seen an eruption of this kind in young children, and though he suspected it to be due to varicella, he had never been able to prove it. The diagnosis in the present case appeared to be beyond dispute. He had recently seen a case where an eruption of this description had come out all over the limbs and trunk in a perfectly healthy child after vaccination, causing the death of the child. He looked on that case as one of vaccinia gangrænosa.—Dr. BARLOW had seen seven or eight cases of this disease. There was a good model of it in Guy's Hospital Museum, which was labelled "Rupia Escharotica". In all the cases he had seen, there had been more or less tuberculosis. He did not suspect the varicellous origin of the eruption until quite recently, when punched-out ulcers had appeared in a child suffering from varicella, the patient subsequently recovering. The ulcers appeared first as bullæ in all cases, generally of the head, sometimes of the trunk, very rarely of the limbs. A thick scab formed, beneath which ulceration rapidly took place, which frequently went down to the bone. The disease was very intractable.

Living Specimen of True Leprosy.—The PRESIDENT exhibited a boy born of English parents in Calcutta, and who had lived in India till six years of age, since which time he had been in England. When he first came over, there had been a little duskiness of skin. Shortly afterwards, paralysis of the ulnar nerve came on, and subsequently, well marked symptoms of leprosy showed themselves. The skin was now dusky and erythematous, and partially anæsthetic in various parts of the body. There was one patch of complete anæsthesia over the left temple. The case was of interest as one of diffuse erythematous leprosy; and also as one in which paralysis of a nerve took place before any skin changes of importance were established.

Two Cases of Congenital Syphilis of the Larynx.—Dr. FELIX SEMON read notes of these cases. The patients were two little boys, brothers, aged 5¾ and 3½, who had suffered during the whole period of their lives from dyspnœa and hoarseness. The family history showed abundant evidence of congenital syphilis; so did other concomitant symptoms, such as condylomata about the anus, skin-rashes, thickening of the cervical lymphatic glands, coryza, ulcerations on the lips, hard and soft palates and posterior wall of the pharynx, fissures on the tongues, etc., which had been present at different times in both cases. Laryngoscopic examination had been exceedingly difficult in both cases. It had only been made out in the case of the elder boy, that the epiglottis appeared as a mass made up of two sausage-like bodies, applied closely to each other, grey in colour, semitransparent and tense, and here and there superficially ulcerated. The ary-epiglottic folds showed a similar change. The view into the larynx was, therefore, completely obstructed, but it was evident that the upper aperture of the larynx was narrowed to an extreme degree. The laryngoscopic appearances in the second child were very similar; but the changes were not so much developed. Both the children had succumbed within three weeks, under symptoms of acute œdema of the glottis, which had been especially very rapid in the second case, in which crico-tracheotomy was performed without success. In the first case, the patient had died by obstruction of the upper aperture of the larynx; in the second, by complete occlusion of its middle compartment. Evidently in the first case the chronic changes, in the second the acute ones, were much more developed. Though there was abundant evidence of shallow ulcerations of the mucous membrane in both cases, this ulcerative process certainly was of quite secondary importance in comparison with the hyperplastic changes, which, especially in the former case, were unusually developed. Dr. Semon said he had brought these cases forward (1) on account of the rarity of deeper lesions of the larynx in cases of congenital syphilis; (2) because the interest was augmented in this instance by the fact that two certainly, if not three children in the same family, had suffered and perished from this rare form of manifestation of congenital syphilis; (3) because hyperplastic changes in consequence of syphilis, especially in the case of children, were very rare. Laryngeal syphilis could lead to death (*a*) by gummatous deposits; (*b*) by extensive ulceration, cicatrisation, contraction, and stenosis; (*c*) by extension of the ulceration to the perichondrium and the cartilages, but certainly only very rarely by hyperplastic thickening. Although acute œdema was by no means a rare complication of laryngeal syphilis, it was certainly remarkable that, in this instance, this affection should have occasioned the death of both the children within so short a time.

Specimens exhibited by card.

Mr. HULKE: Five drawings of Cancer.

Mr. NETTLESHIP: Atrophy of Optic Nerve and Retina, and other changes in an Eye lost by Erysipelas spreading to the Orbit (microscopical specimens).

LEEDS AND WEST-RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, DECEMBER 5TH, 1879.

J. E. EDDISON, M.D., Vice-President, in the Chair.

Pathological Specimens.—Dr. HEATON showed a Thoracic Aneurism which had burst into the œsophagus.

Mr. F. GREENWOOD showed Trichina, found in the muscles of a dissecting-room subject.

Mr. JESSOP showed the œsophagus and stomach of a man upon whom he had performed Gastrostomy. The incision had been made three inches to the left of the linea alba, yet the pyloric end of the stomach had been opened. The man, greatly reduced before the operation, died from the shock in thirty-six hours. At the *post mortem* examination, no peritonitis was found. The stricture was caused by scirrhus.

Disseminate Sclerosis.—Dr. CLIFFORD ALLBUTT showed two cases (living) of disseminate sclerosis. The patients were brother and sister, aged ten and nine years. Three months before the disease began, they had had simple scarlatina. The boy's was the most marked case. If his head were drawn up, it wavered and oscillated from side to side, while gradually falling forward. A weight in his hand moved in a zig-zag to his mouth when he tried to carry it in that direction. He could not walk without assistance. Tendon-reflex and ankle-clonus were almost absent. The insteps were in a line with the tibiæ. There was partial amentia.

Albinos.—Mr. R. P. OGLESBY and Dr. T. SMITH showed two albinos. In the same family, there had been two other albinos, but they had died. There had been other children in the family not albinos. The cause of the first case was supposed to be that the mother, in the third month of her pregnancy, had been frightened by some white mice, which she could not forget. The other cases depended upon impressions kept up by the constant sight of the first albino child.

Paralysis of the Right Arm from Shock.—Mr. E. ATKINSON read notes of this case.

Free Incisions into the Elbow-Joint.—Mr. JESSOP showed a patient in whom, during an operation for removal of tumour of the arm, the elbow-joint had been freely opened under Listerian precautions. The movements of the joint were now perfect. A large blood-clot which occupied the wound the day after the operation became organised.

Retained Secundines after Abortion and of portions of Placenta after Ordinary Labour.—Dr. JAMES BRAITHWAITE read notes of these cases, which showed that occasionally, after normal labour, a small portion of placental tissue failed to be expelled, and retained its vitality. After abortion this was expected, but after labour it was not, and hence was often overlooked; but, in one case, a lady was sent to a watering-place for the recovery of her strength and the stoppage of hæmorrhage, some weeks after abortion. A more severe attack of the bleeding led to her being sent home; all this time, no uterine examination was made. Dr. Braithwaite then saw her, and removed a piece of placenta as large as a walnut from the cervix, in which it was lightly held. The bleeding straightway ceased.

Typhoid Tympany masking Retention of Urine.—Mr. JESSOP related this case. He was asked to see a woman who, in the third week of typhoid fever, had extreme tympanites, but was otherwise doing fairly well. She had had milk-diet. There was some diarrhœa, but an enema then given brought away much solid matter, chiefly casein, but without result. Mr. Jessop, therefore, explored the rectum, and to his surprise found a distended bladder. The tympany entirely prevented any dulness whatever from being made out above the pubes, yet, on catheterism, five pints of urine were drawn off. After enemata, the tympany gradually disappeared. The catheter was required for several days. The patient recovered.

The Position of the Patient in Empyema.—Dr. CHURTON read a paper upon this subject. From observations made upon seventeen cases of empyema, most of which had occurred during the past year at the Leeds Dispensary, and upon a number of cases of simple effusion, he had drawn the following conclusions. 1. If a patient with pleuritic effusion were unable to lie on the affected side, the fluid, as a rule, was pus. 2. The converse proposition was usually, but not always, true; namely, that if the effusion were pus, the patient could not lie on the affected side. 3. If the patient could lie on the affected side, the fluid was usually clear. Briefly, it might be stated that, generally, those affected with empyema lay (if on either) on the sound side; whilst those suffering from simple effusion lay on the affected side. If, in any case of supposed chronic pneumonia or phthisis, there existed inability to lie on the affected side, an empyema should be carefully sought for.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, DECEMBER 20TH, 1879.

E. B. SINCLAIR, M.D., President, in the Chair.

Ovarian Tumour removed from an Infant.—Dr. W. C. NEVILLE exhibited an ovarian tumour which Dr. Kidd had, a few days before, removed from a little girl aged two years and eleven months. The child's mother had first noticed a hard lump growing in the child's left iliac region, when only two months old. This lump had gradually increased, but caused little pain or annoyance to the child until three months before her admission to the Coombe Hospital, from which time the child became greatly emaciated, and showed evidence of considerable dyspnœa, due to pressure of the tumour on diaphragm, etc. Ovariotomy was performed by Dr. Kidd, and the tumour removed with exceptional difficulty, owing to the numerous and intimate adhesions present, and to the absence of any distinct pedicle. The child survived the operation only for two hours, dying apparently from shock. The tumour weighed one pound five ounces, and consisted of one large cyst containing eleven ounces of fluid, and a solid portion, five inches long by four inches and a half broad, with numerous small cysts contained therein. It was evidently a dermoid tumour, and contained plates of bone, a considerable quantity of hairs, besides pavement-epithelium, blood-corpuscles, cholesterine-crystals, oil-globules, etc.

Two Cases of Warty Growths on the Vulva.—Dr. WALTER SMITH related the history of two cases which had occurred in two sisters aged respectively 10 years and 5 years. Six months ago, the younger was for the first time observed to have some warty growths at the lower part of the vulva, and, somewhere about the same time, the elder girl became similarly affected; in both, itching was the first thing noticed, but there was no discharge. There was no pain during defæcation or micturition. The itching was so intolerable that they tore themselves till the blood came, but the general health was undisturbed, nor was there any history of syphilis. In the elder girl, the entire pudendum was transformed into a mass of pinkish warts, with sharply circumscribed outline. The warts varied in size from a mere granule to that of a large pea; both labia were involved, and a slight mucous discharge moistened the clefts between the warts. The anus was surrounded by a circle of dry warts, but the thighs and other adjacent parts were entirely free. The younger child was somewhat similarly, though less regularly, affected. Commencing at the lower third of the vulva, the warts extended to behind the anus, which they entirely concealed, occupying the whole perinæum. There were about a dozen small dry warts on the inner surface of the labia majora. All kinds of treatment, fumigation, black wash, powders and liniments of all sorts seemed equally unsatisfactory, so that surgical treatment was suggested; but the mother objected, and took the children away for some months, when they were again brought to hospital considerably improved. The mother said she had had them under the care of an "old woman", who had used some powder (white arsenic?) with them, which had almost totally removed the growths. Dr. Smith reviewed the various authorities who have written on the subject of warts of the vulva, and dissented from those who refused to admit the occurrence of non-syphilitic warts on the female genitals. The conclusion arrived at regarding the nature of the growths in the cases related, was that they were simply an exaggerated development of small pointed warts originating in the papillary layer of the skin of labia, due neither to syphilis nor to any constitutional affection, nor even to local irritation.—A discussion ensued, in which Drs. MACSWINEY, CRANNY, MCCLINTOCK, BYRNE, and HENRY KENNEDY took part.

Erythema Uterinum, or Roseola Uterina.—Dr. KIDD read a paper on this disease, which, though by no means unfrequent, had never, as far as he could learn, been described in books. The disease occurred most frequently in patients in childbed, but also followed small operations on the uteri of women who had never been pregnant. He thought it occurred in about three per cent. of all the midwifery cases he had attended. About the third or fourth day after delivery, the patient complained that the skin of the abdomen was irritable and itchy, and, on examining it, an eruption was found very similar to that of scarlatina; next day, the axillæ became affected in a similar way; thence it extended over the chest and neck, but not affecting the face, and down the arms to the hands. The thighs, legs, and back became also covered. During all this time, there was no constitutional disturbance, no fever; the pulse and temperature, tonsils and appetite, milk and lochia, remained normal. On the second or third day after its first appearance, it began to disappear, fading first in the places last affected. Dr. Kidd considered that the erythema was due to nervous derangement, and explained the phenomena on that hypothesis. The nerves supplying the internal surface of the uterus were at pregnancy enlarged; the long continued irritation of those exposed nerves (after delivery) exhausted the centres with which they were connected, and hence the vaso-motor nerves proceeding from those centres were paralysed for the time being; the arteries controlled by them relaxed, and allowed an excess of blood to the capillaries of the skin, hence redness and erythema. As soon as the irritation of the peripheral nerves ceased, the centre recovered, and the vaso-motor restraint again contracted; the capillaries and the erythema disappeared without any constitutional disturbance.

SATURDAY, JANUARY 3RD, 1880.

Uterine Polypus.—Dr. S. R. MASON exhibited a polypus which had been removed by Dr. Kidd from the uterus of a woman aged 55. About one month before her admission to the Coombe Hospital, she noticed, for the first time, a tumour in the vagina, which came down when she coughed or exercised. She had been eight years married, but never pregnant. On examination after admission to hospital, a large fibrous polypus was found protruding through the vulva; when the finger was passed up along the pedicle of the tumour, the sharp edge of the os could be distinctly felt, but the fundus of uterus could not be felt above the pubes. Two days afterwards, on examining under chloroform, the os uteri could not be felt, the vagina being continuous with the tumour all round; and, with the finger in the rectum, a cup-like depression could be felt at the summit of the vagina, showing that the uterus was then inverted. The opening of the right Fallopian tube could be seen. The polypus was irregularly lobated; at its lower part, it was commencing to slough, and a narrow pedicle, about one inch in length, attached it to the uterus. It was removed by means of the *écraseur*, and the uterus was restored to its normal position by first pushing up the fundus within the os uteri by means of the finger, and afterwards with a long steel instrument having a bulbous extremity. Hardly any blood was lost during the operation, and the patient was doing well.—The PRESIDENT, Dr. KIDD, and Dr. ATTHILL took part in the discussion.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

WEDNESDAY, DECEMBER 3RD, 1879.

HENRY KENNEDY, M.B., in the Chair.

Cerebral Apoplexy: Abnormality of Occipital Bone.—Dr. QUINLAN exhibited the brain and portion of the base of the skull of a car-driver aged 60. Two years before his death, he had had an attack of paralysis, accompanied by coma, from which he completely recovered. He was subject to frequent "bilious" attacks. During convalescence from one of these attacks, he suddenly relapsed; on the following day, he became comatose, and a week afterwards died. The chief lesion found was a large clot occupying the left cerebral ventricle, which had completely disintegrated the brain and its neighbourhood. The clot also extended into the opposite ventricle. Dr. Quinlan directed particular attention to two abnormal bony spur-like projections on the internal surface of the occipital bone, at each side of the foramen magnum. These first attracted notice by their giving rise to some difficulty in removing the brain, in consequence of their tightly grasping the pons Varolii. He had never in a large experience seen, nor could he find any reference to, similar growths.

Perforation of Colon.—Dr. QUINLAN also exhibited an example of perforation of the large intestine, taken from the body of a woman aged 63. The perforation was situated about the centre of the transverse colon. There were no signs of ulceration, but the intestines were enormously distended, and the peritoneal cavity contained fæcal matter and the seed of a small fruit. The history of the case, which during life presented the usual symptoms of intestinal perforation, was deficient.

On the Occurrence of Indigo-producing Substances in the Urine.—Dr. J. M. PURSER made a communication on this subject. In the digestive tube two kinds of processes take place: 1. Digestive processes effected by the agency of unorganised ferments formed by the various glands. 2. Putrefactive processes effected by the action of organised germs which are swallowed with the food. Those processes of putrefaction or fermentation in which hydrogen is developed cannot occur so long as the secretion is acid; consequently in the stomach under normal circumstances they are not met with, but in cases where from disease the acid secretion is lost, putrefaction may occur. In the small and upper part of the large intestine, when the secretion is alkaline, putrefactive processes undoubtedly occur. It is of interest to know to what degree the putrefactive processes occur during life; and the fact that some of the products of putrefaction are absorbed from the intestines, and appear more or less altered in the urine, seemed for a time to promise a mode of determining the degree of putrefaction in the interior of the body. Although further research has shown that the condition of the urine is not such a certain index as was supposed of what is going on in the intestines, yet, nevertheless, there are many facts of great interest connected with the elimination by the kidneys of the products of intestinal putrefaction. One of the most remarkable products of intestinal putrefaction is indol. This substance is crystalline, melts at 52″, and has the chemical composition represented by the formula, C_8H_7N. It has a disagreeable fæcal odour. It can be got by ordinary putrefaction of albumin, by heating albumin with water to 200°, or by fusing it with caustic alkali. It cannot be got by the action of acids or by reducing means. This substance, when formed in the intestine or introduced in the food, or when injected into the subcutaneous tissue, reappears in the urine as a body which, when acted on by acids and oxidising means, is converted into blue indigo. This indigo-forming substance was at first supposed to be identical with indican, the indigo-forming substance of plants, which is a glucoside. Hoppe-Seyler, however, threw doubt on this by showing that the vegetable indican is much more readily decomposed than the indigo-forming substance of the urine. This substance is greatly increased in the urine in certain morbid conditions—such as obstructions in the small intestine, peritonitis, and paralytic conditions of the bowel. It is excreted in large quantities also in many cachectic conditions which do not directly involve the intestine. It is not found in simple constipation, or when the obstruction is seated in the large intestine, unless this obstruction lead to peritonitis or paralytic distension of the small intestine. It is easily tested for by the method of Jaffé. Equal parts of urine and hydrochloric acid are mixed together; then a saturated solution of common bleaching salt is added cautiously, drop by drop, until the maximum of blue coloration is obtained. If the urine be then shaken up with chloroform, the indigo may be extracted, and a fair estimate of its quantity arrived at. Dr. Purser also alluded to the occurrence of skatol and of phenol in the urine.—Dr. Walter Smith said that it was necessary, in applying Jaffé's test with hydrochloric acid and chloride of lime, to be very cautious in adding the chloride of lime. If enough be not added, all the indigo will not be thrown down; if too much, the colour will be bleached out at once. Again: if the chloride of lime be omitted and the urine be boiled with hydrochloric acid alone, the urine will turn a dark-brown or red colour in many cases of carcinomatous disease. He believed the cases in which an excess of indigo-forming substances was found in the urine were especially cases of carcinomatous disease and other serious cases of malnutrition. As far as his own experience went, excess of indigo-yielding substances had come under observation in three forms of disease—namely, carcinoma of the œsophagus, intussusception of the ileum, and pleural effusion.

Carcinoma of the Œsophagus.—Dr. Walter Smith exhibited a specimen of carcinoma of the œsophagus. At first, he took it to be a case of carcinoma of the cardiac end of the stomach; but a *post mortem* examination disclosed it to be carcinoma of the lower third of the œsophagus. It was taken from a woman sixty years of age, whose previous health had been good, and whose first symptoms of illness dated four months previously to her admission into the hospital. It was thought that there was a cancerous mass in her abdomen, as during life there was a hard tumour occupying the epigastric region. On a *post mortem* examination, however, after all the intestines had been removed, it was discovered that the supposed tumour was an example of an extremely forward curvature of the lumbar vertebræ, which had the effect of throwing the colon forward. The diagnosis of gastric carcinoma was then found to be wrong, and the disease proved to be carcinoma of the lower end of the œsophagus. An examination of the growth in the œsophagus, both in the recent state and after hardening, showed that it was a flat-celled epithelioma, as had been usually found to be the case.

PATHOLOGICAL SOCIETY OF DUBLIN.

Saturday, December 13th, 1879.

Edward H. Bennett, M.D., President, in the Chair.

Caries of Head of Tibia.—Dr. J. K. Barton showed a specimen of extensive disease of the right knee-joint of a girl aged 14. The cartilages were eroded; the head of the tibia was carious throughout. The lower end of the femur was almost free from disease. After the removal of the limb, hæmorrhage occurred from arteries of a small calibre, and the patient sank. The mitral valve was puckered, and the right side of the heart was filled with a white fibrinated clot.

Tumour Removed from Lower Jaw.—Mr. Stokes exhibited a tumour which he had removed from the inferior maxilla of a woman aged 57. The growth was of thirty-four years' standing, but had increased rapidly in size within the last six months. The specimen was referred to the Committee of Reference to report on its nature.

Laryngo-tracheotomy in Croup.—The President submitted the trachea and lungs of a child aged two years, on whom tracheotomy was performed for the relief of croup. Rapidly extending pneumonia of the left lung had set in before the operation, and speedily proved fatal. The operation was that proposed by Boyer, namely, laryngo-tracheotomy, in which no damage is done to the larynx and the voice is not imperilled.

Sarcoma of the Face.—Dr. Charles Ball presented an immense tumour which engaged the left side of the face of a man aged 37. The growth apparently originated in the lower jaw, and was in part a round-celled sarcoma with very small cells, in part a spindle-celled sarcoma. There was no glandular enlargement.

Diabetes Mellitus.—Dr. Finny showed the viscera of a married woman, aged 37, who suffered from this disease, attributed to mental anxiety. Eight to twelve pints of urine were passed daily, and at one time 10¾ ounces of sugar were excreted within twenty-four hours. The right lung showed induration in its middle lobe and cavities along its anterior edge. Rapid catarrhal pneumonia, ending in caseation and ulcerative destructive disease, had occurred. There was fatty degeneration of the kidneys—simple fatty disease. The liver was congested, but of normal size. The pancreas was not examined. There was nothing abnormal in the condition of the brain, nor was any macroscopic change in its fourth ventricle observed.

Saturday, December 20th, 1879.

E. H. Bennett, M.D., President, in the Chair.

Dentigerous Cystic Tumour.—Mr. Stokes showed an example of a dentigerous cystic tumour, or membranous cystic growth, which he had removed by external excision from the inferior maxilla of a lad aged 15. The growth probably owed its origin to the irritation of a carious tooth. The tumour was lined in its interior by a thick leathery membrane, from which a honey-like fluid was secreted. The patient recovered without any deformity.

Intussusception of Ileum into Colon.—Dr. W. G. Smith exhibited an example of this lesion, from the body of a porter aged 33. He had enjoyed good health until January 1879, when he suffered from rheumatism. On March 25th, he was attacked by sudden and severe abdominal pain. A temporary right iliac swelling was found, and he was feverish. He apparently recovered, but was afterwards subject to an intermittent pain. There was little or no abdominal tenderness. Dulness and fulness were noticed in the *left* iliac region; the *right* was flaccid. The bowels were free at first. The urine was non-albuminous, but contained an excess of indican. On July 13th, a soft undulating mass, round which the finger could be swept, was felt *per rectum*. There was now vomiting, with severe pain, thirst, and hiccough. The bowels were confined, or only slime and a little blood passed at stool. The abdomen became tumid, and stercoraceous vomiting set in. Death ensued four months after the first symptoms appeared. The diagnosis of intussusception was based on (1) the history of the case, (2) the left iliac tumour, (3) the results of a rectal examination, (4) the character of the motions, mucus and blood. At the necropsy, slight peritonitis was found. There was old ulceration in the ileum, which was invaginated into the colon—the lesion being apparently of old standing, and independent of any growth in the wall of the bowel. The probable course of events was: 1. enteritis; 2. consequent invagination from paresis of the bowel. An operation would manifestly have been useless.

Saturday, January 10th, 1880.

E. H. Bennett, M.D., President, in the Chair.

Thoracic Aneurism.—Dr. A. W. Foot presented a specimen of aneurism of the ascending portion of the thoracic aorta. The patient, a man aged 46, had served in the army. He suffered from chronic bronchitis. The posterior wall of the sac had somewhat flattened the trachea just at its bifurcation. The sac held about eleven ounces of clot. The tumour had grown downwards and forwards, displacing the heart, and involved the aorta from its origin to the giving oft of the left subclavian artery. The remainder of the aorta was eminently atheromatous.

Gangrene of the Lung.—Dr. W. G. Smith showed an example of circumscribed gangrene of the lung in a girl aged five years. The affection seemed to be secondary to a gangrenous condition of the bronchial glands. There was miliary tuberculosis of the spleen, liver, lesser omentum, and kidneys (to a slight degree). There was no fluid in the pericardium or pleuræ. The surfaces of the lungs were studded over with miliary tubercles. Extensive consolidation of the lungs was found, but there was no excavation or dilatation of the bronchi. A sloughy cavity lay near the bifurcation of the trachea, and at the root of the right lung there was a circumscribed gangrenous cavity filled with a black slough.

Duro-Arachnitis.—Dr. J. M. Finny exhibited a specimen of duro-arachnitis—the inflammation extending from without—from the petrous portion of the temporal bone. A printer, aged 39, was admitted to hospital, raving, and with other symptoms of meningitis. He died in about thirty hours, comatose, without convulsions. There was pus over the anterior part of the right side of the cerebrum (the fronto-sphenoidal region), being limited by the fissure of Sylvius in one direction and by the falx cerebri in the other. The mastoid cells were broken down into a cavity, and from them the inflammation had no doubt spread, although there was no aperture in, or rupture of, the dura mater. The symptoms, pain, hyperæsthesia, etc., had reference to disease of the left side.

Hip-Disease.—The President showed a specimen of hip-disease in a boy aged 2½. The usual signs of the disease were wanting during life. There was an enormous abscess around the affected hip. Nature had, as it were, already excised the head of the bone, and the epiphysary centre lay free in the cavity of the abscess. It alone was diseased, and its cartilage had entirely disappeared. The surfaces of the upper end of the bone of the acetabulum were completely covered by a fully-formed membrane.

Hip-Joint Disease.—Dr. Barton submitted a portion of the head of the femur, which he had excised that morning for hip-joint disease, in the case of a girl aged 13. The head of the bone was adherent to the acetabulum. The bone, in its inner and posterior aspects immediately behind the trochanters, was exceedingly carious. The cartilage had been completely removed, and there was an opening in the base of the acetabulum—not, however, communicating with the cavity of the pelvis. There was extensive disease about the line of the epiphyses of the trochanters.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 14TH, 1880.

THE GENERAL MEDICAL COUNCIL AND THE MEDICAL LICENSING BODIES.

II.

WE continue the analysis of the replies of the medical licensing bodies to the questions regarding their compliance with the recommendations of the General Medical Council.

16. "That it is desirable that the different licensing bodies, whether singly or in combination, should frame their examinations so as to secure that the knowledge of every practitioner whose name appears on the *Register* should have been tested in all the subjects of professional education which the Council has determined to be essential, viz.: (1) Chemistry, including a knowledge of the principles of Chemistry, and of those details of the science which bear on the study of Medicine, and Chemical Physics, meaning thereby Heat, Light, and Electricity; (2) Anatomy; (3) Physiology; (4) Materia Medica and Pharmacy; (5) Pathology, including Morbid Anatomy; (6) Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; (7) Surgery, including Surgical Anatomy and Clinical Surgery; (8) Midwifery; (9) Forensic Medicine." The remarks of the licensing bodies on this recommendation are to the same effect as those on the recommendation regarding the subjects to be required of candidates for a registrable qualification. The Royal College of Physicians of London states that its regulations are conformable, except as to the details of Chemistry which bear on the practice of Medicine, and Chemical Physics; but that this part of the recommendation is to be considered by the College.

17. "*a.* That there be in future three professional examinations. *b.* That the professional examinations be arranged in two divisions; the first division to embrace the more elementary subjects. The first division may be completed at or before the close of the second year of professional study, but the second division not till the expiration of two years after the passing of the first division, nor before the completion of the fourth year of study. The examinations, and the subjects included in each, shall be such, and in such order, as may insure, so far as possible, a due continuity and sequence of study." This recommendation, so far as regards the division of the professional examination into *three* stages, as yet does not appear to have been carried into effect by any of the licensing bodies which had not already three (and sometimes four) professional examinations. The Royal College of Physicians of London and the University of Oxford, however, have the matter under consideration; and the Royal College of Surgeons states that the regulations proposed for the Conjoint Scheme are in accordance with the recommendation. There is, as yet, an almost universal want of compliance with the very important recommendation that the second division of the examinations may not be undergone "*till the expiration of two years after the passing of the first division*". The only examining bodies which insist on an interval of two years between the two examinations, are the Universities of Oxford and London; the latter of which has had a regulation to this effect from the date of its first institution. The Universities in Scotland expressly permit the accumulation of the examinations at an advanced period of study.

18. "That the first division of the examinations shall include the following subjects: 1. Chemistry and Chemical Physics; 2. Anatomy: 3. Physiology; 4. Materia Medica and Pharmacy. That the second division shall include the following subjects: 1. Pathology, including Morbid Anatomy; 2. Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; 3. Surgery, including Surgical Anatomy and Clinical Surgery; 4. Midwifery; 5. Forensic Medicine." There is a general conformity with the spirit of this recommendation, so far as regards the separation between the elementary and the more strictly professional subjects. The Royal College of Physicians of London has this arrangement under consideration. The practice of the Royal College of Surgeons of England (as already stated) is not at present in conformity with the recommendation. The Society of Apothecaries has no examination in Surgery; but otherwise follows the recommendation strictly. In the University of Cambridge, the first division includes Botany and Comparative Anatomy, and other branches of Physics besides Chemical Physics. In Durham, Botany is added to the first division, and Materia Medica is placed in the second. The Scottish corporate bodies place Materia Medica in the second division; the Universities include Botany and Zoology in the first division. The King and Queen's College of Physicians does not examine in Surgery, and includes Hygiene in its examinations; and the Apothecaries' Hall of Ireland includes Botany in the first division and Hygiene in the second. The University of Dublin includes Botany in the first series.

19. "That it is desirable that an examination in the earlier subjects of professional study should take place before the end of the first year of professional study." This is under the consideration of the Royal College of Physicians of London; and is included in the regulations for a Conjoint Scheme. The Apothecaries' Society considers that such an examination is desirable. The answers of the Universities of Oxford and Cambridge are not very clear; that of Durham states that it cannot be complied with, as two courses of Anatomy are required; and the University of London states that the Preliminary Scientific Examination is intended to fulfil this requirement. The Scottish corporate bodies have no examination until the end of the second winter session. The University of Edinburgh examines in Botany, Zoology, and Chemistry, before the second winter, and the University of Aberdeen proposes to do the same. In Glasgow University, this examination can be passed at the end of the first winter only when the student has begun his studies by a summer session. The King and Queen's College of Physicians states that "this is not the practice of the College"; and the University of Dublin does "not see the necessity of adopting the recommendation".

20. "That the professional examinations be conducted both in writing and orally; and that they be practical in all branches in which they admit of being so." The regulations of all the licensing bodies are, as appears from the replies, in conformity with this recommendation.

21. "That not less than two examiners shall take part in every oral and clinical examination." There is an universal conformity with this recommendation.

22. "That the questions to be answered in writing should be submitted to the whole body of examiners for consideration and revision, if desirable, before being proposed to the candidates. That the written answers should be submitted to more than one of the examiners." The practice in England is generally in conformity with the recommendation; but, in the Royal College of Surgeons, the questions are set by a Committee of not less than four examiners taken in rotation, and in the University of London the examinations in each branch are conducted by two examiners, who are responsible for their own papers. In the Royal Colleges of Physicians and Surgeons of Edinburgh, and in the Universities of Edinburgh, Glasgow, and St. Andrew's, the regulations are conformable with the recommendation. In the Faculty of Physicians and Surgeons, the questions are submitted to the examiners in the special subject and also to the President; and the whole board is only appealed to if there be a difference of opinion as to the propriety of a question. In Aberdeen, the questions are set jointly by the professor of the subject and by the outside examiner.

The practice of the King and Queen's College of Physicians is not in accordance with the recommendations; and the University of Dublin considers that "there would be great difficulty in carrying them out". In the Royal College of Surgeons of Ireland, each examiner sends his questions to the chairman of the court, and the written answers are submitted to more than one examiner "in all doubtful cases". In the Apothecaries' Hall of Ireland, the questions are first submitted to the examiners who are experts in the several subjects; and the answers are referred to *all* the examiners before final decision.

23. "That excellence in one or more subjects should not be allowed to compensate for failure in others." The practice of the licensing bodies is in nearly all, if not all, cases, conformable to this recommendation. In the reply of the Royal College of Surgeons of England, it is stated that the regulations are conformable, excepting so far as the practice is modified, as explained in a letter addressed to the Registrar in January 1876. The King and Queen's College of Physicians in Ireland states that its practice is conformable "so far that excellence in one or more subjects does not compensate for failure in an important subject". The University of Dublin considers the recommendation "too vague to offer any opinion on".

24. "That the professional examinations be held by the several licensing bodies, except in special cases, at stated periods, to be publicly notified." There is an universal conformity with this regulation; which, indeed, only gives the sanction of the Council to what has been a long-established practice.

25. "That returns from the licensing bodies in Schedule (A) be made annually, on the 1st of January, to the General Medical Council, stating the number of the candidates who have passed their first as well as their second and third examinations, and the number of those who have been rejected at the first and second and third examinations respectively." This is complied with by all the licensing bodies; and the returns, classified and arranged in a tabular form each year by the Executive Committee, are annually laid before the General Medical Council.

26. "That it is not desirable that any University of the United Kingdom should confer any degree in Medicine or Surgery, whether that of Bachelor, Doctor, or Master, upon candidates who have not graduated in Arts, or passed all the examinations required for the Bachelorship in Arts, or passed, after due course of education, examinations, such as are *bonâ fide* academically equivalent to those required for a degree in Arts." The medical corporate bodies in England and Scotland either make no comment on this recommendation, or state that it does not concern them. The King and Queen's College of Physicians in Ireland states that "this is not a question bearing upon the regulations of the College", but objects strongly to the alternative set forth in the concluding part of the recommendation. The Royal College of Surgeons of Ireland "deplores very much that this rule is not adopted by all universities, and would strongly urge the General Council to make it compulsory". The practice of the Universities of Oxford, Cambridge, and Dublin, is conformable to the recommendation. In the University of Durham, the recommendation "is not literally carried out, but a higher examination in Arts is required". The University of London does not require graduation in Arts from candidates for a Degree in Medicine. Of the Scotch Universities, those of Glasgow and St. Andrew's merely state that their practice is "conformable"; that of Edinburgh replies that its regulation is "conformable to the last alternative clause". The University of Aberdeen makes a more elaborate statement, as follows: "The degree of Bachelor of Arts does not exist in the Scotch Universities. The degree of Master of Arts alone is given, for which four years' attendance is required in the Faculty of Arts. The Preliminary Examination in General Education, fixed by the Scottish Universities' Commission of 1861, comprises, for the degrees of Bachelor of Medicine and of Master in Surgery, English, Latin, Arithmetic, the Elements of Mathematics, Mechanics, and any two of the following subjects, viz., Greek, French, German, Higher Mathematics, Natural Philosophy, Natural History, Logic, Moral Philosophy; and, for the degree of M.D., in addition to one of the (other) optional subjects, Greek, and Logic or Moral Philosophy."

27. "That in the opinion of this Council it would be desirable, as a general rule, that none of the higher degrees or qualifications in Medicine or Surgery should be conferred on persons who have not shown evidence of high professional attainments." The University of London makes no comment; and the Society of Apothecaries "does not confer higher degrees or qualifications". The practice of the other licensing bodies in England is conformable to the recommendation. The Royal College of Physicians of London, however, does not in any case test the qualifications of candidates for its Fellowship by actual examination. The College of Physicians of Edinburgh states that "it has always been the opinion of this College that a better test of the suitableness of candidates for its higher qualifications in medicine is afforded by the production of unexceptional evidence as to professional and social standing than by the institution of additional examinations. At the same time, the whole subject came under the consideration of the College two and a half years ago, and a Committee was appointed to inquire and report whether any and what changes should be introduced into the procedure for election to membership and fellowship". In consequence, however, of the introduction of the Government Medical Act Amendment Bill, no further steps were taken in the matter. The Royal College of Surgeons of Edinburgh states that "the College attends to this recommendation". In fact, however, its procedure with regard to its fellowship is strictly analogous to that of the Royal College of Physicians and that of the Faculty of Physicians and Surgeons of Glasgow, which states that its fellowship "is conferred by election, not by examination. Candidates must satisfy the Faculty in regard to their professional status, attainments, and moral character." The Universities of Scotland state that their practice is conformable to the recommendation. A more extended examination in the subjects of preliminary examination, and a thesis, are required for the degree of Doctor of Medicine in these Universities. The King and Queen's College of Physicians in Ireland states that such is "the practice of the College". According to the regulations, the newly instituted diploma of Member of the College will be conferred after examination; while the Fellowship is to be conferred by election on members duly recommended. The Royal College of Surgeons in Ireland "has for many years insisted on further examination for its higher qualifications, except when conferred *honoris causâ*, and deprecates the granting of higher degrees under any other circumstances". The Apothecaries' Hall of Ireland, though it does not confer any higher diploma than that of licentiate, concurs in the opinion of the Council. The University of Dublin states that its practice "is in conformity with this recommendation".

28. "That it is desirable that in the examinations on several of the subjects of the curriculum, such, for example, as Chemistry, including Chemical Physics, Physiology, and Materia Medica, the licensing bodies should limit and define by schedule the extent of examination." This recommendation is to be considered this year by the Royal College of Physicians of London; and an arrangement of the kind is proposed by the Committee of Reference under the conjoint scheme. The Society of Apothecaries adopts the rule "as far as possible". The recommendation is not complied with by the Universities of Oxford and Durham; the regulations of the Universities of Cambridge and London are conformable to it. In the two Edinburgh Colleges and the Glasgow Faculty, there is a limitation and definition of subjects in Chemistry. The University of Edinburgh limits the extent of the examinations in Chemistry, Botany, and Natural History; the University of Aberdeen, in Botany and Chemistry. The University of Glasgow usually publishes a list of natural orders in Botany or of special groups of the Animal Kingdom with which the student is required to be specially acquainted; but a general knowledge of the whole subject is also required. The University of St. Andrew's "does not so limit the range of its examinations, but is prepared to do so to the same extent as the other universities". The King and Queen's College of Physicians in Ireland remarks that the proposal is "impracticable"; and the University of Dublin

characterises it as "unadvisable". There is no limitation in the Royal College of Surgeons or in the Apothecaries' Hall of Ireland.

29. "That it be recommended that in no case should the examination of a candidate by any of the licensing bodies in any subject be conducted wholly by the lecturer or teacher in that subject in the school in which the candidate has been educated." There appears from the answers of the licensing bodies to be an universal conformity with this recommendation. The Royal Colleges of Surgeons of England and Ireland state that they do not allow any teachers to examine their own pupils.

30. "That it is desirable that observation with the microscope should form part of the examinations of candidates for a licence." The proceedings of all the licensing bodies are in conformity with this recommendation.

31. "That it be recommended that candidates for the final professional examinations be required to give evidence that they have had opportunities of practical study, with care of patients, as pupil, assistant, clinical clerk, or dresser, in hospital, dispensary, or elsewhere." Provision for this is made in some form in the regulations of most of the licensing bodies. In the University of Oxford, it "is not enforced by statute, though probably it rarely occurs that the candidates have not been hospital dressers and clerks". The King and Queen's College of Physicians in Ireland approves of the recommendation; but states that, owing to the great difficulties in carrying it into effect, it is not required by the College for its Licence, though it is for its membership. The Royal College of Surgeons of Ireland has frequently had the subject under consideration: "the matter is, however, beset with difficulties, owing to limited accommodation in the hospitals; but, the examinations of this College being conducted partly at the bedside, and the students being tested in the use of surgical appliances, the teaching is compelled to be practical". The University of Dublin considers the recommendation "unpracticable, owing to the present arrangement of hospitals, over which the University has, in the majority of cases, no control".

32. "That it is desirable that, in examinations in Anatomy, candidates should understand that they may be called upon to perform actual dissections, and that candidates in examinations in Surgery should understand that they may be called upon to perform one or more operations on the dead subject." The Royal College of Physicians of London states that operations on the dead subject always form part of the examinations in Surgery. The Royal College of Surgeons of England states that its practice is "not conformable". The Society of Apothecaries examines in Anatomy on the living subject, by dry and preserved specimens, and by plates and written and oral questions. The Universities of Oxford and Cambridge comply with the recommendation as regards Anatomy; and those of Durham and London state that the recommendation is complied with. The Royal College of Physicians of Edinburgh complies with it as far as possible, "though the scarcity of subjects has prevented it from being carried out so far as would be desirable". In the Royal College of Surgeons of Edinburgh, "both dissections and operations may be performed during the examinations". The Faculty of Physicians and Surgeons of Glasgow requires dissections, but not operations, on the dead subject. In the University of Edinburgh, "candidates are examined practically in Anatomy and Surgery, and may be called on to perform dissections". In Aberdeen, it is not customary to require candidates to dissect at the examinations, as they must have dissected the body carefully in the school. The University of Glasgow requires dissections and operations on the dead subject. The University of St. Andrew's "examines practically in Anatomy and Surgery by the aid of wet and dry preparations". The King and Queen's College of Physicians requires dissections; and the Royal College of Surgeons in Ireland, and the University of Dublin, require both dissections and the performance of surgical operations on the dead subject. The two Colleges also express an opinion that, at the examinations in Anatomy and Surgery, *all* students should be required to dissect and to perform operations. Some years ago, the representative of the Royal College of Surgeons proposed in the Medical Council a recommendation to this effect; which was, however, negatived in favour of that now in force. The Apothecaries' Hall in Ireland has embodied the recommendation in its regulations.

THE MEDICAL ACTS AMENDMENT BILL.

THE Medical Acts Amendment Bill of the British Medical Association has this week passed its second reading in the House of Commons; and it will, no doubt, like the Government Bill, in accordance with the precedent of last year, be referred to the Select Committee which the Government have undertaken to reappoint. It was understood during the recess that this course was intended; it was, indeed, that to which the Government may fairly be considered to be pledged by what has gone before; and, although it was believed that for the moment its intention was in danger of being unfulfilled, and, as we last week stated, the Crown members of the Council attended at the Privy Council Office to remonstrate against any postponement, yet we may fairly suppose that there could not have been any serious intention to hang up this pressing subject once more in the state of suspensive incompleteness.

It is alleged to be intended to modify somewhat the constitution of the Committee by adding to it two representatives of the Universities; possibly Mr. Lowe as the representative of the University of London, and Mr. Mowbray as the representative of the University of Oxford. On this subject, we have only to say that so universal is the spirit of fairness which guides the nomination of Committees of the House of Commons, that we cannot for a moment assume that those who may have urged this upon the Government have done so with any other intention than that which lies upon the surface—of representing on the Committee the two particular Universities named. We do, however, entertain doubts of the wisdom of endeavouring to represent individual interests in this way. Such interests should be represented before the Committee, rather than in the Committee; and there is an obvious inconvenience in adding new members to a Committee of this kind late in the inquiry, and after the main questions at issue have, so far as their principles are concerned, been largely debated, and probably so fully debated that not much more remains to be said on either side, unless by way of re-enforcement or of including any matters of detail which have been omitted. On the other hand, the particular medical relations of the gentlemen who are here named are not such as to inspire special confidence that they will come to the inquiry without prepossession. The chairman of Mr. Lowe's Committee in the University of London, and his known advisers in the profession, happen to be gentlemen of the greatest ability and public spirit, but old members of the Medical Council, who have before now expressed very strong views against the popular desire for the reconstitution of the Council by the introduction of the principle of direct representation. There is every reason to desire that the decision of the Committee may be such and so delivered as to lead to a settlement of the great vexed questions of principle at least for many years to come; and it would be a great pity if, by the introduction of the new names on the Committee at this late stage of the inquiry, such modification were made in the constitution of the Committee as might lead to any feeling of dissatisfaction or to any appearance of a departure from this spirit of rigid impartiality. And we feel bound to say that there is some probability that, if such additions as are suggested be made without consulting both parties to the inquiry, it is far from improbable that a sentiment of discontent may be created, which will at least be unfortunate, and may produce a very undesirable effect—the postponement of complete settlement of the agitation which has so long proceeded on this subject.

It would not be easy to predict at this moment how much more evidence will be taken by the Select Committee, or in what directions their inquiry will extend. Only three witnesses have as yet been called on behalf of those who complain that the Council has not fulfilled adequately the objects for which it was created, and who are of opinion that it requires modification in its constitution and an addition to its powers, and some change in its arrangements. That side of the question can hardly, therefore, be taken to be exhausted. On the other hand, although a considerable number of witnesses have been called from the General Medical Council and from the various bodies represented on the Council, it is highly probable that there are yet several corporations and universities desirous of making statements for or against the proposed conjoint examination scheme, and on behalf of their own particular interests, which such bodies are always naturally anxious to see put forward on these occasions, lest they should suffer harm. The question of registration of foreign degrees, and of the limits within which unregistered titles are or may be assumed; the question of the extent to which the various corporations do or do not fulfil the functions of controlling the conduct of their members, on the value of which several witnesses have laid much stress; the peculiar disadvantages of students in various parts of England as to medical titles; and the imperfection with which such Universities as Oxford in one direction and London in another fulfil their graduating functions,—these are all questions which can hardly with propriety be left out of sight in such an inquiry as this, but which have yet had very little attention given to them.

An endeavour will, however, no doubt be made to complete the inquiry as rapidly as possible, with the view of obtaining, if possible, legislation this year. Whether or not it be of such vital importance to obtain an Act this year, as some think, it is hardly within our province or within our power at the present moment to attempt to determine. It would certainly, however, be very desirable that some final and ultimate decision should be obtained. We believe that those who are acting for the Association will not be disposed in any way to abate those claims which they have been at so much pains to put forward, and in which they have ascertained that the enormous majority of the profession enthusiastically concur. On the other hand, they will not be found to interpose any obstacles to the completion of the inquiry, other than those which an obvious duty may impose. The question is one that hardly anybody can fail to wish to see set at rest; but in this, as in many other controversies of the kind, those on each side are only too apt to think that it can only be set at rest by a settlement in accordance with their views; and it has been so long the fashion for a limited number of gentlemen, who have had accidentally the ear of ministers, to assume that they are the profession, and that they have the right to dictate terms, that it is perhaps too much to anticipate that they will not feel some difficulty in abating, in this matter, some of their pretensions in the past. The leaders of the British Medical Association have taken great pains to ascertain what are the real views of the profession, and what is its real determination. They have been charged before the Committee, on this ground, with being agitators, and with disturbing the peace of the profession. This is not the most satisfactory tone to adopt, if an equitable and peaceful settlement be desired; and we may hope that the inquiry, in entering upon its second and possibly its final stage, will be conducted with a full respect for the public opinion of the profession, and without any such illiberal implications.

THE HABITUAL DRUNKARDS' ACT, 1879.

THE Social Science Association was properly performing a part of its mission when it invited Mr. S. Alford to give an account of the present position of legislation for habitual drunkards, and the experiences he had gained regarding treatment during his recent visit to the inebriate homes on the American continent. The meeting at Adam Street, Adelphi, on February 2nd, was instructive in many ways. Mr. Alford gave a *résumé* of the whole matter, going back in history to the first agitation which was raised in the habitual drunkard's behalf. It was commenced after an inquiry before the Scotch Lucacy Commissioners in 1857. Mr. Alford detailed how both the medical profession and social science had since that time constantly asked for legislation. A public meeting was held at the Charing Cross Hotel in 1876, at which the Society was founded which has been largely instrumental in obtaining the Act of 1879.

There has always been a great difficulty in the way of enthusiasm, and, but for the zeal of a few, the first step would not yet have been taken. The lawyers have been always a dead weight and something more, and with the exception of a few of those who act as stipendiary magistrates, and who know the want, they generally manage to throw their influence in the scale against any legislation in the direction which is required. They used to do the same against sanitary progress; and, when public opinion was strong enough to overcome their opposition, they too often stepped into the offices created by the necessities of the case, and took away those places which by right belonged to the medical profession.

The Society which was formed at the Charing Cross Hotel meeting has now succeeded in persuading the legislature to affirm the principle that cure may be attempted if the patients are willing to be cured. It was shown by Mr. Alford that they are cured in America; that, in the States, there is a power of control by the State, but that the majority of those who place themselves under the provisions of the Acts do so voluntarily, to avoid the compulsion which probably would otherwise be enforced. It is shown that the only chance of cure is by total abstinence. It is shown that the taste, or even the smell, of strong drink in any shape is like a lighted match to a train of gunpowder. It is shown that the cure is a work which extends over a long period of time; that, to voluntarily persist in treatment, requires strong moral courage and much steadiness of purpose; and in this fact is found the great defect which exists in the Act of 1879. It was pointed out by the chairman of Mr. Alford's meeting, that the victims of the disease have neither moral courage nor steadiness of purpose. It is the absence of these virtues which gives rise to the disease; and yet the legislature in their wisdom require that they should be exhibited before they allow a patient the chance of cure. The Act must, therefore remain a dead letter, unless some pressure is brought to bear upon Parliament so as to get them to enlarge its provisions and remove that part of the Act which makes the will of the patient necessary to its being put into action. For this purpose, two things are necessary, for lawyers generally are still antagonistic to any change in the direction which is required to effect this object. They are a great power in the Houses of Parliament. To overcome their opposition, it must be shown that cures can be effected here as well as in the United States; that there is philanthropy enough among us to provide for the cure of the poor victims without its being possible to allege that there are any interests to gain advantage by patients being detained long after cure had been effected, or even placed there when not the victims of disease at all. Hence it has been decided that the "Dalrymple Retreat", which the Society propose to establish, must be managed by an unpaid Committee of Management. The officials connected with it will be responsible to the committee, and have no interest in the detention of their patients, except so much as arises from the necessities for cure.

Mr. Alford's paper will be published in the Social Science *Transactions*. It contains much matter for consideration, and tells us that cure can be effected if right means are used. We do not see why it should not be so with us as well as with Americans, if the dead weight of opposition which arises from an unfounded idea regarding infringement of "the liberty of the subject" could be safely moved out of the way. The lives and property of a man's relations ought not to be sacrificed to a myth, and the medical profession alone know how many after all are ruined by the diseased nature of a single member in the family. The law gives an uncertain sound; it is our duty to make it ring out clear and decisive. Hence we wish success to the "Dalrymple Retreat". In it will probably be found patients who have exceeded the bounds of propriety, but, having a desire to escape from their unfortunate positions, are still worthy of pity and help. Perhaps those of our members who are in communication with such unfortunates will help the proposed Retreat by giving their support to the movement.

THE CASE OF SCHOSSA.

It is satisfactory to know that the reckless and bloodthirsty savage, Alexander Schossa, who was tried at the Central Criminal Court, on the 11th instant, for feloniously shooting at Father Adolphus Bakanowski, one of the priests of the Italian Church, Hatton Garden, with intent to murder him, has been put out of harm's way for the term of his natural life. But, at the same time, it is not altogether satisfactory to contemplate the manner in which this desirable result has been attained; and one rises from a perusal of the published reports of the trial with an uneasy sense that a mystery remains unexplained, and that the heaviest punishment short of death known to the law has been meted out to a criminal whose motives of action are undiscovered, and who is not, perhaps, a criminal after all. Common sense declines to assent to the proposition that Alexander Schossa entered the Italian Church on the 10th of January last, fired five shots from a revolver at the officiating priest, overthrew the ornaments of the altar, and set fire to the altar-cloth, for the mere fun of the thing. It also scouts the suggestion that all this was done because Father Whitney, another of the priests in connection with the same chapel, had tried to induce him to attend a night-school. No doubt, the law assumes a motive behind a deed of violence, even when none has been disclosed; and in the case of Schossa a lurid imagination may readily conjure up visions of secret societies, or of private wrongs thus publicly avenged. But, although malice may be inferred, it is always considered more satisfactory to have it proved, and the nature of the motive of a criminal act is unquestionably of paramount importance in determining its character. To kill is to murder; but if it can be shown that the act of killing was done in self-defence, then what was *primâ facie* a murder is reduced to justifiable homicide.

The most careful search for motives ought, therefore, to be made in connection with every crime, and the most searching scrutiny instituted of whatever incitements to it may be revealed or suggested. Now, in the case of Schossa, there is not only no apparent motive for the outrage which he committed, but there is scarcely one that is conceivable without entering on the domain of romance. He did not know Bakanowski, at whom he fired. His religious prepossessions ought to have made his conduct sacrilegious in his own sight. He perpetrated his crime in broad daylight, and in the presence of a number of persons, when his identification and arrest were all but certain. When taken into custody, he avowed his purpose, and said, "I intended to kill the priest". His whole conduct in the affair was so extraordinary, that insanity at once suggested itself; and this plea was, it seems, hinted at by his counsel, although not explicitly urged on his behalf. But the questions asked by Mr. Warner Sleigh of Mr. Carpenter pointed at a sudden insane impulse, and this Schossa did certainly not labour under; for, as Mr. Justice Hawkins observed, he had made careful preparations for his acts of violence. If Schossa be mad—and many persons will continue to think that he is so—he is the victim of some deep-seated delusion, which he has at times the strength of will and tact to conceal, but which occasionally attains overwhelming strength. It appears that, in 1874, he killed a youth in Milan; and it would be interesting to know the circumstances under which that crime occurred. No sympathy can be felt for a man like Schossa; but it is not on that account of the less consequence to ascertain the real springs of his conduct, and to determine whether or not he labours under that obscure mental disease which, in the absence of any knowledge of its pathological relations, we call the monomania of suspicion, and out of which arise three-fourths of all lunacy trials in our courts of justice. This disease, which is eminently difficult of diagnosis, for it is unaccompanied by marked outward signs of degeneration, and the delusions which characterise it are difficult to distinguish from reasonable beliefs, is the source of untold misery and danger, and is believed by some trustworthy authorities to be increasing amongst us. If Schossa labour under it, the warders who have charge of him during his convict life will do well to watch him warily.

Yellow fever has broken out in several places in Brazil.

The prevalence of small-pox in Corsica has led the Marseilles authorities to impose a quarantine on shipments of rags.

The Earl of Rosebery will preside at the anniversary festival of the Asylum for Idiots at Darenth, on Thursday, April 22nd.

Typhoid fever last week caused one hundred and one, and small-pox seventy-two deaths, in Paris.

Dr. William Ewart, of St. George's Hospital, has been appointed an Assistant-Physician to the Hospital for Consumption and Diseases of the Chest at Brompton.

A further increase is to be noted in the circulation of the British Medical Journal, of which the weekly issue has now risen to nine thousand two hundred and fifty copies.

Dr. A. Jacobi lifts a warning voice against the excessive use of chlorate of potassa. Nephritis, either acute or chronic, is the lesion which he believes to be often produced by heroic doses of the drug.

It is proposed in the University of Cambridge to appoint a syndicate to confer with other committees as to the use of the Senate House, Fitzwilliam Museum, and other University buildings, for the reception of the British Medical Association next August.

On the proposal of the Medico-Chirurgical Section of the Royal Institute of Higher Studies in Florence, a clinical department for diseases of children has been, with the sanction of the government, instituted in the Medical School.

The next meeting of the Society of Medical Officers of Health will be held at 1, Adam Street, Adelphi, on Friday, February 20th, at 7.30 p.m., when Dr. G. B. Longstaff will read a paper entitled "Some Facts bearing on the Ætiology of Summer Diarrhœa", illustrated by diagrams.

Deputations of the Parliamentary Bills Committee of the Association have this week transacted business with the President of the Local Government Board and with the Home Secretary, regarding Dr. Cameron's Animal Vaccination Bill, the improvement of the Act for the Preservation of Infant Life, and the Coroners' Bill. Reports of the proceedings will appear in next week's Journal.

A Bradford herbalist, named Anne Helliwell, says the *Pall Mall Gazette*, was found guilty at the Leeds Assizes of the manslaughter of a young woman named Davies by the unlawful use of medical instruments. The prisoner had been charged with the capital crime; but on being convicted of the minor offence, was sentenced to twenty years' penal servitude.

The *London Gazette* announces that the Queen has been pleased to give and grant unto Surgeon-General Thomas Longmore, C.B., her royal licence and authority that he may accept and wear the Insignia of an Officer of the Order of the Legion of Honour, conferred upon him by the President of the French Republic, as a promotion from the fifth class of that order, which he received in 1856, when Surgeon of the 19th Regiment, for his services in the Crimean war.

NEW MEDICAL INSPECTOR OF THE LOCAL GOVERNMENT BOARD.

We understand that the vacancy in the medical inspectorate of the Local Government Board has been filled by the appointment of Mr. John Spear, now Medical Officer of Health for Jarrow, Hebburn, and South Shields. Mr. Spear, although a young man, has already achieved a considerable reputation in health work; and this selection will be greeted with satisfaction by medical officers of health at large, who will see in his appointment, following upon that of Dr. Parsons of Goole, a further earnest of better recognition of their services by the central government.

THE LATE DEPUTY SURGEON-GENERAL PORTER.

We understand that it is proposed to place a memorial in the Chapel, at the Royal Victoria Hospital, Netley, to this officer (who died, as principal medical officer of the Cabul field force, at the Sherpur Cantonment on the 9th of January, 1880), in consideration of his high professional and departmental reputation, and his very estimable personal character. The following officers have been nominated as a committee to carry out the necessary arrangements: Surgeon-General T. Longmore, C.B., *President;* Surgeon-Major R. Tobin, *Treasurer;* Surgeon-Major J. Lane Notter, M.D., *Honorary Secretary.*

ARMY, NAVY, AND INDIAN MEDICAL SERVICES.

The competitive examination of candidates for medical commissions in the army, Indian, and naval public services, which was advertised to commence on the 9th instant, is now in progress. The Indian service still seems to be the most popular. For the twenty-three vacant commissions in this service, fifty-two competitors have started. We have elsewhere called attention to the necessity for those who are entering this branch of the public service to be on their guard, seeing that important changes in the terms of service are contemplated, or are in actual progress, without much information of a definite nature regarding them having been communicated to the public. The number of competitors for commissions in the Army Medical Department is forty-two, but we are unable to state the number of vacancies for which they are competing, as no information on the subject has been published. Only six candidates for medical commissions in the Royal Navy have come forward. The paucity in numbers in this direction is hardly to be wondered at under existing circumstances. At any rate, the fact of one hundred young surgeons coming forward to compete for medical commissions in the branches of the public service above mentioned, and so shortly, too, after the largely attended competitions which took place at the close of last year, suffices to prove that there is no deficiency of qualified practitioners ready to seek such Government appointments, provided the terms offered are regarded as sufficiently attractive.

FOG FATALITY IN LONDON.

If one or two weeks during the cholera epidemic of 1849 and 1854 be excepted, the recorded mortality in London last week was higher than it has been at any time during the past forty years of civil registration. No fewer than 3,376 deaths were registered within the metropolis during the week ending last Saturday, showing an excess of 1,657 upon the average number in the corresponding week of the last ten years. The annual death-rate in the week was equal to 48.1 per 1000 of the estimated population; whereas, in the nineteen provincial towns, the rate did not exceed 26.3 per 1000. The recent cold was fully as severe in many other parts of the country as in London; it is, therefore, fair to assume that the exceptionally excessive fatality in the metropolis was due rather to the fog, which was local, than to the cold, which was general. The Registrar-General points out, in his weekly return, that the nearest approach to so high a rate of mortality as that which prevailed in London last week was recorded in the week ending 20th December, 1873, when the death-rate was equal to 37.5 per 1000; the high rate was then, as it was last week, the result of low temperature combined with dense fogs. The deaths registered in London last week showed an increase of 54 per cent. upon the number returned in the preceding week. The increase of mortality varied considerably in different parts of London; it was equal to 32 per cent. in the West, 48 per cent. in the North, 51 per cent. in the South, 64 per cent. in the central, and 83 per cent. in the East groups of registration districts. The excess of mortality due to the cold and fog was naturally largest among elderly persons; it was smallest among infants, and increased steadily with age. Under twenty years of age, the increase was equal to 27 per cent.; between twenty and forty, the increase was 52 per cent.; between forty and 60 years, it was 74 per cent.; and among persons aged upwards of sixty years, it was equal to 91 per cent. The excess of mortality was mainly referred to diseases of the respiratory organs, which caused 1,557 deaths last week, against 559 and 757 in the two preceding weeks, showing an excess of 1,118 upon the corrected weekly average. The fatal cases of bronchitis, which had been 531 in the previous week, rose to 1,223 last week. The deaths referred to many other diseases also showed a marked increase last week, although not in the same proportion as those from the respiratory organs; it may especially be noted that the deaths referred to heart-diseases were 187, while the corrected average number is but 94. The terrible slaughter caused by the recent London fogs, and registered last week, should suggest a scientific inquiry as to how far the poisonous and suffocating qualities of these fogs—so different from most fogs out of London—arise from causes which should be, if they are not, within the control of an efficient sanitary authority. It is smoke that makes the London fog so mischievous; and bearing in mind the disaster of last week, it is worth inquiring whether something cannot be done to mitigate the main cause of this remarkable mortality.

M. BROCA.

Dr. Broca, the eminent surgeon, has been elected a life member of the French Senate, in the place of the late Comte de Montalivet. England is one of the few civilised countries which excludes science from the Upper House, and does not regard biological knowledge or professional renown in the medical profession as constituting a claim to a place in the councils of the nation.

COLOUR-BLINDNESS AMONG RAILWAY SERVANTS.

The Massachusetts Railway Commissioners take what seems to us a sensible view of this question. They admit the danger of employing colour-blind officials, the insufficiency of the tests hitherto used, and the need for applying a conclusive test, such as that introduced by Holmgren, to all railway servants. But they very justly point out the error of concluding that, because about four per cent. of the male population show a certain degree of congenital colour-blindness, it is necessary to exclude so large a proportion of men from railway service. Of the common blindness, there are many degrees, the slightest being the commonest. A man with slight colour-defect will confuse between pale shades of green, grey, and rose colour, though he will usually distinguish at once between bright saturated shades of green and scarlet. Thus the Commissioners found that men, who had been pronounced partially colour-blind by experts, promptly distinguished the signal-lights and coloured flags at great distances. In regard to the relation of colour-perception to intensity of light, they did not find that colour-blind men confused between a green light and a partially obscured red light at a distance of seven hundred feet, unless the defect was so great that they confused between the same lights when unobscured. They think that, with suitable directions, the preliminary examination by Holmgren's wools may be made by laymen without medical aid, and that a critical medical examination is needed only of such men as have failed to pass this first test.

THE FIRST HOSPITAL SUNDAY IN NEW YORK.

December 27th and 28th were Hospital Saturday and Sunday in New York; and this was the first time that such days have been generally observed in the city, in imitation of the kindly custom of setting apart one Sunday in the year for the benefit of the hospitals, through alms and donations, which has long been maintained in London. In New York, the idea was first taken up in the autumn of 1874, at the annual meeting of the board of managers of St. Luke's Hospital, who afterwards made an appeal to the various Episcopal churches of the city for a collection to be made on the last Sunday in December. Bishop Potter at once endorsed the appeal in a letter to the clergy; and the pecuniary result was so satisfactory that similar collections have been repeated every year. Since 1877, St. Mary's Free Hospital for Children has also shared the benefit of the offerings thus made. At the meeting of the managers of St. Luke's, in November 1878, the superintendent of the hospital read a paper showing that, till 1849, the care of the sick poor was left entirely to the Bellevue and New York Hospitals. In December, a conference was held between the managers of St. Luke's and a number of prominent Episcopalians, both clergymen and laymen; and a committee of five was then appointed to invite such of the hospital associations of the city as they might deem it wise to select, to confer as to the wisdom and expediency of inaugurating a general hospital day. This conference was held at St. Luke's Hospital, on January 7th, 1879, and was attended by official representatives of thirteen hospitals, as well as by a number of prominent clergymen and other invited guests. A committee was appointed to arrange the details of the matter, and the movement has proved a most successful one. In all the stations of the elevated railroads and all the post-office stations, as well as in other public places, boxes were placed for receiving contributions; over each there being a yellow flag, with the inscription "Hospital Saturday" in black letters upon it. Yellow flags were also to be seen upon many of the street cars and omnibuses. On Saturday, the 27th, collections were taken up in all the Jewish synagogues; and on Sunday, the 28th, in all the churches of the various Protestant denominations. In addition, contributions were received by the general treasurer of the fund, and by gentlemen prominent in business circles, who represented the chamber of commerce, the stock exchange, the cotton exchange, the produce exchange, the maritime exchange, the fire and marine underwriters, and the banks and bankers respectively. One of the largest cheques sent in was that of Mr. William H. Vanderbilt for one thousand dollars. Donors who preferred to make their gifts for any particular institution had the privilege of so doing; while all contributions not thus designated are to be divided under an equitable plan, based upon the charity work and the needs of each, among the various hospitals uniting in the movement.

USEFUL EXTENSION OF THE FACTORY ACT.

THE *Gazette* of Friday week contains an Order of the Home Secretary, to the effect that the thirty-eighth section of the above-mentioned Act, setting forth that a child, young person, or woman should not be allowed to take a meal, or to remain during the times allowed for meals, in the parts of the factories or workshops to which the section applies, shall be extended to every factory or workshop in which white lead is manufactured, except any room thereof used solely for meals, and every part of a factory or workshop in which part dry powder or dust is used in the processes of lithographic printing, playing-card making, fancy-box making, paper-staining, almanac-making, artificial flower making, paper-colouring and enamelling, and colour-making.

INQUESTS.

DURING the three months ending December last, 7,100 deaths in England and Wales were registered from the certificates of coroners, being inquest cases; the proportion of inquest cases to total deaths was equal to 5.2 per cent., and corresponded with the proportion in the fourth quarter of each of the three preceding years. In the twenty large towns, the proportion of inquest cases averaged 6.0 per cent., whereas it did not exceed 1.8 in Oldham and 2.9 in Sheffield, but ranged in the other towns to 8.6 and 8.7 respectively in Manchester and Birmingham. It would be well to determine whether too few inquests are held in Oldham and Sheffield, or too many in Manchester and Birmingham.

FOREIGN PRIZES.

PRIZES, each amounting to 2,000 *lire* (£80), are offered for essays on the following subjects by the Royal Lombardian Institute of Science and Literature in Milan: For 1880: The Illustration of some Fact in the Macroscopic or Microscopic Anatomy of the Human Brain: For 1881: The Motor Centres of the Cortex Cerebri: For 1882: New Researches into the Etiology of Cretinism and Idiocy. The essays must be sent in on or before the 1st of April in each year. For 1881, an extraordinary prize, of the value of 4,500 *lire* (£180), with a gold medal of the value of 500 *lire*, is offered for the best essay (to be sent in on or before May 31st in the year) on the Nature of Miasmata and Contagia.—The Riberi quinquennial prize of 20,000 *francs* (£800) is to be awarded by the Royal Academy of Medicine in Turin at the end of 1881; the subject for competition being "The Physiological Pathology of the Blood". The essays may be either printed or written, in either the Italian, French, or Latin language. The printed essays must not have been published before 1876. Two copies must be sent post-free. Manuscript essays may be sent single; but, before the successful candidate can receive his prize, he must have the essay printed, and send two copies to the Academy.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE Committee on Examinations in Anatomy and Physiology will meet at the College on Tuesday next, the 17th instant, to examine the claims and decide on the fitness of the candidates for the office of Examiner in Anatomy and Physiology respectively in the vacancies occasioned by the resignation of their seats at the Board of Mr. John Wood, F.R.S., of King's College Hospital, and Mr. J. W. Hulke of the Middlesex Hospital, who are now members of the Court of Examiners. The following gentlemen are the Anatomical candidates, all of whom are Fellows of the College by examination, viz., taking them in alphabetical order: Mr. Edward Bellamy, of the Charing Cross Hospital; Mr. Richard Davy, of the Westminster Hospital; Mr. H. Greenway Howse, of Guy's Hospital; and Mr. John Langton, of St. Bartholomew's Hospital. There are only two candidates at present in Physiology, viz.: Mr. Jeremiah McCarthy, of the London Hospital, and Mr. Walter Pye, of St. Mary's Hospital. It is expected that the numbers in both departments will be augmented before the meeting of Council.

THE ARTHROPATHOLOGY OF LOCOMOTOR ATAXY.

WE would direct the attention of our readers to the discussion which took place at the last meeting of the Pathological Society on the osteo-arthritic changes met with in locomotor ataxy, a report of which is given in another page. The discussion was opened by Dr. Buzzard, who exhibited three patients suffering from locomotor ataxy, and in whom these peculiar symptoms were well marked. The account given by Dr. Buzzard of the clinical features met with in these living cases was well supplemented by the President and by Dr. Gowers, the former of whom showed a series of casts of bones in the collection of Professor Charcot of Paris, and casts of the joints of a woman who affords a most remarkable instance of this form of ataxy, and who is still living in one of Professor Charcot's wards at the Salpêtrière. Dr. Gowers exhibited a joint from an ataxic patient, showing the typical changes described by Charcot. These changes are of the greatest interest, not only to the pathologist, but also to the physiologist. It has for some years been recognised that the nutrition of muscles is intimately dependent upon their nerve-supply; and it is now settled beyond cavil that the particular portion of the nervous system in which this nutritive function is placed is to be found in the anterior horns of grey matter in the spinal cord. Until recently, the nutrition of the muscles alone of all the tissues in the body had been thus traced to the nervous system; but the observations of Charcot on the condition of the bones and joints in certain cases of locomotor ataxy, which have since been abundantly confirmed by observers in various countries, and which were illustrated afresh by the case shown by Dr. Buzzard at the Pathological Society, tend to show that the nutrition of the bones and joints may in a similar way be altered by changes in the nerve-centres. It has not yet been discovered what is the seat of the centres controlling these functions. Ataxy is a complex disorder attended with widespread modifications in function, each such modification being doubtless dependent upon a lesion of some particular portion of the cord. The gross lesion, as discovered after death, is usually sharply defined, and is confined to certain definite coarse anatomical districts. But, as Professor Charcot points out, a region of the cord such as can be mapped out by the anatomist consists undoubtedly, from the physiological point of view, of many different parts, each having its own peculiar function. Hence the lesion of the posterior columns found in cases of locomotor ataxy, though involving only one or two anatomical regions, probably involves many physiological regions; and the extension of the disease transversely in the cord, though it may be only by a hair's breadth, may induce an entirely fresh series of symptoms.

This would account for the great variety of symptoms met with in locomotor ataxy, and also for the very numerous and widely different combinations met with in different cases. Dr. Buzzard pointed out that the somewhat rare symptom known as "crises gastriques" is met with much more frequently in cases of ataxy with osteo-arthritic changes, than would be accounted for by the fortuitous combination of the two sets of symptoms; and he therefore believed that the lesion leading to the one set of symptoms must be situated very close to the lesion leading to the other set. Our own experience would lead us to agree with him in thus connecting the two symptoms, but we find it somewhat difficult to follow him in the inferences he draws from the connection. He considers it probable that the "crises gastriques" depend upon an involvement of the nucleus of the vagus in the medulla oblongata; and he thinks, therefore, that the centre of control for bone-nutrition should be also sought for there. This we think to be not very probable. Though it contains a large proportion of grey matter to white, yet absolutely the amount of grey matter in the medulla is small. Much of this is already definitely connected with certain specific functions; for instance, the maintenance of the nutrition of the face, tongue, and throat; a control over certain portions, at any rate, of the vascular system; an influence over the heart, lungs, etc. It seems unlikely that so wide-spread and important a function as that of the nutrition of the whole of the bony and articular skeleton can find a place in it in addition to these various functions. We know that the nutrition of the muscles is connected with a wide-spread extent of grey matter from the medulla oblongata to the lower end of the lumbar enlargement. It is most probable that the nerve-centres for the nutrition of bone are equally wide-spread; and the connection between "crises gastriques" and bone-changes is probably due rather to the fact that the upward extension of the bone-centre is continuous with, or nearly connected with, the pneumogastric centre; or else that the association of the two is an example of correlation of different parts in disease, strictly analogous to the correlated variations of parts, on which so much stress was laid by Darwin. It is beyond question that certain parts of the body are much more nearly allied to certain other parts than to the rest of the body; and that anything producing change in one of these parts will tend to produce it also in the other. May not the association of these two sets of symptoms be due to a cause of this kind rather than to mere proximity? An extensive series of clinical observations is required to elucidate not only this, but many other problems in connection with the association of symptoms in locomotor ataxy.

MR. ROBERT BAKER, C.B.

WE have to announce the death on February 6th, at Leamington, of Mr. Robert Baker, C.B., formerly one of the chief inspectors of factories, in his seventy-seventh year. Mr. Baker began life as a member of the medical profession, and devoted great attention to the condition of the factory operatives. In 1834, he was appointed subinspector of factories under the Factory Act; and, in 1858, was made one of the chief inspectors. On his retirement, he was created C.B. of the Civil Division. He was much beloved by the certifying surgeons under the Factory Acts; and it is to be lamented that his efforts to improve the arrangements for the physical protection of children under the Factory Acts were not always officially regarded with favour.

BABY-FARMING.

A CASE tried at Chester this week shows that the arm of the law is not long enough or strong enough to deal effectually with the "baby-farmers". A woman was charged with cruelly ill-treating a female child placed in her charge, by neglecting to provide it with sufficient food. The child had been handed over to the prisoner by its mother, a domestic servant, with the sum of £5. It was found in November last by an inspector of police, lying in a basket in front of a fire, in a horribly emaciated condition. Although eighteen months old, it weighed only eight pounds two ounces, the weight of a newly born child. This was not surprising, for it came out in the evidence that the only nourishment it was allowed was some skimmed milk twice a day, at morning and night. "It had nothing but the dry bottle to suck at all day." There was a question as to whether it had not some inherited disease, and the woman was therefore only charged with criminal neglect. The jury found her guilty, and the judge sentenced her to six months' hard labour, observing that "this was a terrible offence which the law relating to manslaughter had probably not contemplated. It was becoming a common vice and crime that persons who had illegitimate children got rid of them to those who had no natural affection, and who neglected them and caused their death. He could not punish the prisoner for manslaughter." Yet to give a sickly infant no food but a little skimmed milk twice a day is a sure method of killing it, and really seems more like wilful murder than manslaughter.

TECHNICAL EDUCATION.

THE Drapers' Company recently voted to the Parkes Museum of Hygiene a donation of fifty guineas, and it is now announced that the Clothworkers' Company have voted a similar sum to the same institution. This is the second donation from the Clothworkers' Company.

DEATHS IN PUBLIC INSTITUTIONS.

IN workhouse establishments, hospitals, and public lunatic asylums, 13,422, or 9.9 per cent. of the whole number of deaths recorded in England and Wales, were registered last quarter. This proportion showed a further increase upon those prevailing in recent corresponding quarters; in the nine autumn quarters of 1870-8, the average percentage was but 8.9. In the twenty large towns, 7,199, or 14.8 per cent. of the deaths were recorded in public institutions; the percentage in the several towns ranged from 7.1 and 7.6 in Oldham and Bradford, to 16.5 in Wolverhampton, 16.7 in Manchester, and 17.7 in London. Excluding the twenty large towns, the proportion of institution deaths in the rest of England and Wales did not exceed 7.1 per cent.

PROSECUTION UNDER THE PHARMACY ACT.

THOMAS HUTCHINSON, carrying on business as a druggist in Birmingham, was last week summoned before the Birmingham magistrates, at the instance of the Chemists' and Druggists' Association, for selling oxalic acid in a packet the cover of which did not set forth the name of the seller, as required by the Pharmacy Act. The name on the packet was Thomas Powers, and the defence was that he was the real owner and occupier of the business, and that the defendant merely acted as his agent. Mr. Thomas Powers was called in support of this plea, and stated he was a qualified chemist and druggist, living at Stratford-on-Avon, and that the business in Birmingham was carried on by the defendant solely as his agent. In cross-examination, he declared his inability to tell when the premises were taken, what they were rented or rated at, or who was the landlord. He had lent Hutchinson £200 for the purpose of the business, and received interest on that sum. The agreement between them was only a verbal one. The magistrates convicted the defendant, and fined him 20s. and costs.

INQUESTS IN CASES OF SUDDEN DEATH.

A CASE of sudden death, under suspicious circumstances, was recently the subject of an inquest in Lincolnshire. A man knocked at the door of a well-known local quack-doctor, residing at Market Rasen. He was observed by the servant to look very ill, and could hardly stand. On entering the house, he fell on the floor and died in a few minutes. He had come to consult the quack, but died before he could see him. According to the widow's evidence, deceased had for some time complained of a pain in his chest and of a difficulty of breathing, and for this he had gone to consult the quack-doctor. The medical evidence at the inquest was to the following effect. The face was dark from congestion. The neckcloth was found to be tied twice round the neck, highly constricting it, and leaving on removal a distinct mark. The vessels of the scalp and brain were full of dark fluid blood. The muscles of the heart and the valves were quite healthy; but, on its upper and left side, there were the marks of recent inflammation. There was a little dark fluid blood on the right side. There was nothing remarkable about the stomach; but the lungs, liver, spleen, and kidneys were congested. The medical witnesses ascribed the cause of death to the combined unhealthy condition of the various organs of the body. The man's death was hastened by the exercise of walking, and by the constriction of the neck with the necktie. This evidence gave rise to some discussion between the coroner and the medical witness; but, in the end, the jury came to the conclusion that the sudden death of the man had not been caused by any medicine prescribed for him by the quack-doctor, but was owing to the combination of diseases found in his body, namely: congestion of the lungs, congestion of the liver, and recent inflammation of the heart. We think also, from the medical evidence, that the jury ought to have added partial strangulation. Medical science gains but little when such a verdict as this is accepted in a case of sudden death.

VIOLENT DEATHS.

THE deaths in England and Wales last quarter referred to different forms of violence were 4,327, and exceeded the number returned in the preceding three months by 166; they were equal to an annual rate of 0.68 per 1000, and to 3.2 per cent. of the total deaths. In the mainly agricultural population of the Eastern division, the death-rate from violence did not exceed 0.46 per 1000; whereas it ranged upwards to 0.81 in the North-western, and 0.82 in the Metropolitan divisions. In the twenty large towns, the deaths from violence were equal to an annual average rate of 0.8 per 1000; the rates in the several towns ranged from 0.31 and 0.33 in Norwich and Oldham, to 1.07 in Newcastle-upon-Tyne, 1.1 in Birmingham, and 1.23 in Liverpool.

ARSENICAL WALL-PAPERS.

A PAPER on "Domestic Poisons in relation to Trade and Art", by Mr. H. Carr, was read lately at the rooms of the Society of Arts. The chair was taken by Mr. J. Simon, C.B., F.R.S. Mr. Carr, in his paper, referred chiefly to arsenic as used in wall-papers, cotton-fabrics, artificial flowers, confectionery, etc. Several instances of arsenical poisoning, some of them having a fatal result, were given. The evidence seemed to show that low-class bright green poisonous papers could be produced brighter and cheaper than non-poisonous greens. Arsenic was also said to give permanency, brilliancy, and body, especially to the group of aniline colours. The cost of colour in low-class papers bore an appreciable proportion to the total price of production; but in higher class papers, the difference in cost between one green pigment and another was too small to be of material importance. Some paper-stainers asserted that there was no economy or advantage in using arsenical colours. The colour in which arsenic was principally introduced was emerald-green; but it was also used without absolute necessity in a great variety of colours—red, brown, some blues, pink, low-toned greens, French greys, black, and notably in magenta. There was no doubt that in any factory where arsenical colours were freely used for certain purposes, all the papers made would be more or less contaminated—thus accounting for the slight trace frequently found. It might be safely asserted that paper-stainers would suffer no injury in the home trade from an Act of Parliament entirely prohibiting the use of arsenic, except as regarded the stocks in hand. The foreign trade, however, was a more difficult question; for it was well known that a shade of colour, or a very small percentage of extra cost, would turn the balance of the market. As regarded foreign trade, the real point would come to this: Should the English manufacturer continue to export poisonous papers for the benefit of the trade of this country, irrespectively of the effects on the foreign purchaser? This question seemed to be settled in the affirmative, to judge by the course taken with regard to the opium trade. But as to home regulations, the Sale of Poisons Act and the Adulteration of Food Act established the principle that the purchasing public should be defended by the Government from the careless or nefarious vendor. After referring to the use of arsenic in dyeing, and remarking that large quantities of arsenic were undoubtedly used in the production of magenta, which was the foundation of all other aniline dyes—though it was abstracted in the subsequent processes by first-rate manufacturers—Mr. Carr mentioned the employment of arsenic in card-board boxes, playing cards, confectionery wrappers, sweets, size used by paper-stainers, etc. The Medical Society of London had appointed a special committee to investigate the subject of domestic poisons, arsenic in particular, with a view to bringing the matter under the consideration of the Local Government Board. In conclusion, Mr. Carr contended that the subject was one of such importance as to demand Government investigation; and he suggested that, in any measure dealing with the question, the retail vendor should be made responsible in the first instance, facilities being given him for throwing the blame on the paper-stainer, and the paper-stainer again on the colour-manufacturer, so that the real culprit might be reached. A discussion followed, in which Mr. Jabez Hogg, Dr. Bartlett, Dr. Thudichum, Mr. Botley, Dr. A. S. Taylor, Dr. Brunton, and Mr. Aumonier took part. Mr. Aumonier, a paper-manufacturer, said his firm had for many years given up the use of arsenical pigments, finding that they could get the tints without arsenic. If legislation were adopted on the subject, he would suggest that it should be made penal for a colour-manufacturer to sell arsenical pigments without declaring their character. A vote of thanks was passed to Mr. Carr for his paper.

A MEDICAL WITNESS REWARDED BY A JUDGE.

MEDICAL witnesses, it is well known, have often considerable difficulty in obtaining remuneration for a compulsory attendance and evidence on trials for murder. The sum allowed by the county is rarely adequate to cover the expenses incurred by a necessary residence in a town during the assizes. It is in the power of a judge to order the payment of a sum beyond the tariff to a medical witness; but this power is seldom exercised for the benefit of the profession; and it is extremely rare that a judge, in the absence of any special application by counsel, will of his own accord order additional fees to be paid. It is, therefore, with great satisfaction that we notice, in reference to the trial and conviction of three persons on a charge of murder, which has just taken place at the Lincoln Assizes, that the new judge (Mr. Justice Stephen) has set a good example in this respect. The principal medical witness in this case was Dr. H. T. Stiles of Spalding; and his evidence was considered so satisfactory that the learned judge, "in recognition of the care taken by that gentleman in the *post mortem* examination, and the ability he displayed in giving his evidence, made an order on Her Majesty's Treasury that a special fee of five guineas, over and above the ordinary allowance, be granted him as a witness". Referring to the reported evidence of Dr. H. Stiles, we consider the commendation of the learned judge to be well merited. The medical evidence clearly proved that the deceased had died from suffocation. There was a fracture of two ribs on the right side, with other signs of violent compression of the chest, rendering it probable that one or other of the prisoners had caused suffocation by sitting or kneeling forcibly on the chest of the deceased, There was evidence of heart-disease, which might have accelerated death. There was one remarkable circumstance in the case which tended to indicate sudden death from violence. When the dead body was found, the deceased held in his right hand a door-key, tightly clenched. It was shown that the female prisoner, who was housekeeper to deceased, had gone off with this key, and the deceased, in going after her in order to obtain it, was waylaid by the two male prisoners, and met with his death in the manner described. This, with other circumstances, connected the woman with the act. The prisoners were convicted of murder; but the jury found that their intention was to commit robbery, and that they had not contemplated the death of the deceased.

SCOTLAND.

HOSPITAL FOR INCURABLES, EDINBURGH.

THE new Hospital for Incurables in Newington, Edinburgh, is rapidly approaching completion, and will be a noticeable feature among the various medical charities of the city. Last week, the annual meeting of the supporters was held in the Royal Hotel, when it was stated that a slight improvement in the subscriptions had taken place, although the income otherwise had fallen off. One legacy of £700 had been intimated during the year. On January 1st, 1879, there were seven males and ten females in the old hospital; on December 31st, 1879, there were seven males and eight females in the temporary hospital. During the year, the applications for admission amounted to forty-six, of which nineteen were for males, and twenty-seven for females.

LEITH HOSPITAL.

THE annual meeting of the subscribers to the Leith Hospital was held on Monday, in the Trinity House, Leith; the Chief Magistrate presided. From the annual report submitted, it was shown that 380 patients had been treated in the hospital during the year, of whom 281 were discharged recovered or cured, 46 relieved, and 40 had died. Of the total number, 75 cases of fever had been treated in the fever department; 155 in the casualty department—6 were cases of submersion, and 144 cases of general disease. This was considerably in excess of the number admitted last year. In the out-door and dispensing department, there had been increased activity, and 4,092 cases had been treated. Some of the new wards have not yet been opened, owing to the income being insufficient to support them. The expenditure amounted to £2,016 16s. 6d., and the income to £2,046. Resolutions were adopted at the meeting recommending the institution and its interests to the generous treatment of the inhabitants of Leith.

DIPHTHERIA AND THE WATER-SUPPLY OF INVERNESS.

AT a special meeting of the Inverness Police Commissioners held last week, it was unanimously agreed to have a thorough examination of the water supplied to the town from Loch Ashil. The quality of the water has been assailed for some time, and the general diffusion of diphtheria throughout the town was in some measure attributed to it.

DEATH FROM HYDROPHOBIA AT KILWINNING.

A LAD aged 14, named John Waterston, was bitten by a dog on December 17th, 1879. The wound bled freely, was touched with nitrate of silver, and subsequently poulticed. A month afterwards, the wound having completely healed, he went to work, and continued at it for a fortnight. Forty-four days after receiving the bite, he was seized with illness. When seen by Dr. Milroy, the part bitten was tender and red. Two days afterwards, the hydrophobic phenomena were unmistakable, and ended in death.

HEALTH OF EDINBURGH, GLASGOW, AND LEITH.

THE mortality in Edinburgh last week was 23 per 1,000, slightly greater than in the same week last year. There were two deaths over ninety years of age, and about 40 per cent. of children under five years. Zymotic diseases caused 10 deaths, of which 4 occurred in the New Town, and 6 in the Old Town. In Glasgow, the mortality last week was 25 per 1,000, and, in Leith, the mortality was 21 per 1,000.

REPRESENTATION OF EDINBURGH AND ST. ANDREW'S UNIVERSITIES.

It is said that a circular, signed by Mr. Campbell Levinton of Kemmerghame, has been issued to the members of the General Councils of Edinburgh and St. Andrew's Universities, soliciting their signature to a requisition to Mr. E. R. Bickersteth of Liverpool, begging him to allow himself to be nominated as a candidate for the Universities in the Conservative interest at the general election, in opposition to Dr. Lyon Playfair.

IRELAND.

THE LATE DR. BENSON.

AT a meeting of the Committee of Council of the Irish Medical Association, held at the Royal College of Surgeons of Ireland, Stephen's Green, on January 27th, 1880—Dr. Speedy, Chairman of Council, in the chair—the following resolution, proposed by Dr. J. W. Moore, and seconded by Dr. Jacob, was unanimously adopted: "That the Council of the Irish Medical Association have heard with deep regret of the death of Dr. Charles Benson, who for many years was the earnest friend and zealous supporter of the Association, as member, councillor, and president. The Council desire to record their sense of the loss sustained by the Association in the removal of so valued a colleague; and, at the same time, to express their sympathy with Dr. Benson's family in their present bereavement."

DR. STEEVENS' HOSPITAL.

As we anticipated, Dr. Grimshaw, the Registrar-General for Ireland, ex-visiting physician to this hospital, has been appointed its consulting physician in the room of his late predecessor at Charlemont House. The election for the vacant posts of visiting-physicians caused by the death of Dr. Bookey and the resignation of Dr. Grimshaw, has resulted in the appointment of Dr. Henry J. C. Tweedy and Dr. Richard A. Hayes. Both gentlemen are Doctors of Medicine of the University of Dublin, and are connected with the school of medicine attached to the hospital. This connection of the school with the hospital to a great extent limited the number of applicants for the hospital appointments. Before proceeding to the election of the visiting-physicians, the governors, we are informed, adopted a resolution to the effect that no one should be appointed a physician to the hospital who would not undertake to take up duties in the school also. Without in the least disparaging the abilities and fitness for this appointment of the gentlemen elected, it would be easy to show how such a rule, if allowed to remain in force, might be the means of sacrificing the hospital for the sake of the school. As a matter of fact, in the present instance, we understand that more than one physician of other Dublin hospitals would have come forward as candidates for the large field of practice offered by an appointment in Steevens' Hospital, were it not that they were virtually debarred by being connected with other medical schools, which they did not wish to leave.

SICKLY WORKHOUSE CHILDREN.

MRS. MORGAN O'CONNELL has lately read a paper before the Social Inquiry Society of Ireland, in which she has drawn special attention to the number of weak and scrofulous children in workhouses. The object of her communication is to suggest that these children should be drafted into separate institutions—"Industrial Hospital Homes"—where they might receive special attention, and thus have a better chance of growing up to be healthy men and women. There can be no doubt that children such as Mrs. O'Connell describes are often met with in our workhouses, and that they claim our pity. They have been born into the world with bad constitutions; they are nurtured under a strictly economical system; and they have a hard life before them. All who consider their case will agree with Mrs. O'Connell in wishing that something could be done to improve their present state and to give them a better chance for the future. But when we ask how this is to be done, we are met by practical difficulties. We take it for granted that the Local Government Board would not entertain the idea of establishing a new class of institutions, such as Mrs. O'Connell proposes. There are at present workhouses, infirmaries, and industrial homes. If none of these meet the requirements of the children in question, it can hardly be expected that "Industrial Hospital Homes" should be set on foot for their benefit. We would, therefore, advise Mrs. O'Connell not to look to the Local Government Board or ask for amended Acts of Parliament, but to see what can be done under the existing arrangements. The medical officers to the workhouses will, we feel sure, be glad if anything better can be done for the scrofulous children under their care; but at present they are not able to do all they would wish. If they had the leave of the guardians, and if they were backed up by public opinion, they would no doubt be able to suggest various means—medical, dietetic, and hygienic—which might be adopted in dealing with this particular class of cases. We would suggest to Mrs. O'Connell that she should bring the subject before some of the conferences of guardians which are now held from time to time in various parts of the country; and in doing this it is not improbable that the Charity

Organisation Society might give valuable assistance. If the guardians were willing to allow the expense, the medical officers would soon classify the cases, and prescribe a suitable treatment for each individual. In some instances, children might perhaps be sent, at a fixed rate of payment, to convalescent homes, or to workhouses favourably situated by the seaside or in healthy uplands. By a liberal use of such means, we fancy the evils pointed out by Mrs. O'Connell might be met without the necessity of creating a fresh class of institutions.

ZYMOTIC DISEASES IN PROVINCIAL TOWN DISTRICTS.

DURING the December quarter of the past year, the annual rate represented by the deaths from the seven principal zymotic diseases registered in Belfast was 3.8 per 1,000; in Cork, 8.5; in Limerick, 1.8; in Londonderry, 1.4; in Waterford, 1.5; in Galway, 0.9; and in Sligo, 1.9. Of the 186 deaths registered in Belfast, 46 arose from measles, 48 from whooping-cough, which has been prevalent in that town throughout the entire of 1879; 37 from fever, and 44 from diarrhœa. One death from small-pox was recorded, the only one registered in any of the seven provincial town districts. Scarlet fever was very prevalent in Cork, the deaths amounting to 117, being an increase of 73 over those of the third quarter of the year; there were also 47 deaths from measles, 22 from fever, and 21 from diarrhœa. During the last half of the quarter, eight deaths took place in Londonderry from scarlet fever.

HEALTH OF BELFAST.

THE report of Dr. Browne, J.P., Medical Superintendent Officer of Health, for the month of January, states that two cases of small-pox were conveyed to the Workhouse Hospital during the month, and, after removal, the houses were carefully fumigated and purified, and the premises thoroughly cleansed. The average death-rate was somewhat less than that of December; but was still considerably above the averages of September, October, and November. This, however, was naturally to be expected from the intense cold that prevailed for some time, as well as the great and rapid variations in temperature. At the Belfast Town Council, a discussion recently took place as to the advisability of having a disinfecting establishment in Belfast; and it was remarked that, in several towns not half its size, they possessed those sanitary appliances; and that it was a bad arrangement to have clothes disinfected at the workhouse, or in private houses by the laundress, as a risk of spreading contagion was incurred. The matter will shortly be brought under the notice of the Sanitary Committee of the Corporation.

HEALTH OF DUBLIN FOR 1879.

DURING the past year, there were registered, in the Dublin Registration District, 9,993 births, being equal to 1 in 32, or 32 per 1,000 of the population; and 11,235 deaths, being equal to 1 in 28, or 35.7 per 1,000 inhabitants. Omitting 350 deaths, being those of persons admitted into public institutions from localities outside the district, the death-rate for last year was 34.6 per 1,000. The deaths (11,235) were 2,878 above the average of the previous ten years, and 1,966 higher than that of 1878. Zymotic diseases caused 2,203 deaths, being equal to an annual rate of 7.0 per 1,000 of the population; and omitting 60 deaths of hospital patients admitted from places outside the district, the deaths from the seven principal diseases of this class amounted to 1,751, or a rate of 5.6 per 1,000. Small-pox caused 520 deaths, measles 248, whooping-cough 98, fever 337, diarrhœa 167, and diphtheria 49. Scarlet fever was very fatal, the deaths amounting to 392, the highest number recorded since the year 1874. Phthisis caused 1,092 deaths, and diseases of the respiratory organs 2,702; both taken collectively caused 3,794 deaths, or an excess of 1,181, as compared with the average for the previous ten years. This increased mortality from chest affections was principally owing to the unusually inclement weather. Nine hundred and nine deaths of children were attributed to convulsions, against 618 in 1878. To heart-disease and of the circulatory organs 502 deaths were due; whilst cephalitis caused 106 deaths, apoplexy 142, paralysis 214, insanity 65, epilepsy 54, and brain-disease (unspecified) 102. Cancer caused 169 deaths, and gout 18.

PARLIAMENTARY BILLS COMMITTEE.

AT a meeting of the Parliamentary Bills Committee, specially called to consider the report of the Chairman upon the Bills of the present session on the subject of Infectious Disease, held at the offices of the Association, 161A, Strand, on Monday, February 9th, 1880—*Present:* Mr. Ernest Hart, in the Chair; Dr. Alfred Carpenter, President of the Council; Dr. Fancourt Barnes; Dr. Henry; Dr. Norman Kerr; Mr. Lamb, Hull; Dr. Paul, Camberwell; and Dr. Hart Vinen;

The Report of the Chairman was considered; and it was

Moved by Mr. LAMB, seconded by Dr. HART VINEN, and resolved:

That the Report of the Chairman be received and adopted; and that a copy be sent to the Local Government Board and to the local authorities concerned, as expressing the views of the Committee upon the proposals of the several local authorities.

REPORT ON LOCAL LEGISLATION AS TO INFECTION AND INFECTIOUS DISEASES.

Introductory Remarks.—Defect of Public Health Act in Legislation on Infectious Diseases.—Provisions in Local Acts.—New Bills: Birkenhead, Huddersfield, Lancaster, Oldham, and Preston: Provisions for Notification of Infectious Diseases.—Remarks on the Clauses.—Provision of Hospital Accommodation: the Jarrow Act: Suggestions.—Remarks on Various other Clauses in Local Bills.

IN the report which the Parliamentary Bills Committee did me the honour to adopt at their meeting of the 7th November, 1879, and which I am gratified to find has been the subject of favourable comment in many parts of the kingdom, and has at once given rise to actual proceedings in Dublin, I endeavoured to bring before them a complete *résumé* of the action which had been taken in various towns in this country towards that general registration of infectious disease which we are hopeful may before very long be the law of the land. In that report I purposely confined my remarks to the local legislation respecting the notification of infectious diseases, feeling that this was a matter which deserved to be treated by itself, with a view to right principles as to its application being arrived at before further progress was made in it. Since the presentation of that report, a fresh crop of local bills for the session of 1880 has come up for examination, and on certain of these I should desire, with the sanction of the Committee, to offer some remarks. The number of the local bills for submission to Parliament this session is considerably less than usual, and it is not therefore surprising that, whereas eleven authorities sought last session to require the notification to them of cases of infectious disease, only five, Birkenhead, Huddersfield, Lancaster, Oldham, and Preston, have this session promoted bills containing clauses designed with the same object. (I cannot be quite certain that a clause in some other local bill may not have escaped me, but these at any rate represent the most important of the proposed local provisions.) This decrease is, however, more than made up by the very large powers which these authorities seek to obtain with regard to the general dealing with infectious diseases; and it is to this point especially that I would direct the attention of the Committee as a matter that calls for some action at their hands. The powers desired by these authorities differ so materially from and are so very much more extensive than those of the general body of sanitary authorities in the kingdom, as to make the extension of this sort of legislation a matter of very serious import to the community.

Before dealing with these matters at any length, let me briefly refer to the general statute law in the kingdom with regard to this matter. It is very generally admitted, even by the officials responsible for the Public Health Act, that the weakest parts in it are those sections relating to infectious disease and the prevention of the spread of infection. In a matter so new to the public mind as the prohibition of certain acts which have been held from time immemorial to be innocent and even desirable, our legislators have, perhaps properly, paused before making, all at once, regulations designed for the better prevention of infection, but which would in the present temper of public feeling be regarded as unduly restrictive. However this may be, it is patent that our defences against infection as contained in the Public Health Act are of the most incomplete kind, and it is hardly therefore surprising to find local authorities in various parts of the kingdom inserting in their local Acts clauses designed to give them more efficient weapons against infection; and the Local Government Board, who are expected to guide the legislation right in these matters, are incurring a very serious responsibility in allowing sanitary authorities to take so many more permissive powers without assuring themselves that they will in fact be used, and that the sanitary administration of the requesting authorities is in other respects properly carried out. Even so early as 1876, when the Public Health Act had been in force less than a year, Huddersfield thought it expedient to require the notification to its corporation of cases of infectious disease occurring amongst certain classes of persons, and to take further powers as to the removal to hospital of cases without proper lodging or accommodation. In the next year, Bolton, anticipating the Contagious Diseases (Animals) Act of 1878, took powers to make by-laws with respect to the regulation of dairies and cowsheds, and to require the notification of cases of infectious disease. Greenock at the same time obtained very extended powers with regard to infectious disease, giving increased powers of entry to the medical officer of health, power to remove healthy residents of infected houses to reception-houses to be provided by the local authority, to prohibit the sale of milk from infected farms, and to require every case of infectious disease to be reported; and imposing penalties on the attendances at school of children from infected houses, etc. In the next year (1878) powers for requiring the notification of cases of infectious disease were granted to three authorities—Burton-on-Trent, Nottingham, and Jarrow. In addition, the corporation of Jarrow obtained certain very important powers, which have since been extensively copied. Section 34 of the Jarrow Improvement Act, 1878, provides as follows.—(*a*) The corporation may from time to time provide temporary shelter or house accommodation for the members of a family in which infectious disease [defined by Section 2 of the Act to mean "small-pox, cholera, and fever"] has appeared. (*b*) The corporation may themselves provide or contract with any person or persons to provide female nurses for attendance upon persons suffering from infectious disease within the borough. (*c*) The corporation from time to time may order public or private day-schools, or other places of public resort situate in the neighbourhoods threatened with or affected by infectious disease, to be temporarily closed or suspended. (*d*) The corporation may order any shop, dairy, or other place for the sale or storage of provisions, clothing, or other articles liable to retain infection, to be temporarily closed, whenever from the appearance of infectious disease in such shop, dairy, or other place, or in rooms in connection therewith, such action appears to the corporation to be necessary, and may take all such means as seem to them desirable for preventing the entrance of the public into such place, or the issue from it of food, clothing, or other articles. (*e*) In case of the existence of any infectious disease in any house within the borough, the corporation may issue an order declaring that such house or any rooms therein or part thereof, an infected place; and, forthwith, until such order has been determined by another certifying it free from infection, the following regulations shall in respect of such house or part of a house be observed.—1. No person occupying or living in any such house or part of a house shall continue at any in-door occupation which necessitates the handling of any clothing, food, or article likely to retain infection which is intended for sale, or for the use of persons belonging to another family. 2. No bedding, clothing, or other articles liable to retain infection shall be removed from such house, or part of a house, without previous disinfection or without proper precautions (to the satisfaction of the corporation), for the purposes of being disinfected. Provided always that, when the room or rooms occupied by the persons suffering from such disease can be effectually separated, and are so separated from the other parts of the same house or building, the rooms so occupied only shall be deemed to be affected by such order and regulations. The corporation shall make compensation to any person who has sustained loss by reason of the exercise of any of the foregoing powers, but such compensation shall be in regard only of direct material and pecuniary loss, and not in respect of any consequential loss or damage.

In the year 1879, nine towns made provision for the notification of infectious cases, viz.:—Llandudno, Warrington, Blackburn, Norwich, Edinburgh, Rotherham, Blackpool, Leicester, and Derby. Of these, Llandudno, Norwich, Rotherham, and Leicester took no further powers. Blackburn and Derby took, with certain small alterations, the same powers as Jarrow; and Warrington altered the procedure with regard to the disinfection of premises, and as to compulsory removal to hospital. The Edinburgh Act, whilst providing for the notification of cases of infectious disease, borrowed certain clauses (not in the general Scotch Act) from the Public Health Act of 1875, and made various new regulations with regard to infectious hospitals and removal thereto, as to the sale of infected milk, as to the removal of corpses to the public mortuary, etc.

As already stated, there are five bills to be submitted for the approval of Parliament this session which provide for the notification of cases of infectious disease: Birkenhead, Huddersfield, Lancaster, Oldham, and Preston. The Birkenhead Bill proposes to require all cases of "small-pox, fever, cholera, or any contagious or infectious disease", to be reported to the sanitary authority, by the occupier, "unless a duly qualified medical practitioner has been called in", and by the medical attendant to the sanitary authority when called in to a case of such disease. In addition, Birkenhead has a clause empowering the authority to provide a temporary hospital and appliances; one based on the Bolton Act for regulating dairies, shippons, and cowsheds; and a third, which reproduces section 34 of the Jarrow Act already quoted. Huddersfield proposes to extend the Act of 1876 so as to require the notification of cases of infectious disease occurring amongst all classes of the community, and to make the diseases to be reported "small-pox, cholera, typhus, typhoid, scarlet, relapsing and puerperal fevers, scarlatina, erysipelas, and diphtheria, together with any other disease for the time being declared by the corporation to be infectious or contagious under the provisions of the Act". The fee to the medical practitioner (half-a-crown for each certificate in the Act of 1876) is proposed to be reduced to a shilling, with the limitation that only one certificate need be given and only one fee shall be payable within an interval of thirty days in respect of the same disease occurring in the same building, the Town Council having presumably found the section in the old Act too expensive in its working. The Jarrow section No. 34 is also reproduced, with the exceptions that the Bill omits any references to shelter-houses; that it proposes to charge a fee for licensing nurses, and a reasonable sum for their services; to take power to close surgeries or offices of public vaccinators, and (in addition to shops and dairies) places for the sale of beverages by retail, together with common lodging-houses; and that it adds two new subsections prohibiting, except with written medical permission, persons dwelling in an infected house from working at any other place in the same room as healthy persons, and nurses attending on any person suffering from infectious disease from attending as nurse on any other person. It proposes, moreover, to subject to the penalties of section 126 of the Public Health Act any person who, after being exposed to infection by contact with, or having charge of, or attending as nurse upon a person suffering from infectious disease, enters a public conveyance without having previously taken proper precautions against spreading such disease, or without previously notifying to the person in charge of such conveyance the fact of such exposure. The same penalty is imposed upon the person in charge of the conveyance who, after receiving such notice and conveying such person, does not immediately provide for the disinfection of such conveyance. Any person who uses a public conveyance other than a hearse for the conveyance of the corpse of a person dead of infectious disease, without notifying the fact to the driver, and any owner or driver of such conveyance who does not immediately disinfect the same, will be liable to a penalty. The expense of removing and maintaining in a hospital or ward of the corporation any domestic servant removed thereto at the request or by the consent of the employer of such servant, and suffering from infectious disease, is proposed to be made recoverable from such employer.

The Lancaster Bill proposes to require the notification of cases of small-pox, cholera, fever, or diphtheria, to the medical officer of health, or to the inspector of nuisances, at their offices—by the occupier, if no medical attendant has been called in, and by the practitioner who is in attendance on any such cases. The fee is to be half-a-crown, with limitation as to further cases, and the penalty for infringement of the section five pounds. The Jarrow section is also reproduced, with the alteration that shelter-houses are to be provided for the "member" of a family in which infectious disease has appeared, and that no person not authorised by the corporation is allowed except in cases of emergency to enter any infected house. These changes were also made in the Blackburn Local Act of last year, of Section 86 of which this Lancaster clause is in fact an exact copy. Lancaster also adopts the Warrington section altering the procedure as to the compulsory removal of persons to hospital.

The Oldham Bill proposes to make compulsory the notification of cases of "any infectious disease", the notification to be sent by the occupier to the medical officer of health, or the inspector of nuisances, at his office; a corresponding duty being imposed upon the medical attendant. The fee to the medical attendant is to be half-a-crown for each certificate, and the penalty for the non-observance of the enactment ten pounds. The Oldham bill reproduces the Jarrow section, with a few trifling exceptions, and the Warrington sections giving further powers as to disinfection and as to removal to hospital. It has, moreover, two new clauses. The one provides that the body of a person who has died in hospital of infectious disease, shall not be removed therefrom except for burial, if the medical officer of health certifies that this course is desirable in order to prevent the risk of spreading infection. The other gives power to the authorities to make regulations respecting the mode of conveyance for the purposes of interment of the body of any person who has died of an infectious disease, for causing the destruction of articles infected, for compelling the disinfection of articles and places, and prescribing the mode of such disinfection, for preventing the sale of infected articles, for giving entry for disinfecting purposes, for preventing the use of public conveyances by persons suffering from infectious diseases, for preventing infectious rubbish being thrown into ashpits or ashtubs, and for causing privies, closets, ashtubs, and ashpits to be locked and secured in such manner as the corporation may prescribe.

At Preston, the diseases proposed to be compulsorily reported are defined by Section 3 to be "small-pox, cholera, measles, typhus, typhoid, scarlet, relapsing, and puerperal fevers, scarlatina, whooping-cough, erysipelas, and diphtheria, and such other disease as the corporation may from time to time declare to be infectious or contagious". The existence of the disease is to be reported by the medical attendant to the medical officer of health at his residence or office: if no medical practitioner is in attendance, then the occupier is to give notice to the medical officer of health. The fee to the medical practitioner is to be half-a-crown, with a limitation as to further certificates within thirty days, and the penalty for non-observance of the enactment is to be ten pounds. The Preston Bill also imports the Jarrow section, with the addition that no nurse attending on a patient in any infected house shall attend on any person in any other house, except with the written permission of a registered medical practitioner. Another clause gives power to establish a temporary hospital in the event of the prevalence in the borough of any infectious disease.

With regard to the question of the notification of cases of infectious disease, I have nothing to add to my former report. The proposed requirement in the Birkenhead, Lancaster, and Preston bills, that the occupier, or other person having the management or control of the building, is only to give notice when a medical practitioner has not been called in, is open to the same objection as the Bolton and Blackburn Acts relating to the same subject, viz.:—that it obviously offers a premium to delay in sending for medical advice in cases of infectious disease. Huddersfield has adopted, in place of the old imperfect method of 1876, the plan which has received the approval of the Association, viz.:—that of requiring the medical certificate to be given to the occupier, for delivery by him to the sanitary authority. Oldham has adopted the dual method of reporting, which has been followed by the majority of the local authorities that have taken these powers. I have already pointed out in my former report the inferiority of this method as compared with that which has received the sanction of the Association. The fee to be paid varies, it will be observed, from half-a-crown for each certificate at Birkenhead and Oldham, to half-a-crown with limitations as to disease in the same house, at Preston, and a shilling, with similar limitations, at Huddersfield. I do not at present attempt to gauge exactly the remuneration which is proper to be given to the medical attendant, because a great deal must depend upon the kinds of diseases to be reported. To pay half-a-crown for each case of measles and whooping-cough, as proposed at Preston, and by implication at Birkenhead and Oldham, would probably amount to a very considerable sum every year, and it seems doubtful whether a corresponding degree of advantage would be obtained. On the other hand, Huddersfield, hedging about its payment of a shilling a case and limiting the diseases to be reported, errs on the side of undue stinginess. On the whole, I am disposed to think that this question of payment for certificates is best left to local arrangement. Any hard line drawn without knowledge of local circumstances and necessities, would probably be fallacious. As to penalties, the Committee will observe an increasing stringency. All the bills except Lancaster impose a fine not exceeding ten pounds on the infringement of the enactment. Only three local Acts, Bolton, Llandudno, and Leicester have at present a penalty clause as high as this.

It will be observed that both Huddersfield and Preston propose to bring from time to time within the requirement of this section such other diseases as the respective corporations may see fit. In the amending Bolton Act, which was passed after a local inquiry by legal and medical central officials, this power of including on occasion other diseases was to be subject to the sanction of the Local Government Board. This sanction was also stipulated for in the Warrington and Norwich Acts of last session, and I think that, at all events for the present, it would be expedient to retain it.

The notification of cases of infectious diseases is, however, by no means the most important part of these local bills. It will be noticed that they have all five adopted in effect Section 34 of the Jarrow Act. This section, though valuable enough as an adjunct to the *proper exercise* of the powers already conferred by the Public Health Act, seems to me to have been mistaken by some of the authorities as superseding, as it were, the general act. The restrictions which these bills seek to impose upon individual action can surely only be reasonably enforced where the sanitary authority, as the guardian of the public health, has itself performed all its own statutory duties, by providing proper hospital accommodation, disinfecting apparatus, and the like. I am strongly of opinion that, before Parliament or the Local Government Board consents to clothe these authorities with powers so widely ranging as are proposed, it should first be made clear that the authority has already provided the machinery for checking infection, which should render possible the due performance of the duties which it seeks to impose upon individuals. It is obviously impossible for me to say how either Jarrow, Blackburn, or Derby, which already possess these large powers, or Birkenhead, Huddersfield, Lancaster, Oldham, and Preston, which now seek to obtain them, have, in fact, discharged their obligations under the provisions of the Public Health Act, relating to infection; but there is one department (and that an important one) of these duties that can be thus checked. Have these authorities provided proper hospital accommodation for the reception of the poor who cannot be treated without danger to others at their own homes, and have they made such regulations for admission to it as to render it likely to be used by the class of persons for whom it is most required? Jarrow has been haggling for months, and even years, about the provision of a hospital, and is still without one. Blackburn, with its ninety thousand people, and an epidemic of scarlatina now in its midst, has no such accommodation. Derby has, indeed, a wooden hospital; but, whilst scarlatina is raging in the town, it is in such a state that the medical officer of health reports that "it would not be safe to locate patients in it who were afflicted with such severe maladies as scarlet fever."*

All five of the local authorities asking this year for these powers have provided hospital accommodation of some sort or other. As to the preparedness, however, of these authorities for epidemics in other respects, I am unable to say; but under any circumstances, I think the principle is all important to be maintained, that the authority must first show satisfactorily that it is prepared to carry out fully its own powers before it is allowed to shackle individual action to the extent that is proposed.

I think, therefore, that, in any local Bill which proposes to include provisions similar to those in the Jarrow Act, a clause should appear, making compulsory the provision of adequate hospital accommodation and of disinfecting apparatus (if not already done), and that the Jarrow sections should not come into force until the authority has done its duty in this respect.†

I see no particular objection to these clauses, if such a stipulation were made; though there are undoubtedly improvements which might be made in them. This question, however, I do not now raise, as I purpose addressing the Committee on the general sufficiency of our laws as to disease-prevention at a future date.

(*a*) Temporary shelter-houses for healthy members of an infected family seem to be most useful, provided there is a proper hospital to which the sick member can be sent, and the infection thus imprisoned. Huddersfield unwisely omits this clause, which all the other authorities have or ask for. At Greenock, where there is a similar enactment, shelter-houses have been established with good effect.

(*b*) The provision of nurses by the sanitary authority is also good, though I think that the Huddersfield corporation are wrong in attempting to charge for the nursing they provide. This nursing staff should be wholly for the poor, and should be maintained entirely at the public expense.

(*c*) The compulsory closure of schools, or other places of public resort, is often required in the interests of the public health. At present, sanitary authorities can only advise such closure, and more often than not this advice is disregarded. Huddersfield would also take power to close "surgeries or offices of public vaccinators", an ambiguous phrase which I take to mean vaccination-stations. The arrangements by which these are periodically opened are, however, settled at Whitehall, and if the words be retained, it would seem necessary to add, "with the sanction of the Local Government Board".

(*d*) The closure of shops, dairies, or other places for the sale or storage of provisions, clothing, etc., when infectious disease appears on the premises, and the prevention of the entrance of the public into such places, is of course important in the interests of the public health; but the authorities ought to be ready to afford all conceivable help to the people, to enable them to open the shop or other place again with as little delay as possible, and for this purpose ought to have in readiness proper hospital accommodation and disinfecting apparatus. Here, as in the next clause (*e*), important monetary as well as social considerations are involved; and it is especially necessary, in a clause of this sort, to avoid any semblance of shifting responsibility from authority to individual. The variations in this clause are not important. Huddersfield asks specifically for power to close places for the sale of beverages, and common lodging-houses, and speaks of articles liable to communicate or retain infection. Oldham would have the power to make regulations for preventing the sale of infected articles; and Preston wishes to close places for the sale of liquor. If the general principle be admitted, there is nothing to observe on these amendments.

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* BRITISH MEDICAL JOURNAL for December 27th, 1879, p. 1033.

† It may be worthy of note, that of the fifteen towns in which the existence of infectious disease is now required to be compulsorily reported, six have no infectious hospital accommodation whatever:—Bolton, Burton-on-Trent, Jarrow, Llandudno, Rotherham, and Blackburn.

(*e*) The design of this clause is evidently good, namely, to stop infected articles from being scattered broadcast over a district, as from a tailor's, milliner's, or washerwoman's. But the compensation provision seems to me to be likely to work badly in practice, and to be very costly. It would be a direct loss to a tailor, or milliner, or washerwoman, to be kept out of work for six weeks or two months, whilst the house was "infected"; and meanwhile the authority must support the whole household. It would seem very much more reasonable to take more stringent powers for compulsory removal to hospital, so as to remove the sick inmate, transfer the rest of the family to a reception-house while the infected house was disinfected to the satisfaction of the medical officer, and then let the people go back and begin work again. Yet Huddersfield omits any reference to shelter-houses, whilst it would prohibit any person dwelling in any infected house from working at any other place in the same room with healthy persons, except with the written permission of the medical officer of health, and after disinfection of the person or clothing. I do not think this clause can be tolerated. It practically means that, if a householder has a case of scarlatina in his family, and his house is declared "infected", he must not go to his office in the morning without knocking up the medical officer of health and fumigating himself before he begins work. The intention is good, but the clause is obviously unworkable. The proper way would be, as already indicated, to secure due isolation of the sufferer, either at hospital or at home; and of the propriety of removal, the medical officer of health should, in the first instance, be the arbiter. Again, the Huddersfield proposal to prohibit nurses attending on infectious cases from attending other persons is, in its present form, too stringent. What is obviously meant is, to put a stop to such malpractices as a woman nursing a scarlatina patient going to a case of confinement; and it would probably be sufficient to make it illegal for a nurse attending a case of infectious disease to attend a case of another sort of disease, without disinfection. The corresponding clause in the Preston Bill is open to the same objection as I have pointed out with regard to Huddersfield.

As to the other clauses in the various local bills, not much comment is needed at my hands. The clause in the Birkenhead Bill providing for the making of by-laws for regulating the situation and sanitary arrangements of dairies, shippons, and cowsheds, for their inspection by the corporation officials, and for ensuring the purity of the water supply, is an enlargement of the powers which the corporation already possess under the Contagious Diseases (Animals) Act, 1878. I do not understand the necessity for the clause as to the provision of a temporary hospital, nor for the similar clause in the Preston Bill, as the sanitary authorities have already sufficient power in this respect in the 131st section of the Public Health Act. In the Huddersfield Bill, I doubt the workability of the clause (§ 64) imposing fines upon persons who do not tell the drivers of public conveyances that they have been exposed to infection by contact with an infectious patient. The clause as to the notification to the driver of any public conveyance other than a hearse that a person whose corpse has been conveyed in such vehicle has died of infectious disease seems a good one, and I think the employer who sends his servant to the infectious hospital may fairly be called upon to contribute to the expenses of maintenance. One cannot forget, however, the summary way in which employers mercilessly pack off their servants to overcrowded homes in the country as soon as they fail with infectious disease. The Oldham provisions altering the method of securing disinfection of premises and of compulsory removal to hospital (the latter also included in the Lancaster Bill), have already received parliamentary sanction in the Warrington Act. I therefore reserve comment on the best way of providing for these important matters for a future occasion. The clause providing that a body shall not be removed from the infectious hospital, except for the purposes of burial, has my warm sympathy. Of the Preston Bill I have already spoken in my preceding remarks.

In thus criticising these local proposals, I have left, for the moment, altogether out of consideration the manifold defects of our general public health laws as regards infection. I have only endeavoured to point out to the Committee, and through them to Parliament and the localities concerned, what I conceive to be the medical points that deserve attention in these proposals. The increasing desire, however, of local authorities to emancipate themselves from the provisions of the general law, renders it necessary to consider whether the time has not now come when an amended and improved Diseases Prevention Act should be urged upon the Legislature. On this subject I hope to submit some proposals to the Committee on a subsequent occasion.

ERNEST HART, Chairman of the Committee.

161A Strand, W.C., February 2nd, 1880.

DR. WILLIAM FARR, F.R.S.

AT the last meeting of the Committee of Council, the President of the Council and Dr. A. P. Stewart were appointed a subcommittee, to draw up and transmit to Lord Beaconsfield a protest upon the subject of the appointment of a Registrar-General in the place of Major Graham.

The resolution which was drawn up by the subcommittee was transmitted to the Premier by the President of the Council, with the following letter.

"*To the Right Honourable the Earl of Beaconsfield, K.G., P.C., etc.*

"Croydon, February 5th, 1880.

"My Lord,—I have the honour to inform your lordship that the Committee of Council of the British Medical Association have passed a resolution regarding Dr. Farr, which I have been instructed to place in your lordship's hands.

"Might I, as President of the Council of the Association (and which now numbers some eight thousand members), have the honour of reading it to your lordship, and at the same time give your lordship an opportunity to reply to the request which is contained in the resolution, in a manner which would satisfy the Association, and help to remove an unpleasant impression which now prevails among the medical profession generally?

"I enclose for your lordship's inspection a copy of the resolution itself, and am, your lordship's obedient and humble servant,

"ALFRED CARPENTER,

"President of the Council of the British Medical Association."

"That the Committee of Council of the British Medical Association observe with deep regret that Her Majesty's Government have not considered it their duty to confer on Dr. William Farr, F.R.S., the office of Registrar-General, lately vacated by the retirement of Major Graham. That Dr. Farr's remarkable abilities and high intelligence, acknowledged with singular unanimity by all competent judges, both at home and abroad; his constant connection for forty-two years with the registration department, which he has contributed so largely to render famous throughout the civilised world; and the kindliness, discretion, and unwearied zeal which he has manifested in the discharge of all his official duties, had seemed to this Committee to point him out as pre-eminently qualified to administer, as head of the department the system of which he had done so much to create and bring into working order. That, as this promotion, so much desired and so confidently expected by many, has been judged inexpedient, this Committee can but express the earnest hope that Her Majesty's Government will recommend that some signal mark of Her Majesty's favour be conferred on Dr. Farr, in recognition of the rare and distinguished services he has rendered to the nation, to humanity, and to the science of vital statistics, with the solid progress of which, during this century, his name is, and will remain, inseparably associated."

To the request contained in the above letter, the following reply has been received.

"10, Downing Street, Whitehall, February 11th, 1880.

"Sir,—Lord Beaconsfield wishes me to acknowledge the receipt of your letter of the 5th instant, forwarding a copy of a resolution passed by a Committee of the Council of the British Medical Association, with respect to Dr. Farr.

"The Prime Minister regrets that misapprehension should exist on such a subject; but as it seems likely that the matter will come before Parliament, he thinks it better that any observations which suggest themselves should be reserved for that occasion.—I have the honour to be, yours faithfully, "ALGERNON TURNOR."

"Alfred Carpenter, Esq., M.D., Croydon."

AT an adjourned meeting of the South London District of the Metropolitan Counties Branch, on February 4th, the replies of Lord Beaconsfield and Mr. Sclater Booth to the resolutions touching Dr. Farr's resignation, were read; and, the Honorary Secretary having stated that the matter would be taken up by a member of the House of Commons, it was not considered expedient to take any further steps.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

M. Broca in the French Senate.—Police Help in Accidents.—Crèches.—The Weather and the Public Health.

As I anticipated in my last, Professor Broca has been elected Senator. His election took place on Thursday, the 5th instant, and the favourable result of the ballot of that day in the French Senate was communicated to him while he was at his post at the bimonthly meeting of the Anthropological Society of Paris, of which he is the general secretary. The news was immediately proclaimed to the members present, and was received with great applause. Some of them at once constituted themselves into a committee for the purpose of getting up a banquet to celebrate the event. It is to come off on Thursday, the 19th instant. Professor Broca's election brings up the number of members of the different academies in the Senate to nineteen, and to three of the Academy of Medicine, the other two being Professor Robin and Dr. Théophile Roussel. I shall say nothing of the political significance of the new election; but its importance to the profession cannot be over-estimated, as it will not only raise the status of its members, but we can count upon one more who, if he use his influence aright, will be able to render immense service to them. M. Broca has been long known to the profession, and though comparatively a young man, he being in his fifty-sixth year, his career has been a very brilliant one. Son of a medical man, he entered the profession at an early age, in which he rose rapidly. He was scarcely forty when he was appointed Professor of Surgical Pathology at the Faculty of Medicine at Paris. He is now Professor of Clinical Surgery at the Necker Hospital, and has been member of the Academy of Medicine since 1866, of which, at the opening of the present year, he was elected vice-president. But, as he has often expressed himself, the greatest glory of his life is his having founded the Anthropological Society of Paris, which is in the twentieth year of its existence. In 1859, the year of its foundation, it counted only nineteen members; but now it can boast of upwards of seven hundred; and from a simple society it has, through the unceasing exertions of its founder, been raised to the dignity of an institute, with a regular staff of professors, recognised by the State, but at the same time independent of it.

It is commonly said that "things are better managed in France". If this be not true in every case, it may well be applied to the arrangements for affording aid to the sick and wounded found in the streets, which, as may be gleaned from your annotation in the last number of the JOURNAL, are, in England, very defective. In Paris, when a person is taken ill, or meets with an accident in the street, he or she is immediately picked up by a policeman, and conveyed to the nearest druggist's shop or police-station. A medical man is called in, and, after doing what is most urgent, the patient is conveyed on a "brancard" (stretcher) or in a cab to the nearest hospital, or to his own home if he prefer it. The medical man draws out a short report of the case, and receives a fee of six *francs* if during the day, or ten *francs* if at night, from the Commissary of Police of the district. There is a stretcher attached to each police-station, with medicines and surgical appliances for any emergency; and there are four police-stations to each *arrondissement* in Paris, with, as you have pointed out, the inscription "Secours aux Blessés" over the door.

There is another institution from the management of which our British *confrères* might glean some useful hints. I refer to *crèches*. I cannot enter into any long details, but I may mention, for general information, and in response to your appeal and that of your correspondent in the last number of the JOURNAL, that the *crèches* are well organised in Paris, and that there is one or more to be met with in each *arrondissement*. Some of them are kept up by private means, others by the churches and the Municipal Council; but all, like all public institutions in France, are more or less under the direct or indirect control of the police. Besides the police inspectors, each *crèche* has its staff of directrices and nurses, and its inspectors and inspectresses and visitors may call in at any hour and inscribe their observations in a book kept for the purpose. Children at the breast are admitted; and the mothers, if at work in the neighbourhood, call to suckle them as often as they think fit; but if they are unable to do so, or the children are brought up by the bottle, they are fed by the nurses with cow's milk or other food according to age. The children are kept from seven in the morning till seven or eight o'clock in the evening, for which the mother pays two sous, or a penny, daily; and they are received at these *crèches* up to the age of three and a half years. They are then transferred to "asiles", which are similar institutions, and where they are received till the age of seven. No children are admitted to one or the other without bearing distinct marks of having been successfully vaccinated; and as soon as a child is taken ill, it is sent home to its parents. Any further information on the subject will be gladly furnished, but I would recommend a personal visit to these institutions by anyone interested in them, as I consider them perfect models of their kind, and one would learn more from ocular demonstration than any description given on paper.

The effects of the severe winter are still being felt in France, if one may judge from the mortuary reports published weekly by the Prefect of Police. In Paris, the population of which is now a little over 2,000,000, the mortality for the week ending February 5th has been 1,619, or 346 more than the preceding week, the average for the corresponding period for the three previous years being 1,007; and yet it cannot be said that there is any actual epidemic in this city. The bulk of the mortality seems to have been caused, as is usual in this season, by pulmonary affections, that from phthisis alone amounting to 233, pneumonia to 190, and acute bronchitis to 116. There is an affection which has prevailed to a great extent in Paris, and to me hitherto undescribed and undescribable. The French call it "la grippe", and the English influenza, but it is neither the one nor the other. It seems to me to be something between an ordinary "cold", which the French call "rhume", and influenza; for the symptoms do not present the gravity of the latter, and yet they are more severe than those of common catarrh. There is no fever present, but the malady is characterised by great prostration of strength, accompanied with a severe and troublesome cough, with a frothy expectoration more or less viscid, but never purulent or even mucopurulent. Influenza frequently prevails as an epidemic, and is essentially a contagious disease; that is, it is the result of a specific disease-poison propagated by contagia emanating from the patient, whereas the affection under notice is a special, but not a specific, one; and though it prevails in an epidemic form, it is neither contagious nor the result of a specific poison. It is simply a seasonal affection, never fatal unless complications occur, and drugs seem to have little or no influence over it. It runs an indefinite course, and is cured spontaneously. This affection never, of course, appeared in the mortuary returns, but I observe by last week's report, that "grippe" has been included, the number of deaths being two. There has been a marked increase in the number of deaths from typhoid fever and small-pox, that from the former amounting to 101, and the latter to 72; the mortality from these two affections in the previous week having been 30 and 56 respectively; the average for the corresponding week of the three preceding years having been 23 for typhoid fever and only 3 for small-pox. With these momentary exceptions, Paris may, in a sanitary point of view, compare with any other city in the world, and were it not for the defectiveness of its sewage arrangements, might be looked upon as a model city for salubrity as it is for many other things.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: FORTY-EIGHTH ANNUAL MEETING.

THE Forty-Eighth Annual Meeting of the British Medical Association will be held at Cambridge on Tuesday, Wednesday, Thursday, and Friday, August 10th, 11th, 12th, and 13th, 1880.

President: DENIS C. O'CONNOR, A.B., M.D., Professor of Medicine in Queen's College, Cork.

President-elect: G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge.

An Address in Medicine will be delivered by J. B. BRADBURY, M.D., Physician to Addenbrooke's Hospital.

An Address in Surgery will be delivered by TIMOTHY HOLMES, M.A., F.R.C.S., Surgeon to St. George's Hospital.

An Address in Physiology will be delivered by MICHAEL FOSTER, M.D., F.R.S., Prælector in Physiology in Trinity College, Cambridge.

The business of the Association will be transacted in Eight Sections.

SECTION A.: MEDICINE.—*President:* George Edward Paget, M.D., D.C.L., F.R.S., Cambridge. *Vice-Presidents:* George Johnson, M.D., F.R.S., London; P. W. Latham, M.A., M.D., Cambridge. *Secretaries:* W. B. Cheadle, M.A., M.D., 2, Hyde Park Place, London, W.; D. B. Lees, M.A., M.D., 2, Thurloe Houses, Thurloe Square, London, S.W.

SECTION B.: SURGERY.—*President:* William S. Savory, M.B., F.R.S., London. *Vice-Presidents:* William Cadge, F.R.C.S., Norwich; John Wood, F.R.C.S., F.R.S., London. *Secretaries:* John

Chiene, F.R.C.S.Ed., F.R.S.Edin., 21, Ainslie Place, Edinburgh; George E. Wherry, F.R.C.S., 63, Trumpington Street, Cambridge.

SECTION C.: OBSTETRIC MEDICINE.—*President:* W. S. Playfair, M.D., London. *Vice-Presidents:* H. Macnaughton Jones, M.D., Cork; Henry Gervis, M.D., London. *Secretaries:* R. N. Ingle, M.D., 21, Regent Street, Cambridge; C. E. Underhill, M.D., 8, Coates Crescent, Edinburgh.

SECTION D.: PUBLIC MEDICINE.—*President:* Henry W. Acland, M.D., LL.D., F.R.S., Oxford. *Vice-Presidents:* Arthur Ransome, M.A., M.D., Manchester; Thomas Pridgin Teale, M.A., F.R.C.S., Leeds. *Secretaries:* William Armistead, M.B., St. Mary's Villa, Station Road, Cambridge; Thomas Walker, M.D., 19, Westgate, Peterborough.

SECTION E.: PSYCHOLOGY.—*President:* J. Crichton Browne, M.D., LL.D., F.R.S., London. *Vice-Presidents:* G. F. Blandford, M.D., London; P. M. Deas, M.B., Macclesfield. *Secretaries:* G. M. Bacon, M.D., Lunatic Asylum, Fulbourne, Cambridge; Henry Sutherland, M.A., M.D., 6, Richmond Terrace, Whitehall, S.W.

SECTION F.: PHYSIOLOGY.—*President:* William Rutherford, M.D., F.R.S., Edinburgh. *Vice-Presidents:* Arthur Gamgee, M.D., F.R.S., Manchester; Robert McDonnell, M.D., F.R.S., Dublin. *Secretaries:* W. H. Gaskell, M.B., Cambridge; William Stirling, D.Sc., M.B., Marischal College, Aberdeen.

SECTION G.: PATHOLOGY.—*President:* Sir James Paget, Bart., LL.D., F.R.S. *Vice-Presidents:* Samuel Wilks, M.D., F.R.S.; W. Howship Dickinson, M.D. *Secretaries:* W. S. Greenfield, M.D., 15, Palace Road, Albert Embankment; Charles Creighton, M.A., M.D., Anatomical Museum, Cambridge.

SECTION H.: OPHTHALMOLOGY.—*President:* William Bowman, F.R.C.S., F.R.S., London. *Vice-Presidents:* Henry Power, F.R.C.S., London; Henry R. Swanzy, M.B., Dublin. *Secretaries:* W. A. Brailey, M.D., 38, King's Road, Brownswood Park, London, W.; David Little, M.D., 21, St. John Street, Manchester.

A Subsection of Otology will be formed, of which Dr. James Patterson Cassells of Newton Terrace, Sauchiehall Street, Glasgow, has consented to act as honorary secretary.

Honorary Local Secretaries: Bushell Anningson, M.D., Walt-hamsal, Barton Road, Cambridge; A. P. Humphry, Esq., Grove Lodge, Cambridge.

TUESDAY, AUGUST 10TH, 1880.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1879-80.
8 P.M.—General Meeting. President's Address; Annual Report of Council; and other business.

WEDNESDAY, AUGUST 11TH.

9.30 A.M.—Meeting of Council of 1880-81.
11 A.M.—Second General Meeting. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.

THURSDAY, AUGUST 12TH.

9.30 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, AUGUST 13TH.

10 A.M.—Address in Physiology.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting.

GLOUCESTERSHIRE BRANCH.

THE meeting for this month will be held in the Board Room of the General Hospital, Cheltenham, on Tuesday next, the 17th of February, at 7.30 P.M., under the presidency of T. S. ELLIS, Esq., of Gloucester.

Business of the Meeting.—1. Dr. Askwith: On the Treatment of an Encysted Tumour.

2. C. J. Bennett, Esq.: A Case of Amputation at the Hip-Joint, showing the value of "Davy's Lever".

3. Medical and Surgical Cases of Interest.

RAYNER W. BATTEN, *Honorary Secretary.*

Gloucester, February 10th, 1880.

SOUTH OF IRELAND BRANCH.

THE usual quarterly meeting of the Branch will be held in the Royal Cork Institution, on Wednesday, February 25th, at 4 P.M.

Members intending to read papers, or send communications, will kindly intimate their intention to the Secretaries.

P. J. CREMEN, M.D.,
T. G. ATKINS, M.D., } *Honorary Secretaries.*

Cork, January 22nd, 1880.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THE next meeting of this district will be held at the Myddleton Hall, Islington, on Thursday, February 19th, 1880, at 8.30 P.M., when the following papers will be read.

Mr. Brown: Some Remarks on Tumours of the Breast following Injuries.

Mr. French: On Carbuncle.

Mr. Mann: On Lupus.

THOMAS STRETCH DOWSE, M.D., *Honorary Secretary.*

2, Old Burlington Street, February 4th, 1880.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE next meeting of this district will be held at the London Hospital Medical College, on Thursday, February 19th, at 9 P.M.; THOMAS BARLOW, M.D., in the Chair.

The following papers will be read.

1. On Certain Unavoidable Errors in Surgical Diagnosis. By Frederick Treves, F.R.C.S.

2. On Forcible Feeding. By J. O. Adams, F.R.C.S.

A. GRANT, M.D., *Honorary Secretary.*

370, Commercial Road, E., February 11th, 1880.

SOUTH-EASTERN BRANCH.

A MEETING of the Executive Council of this Branch will be held at the Bridge House Hotel, London Bridge, on Thursday, February 19th, at 3.15 P.M.

CHARLES PARSONS, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, February 9th, 1880.

STAFFORDSHIRE BRANCH.

THE second ordinary meeting of the present session will be held at the Board Room of the Infirmary, Stafford, on Thursday, February 26th, at 3.30 P.M.

VINCENT JACKSON, Wolverhampton
J. G. U. WEST, Stoke-upon-Trent } *Honorary Secretaries.*

Wolverhampton, February 2nd, 1880.

NORTH OF IRELAND BRANCH.

A MEETING of this Branch will be held on Friday, the 5th March next, at 12 o'clock, in the Belfast Royal Hospital.

Members intending to make any communication or read any papers are requested to inform

JOHN MOORE, M.D., *Honorary Secretary.*

2, Carlisle Terrace, Belfast, February 9th, 1880.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE third ordinary meeting of the session was held at the Grand Pump-Room Hotel, Bath, on Thursday, January 22nd; J. BEDDOE, M.D., F.R.S., President, in the chair. There were also present twenty-eight members and three visitors.

New Members.—The following gentlemen were elected members: Thomas Chalmers Norton, Esq., Bristol; T. Orlando Mayor, Esq., Clifton, Bristol; E. W. Hope, M.B., The General Hospital, Bristol; Edward Fuller Martin, M.B., Weston-super-Mare; Bonville Bradley Fox, M.B., Brislington; E. W. Coathupe, Esq., Clifton, Bristol; R. J. H. Scott, Esq., Royal United Hospital, Bath.

The late Dr. William Budd.—The PRESIDENT then alluded, in feeling terms, to the death of Dr. William Budd, and proposed that the ordinary business be suspended while Mr. Michell Clarke read an obituary notice, which was received with much attention. It was published at page 163 of the JOURNAL for January 31st.

The office of Registrar-General.—The following resolution was proposed by Dr. J. G. DAVEY, seconded by Mr. E. C. BOARD, and carried by a large majority:

"That this Branch regrets that, in the appointment of Registrar-General, the just claims of the medical profession to that post have been ignored, and that the great and long-continued public services of Dr. Farr and his world-wide reputation as a statistician have been disregarded."

Papers.—The following were read.

1. Mr. E. Field, M.B., read Clinical Observations on Pneumonia, which led to an interesting discussion, in which Mr. Bartrum, Dr. Swayne, Dr. Goodridge, Dr. Skerritt, and Dr. Beddoe took part; after which, Dr. Field replied.
2. Dr. A. E. Aust Lawrence read the first part of a paper on Disorders of Micturition in Women, which will be continued at the next meeting.

CORRESPONDENCE.

THE WOUNDED IN THE STREETS OF LONDON.

Sir,—Your remarks at page 216 of the Journal of this day's date, on "The Wounded in the Streets", and the necessity for every police station in the metropolis being provided with the means of affording primary assistance to injured persons, and of conveying them in proper ambulance vehicles to the nearest hospital, lead me to mention that, in the year 1874, I called special attention to this subject in a paper read before the Order of St. John of Jerusalem in London. I sent a copy of this paper to the Lord Mayor of that time, begging his attention to that part of it in which I contrasted the systematic provision made in Paris for both material and personal help to sufferers from bodily injuries with the absence of any similar arrangements for preliminary aid in cases of accidents in our great metropolis, and urging reasons for steps to be taken to remove this neglect, which almost amounted to a public scandal. I received an official reply couched in civil terms enough, but nothing further was done in the matter. Since that time, the Order of St. John has formed an Ambulance Association among its members; and through the energetic exertions of Sir Edmund Lechmere, Major Duncan, Mr. Furley, and others of the Central Committee, great public good has been accomplished by giving systematic instruction to classes of the police force in proper modes of dealing with cases of injury and sudden illness before professional aid can be obtained. But the advantages of imparting such information must remain far from complete, so long as the material means for applying the instruction are not always at hand. The essentials for primary aid to injured persons should be found in every police station in London, as they are at Paris. The system in force there, of which I have seen the efficient working, has had the advantage of long trial; and every information regarding it can be readily obtained from the special bureau—the *Conseil de Salubrité* of the *Prefecture de Police*—whence the arrangements are directed.

I am, sir, yours truly,

Netley, February 7th, 1880. Thomas Longmore.

STATISTICS OF ANTISEPTIC SURGERY.

Sir,—In my communication referring to the "Antiseptic Discussion", I asked Mr. Lister to explain the statement in his speech regarding his results in chronic abscesses, in relation to the fact that many cases remained uncured in his wards when he left the Royal Infirmary; and I added, parenthetically, that I believed the number was seventeen; for such was the statement I heard when Mr. Lister left. I notice, in your Journal of Saturday last, an attempt to raise a question as to the number left. So far, however, as my argument is concerned, eight cases will answer quite as well as seventeen. Therefore, to prevent any side issue from being raised to obscure the general question, I shall, in the meantime, assume your correspondent to be correct; and I now ask Mr. Lister to reconcile his statement, "I have published numerous cases, for instance, to show that a great abscess connected with disease of the vertebræ may be opened by free incisions, a drainage-tube introduced, and strict antiseptic treatment used; and that, from that hour, I never had another drop of pus", with the histories of the eight cases as given by your correspondent.

I may as well state here that I shall henceforth take no notice of letters from Mr. Lister's friends in reference to this discussion. My communication had special reference to Mr. Lister's speech in the "Antiseptic Discussion"; and I presume he is better able than anyone else to explain his own statements or supply the omissions I pointed out in my communication. James Spence.

21a, Ainslie Place, Edinburgh, February 3rd, 1880.

THE MANCHESTER CHILDREN'S HOSPITAL AND DR. HUMPHREYS.

Sir,—If Dr. Borchardt will read my letter carefully, he will not need to use his "logical power" in putting up men of straw and then knocking them down again. I never dreamt of asserting that Dr. Borchardt had "given his *imprimatur* to the suspension of Dr. Humphreys *because* this was decided upon at a meeting of the House Committee held in his rooms". My statement was, "that the meeting took place at Dr. Borchardt's rooms, *and* he has given his *imprimatur*", etc. Dr. Borchardt takes great pains to minimise the importance of the fact that the said meeting took place at his rooms; but he cannot deny that he was himself present at the meeting. This is the more significant, because Dr. Borchardt draws attention to the fact that he was not a member of the Committee. Membership or non-membership would appear to be of the slightest importance; for Dr. Borchardt, in his letter of the 24th ultimo, has laid down the lines of impeachment against Dr. Humphreys so fully, that there was little for the Chairman to do in his official letter but offer a *réchauffé* of Dr. Borchardt's statements.

Dr. Borchardt asks for facts substantiating the charge of his autocracy. His own letter of the 24th gives ample evidence. The Committee has now affirmed and accentuated Dr. Borchardt's autocracy, by appointing him "Directing Physician", although, but a few months ago, Dr. Ashby had been made "Medical Administrator".

But I submit that an autocracy is not only made manifest by official acts and titles, but by the wielding of an unseen and irresponsible influence, which stands behind, and is sheltered by, constitutional forms. Thus, in the early part of last year, the acting medical staff strongly urged upon the Board an alteration in the arrangements of the fever-block of the Pendlebury Hospital. It will hardly be believed that, in the very same ward, cases of typhoid, scarlet fever, and measles were nursed simultaneously. The risks attendant upon such a system were insisted upon by the acting medical staff; they fortified their views by letters from the highest English authorities on fever, including the late Dr. Murchison, and they pointed out the necessity of some modification. The question was shelved by being referred to the House Committee, and the arrangements continued still *in statu quo*.

Now it is inconceivable that any body of laymen should have declined to take action in so vital a question of hospital hygiene, but for the fact that Dr. Borchardt's views on this matter were known to be opposed to the entire consensus of English medical opinion. This, I submit, is an example of the evils of an actual, though unavowed, autocracy.—I beg to remain, your obedient servant, Thomas Barlow.

Sir,—In your last issue, Dr. Borchardt challenges Dr. Barlow to produce any fact in evidence of his autocracy at the Children's Hospital, Pendlebury. I think I shall be able to supply a fact such as he requires.

In October 1875, I was elected assistant-physician to the hospital at Pendlebury. I was told, at the time of appointment, that the election was for twelve months; but, as that of all the officers was for this period, I naturally regarded the post as practically permanent. At the end of the twelve months, however, I found I was re-elected for a term of three months only, with the understanding that, at the end of that time, my connection with the hospital should cease. On inquiry, I found that certain charges had been made against me by Dr. Borchardt, which had induced the Board to act in the manner stated. (The members present on this occasion were all laymen except Dr. Borchardt himself, and were chiefly his own private friends and patients.) Such of these charges as I could gain any knowledge of, I knew to be entirely unfounded, and I applied to the Board for a hearing before them, and an investigation of the whole matter, but they denied me this act of simple justice. I, therefore, at once resigned.

During the time I was endeavouring to obtain a hearing before the Board, I had several interviews with individual members of that body, and some singular facts came to light. The chairman admitted that the action of the Board was based on certain unsupported statements made by Dr. Borchardt, into the truth of which no inquiry was made. The vice-chairman, in the first place, told me that I had been accused by Dr. Borchardt of neglecting a patient, but subsequently, when I endeavoured to get the matter sifted, he denied this. Both these gentlemen are private patients of Dr. Borchardt's, and are known to be his firmest supporters. One member of the Board told me that a word from Dr. Borchardt was enough, without his bringing any specific charge at all, to sever the connection of any of the medical officers with the institution; whilst another member told me that he highly disapproved of the action of the Board towards me, but that he was powerless to obviate it before Dr. Borchardt and his party. I believe there are others who can furnish similar evidence.—I am, sir, your obedient servant,

CHARLES A. RAYNE, M.B.Lond.,
Late Assistant-Physician to the Children's Hospital, Pendlebury.
Stoke, Devonport, February 10th, 1880.

SCRAP-BOOKS, PICTURE-BOOKS, TOYS, DOLLS, ETC., FOR CHILDREN IN HOSPITALS.

SIR,—May I entertain the hope that you will kindly "follow suit" with the greater part of the leading London daily and weekly papers, by permitting me to make an appeal for scrap-books, picture-books, toys, dolls, and all the "parvæ nuces" of a nursery, for the use and delight of the poor little sick mites of humanity, the Lilliputian lodgers of the Evelina, the Victoria, the Great Ormond Street, the Shadwell, and the Hackney Road Children's Hospitals—one need hardly say, and for any other Children's Hospitals there may be, if any other there be, in or near London—as well as for those small waifs and strays, many of them, in the numerous Children's wards in the great hospitals. There are ninety-three children in St. Bartholomew's alone; sixty-two in Guy's; twenty-four, I think, in Westminster; and thirty-three in the hospital to which I have the honour at present to belong. Since my last appeal for "gifts for the little ones, sick and suffering", which the very obliging editor of the *Daily News* was good enough to insert in his number of December 19th, 1879, more than fifty parcels, boxes, packets, and packages of such treasures, dear to their little hearts, have been sent to me, and carried by me to their destination and distributed. But what are they among so many? There are, I take it, fifty-one hospitals in all in London and its suburbs; and almost every one of these, no doubt, furnishes its quota of juvenile population; not to mention the five or six special children's hospitals. I have had the pleasure—and a great one it has been—of taking books, magazines, etc., to only thirty-three of them, and to six only, out of many more, Convalescent Homes. I would fain say, "To-morrow to fresh fields and pastures new"; and, after writing first to the treasurer or secretary to inquire whether such gifts would be acceptable or not, visit every hospital, where the children-patients, at least, would welcome what I had to bring, bearing in my hand a gift, not one, but many.—I am, sir, by anticipation, your much obliged, obedient, humble servant,

DAWSON W. TURNER, D.Sc.,
Student of Charing Cross Hospital.
13, Salisbury Street, Strand, W.C., February 12th, 1880.

THE HABITUAL DRUNKARDS' ACT.

SIR,—Imperfect as the Habitual Drunkards' Act undoubtedly is, would it not be advisable to make the most we can of it? If there were inebriate establishments under the Act, most magistrates would be happy to give persons brought before them for habitual drunkenness the option of voluntary seclusion in such an institution for from six months to a year. The metropolitan police-court agents of the Church Temperance Society inform me that they meet with many dipsomaniacs who would be willing to surrender their liberty for a time in the hope of cure. From both these sources, a free retreat could speedily be filled.

Is it too much, then, to ask the profession, to whose efforts is mainly owing the present Act, to afford us the opportunity of proving the truth of our assertion that dipsomania can be cured? If we can produce a few of the worst and most hopeless cases of habitual drunkenness, cured by a residence in a retreat under the Act, I feel assured that neither Mr. Cross nor the legislature would refuse us the enlarged powers we so ardently desire.—Your obedient servant,

NORMAN KERR, M.D.
42, Grove Road, Regent's Park, N.W., February 7th, 1880.

VENTOR CONSUMPTION HOSPITAL.—At the annual meeting of the governors and subscribers to this charity, Viscount Eversley, the president, in the chair, the yearly statement showed that the receipts for 1879 had amounted to £8,374, and the expenditure to £6,935. A donation of £1,000 (included in the above) was acknowledged from a friend, "E. P. P. J.", and also legacies amounting to £1,000. The medical report stated that 570 in-patients had been treated during the past year, and 368 had left much improved; the mortality was only 15, or at the rate of 2.63 per cent. These favourable results were chiefly owing to the special advantages conferred by the separate system on which the hospital is built, and owing to the cases being restricted to those in the early stage, or arrested if in the later stages of the disease. It was announced that the Earl of Rosebery would preside at the biennial dinner in aid of the funds, on April 30th, at Willis's Rooms.

OBITUARY.

SIR DOMINIC JOHN CORRIGAN, BART., M.D.

[SECOND NOTICE.]

WE now propose offering a brief and, in the short compass of this notice, a necessarily imperfect review of Sir Dominic Corrigan's medical writings in chronological order.

An Inquiry into the Causes of *Bruit de Soufflet* and *Frémissement Cataire* was published in the *Lancet* in February 1829. In this paper, the author showed that *bruit de soufflet* is due to a twofold cause—namely, (*a*) "a current-like motion of the blood" instead of the normal equable flow, tending to produce corresponding vibrations in the walls of the cavities or arteries, and (*b*) diminished tension of the latter, by which they are more easily thrown into vibration, such vibrations giving rise to *bruit de soufflet* and *frémissement;* the latter being only a more pronounced expression of vibration than the former. This theory is applied in explanation of the murmur of mitral stenosis. In a paper published in the *Dublin Journal of Medical Science*, 1st series, vol. x, November 1st, 1836, illustrated, he reiterated the preceding doctrine, fortifying it by experiments. Applying it in explanation of the *bruit* of aortic incompetency, he makes the left ventricle supply one of his two essential conditions of *bruit*—namely, "current-like motion", and the aorta or its great primary branches the other increased vibration. Thus the two conditions would not coincide in locality, which, according to his theory, should be the case. Of *bruit de soufflet*, he refutes experimentally the increased velocity theory of Hope and the exclusive friction theory of Bouillaud. This paper was read at the meeting of the British Association in Dublin in 1835. In a second paper, on the Mechanism of *Bruit de Soufflet* (*Ibid.*, vol. xiv, November 1st, 1838), he ably refutes the theory of the London Committee, viz., "that a certain resistance or impediment to a liquid current is the essential physical cause of all murmurs produced by the motion of fluids in elastic tubes, and that any condition of the walls of the tubes beyond the obstructing point is not, as has been supposed, essential to the production of these sounds". Chauveau, Boudet, and Bergem have, by their experiments on "fluid veins" (1858 to 1869), conclusively established the correctness of Corrigan's explanation of *bruit* as above given.

The memoir by which his name is best known in medicine, and will for all time hold an honourable place in the history of physical diagnosis, is that on Permanent Patency of the Mouth of the Aorta (*Edinburgh Medical and Surgical Journal*, vol. xxxvii, 1832). Hope, in the first edition of his great work (1831), had correctly described the pulse of aortic regurgitation, but ascribed it to concurrent carditis or adhesion of the pericardium; Corrigan ascribed it to its true cause, and gave the first connected scientific account of the whole subject. He was the first to note "visible pulsation" of the arteries of the head, neck, and upper extremities in this affection. He recognised at this date only two causes of aortic murmur; viz., valvular inadequacy, and aneurism. Hence, to all single valvular murmurs at the orifice of the aorta he assigned a diastolic rhythm, and from this the further error necessarily proceeded of declaring that all such murmurs are audible in the carotid and subclavian arteries, accompanying the visible pulsation and *frémissement* in these vessels. From the last-mentioned observation, it is plain that the author had under notice examples of the double valvular lesion, and that the murmur audible in the vessels of the neck was systolic in rhythm. Soon afterwards, however, as appears from his writings, he identified the distinctive rhythm of the systolic aortic murmur.

In the *Cyclopædia of Practical Medicine*, vol. iii, 1834, the articles Pemphigus, Plica Polonica, and Rupia are from the pen of Corrigan.

He corrected (*Dublin Journal of Medical Science*, vol. ix, 1836) the suggestion of Recamier and Piorry, that the *bruit de cuir neuf* in the abdomen, which he aptly designated a "creak", was due to the collision of hydatids, and that of Bright, that it was caused by adhesion of the peritoneum. He showed, by a case under his treatment in May 1834, that the phenomenon was due, as Beatty had surmised, to mutual friction of unadherent surfaces roughened by effused lymph. The case ended fatally, and a portion of the peritoneum so roughened was removed, and, by rubbing two portions of it against one another, the friction-sound was elicited.

A short paper of great originality and merit, entitled "On Aortitis as one of the Causes of Angina Pectoris" (with an illustration), next appeared (*Ibid.*, vol. xii, November 1st, 1837). The symptoms of angina pectoris are traced to acute aortitis as their cause, and evidence of a twofold character in support of his view is supplied—namely, that afforded by *post mortem* examination of the bodies in two cases where the symptoms of angina pectoris were unequivocal, and secondly, cure effected by means of leeching, blistering, and mercury pushed to salivation in other cases exhibiting a similar group of symptoms.

Next appeared a paper on Cirrhosis of the Lung, with illustration (*Ibid.*, vol. xiii, May 1st, 1838), one of the author's best productions. In this paper, he quite anticipated most of what has been since written on "chronic interstitial pneumonia" and "fibroid phthisis". The author showed that, in a lung the subject of dilated bronchial tubes, the absence of bronchial respiration, which had puzzled Andral, was due to immobility of the corresponding side of the chest. He further showed that Laennec and Andral were wrong in their explanation of bronchial dilatation in this disease, which is due, not to the dilating action of inspissated mucus, as Laennec supposed, nor to hypertrophy of the bronchial parietes, as suggested by Andral, but to the combined action of the interbronchial fibrous tissue hypertrophied by chronic inflammation and dilating the tubes by a slow process of consecutive contraction, and of the centrifugal pressure of air within the tubes to fill the vacuum caused by peripheral contraction of the lung. This view of the pathology of bronchial dilatation is now universally accepted, and its importance in regard to treatment in the early stages of the disease is obvious.

The author lays down that the differential diagnosis from phthisis in the early stage should be based upon the history of copious hæmoptysis, present bronchophony, and comparative dulness without fever or wasting, and, at a more advanced period, upon the presence in an exaggerated form of the physical signs of excavation without proportionate constitutional disturbance.

Observations on the Exhibition of Remedies in the Form of Vapour in Pulmonary Diseases, with description of a "diffuser" for the administration of iodine, chlorine, etc., illustrated, appeared in 1839 (*Dublin Journal of Medical Science*, vol. xv); and in the same year (*Ibid.*, vol. xvi) Observations on the Treatment of Acute Rheumatism by Opium. The author adduces from his own practice cases of the disease cured by means of large doses of opium (one to two grains every second hour) within an average period of nine days; and in no one of these did cardiac complication arise. He claims for this plan of treatment that it shortens the acute stage and relieves pain, favours rapid convalescence by not lowering the patient, and averts engagement of the heart. The pathological and therapeutic speculation on which it is based would not bear close examination; nevertheless, the paper is a valuable contribution to the therapeutics of acute rheumatism, especially in certain cases (not gouty) in which pain is in excess of other symptoms.

In March 1841 appeared (*Ibid.*, vol. xix) Practical Observations on the Diagnosis and Treatment of some Functional Derangements of the Heart. In this paper, the author describes nervous palpitation in the persons of growing narrow-chested boys, dwelling especially on the absence of outward displacement of the apex-point as distinguishing these from examples of left ventricular hypertrophy, for which they are likely to be mistaken. He also adverts to palpitation from flatulent distension of the stomach, and from the free use of tea and tobacco. It is noteworthy that no reference is made by the author to self-abuse as a common cause of nervous palpitation in its worst form; or to variation in the rate of the pulse from emotional influence, whilst the patient is in the sitting or recumbent posture, as the most characteristic symptom of cardiac neurosis. In many of these cases, too, there is an apex systolic murmur of adynamic origin. In distinguishing throbbing of the arteries of the neck in hysterical females from that of permanent patency of the aorta by means of arterial murmur, the author correctly states that, in the case of lesion of the aortic valves, a systolic or "arterial diastolic" murmur is heard in the neck; but he ought to have added, only in those cases in which there is likewise a systolic murmur at the aortic orifice, *i.e.*, where the double valve-lesion exists. Furthermore, in his sketch of the functional murmurs of the neck, the distinction between arterial and venous murmurs in this region is not drawn with sufficient clearness. This is the more singular, as Hope had, in 1831, described the venous "hum" in the jugulars, and Ogier Ward, in 1837, had written conclusively on this subject.

In the *Dublin Hospital Gazette*, vol. i, 1845, to vol. vii, 1860, Dr. Corrigan published several papers on subjects of practical medicine, and in the last-mentioned volume a most interesting account of Arcachon, its climate and resources, "as a health-resort for those suffering from pulmonary affections". In an early number of this JOURNAL (February 1845), he published a description, accompanied by an engraving, of a bed for invalids suffering from bed-sores.

A pamphlet (octavo) of thirty-three pages, of great merit as exhibiting remarkable prescience, entitled *Famine and Fever as Cause and Effect in Ireland*, with observations on hospital location and the dispensation of out-door relief in food and medicine, was published by Dr. Corrigan in 1846. The author reiterated an opinion published by him in the *Lancet* in 1830, viz., that famine was a cause of fever. This proposition is clearly and conclusively established by records extending back to the middle of the eighteenth century. As a preventive of fever, which the author believed must necessarily follow the famine of that year (1846), he urged the establishment throughout the country of institutions for the supply of cooked food to the poor. It was also recommended that hospitals for the reception of the sick should be provided elsewhere than in the workhouses, with a view to saving the self-respect of the labouring classes. The prediction of fever was, in the ensuing year, fully and painfully confirmed by the event.

Observations on a Draft Bill for the Regulation and Support of Medical Charities in Ireland was four years previously (1842) published by Dr. Corrigan, conjointly with Dr. Harrison. This is a remarkable pamphlet, and full of valuable suggestions as to administration, appointment and payment of officers, etc.

In 1847, a remarkable letter was published by Dr. Graves (*Dublin Quarterly Journal of Medical Science*, vol. ii) relative to the proceedings of the Central Board of Health, of which Dr. Corrigan was the single working member. This was a fierce attack, in Graves's characteristic style, upon the Board, the chief ground of accusation being the degrading remuneration of five shillings a day offered to medical men for attendance on fever-patients in hospitals and dispensaries specially provided by Government during the devastating fever epidemic of that year, an epidemic predicted in the preceding year by Dr. Corrigan himself in the pamphlet already mentioned. The medical profession in Ireland warmly resented this slight, and a temperate but firm remonstrance, signed by 1,160 medical practitioners, was presented to the Government against it. Dr. Corrigan's popularity with his professional brethren was for some time greatly diminished by this proceeding, a feeling which found expression soon after in his being "black-balled" when put forward for election to an Honorary Fellowship at the King and Queen's College of Physicians. From this temporary depression, his natural buoyancy and force of character and his great professional ability quickly raised him, and ample reparation was subsequently made by the College in electing him to its Fellowship, and for five consecutive years to its Presidential Chair, an honour never previously or since conferred upon another.

In 1853 were published his *Lectures on the Nature and Treatment of Fever*, a small octavo volume of one hundred and four pages, inscribed to Sir P. Crampton. At this period, the distinction between typhus and typhoid fever, though proven by the writings of Barlow, Stewart, and Sir W. Jenner, was not as yet generally admitted. The rival doctrines of febrile reaction from local irritation and primary or essential fever still exercised the schools, although in a less degree than before. To refute the former doctrine, it was obviously sufficient to observe clinically, and subsequently examine *post mortem*, a few cases of typhus. This the author does, and with effect, clearly establishing the *essential* character of at least one form of fever. He recognised the difference between the maculæ of typhus and the rose-coloured eruption of "follicular enteritis", and regarded the latter affection as a totally different disease from typhus, giving a full description of it, which corresponds in all respects to that of typhoid fever. The advantage of shaving and leeching the head with a view to procuring sleep in certain cases of fever (typhus) is urged; and, owing to the impairment of nutrition in fever, as evidenced by arrest in greater or less degree of secretion and excretion, the practice of forcing food and drink down the throats of fever patients previous to crisis is properly condemned. Mercury in a mild form and in small doses is recommended, with a view to quickening the subfunctions of nutrition; and for the correction of tympanites, spirit of turpentine, in doses of two to four drachms, combined with castor-oil. Crisis by perspirations in typhus is deprecated. Wine is recommended as the best agent in combating failure of the circulation; and "cerebral" is distinguished from pulmonary dyspnœa.

In 1866, he republished his Cholera-Map of Ireland, first brought out in 1850; showing by black dots the towns visited by cholera, and by red dots those which were not so visited. The author draws a conclusion adverse to the doctrine of cholera-contagion from the circumstance that, whilst a large number of the towns with a population of over two thousand, and situate east of a line drawn from north to south through the centre of the island, escaped the epidemic, although, from their commercial activity, enjoying the freest intercourse with each other and with the continent of Europe, of towns with an equal population situate west of that line, and from their want of trade comparatively isolated, not one escaped the disease. He argues for the local origin of cholera from telluric agency, and recommends the reception into general hospitals of persons affected by it.

From the foundation, in 1838, of the Pathological Society of Dublin nearly to the close of his life, Dr. Corrigan was a frequent contributor to its proceedings. Of the communications so made, many were of great interest, illustrative chiefly of his favourite subjects of study—cardiac, aortic, and pulmonary disease, and are reported in the successive numbers of the *Dublin Journal* and the volumes of *Proceedings* of the Society. A paper was published by him on the Treatment of Epilepsy by means of Digitalis in Large Doses, and another (illustrated) on the Treatment of Obstinate Lumbago and Sciatica by Actual Cauterisation; an instrument, since named "Corrigan's button", being devised for the purpose.

He also, as the result of a holiday excursion, wrote an amusing and instructive little book, entitled *Ten Days in Athens*. In connection with this tour, the writer has heard him remark that, having amongst other places of interest in Athens visited the Acropolis, he was moved by curiosity to try upon his own head the ancient Greek helmets there preserved, but failed to find one large enough to fit him.

As a physician, Sir Dominic enjoyed for many years, and until failing health forced him to relax in his work, the largest professional income realised by any man in Dublin since the death of Dr. Cheyne.

The immediate cause of Sir Dominic Corrigan's death was right hemiplegia, which occurred suddenly on the 30th of December, 1879, and ended fatally on February 1st, 1880.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE salary of Dr. John G. Adamson, the Medical Officer of Lurgan Workhouse, has recently been increased from £100 to £150 *per annum*.

VACCINATION.—Mr. Philip E. Hill, public vaccinator No. 1 District Crickhowell Union, has, for the second time, received a grant from the Local Government Board of £12 17s. for successful vaccination in his district.

THE Faversham Rural Sanitary Authority, at a special meeting, have decided to appoint one medical officer of health for the whole district, instead of the four Poor-law district medical officers as at present, upon the expiration of their appointments on March 25th.

MR. LIDDLE has published an elaborate index to the very numerous general and special reports presented by him to the Board of Works for the Whitechapel district since his appointment in 1856 up to the present time. Nothing, perhaps, could show more forcibly than this index the unremitting attention which Mr. Liddle has for so many years devoted to his duties as Medical Officer of Health; for the index is not merely a catalogue of names, but in a measure an abstract of the improvements effected under Mr. Liddle's auspices during his long tenure of office.

MILITARY AND NAVAL MEDICAL SERVICES.

THE INDIAN MEDICAL SERVICE.

SIR,—In the last number of the JOURNAL you advised young medical men not to enter the Naval Medical Service: it would also be well to recommend them not to enter the Indian Medical Service until it has been placed on at least the same footing as regards pensions as the British Medical Service. The pensions in the British Service have been increased in the recent Warrant; an officer of twenty years' service receiving an increase of pension of £64 *per annum*, one of twenty-five years' service an increase of £45 *per annum*; if a brigade-surgeon, the increase respectively being £136 and £91 *per annum*. The pensions in the Indian Service (with the exception of that after seventeen years' service, which a few years ago was increased from £191 to £220 *per annum*) are precisely the same as they were fifty years ago, although the prices of the necessaries of life, etc., to maintain a family have increased very much. What is the consequence? Medical officers are unable to retire from the service until they are compelled to do so on account of age, or because they are physically unable to do any more work. By senior medical officers remaining in the service after twenty or twenty-five years' service, the Government sustains a serious pecuniary loss, inasmuch as the duties most of them are called upon to perform—viz., those of regimental surgeon—could be equally well performed for a little more than half the pay by juniors in the service. According to the BRITISH MEDICAL JOURNAL of January 24th, 1880, Surgeon-Major Cornish states that the number of administrative officers in the Madras Presidency has been reduced from thirteen to seven, thus diminishing the chance of promotion by nearly fifty per cent. The other staff-appointments that were formerly looked forward to as rewards for good and lengthened service—as, for example, staff-surgeons and deputy medical storekeeperships at the head-quarters of divisions—have been done away with. The combatant officers' pensions have been for some years past increased by giving to those of twenty-six years' service and upwards either an annuity or a lump sum of money, varying from £2000 to £6000 or more, in addition to the ordinary pensions to which they were entitled by length of service. Why have not the medical officers been similarly treated? So long as the Government can get young men to accept service on the present conditions, it is illiberal enough to argue, why should the service be improved? What is required for the Indian Medical Service? 1. The pensions should be raised to at least the same amount as those in the British Medical Service. One would have thought that the service of Indian medical officers being entirely in the tropics, the pensions should be better than those in the British service. 2. All leave should count as service towards pension, for no one will take leave out of India and forfeit his Indian pay for the pay he receives in England, unless he be compelled to do so by ill health, contracted in unhealthy stations (and there are plenty of these) in India.—Believe me to be, sir, yours faithfully,

OBSERVER.

Twickenham, February 2nd, 1880.

NAVAL MEDICAL SERVICE.—The following appointments have been made: Inspector General of Hospitals—D. L. Morgan, C.B., to Haslar Hospital; Deputy-Inspector General of Hospitals—A. Irwin, to Plymouth Hospital; J. Elliott, to Malta Hospital; and J. Bernard, to the Chatham Division of Royal Marines. Fleet-Surgeons—J. Thomson, to the *Duncan*, additional; D. M. Shaw, to the *Inconstant*; C. A. Lees, to the *Duke of Wellington*. Staff-Surgeon—W. H. Putsey, to the *Implacable*, additional.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, February 6th.

The Office of Registrar-General.—Mr. ANDERSON asked the President of the Local Government Board why, in filling the office of Registrar-General, the forty-two years' services of Dr. Farr were ignored, and the public deprived of his aid in the new census.—Mr. SCLATER-BOOTH: I understand from the Prime Minister, whose duty it was to advise the Crown in regard to this office, that he was satisfied that the state of Dr. Farr's health was alone sufficient to render it inexpedient to appoint him to any arduous and laborious post.—Mr. ANDERSON said that he did not consider this answer to be quite satisfactory, and he would take an early opportunity of bringing the circumstances before the House.

Wednesday, February 11th.

Medical Act (1858) *Amendment Bill.*—Dr. LUSH, in moving the second reading of this Bill, said the measure was the same as that brought forward by him last year. He now submitted it to the consideration of the House, in the hope that it might be referred to the Select Committee, to which the Government Bill would be referred.—The Bill was read a second time.

Medical Act (1858) *Amendment* (*No.* 2) *Bill.*—This Bill was also read a second time.

PUBLIC HEALTH.—During last week, being the fifth week of this year, 5,944 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 36 deaths annually in every 1,000 persons living. The annual death-rate was 22 in Edinburgh, 25 in Glasgow, and 43 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Wolverhampton 16, Birmingham 21, Newcastle-upon-Tyne 21, Sheffield 22, Oldham 22, Leicester 22, Brighton 23, Bradford 25, Portsmouth 26, Plymouth 26, Salford 27, Leeds 27, Liverpool 28, Sunderland 29, Bristol 30, Norwich 30, Manchester 32, Nottingham 32, Hull 32, and the highest rate, 48, in London. The death-rate in the nineteen provincial towns did not average more than 26.3 per 1,000, against 48.1 in the Metropolis. The annual death-rate from the seven principal zymotic diseases averaged 4.4 per 1,000 in the twenty towns, and ranged from 0.7 and 0.8 in Wolverhampton and Portsmouth, to 6.3 and 7.0 in Sunderland and Hull. Of the 317 deaths from whooping-cough in the twenty towns, no fewer than 248 occurred in London. In London, 3,376 deaths were registered, which exceeded the average by no fewer than 1,657; and the death-rate was as high as 48.1 per 1,000. The 3,376 deaths included 13 from small-pox, 34 from measles, 66 from scarlet fever, 6 from diphtheria, 248 from whooping-cough, 23 from different forms of fever, and 11 from diarrhœa—being altogether 401 zymotic deaths (against 294 and 341 in the two preceding weeks), which were 160 above the average, and were equal to an annual rate of 5.7 per 1,000. The deaths referred to diseases of the respiratory organs rose to 1,557 last week, and exceeded the corrected weekly average by no less than 1,118. Of these 1,557 deaths, 1,223 were due to bronchitis. Different forms of violence caused 78 deaths; 68 were the result of negligence or accident, including 25 from fractures and contusions, 12 from burns and scalds, 13 from drowning, and 16 of infants under one year of age from suffocation. At Greenwich, the duration of registered bright sunshine in the week was equal to 17 per cent. of its possible duration. The recorded amount of ozone showed an excess on each of the last three days of the week.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, January 29th, 1880.

Heble, Richard Grainger, Brighton
Volckman, Ronald, Norwood

The following gentlemen also on the same day passed their primary professional examination.

Francis, John Arthur, St. Bartholomew's Hospital
Unsworth, Francis Henry, London Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 5th, 1880.

Pook, William John, 86, Devonshire Street, E.
Quicke, William Henry, Brinton Lodge, Brixton Road
Redmond, Leonard, Grange Loughall, Armagh, Ireland

The following gentlemen also on the same day passed their primary professional examination.

Craddock, Sidney Ernest, King's College
Norvill, Frederic Harvey, King's College
Odling, Alfred Edward, St. Thomas's Hospital
Tyrrell, Charles Robert, Middlesex Hospital

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

The following vacancies are announced:—

ABINGDON UNION—Public Vaccinator for No. 3 District. Applications on or before the 14th instant.

*ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon. Salary to commence at £80 per annum, with residence and maintenance. Applications not later than February 25th.

BIRMINGHAM WORKHOUSE—Assistant Medical Officer. Salary, £150 per annum, with furnished apartments, coals, etc. Applications on or before the 19th instant.

BURTON-ON-TRENT INFIRMARY—House-Surgeon. Salary, £130 per annum, with residence. Applications, with testimonials, on or before the 20th instant.

BURY ST. EDMUND'S FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £180 per annum, with house, coal, gas, and additional fees for Midwifery. Applications, stating age, testimonials, etc., on or before February 23rd.

GENERAL LYING-IN HOSPITAL, Lambeth--House-Physician. Applications on or before the 14th instant.

GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary, on or before March 18th.

*INFIRMARY FOR SICK CHILDREN, Manchester—Assistant or Visiting Medical Officer. Salary, £180 per annum. Applications, with testimonials, on or before the 25th instant.

IRVINESTOWN UNION—Medical Officer for Ederney Dispensary District, at a salary of £120 per annum, £15 as Medical Officer of Health, Registration and Vaccination Fees. Election on the 21st instant.

KELLS UNION—Medical Officer for Kells Dispensary District, at a salary of £120 per annum, £15 as Medical Officer of Health, with Registration and Vaccination Fees. Election on the 21st instant.

LEEDS UNION—Assistant Medical Officer for Workhouse and Infirmary. Salary, £100 per annum, with board, apartments, etc. Applications, with testimonials, on or before the 17th instant.

*LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance in the house. Applications and testimonials to be addressed to the Chairman of the Committee not later than February 21st.

LONDON HOSPITAL MEDICAL SCHOOL—Lectureship in Botany. Applications on or before the 23rd instant.

MANORHAMILTON UNION—Medical Officer for Drumkeeran Dispensary District, at an annual salary of £100, with Sanitary, Registration, and Vaccination Fees. Election on March 5th.

*NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC—Resident Medical Officer. Salary, £100 per annum, with board and apartments. Applications, with testimonials, to the Secretary, on or before the 21st instant.

NORWICH UNION—Medical Officer for the First District. Salary, £80 per annum.

RICHMOND HOSPITAL, Surrey—House-Surgeon. Salary, £80 per annum for first year, with annual increase of £10 up to £100, with board and furnished apartments. Applications to the Secretary on or before February 18th.

*ROYAL FREE HOSPTIAL—Junior Resident Medical Officer. Applications on or before the 25th instant.

*ROYAL HOSPITAL FOR DISEASES OF THE CHEST—Two Assistant-Physicians. Applications, with testimonials, before February 26th.

ROYAL SEA-BATHING INFIRMARY, Margate—Resident Surgeon. Applications, with testimonials, to the Secretary on or before the 21st instant.

*SUNDERLAND HOSPITAL FOR SICK CHILDREN—Three Honorary Medical Officers. Applications to the Honorary Secretary on or before March 2nd.

TAVISTOCK UNION—Medical Officer to the Whitchurch and South Lydford Districts. Salary, £50 per annum.—Also, Medical Officer to the Milton Abbott District. Salary, £55 per annum. Applications on or before the 17th instant.

WEST LONDON HOSPITAL, Hammersmith—Assistant Surgeon. Applications on or before the 21st instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Barling, H. G., M.B., appointed Resident Registrar and Pathologist to the Birmingham General Hospital, *vice* Howard G. Lowe, M.R.C.S.Eng.

Birdwood, R. A., M.R.C.S., appointed House-Surgeon to the Gravesend Infirmary, *vice* W. H. Flight, M.R.C.S., resigned.

Bowlby, Anthony A., M.R.C.S., appointed Registrar and Chloroformist to the Evelina Hospital for Sick Children, *vice* W. M. Burgess, M.R.C.S.Eng., resigned.

Crookshank, H. M., L.K.Q.C.P., appointed Medical Officer to the North Kensington and Kensal Town Provident Dispensary, *vice* T. S. Gell, M.D., resigned.

*Snell, Simeon, M.R.C.S., appointed Ophthalmic Surgeon to the Institution for the Blind, Sheffield.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

Adams.—On Saturday, January 31st, at Brooke House, Upper Clapton, the wife of J. O. Adams, F.R.C.S., of a daughter.

Elliot.—On February 10th, at Cliffe House, Ruyton-Eleven-Towns, Salop, the wife of Henry Francis Elliot, F.R.C.S., of a daughter.

MARRIAGE.

Ward—Toone.—On February 5th, at St. John's Church, Balby-cum-Hexthorpe, by the Rev. W. R. Weston, Vicar, assisted by the Rev. G. Jannings, Rector of Warmsworth, John Bywater Ward, M.D., Warneford Asylum, Oxford, second son of William Sykes Ward, Esq., Denison Hall, Leeds, to Frances, youngest daughter of the late William Wasteneys Toone, Esq., Lambroke Grange, Yorkshire.

DEATH.

Hemming.—At Upwell, Cambridgeshire, on February 6th, after a long illness, John Hemming, M.R.C.S., L.S.A.

Medical Magistrate.—Sir William Miller, M.B., has been placed on the Commission of the Peace for the borough of Londonderry.

Dr. W. Lauder Lindsay, lately Physician-Superintendent of the Murray Royal Asylum, Perth, has recently been elected Honorary Member of the "Société de Médecine Mentale de Belgique".

Mr. Evan Evans, Surgeon, of Bath, died on the night of January 27th, from taking prussic acid. It was at first supposed that he had committed suicide; but the coroner's jury by their verdict found that he "died from an overdose of prussic acid taken by misadventure".

Bequests.—The following, among other, legacies have been left by the late Mr. Thomas Wrigley of Timberhurst, Bury: Owens College, £10,000; General Hospital and Dispensary for Sick Children, Pendlebury, £10,000; Albert Asylum (Idiots), £10,000; Bury Dispensary, £10,000.

Lieutenant Fergusson.—The profession will regret to hear that the second wound received by this gentleman is likely to terminate in the loss of his right eye. A private letter states that he is ordered home to obtain better advice. Mr. Fergusson is the second son of the late Sir William Fergusson. His friend and companion in arms, Dr. Duncan, is progressing favourably, notwithstanding the serious nature of his wounds.

Royal Free Hospital.—In his annual report to the governors of the Court, the Secretary (Mr. James S. Blyth) stated that the year just passed was the most prosperous hitherto experienced by the institution. The receipts from all sources had amounted to £31,861, of which the late Mr. W. Birks Rhodes had by legacy contributed £20,000. Inpatients to the number of 1,320 had been admitted, while 24,644 outpatients had received attention and medicine. Accommodation has now been provided for upwards of 150 beds, and the health and comfort of both patients and nurses carefully provided for.

Cork District Lunatic Asylum.—By the exertions of Drs. Eames and Tanner, the inmates of this institution last week had the opportunity of witnessing an amateur performance which was specially organised for their amusement. After a comedy had been played, the band attached to the institution performed some select pieces of music, which were followed by a cornet solo from *Norma* by Dr. Eames. A travesty on *Norma* succeeded, and later on several songs and recitations by the patients, one of whom, as Commander-in-Chief of the British army, was appropriately attired in a scarlet coat, and delivered an address on "the resources of Great Britain as a military nation" to the delight and admiration of his hearers. Great praise is due to the medical officers of the asylum, who prepared this entertainment for the insane under their care.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30 Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. H. F. Baker, "On the Treatment of Genu Valgum without Division of Bone"; Dr. Thudichum, "On Polypus in the Nose, and its connection with Asthma; with a new mode of treating Asthma, Bronchitis, and Consumption, by the Inhalation of the Pyrolytic Vapour of Vegetable Alkaloids and Extracts".

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Goodhart: 1. Congenital Occlusion of Duodenum; 2. Gangrene of Colon. Mr. Startin: Drawings of Skin-Diseases. Dr. Gilbart Smith: Epithelioma of Pharynx. Dr. F. Semon: Epithelioma of Larynx. Mr. Nunn: 1. Secondary Tumour after removal of Breast; 2. Epithelioma of Penis; 3. Melanosis of Finger. Mr. Walsham: Sarcoma of Spermatic Cord. Mr. MacMahon: Cancer surrounding the Colon. Dr. S. West: Blood-casts from the Bronchi. Dr. Squire: Microphotographs of the Blood in Yellow Fever. Dr. William Ewart: 1. Cicatrices on the Air-Passages and Fibroid Disease of Lung from Syphilis; 2. Diaphragmatic Hernia.—Statistical Society, London, 7.45 P.M. Mr. A. Welton, "On Certain Changes in the English Rates of Mortality".

WEDNESDAY.—Association of Surgeons practising Dental Surgery, 8.30 P.M. Mr. S. Cartwright, "On the Recognition of Certain Constitutional Lesions by Means of Examination of the Teeth and Mouth". Council Meeting, 8 P.M.—Meteorological Society, 7 P.M. Lieut. Alfred Carpenter, "On Typhoons in China, 1877 and 1878"; Mr. Robert H. Scott, "Note on the Reports of Wind-Force and Velocity during the Tay Bridge Storm, December 28th, 1879"; Mr. William Marriott, "On the Frost of December, 1879, over the British Isles"; Captain William Watson, "Thermometric Observations on Board the Cunard R.M.S.S. *Algeria*".

THURSDAY.—Harveian Society of London, 8.30 P.M. Dr. Alfred Meadows, "Cases of Gynæcology"; Dr. Broadbent, "Venæsection".—British Medical Temperance Association (11, Chandos Street, Cavendish Square), 4 P.M. Quarterly Meeting. Dr. C. J. Russell, "On the Medical Profession and Total Abstinence"; Dr. Norman Kerr, "On the Use of Alcohol during the Menstrual Period"

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

CEREBRAL PNEUMONIA.

SIR,—As my name has been used in connection with the term "cerebral pneumonia", I shall be obliged by your allowing me to say that I make no claim to this term, that I do not regard it as a particularly happy one, and that I have no means of knowing whether it is or is not the same thing as the *pneumonia sine tussi atque dyspnœâ* described by Dr. Dick in 1844. In writing of the several forms of pneumonia, it was my business in a systematic treatise to notice those examples of the disease in which nervous symptoms were prominent. I said (as Dr. Russell has partly quoted): "We hear sometimes of cerebral pneumonia, no more being meant than that nervous disturbance may be unusually prominent and unusually early, so as in some cases (and especially with children) to divert attention from the pulmonary condition" (p. 67). There is no novelty in this observation, and no need to exalt this kind of pneumonia into a separate place. The main object, indeed, was to point out that this form of the disease was no more than ordinary pneumonia, which the attending circumstances served to modify. Pneumonia has too many names already: there is no organ of the body, there is hardly a disease, which has not been laid hold of and tacked on to it as a qualifying adjective. Nay, more, qualities that belong to the region of morals rather than of physics are freely attributed to it: it is "false" and "insidious", and even "sneaking". And now it is proposed to describe pneumonia not by what it is, but by what it is not. There is the *pneumonia sine tussi atque dyspnœâ* pressing for notice. Where is it to end? What strikes us most in this exuberance of epithet, is the gratuitous preference which it implies for one form of pneumonia over another. We are, in fact, placing before our minds an ideal picture of what the disease ought to be, and characterising all deflections from that form as though they erred from the legitimate pattern. There is the true pneumonia, which is frank and open and aboveboard; and there is its unworthy and bastard brother, a low, covert, and un-English pneumonia. All this may be amusing allegory; but every practical man must ask himself what is the use of it, and how far it ministers to a real knowledge of the disease it personifies. The statistics of pneumonia sufficiently show at what cost of life and convenience some of these metaphors have been indulged in. At the very time, indeed, that Dr. Dick was devising the title he now wishes to see preserved (in 1844), it was still the custom to speak of strong pneumonia and weak pneumonia. Our most trusted teachers were then engaged in warning the rising generation against a new heresy of the French school, which had suggested that even "sthenic" pneumonia might possibly do as well with rather less bleeding and rather more food. But today it is far worse: there is not only pneumonia—sthenic and asthenic, active and passive, cerebral, cardiac, and renal—there is also, in very remote and uncertain connection with it, the word "pneumonic"; and "pneumonic", in conjunction with such companions as phthisis, scrofula, and tubercle, enters into a series of combinations, of which, indeed, the exact number is determinable by means of a simple mathematical formula, but in regard to whose precise meaning and mutual relations there are probably no two persons of all who use the names so glibly in perfect agreement. I have heard it said that most of the uncouth words which get such ready currency originate with a particular medical school in London, having a more than common reputation for learning. It is easy to see, however, that medical education has a natural tendency to impair the proper respect due to language. The medical student is suddenly introduced to a highly technical phraseology, whose words are of very flexible meaning, and almost every one involving controversy and difference of opinion. From being merely puzzled at what at first is only a jargon, he gets presently to learn that these indefinite phrases have their service, and that with a little dexterity he may not only take shelter in those which are already in use, but even devise others for himself upon the same principle of construction.—Your obedient servant,

OCTAVIUS STURGES.

MAGPIE-DUST.

MEDICAL men of all nations will (says the *Daily Telegraph*) learn with interest, upon the authority of no less exalted a personage than the Princess Bismarck, that magpie-dust is an infallible panacea for the falling-sickness. The most confirmed epileptic may achieve a radical cure of his distressing malady if he will only swallow a sufficient quantity of the dried and pulverised flesh of this furtive fowl: at any rate, so we should infer from the following circular, addressed by the President of the Eckenfoerd Shooting Club to the members of that association:—"M . . . 2nd January, 1880. Her Highness Princess Bismarck wishes to receive, before the 18th instant, as many magpies as possible, from the burnt remains of which an anti-epileptic powder may be manufactured. I permit myself, therefore, high and well born sir, to express to you the entreaty that you will forthwith shoot as many magpies as you can in your preserves, and forward the same either to the Chief Forester Lange at Friedrichruhe or hither, without paying for their carriage, down to the 18th of this month. Teeming with exalted respect, I am, etc., J. L. L."—We have no reason to believe that the indisposition from which the German Chancellor has recently been suffering is one in the slightest degree complicated by epileptic symptoms. It may, therefore, be hoped that he is not the patient whom Princess Bismarck has been treating with burnt magpie. Perhaps an epidemic of fits has broken out among the Prince's tenants on his estates in Lauenburg and Pomerania. If so, we sincerely wish them well through a cure which, however beneficial it may prove to epileptic farmers, seems likely to result unfavourably to the health of the Eckenfoerd magpies.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. **Francis Fowke**, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

The Murchison Memorial.

The Committee are desirous of completing the arrangements connected with the above. A large number of subscriptions have been promised, some of which still remain unpaid. It is hoped that many more may yet be forthcoming. Since the last appeal was issued, the Committee have enlarged the scope of this memorial, so that all students of the London and Edinburgh schools may now compete for the scholarship in clinical medicine, which it is proposed to institute. This scholarship should be of the value of at least £50 *per annum;* and to provide this, further contributions, amounting to £600, are desired. It is thought that no difficulty should be experienced in securing this sum to found a memorial worthy of so eminent and venerated a labourer in medical science.

Subscriptions will be received by the honorary treasurer, Dr. Potter, 20, George Street, Hanover Square, W.; or the honorary secretaries Dr. Dyce Duckworth, 11, Grafton Street, Piccadilly; Dr. W. S. Greenfield, 15, Palace Road, St. Thomas's Hospital; and Dr. Byrom Bramwell, 4, Drumsheugh Gardens West, Edinburgh.—The second list of subscriptions amounts to £385 19s. 2d.; making, with £546 3s. 6d. previously advertised, a total of £932 2s. 8d.

Margate.—Mr. Kimpton, medical bookseller, High Holborn.

A Distressing Case.

Sir,—Through your great kindness in making the appeal on behalf of my husband, I have been enabled to reopen the shop, and a gentleman in the wholesale trade has also kindly offered his help in supplying first-class cigars for any orders I may be favoured with; and Mr. Jordan, a friend of my husband's, has kindly arranged to wait upon any gentleman with samples.

Allow me to thank you for your extreme kindness to my poor husband (who is still very ill) and myself, and apologising for again troubling you, I beg to remain, dear sir, yours very obediently, Mary Dalton.

48, Cranbourne Street, W.C., February 7th, 1880.

An Associate (Millport) had better refer the question to the Council of his Branch.

Foreign Degrees.

Sir,—I do not intend to reply to the letter of Mr. R. Carpenter, which appeared in this day's British Medical Journal, and which was full of misconceptions, further than to remark that there is no such university in existence as that named by him as the "University of Philadelphia"; that his own diplomas will, after the passing of the new Medical Act, be unrecognised in the future as qualifications to practise in this country, and therefore placed exactly in the same category as the German University degrees; and that I have forwarded copies of this week's Journal to the Deans of the Universities whose degrees have been so unwarrantably impugned, and who will, no doubt, take the necessary steps to prevent further misrepresentations from being made. In the Journal of November 15th and December 27th, 1879, will be found quite sufficient refutation of the absurd allegations that have been made against European Continental University degrees, without entering further into the matter. With regard to the letter of "M.R.C.S. & L.S.A.", I do not consider it worth while to make any remark upon it, especially as its anonymous author appears wishful to enter upon an useless discussion of the comparative merits of English and Scotch diplomas, which would do no good.—I remain, sir, yours faithfully, H. J. Hardwicke, M.D.

Sheffield, January 31st, 1880.

P.S.—It has struck me as being strange, that Mr. Carpenter does not apply to the various Continental universities for the regulations for their medical degrees.

⁂ The correspondence, to which we have allowed great latitude, owing to the extended interest which it arouses, and its bearing upon pending legislation, must, for the time at least, now cease.

Dr. Russel (Lancaster).—Duly received, and shall have attention.

Tinnitus Aurium.

Sir,—I am a surgeon, having been thirty years in practice, and I was a victim to tinnitus aurium for about two years, more or less. The noise at night was intolerable, and frequently I was obliged to get up at four or five in the morning and walk about my garden to relieve it. The noise resembled that of an ordinary threshing-machine, and it was almost perpetual. When I was driving or walking about, the noise became much less distressing; it indeed almost vanished. The treatment I adopted was frequent syringing the ear, and so shaking up the tympanum. I have done this twenty times a day, and invariably with some relief; at all events, every particle of wax was removed by this means. My health was very good, and my belief was that the noise was occasioned by the rushing of the blood through the carotid artery in the temporal bone. I now take care to allow no wax to accumulate in the external meatus, and I have now lost all tinnitus, and almost forgotten the sensation.

A gentleman of my acquaintance suffers in the same way as I did, but syringing has done him no good. The peculiarity in his case is, that when he goes to London, which he frequently does, he loses the noise. He observes, moreover, that his enemy leaves him at Cambridge. This gentleman once consulted Sir Thomas Watson, who happened to be staying in the neighbourhood, and he advised a blister behind the offending ear. No result followed, and he suffers now as much as ever.

A lady once came to my surgery suffering much from tinnitus aurium. On syringing, a large quantity of wax at once came away from the external meatus, with immediate relief.

I should really be glad to know the experience of others in these troublesome cases. I think worry has something to do with it, and mental wear and tear. I used a very large ear-syringe, and injected warm water as warm as it could be borne.—Yours, etc., A Sufferer from Tinnitus Aurium.

⁂ Our correspondent will find much interesting information on the subject in the report of a discussion on Tinnitus Aurium in the Section of Otology at the meeting of the Association in Cork (see British Medical Journal, August 30th, 1879, page 332).

Sir,—I should feel greatly obliged if any of your readers could give me or suggest where I may find information upon the physiological effects of tea, and the amount annually introduced into this country.—Yours faithfully,

Dickson House, Moffat, Feb. 9th, 1880. Wm. D'Oyly Grange.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. **Fowke**, not later than *Thursday*, Twelve o'clock.

The Treatment of Drink-Craving.

Sir,—In your last issue, there is a letter animadverting on the use of cinchona rubra as a cure for drunkenness. I have no doubt the writer of the letter is labouring under the same difficulties as I did, when I first began to use that drug for the purpose indicated. These difficulties were two. I could not get the proper drug: the cinchona flava was always sent. I might add, I was the first to use the cinchona rubra as a cure for drunkenness in this country; and that Messrs. MacFarlane and Co., Edinburgh, made the mixture. I have used it several times with full results, and am only waiting till I have collected one dozen cases before publishing my experience. The second difficulty was this: I was in the habit, at first, of telling my patients what I was going to do. This was a great mistake, and the treatment always ended in failure. I now tell the patient that I am going to treat him for heart-disease or any other complaint, and alarm him to the extent of making sure he will obey orders and take the medicine regularly. I then ask, in private, his more immediate friends to exercise a certain amount of moral influence over him. By using these precautions, I have always succeeded not only in creating a disgust for drink, but likewise in killing the craving.—I am, sir, E. H. F.

February 3rd, 1880.

The Brussels M.D. Degree.

Sir,—In reply to "Bruxelles", I would advise him to read Niemeyer's *Medicine*, Bryant's *Surgery*, Ringer's *Therapeutics*, Meadows' *Midwifery*, Guy's *Medical Jurisprudence*, Wilson on *Hygiene*, and some of the chapters out of Parkes, especially those on clothing, ventilation, water, etc. Fenwick's *Diagnosis* will be useful; and for surgical anatomy, Heath will do. If "Bruxelles" will send me his name and address, I will give him any other information he may require.—I am, etc.,

March, Cambridgeshire, February 1880. W. Easby, M.D.

Mr. J. W. Davies (Clun).—A journal, entitled *Répertoire Universal de Médecine Dosimétrique*, a monthly publication, may be obtained of M. Chanteaud, Directeur de l'Institute Dosimétrique, 54, Rue des Francs-Bourgeois, Paris, where also may be obtained the number containing the Presidential Address for 1878, and Dr. Pinel's Pressinervoscopie. The *Répertoire* is published by Dr. Burggraeve, the subscription of which is 10s. *per annum.*

The Interments Act.

Sir,—In the Journal of January 24th, it is stated that "the Milton-next-Sittingbourne Rural Sanitary Authority appears to be the first rural authority who have taken definite action under the new Interments (Public Health) Act, etc." During October last, I examined into and reported upon the condition of twelve burial grounds in the district of the Mansfield Rural Sanitary Authority; I also saw from a local newspaper that Dr. Mackintosh, Medical Officer of Health for the Chesterfield Sanitary Authority, had reported upon the condition of the burial grounds in his district some time before I made my report.—I am, sir, yours truly,

Alex. K. Dyer, M.D., Medical Officer of Health for the
Sutton-in-Ashfield, Jan. 27th. Mansfield Rural Sanitary District.

Unilateral Dislocation of Lower Jaw during Extraction of Teeth.

A man about twenty-eight years of age came into my principal's surgery and asked me to draw him two teeth. On asking which they were, he pointed to a right lower incisor and upper bicuspid. I extracted the lower incisor first, using very little force. After the operation was over, I perceived that the patient could not close his jaw. On examination, I found a well marked hollow in front of the left ear, indicating dislocation on that side. I at once reduced it by the ordinary method. The patient being very anxious that I should extract the upper bicuspid, I did so, and unilateral dislocation of the left side happened again. One would naturally suppose that great force was used; but such was not the case. I have had considerable experience in tooth-drawing, but never saw or heard of an accident of this kind happening during the operation. Wm. J. Beatty.

An Anomalous Eruption.

Sir,—The eruption described by Mr. Lattey in the Journal of January 17th, seems to me to be pemphigus. Pemphigus usually commences as clear vesicles or bullæ, which rapidly become opaque, burst, and leave a scab, under which the skin is inflamed and red. The disease is accompanied with much itching, and the patients are usually in a debilitated state. Pemphigus occurring in young infants is nearly always syphilitic; it is often epidemic, and sometimes very fatal (Hebra). The best treatment is quinine and opium internally, with a lotion of liquor calcis and linseed oil (linimentum calcis) internally.—I am, etc.,

Bangor, North Wales. H. Grey Edwards, M.B.Dub.

Coroners' Inquests.

Sir,—In present circumstances, it may not, perhaps, be out of place for me here to give a recent instance of the coroner's court becoming "the medium for supplying the defective registration of the causes of death".

M. P., aged 16, single, was employed with her sister as servant. On Saturday, January 17th, at mid-day, she complained of some deep-seated abdominal pain and vomiting, and she went to bed. Previously to this she had been quite well, and had made no complaint. Early on Sunday (the day following), she was removed home by her sister, and I was called in to attend her. I found her lying on her back, with the knees drawn up, suffering from intense pain over the region of the bowels, and marked tenderness on pressure over the whole of the lower front of the abdomen. She had had no action of the bowels since the previous Friday. Her temperature was high, skin dry, pulse rapid, mouth parched, tongue coated with drily brown fur, face flushed, and she had incessant vomiting present; she had, in fact, symptoms of peritonitis. Her mammæ were full, hot, with dark areolæ and prominent sebaceous follicles. By auscultation, the uterine *souffle* was distinctly audible, the fœtal movements evident, and the fœtal heart heard beating 140. The girl stoutly denied being pregnant, but acknowledged that her menses had ceased at least four months previously. She told me, on questioning her, that she had taken some five or six pills (antibilious?), but no other medicine. I immediately ordered linseed poultices and turpentine stupes to be constantly applied, and prescribed 15 minims of tincture of opium with 2 minims of dilute hydrocyanic acid and 20 minims of spirit of chloroform (*P.B.*) every two or three hours while the pain was so severe. On Tuesday, the 20th, she seemed better, but the bowels had not acted. On Thursday evening, the bowels still remaining unrelieved, I ordered an enema of soap and water, with some croton-oil in it. This treatment was strongly objected to; and, finding my wishes opposed, I gave up the case, cautioning the parents that, if anything happened to the girl, they alone must be responsible. On Friday, the 23rd, the assistant of a neighbouring practitioner was called in, and he prescribed once. On the 24th instant, his treatment was discontinued, and a local midwife (the wife of a coalheaver) took the case in hand. It was this last-mentioned person who persuaded the patient's parents, in my presence, to object to my treatment. This old woman attended the girl till her death, on Monday, the 26th instant. As I happened to be the only person attending the case who was qualified to give a certificate of death, I was applied to, and refused to give it—firstly, on the ground of having abandoned treatment some days previously; and, secondly, because I was not sure whether malapraxis had been employed or not. I wrote to the coroner, at the same time giving him the facts of the case, and stated my grounds for refusal to sign a cause of death. The coroner held an inquest on the 30th instant; and, the jury not considering a *post mortem* examination necessary, a verdict was returned of "Death from natural causes". No medical witness was called in evidence. I have since learned that the girl was delivered of her child before she expired; but whether the delivery was artificially brought on or otherwise, I am not in a position to say. The principal witness giving evidence was the midwife referred to, and that the witnesses, one and all, departed considerably from the truth in aiding the coroner and his jury to bring in their verdict.—I beg to remain, sir, yours faithfully,

G. Herbert Lilley, M.D., M.R.C.P.E., etc., District Medical Officer, Lichfield Union; Med. Officer of Health, etc.

Brownhills, January 31st, 1880.

⁂ This case adds another to the large number of imperfect and unsatisfactory inquiries which are held under the name of coroner's inquests. A verdict of "Death from natural causes" in a case like this, without medical evidence and without a *post mortem* examination, appears to us to be quite unjustifiable. As the deceased had been attended by a qualified practitioner, and had ultimately died under the hands of an ignorant midwife, there was no pretence, except that which might arise from financial motives, for excluding medical evidence. In the meantime, if there had been any malapraxis in the delivery of the deceased by the midwife, the course of procedure at the inquest was well calculated to conceal it.

Guy's Hospital and Nursing Systems.

Sir,—Having had many years' experience of what Dr. Hicks calls the central system, and its undoubted advantages in some respects, I can only say that, in my opinion, the disadvantages often predominate, and incline me, for many reasons, to prefer the good old "ward system", which, I imagine, most Guy's men, like myself, found to work most admirably. Several years ago, when I was house-surgeon to one of the largest of our provincial infirmaries, where the Nightingale system was considered to be worked to perfection, a most abominable system of *espionage* was cultivated by the lady-superintendent. The nurses were enjoined to report everything which went on in the place to her; and this was done *con amore* by some, who probably did not always give unbiassed evidence as to the doings of their friends or enemies. "My nurses tell me everything about Mr. ——: I know all that goes on", said the lady-superintendent to me one day. I know that the nurses were encouraged to bring all scraps of information and gossip, not only about their fellow-nurses, but about servants, resident pupils and students, house-surgeons, and even about the honorary staff; and I know well that the Visiting Committee frequently received rather one-sided information in this way on many matters. And then as regards the unfortunate nurses themselves: I feel sure that favouritism and even tyranny has often too much play where the sole authority over the nurses rests in the hands of one woman. I think, as a rule, that women are more strong in their likes and dislikes than men are, consequently that they are more apt to be swayed by prejudice—thus they lack the "judicial mind" which should distinguish the ruler over a large establishment. A lady-superintendent such as I mentioned appears to think that the hospital is to be used merely as a nurse-training institution, instead of the nurses being trained for the hospital. She is never happy unless she is shifting nurses about from one part of the hospital to the other, or, still worse, from hospital work to private nursing, and *vice versâ*. Then it may happen that the lady is one who thinks she has a call for this kind of work, but is of a weak or nervous temperament, anxious to do her best, but so afraid of losing her authority that she has only one idea of keeping discipline. For every fault, great or little, there is only one remedy—dismissal of the offender. Is it to be wondered at that good nurses look out for safer situations rather than remain under such a mistress? Is it a wonder that her nurses are obtained with difficulty, and then only remain for a short time? The fact is, that the only way to carry out the central system satisfactorily is for the lady-superintendent to work under the control of a select committee, on which there shall be at least two members of the professional staff. The lay members are always too apt to be guided by the statements of the lady-superintendent; and of course, in any dispute between her and her nurses, "her authority must be supported", and the weakest goes to the wall.

For my own part, I think the Medical Board of Guy's Hospital should ventilate the matter in the daily press. I believe that the voice of the public, if appealed to, would prove to be the voice of reason. I trust that the physicians and surgeons will receive all possible support from the profession, for this contest is one of great importance to all hospitals throughout the country.—I am, etc.,

January 20th, 1880. A Former House-Surgeon of Guy's.

Mr. A. S. Duke.—What is called the "uncovenanted medical service of India" in our correspondent's question can only be the subordinate medical service of the Government of India, which consists entirely of natives and Eurasians, educated in the government medical schools. The highest grade in the service is that of apothecary, and the rank is that of warrant officer. It is not a service offering any opening for Europeans. If there be such a service as an "uncovenanted medical service" for European qualified practitioners, it is of recent origin, and we advise our correspondent to apply to the India Office for information. We know nothing about it.

Abuse of Narcotics and Sale of Poisons.

Sir,—Believing that the following statement relative to the powers possessed by the Council of the Pharmaceutical Society will be of special interest to the profession at the present moment, I send it to you, although the substance of this letter was published last week in the *Standard* and other daily papers.

The Council has power under the second section of the Pharmacy Act (1868) from time to time to add to the list of poisons scheduled in the Act, and in 1869 added thereto, among other things, "preparations of morphia", and about two years ago added "hydrate of chloral and its preparations". And, by the seventeenth section of the Act, nothing in the schedule can be legally sold without being labelled "poison", except when contained in medicine supplied by a medical practitioner or dispensed by a registered chemist. Of course, had the words "preparations *containing* morphia" been used instead of "preparations of morphia", chlorodyne (which always contains morphia) would clearly have been within the Act, and must have been labelled "poison". I believe I may fairly assume that all medical practitioners who have investigated the matter consider that chlorodyne is practically a "preparation of morphia", yet a court of law might hold that it was not legally a "preparation of morphia", seeing that it contains prussic acid (which is in the list of poisons) and other things as well as morphia.

What I have written concerning chlorodyne applies equally to other narcotics—*e.g.*, to preparations containing chloral, to soothing and teething powders—and the principle applies to scores of patent medicines and other preparations containing poisons, which, sold in their own name, are poisons within the Act, but when disguised in name and taste or appearance, are supposed to be saleable without being labelled "poison". The remedy for this absurd and unsatisfactory state of matters is plain and simple enough. Let the Council of the Pharmaceutical Society add to the list of poisons "All preparations containing any poison, except chloroform, within the Pharmacy Act, 1868", and "all preparations containing by measure more than one per cent. of chloroform" (chloroform itself is now a poison within the Act). Then it will be clearly illegal to sell any of the poisons to which I refer without labelling them so, however much they may be disguised in name, taste, and appearance, which obviously only increases the danger of accidental poisoning.

Your readers must not suppose that anything I have stated here is new to the Council of the Pharmaceutical Society, or that they will act in the manner indicated unless the pressure of public opinion or some other pressure is brought to bear upon them. The fact that narcotics are largely sold without being labelled "poison" (usually as patent medicine), I believe to be one of the easily preventable causes of "the abuse of narcotics". For a natural result of the sale of narcotics without being labelled "poison" is that only too often the knowledge that poison is being taken, if it come at all, only comes after the narcotic has ensnared its victim. But the number of infants slowly poisoned by narcotics in the form of soothing and teething powders and soothing syrups, is the most serious "abuse of narcotics" of any I know of, and I believe comparatively few mothers would be so wickedly foolish as to give such things if they were labelled "poison".—I am, sir, your obedient servant,

Thos. Comfield, L.R.C.P., etc.

14, Caistor Villas, Stamford Hill, N., February 3rd, 1880.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. R. Wolfe, Glasgow; Dr. Alfred Carpenter, Croydon; Dr. A. Hughes Bennett, London; Dr. T. Clifford Allbutt, Leeds; Mr. J. Spence, Edinburgh; Mr. F. Smith, London; Mr. O. R. Travers, St. Leonard's-on-Sea; Mr. W. R. Barker, London; Dr. O. Sturges, London; Dr. de Courcy Morris, Eastham, Birkenhead; Mr. R. S. Fowler, Bath; Dr. J. Milner Fothergill, London; Messrs. Gray, Dawes, and Co., London; Dr. J. W. Moore, Dublin; Dr. J. C. Bucknill, London; Dr. A. S. Taylor, London; Our Dublin Correspondent; Mr. R. Ceely, Aylesbury; Dr. J. C. Garson, Coleraine; Mr. Thomas Fiddes, Urmston; The Secretary of Apothecaries' Hall; Mr. W. Simpson, Aigburth; Mr. A. Mackenzie, Newton-le-Willows; Mr. S. F. Murphy, London; The Secretary of the Medical Society of London; Mr. G. Field, London; Dr. J. J. Ridge, Enfield; Mr. W. G. Balfour, Alton; Mr. A. W. Benson, Dublin; Mr. John Lambert, Inverness; Mr. Henry Sewill, London; Mr. J. Moore, London; Dr. W. M. Campbell, Liverpool; Mr. N. S. Foster, Bicester; Our Paris Correspondent; X.; Mr. R. W. Jenkins, Fawley; Dr. R. Kinkead, Galway; Mrs. Dalton, London; Mr. John W. Davies, Clun; Mr. J. A. Spencer, Dublin; Mrs. A. S. Roe, Patricroft; Mr. Simeon Snell, Sheffield; Z.; Mr. E. Thompson, Omagh; Mr. R. C. Appleton, Beverley; Dr. Norman Kerr, London; The Registrar-General of England; Mr. E. H. Hare, London; Dr. Tripe, London; The Secretary of the Harveian Society; Mr. W. Watson Cheyne, London; Dr. Thos. A. G. Balfour, Edinburgh; The Registrar-General of Ireland; Dr. Fancourt Barnes, London; Mr. A. Marriott, Birmingham; Mr. W. E. C. Nourse, Exeter; Dr. Samelson, Manchester; Dr. J. C. Russel, Lancaster; Mr. H. Anthony, Dungarvan; Messrs. G. P. Putnam's Sons, New York; Mr. J. H. Hemming, Kimbolton; Dr. M. Simpson, London; Dr. J. Johnston, Bolton; Mr. R. C. Todd, Folkestone; Dr. J. P. McNeill, Tiverton; Dr. John Wyllie, Edinburgh; Dr. R. G. McCalman, Newbury; Dr. F. Warner, London; Mr. Doran, London; Mr. B. Fenwick, London; Mr. J. H. Craigie, London; The Secretary of the Meteorological Society; Dr. A. Grant, London; Dr. Thomas Barlow, London; Dr. C. Parsons, Dover; Mr. Philip E. Hill, Crickhowell; Dr. W. Allen Sturge, London; Mr. Leslie Thain, Longtown; Mr. W. D. Grange, Moffat; Dr. W. Williams, London; Mr. A. Rae, Stonehouse, N.B.; Mr. E. Nettleship, London; Mr. John Wood, London; Dr. Robt. Saundby, Birmingham; Mr. J. Robertson, Edinburgh; Mr. J. St. T. Clarke, Leicester; Our Edinburgh Correspondent; Dr. Hardwicke, Sheffield; Dr. A. Carter, Birmingham; Dr. M. Harmer, Hawkhurst; Mr. A. Graham, Keyworth; Dr. E. Waters, Chester; Dr. R. H. Lloyd, London; Dr. W. V. Bedolfe, Croydon; Dr. W. Murrell, London; Mr. D. Meadows, Yarmouth; Mr. T. G. Horder, Cardiff; Mr. C. Rothwell, Bolton; Mr. T. H. Sawtell, London; etc.

BOOKS, ETC., RECEIVED.

Aids to Materia Medica and Therapeutics. By C. E. Armand Semple, B.A., M.B London: Baillière, Tindall, and Cox. 1880.

Cancer of the Rectum: its Pathology, Diagnosis, and Treatment. Jacksonian Prize Essay. By W. Harrison Cripps, F.R.C.S. London: J. and A. Churchill.

Sketches in Verse. By H. Grimshaw, L.R.C.P. London: Jarrold and Sons.

ABSTRACT OF LECTURES

ON

CERTAIN PRACTICAL POINTS IN CONNECTION WITH THE SURGERY OF CHILDHOOD.

Delivered before the Harveian Society of London.

By EDMUND OWEN, F.R.C.S.,
Senior Assistant-Surgeon to St. Mary's Hospital, and to the Hospital for Sick Children.

LECTURE I.

THE treatment of the deformities due to rickets may conveniently occupy a considerable portion of this first lecture; for, if one may judge from the interference which is being generally adopted concerning them, the conclusion can hardly be avoided that rickets is likely soon to be regarded as a simple affection of the bones, which expresses itself in curvilinear and rectangular deformities, rather than as being, what indeed it is, a constitutional condition—a disease of nutrition. The two chief factors in the production of rickets I take to be improper food and insufficient clothing; so that, amongst the children of the poor, where the supply of these necessaries to the physical well-being is often in inverse ratio to the demand, we find rickets and its resulting deformities rampant. After the unwillingness or inability of the mother to suckle her babe, comes prolonged suckling in the order of harmfulness. In former days, when a babe could not be brought up by breast, deliberate instructions were given as to the way in which fresh cow's milk should be employed; but now the nurse is casually told to "try the condensed milk". I confess that I do not exactly know what this lacteal jam is; but this we know, that it is never a fresh product, that it is frequently stale, and that it is always over-sweetened. I suppose that it is very rarely sufficiently diluted when used, for many mothers act under the impression that the stronger the sustenance given to a babe, the more rapid will be its development. I am well aware that babes often thrive, or at any rate seem to thrive, on the condensed milk, but I so frequently find that its use is attended with sickness, diarrhœa, eczema, and rickets, that I am compelled to condemn it as a substitute for breast-milk. Cow's milk can generally be obtained fresh twice a-day, even in London, and, but for its cream being sometimes replaced by more than an equal amount of water, I believe that it is all but pure. But even the diluted cow's milk the nurse tries to improve, by adding to it powdered biscuit, baked flour, or oatmeal, and this even when she is dealing with a babe of but two or three months old. Sickness and diarrhœa are the frequent result, and for this the little patient is further punished by doses of some well advertised soothing-syrup, or of some mild laxative. Upon the subject of "feeding-bottles", mothers do not seem generally well informed or sufficiently careful; and in showing these two specimens, I would strongly recommend this slipper-shaped one, which must always be held in the hand when the babe is to be fed. But this other, with the long India-rubber tube, is much more popular, for by its use the nurse is spared trouble, and the child is encouraged to be perpetually feeding itself as it is nursed, carried, or wheeled about. To economise, or to cut off entirely, the supply of milk, the tube is often tied in a knot, though the child is still allowed to suck at the teat, and so it is apt to become as ill-conditioned as the colt which, in stable language, is called a crib-biter. To allow a child to be fed except at regular and fixed times, or to be continually picking at cakes or sweets, has a most demoralising effect upon the gastric functions.

If there be one important fact concerning the hygiene of infancy of which our womenkind are more ignorant than another, it is that concerning the small power which the child, compared with the adult, possesses of keeping up the animal heat; mothers seem wondrous slow to learn that the child must be carefully protected from exposure and from the sudden changes of our uncertain climate. In this country, there are few months in the year when the child would not be all the better and happier for being clothed entirely in flannel or woollen garments by day; and, should he have contracted that strange and characteristic habit of throwing off the bedclothes, he should wear a flannel night-dress which is long enough to be secured beneath his feet, and the *length* of the bedclothes should be tucked *across* the bed, so as to ensure his lying warmly throughout the night. Of the bathing of weakly children I shall have nothing more to say, than that very few can but be harmed by the cold bath, and that a small handful of Tidman's sea-salt is of real therapeutic value in the morning and evening warm bath.

Under various prejudicial hygienic influences, an unhealthy condition of all the tissues is begotten; thus, the bones become expanded, soft, and contorted, the ligaments slack and feeble, and the skin and mucous membranes moist and unwholesome. If, in such circumstances, a child be constantly carried upon its nurse's right arm, its left leg will probably be rendered bandy, whilst its right knee, fitting into the hollow of the left, will become valgous. (This simple explanation of the concurrence of knock-knee and bandy-leg in the same child was first given me by Mr. Clinton Dent.)

When the ligaments happen to be weaker than the bones, genu valgum is the result, on account of the yielding of the inner ligaments of the ankle and knee, so that spurious talipes valgus and genuine genu valgum are constantly found associated in the same limb. To assure oneself that this is a constitutional, and not a merely local defect, let the other knee or ankle, or an elbow, be examined; abnormal movement will characterise each. When a knock-kneed or bandy child is first brought into the out-patient room, I make it sit upon a table with its legs extended upon its thighs, and having placed the prescription-sheet beneath it, I rapidly trace an outline of the limbs upon it with a pencil; here are some of the sketches inked over; and as the treatment goes on, I take subsequent tracings to show the improvement. The various theories which have been advanced to account for the production of knock-knee, such as inordinate growth of the inner femoral condyle, or of the inner tibial tuberosity, or of both, or of atrophy of the outer articular masses, I do not consider to be satisfactory; for they admit of no trustworthy physiological explanation, as I endeavoured to show in a recent number of the *Journal of Anatomy and Physiology*. I would attribute the deformity to a stretching of the weak and ill-supported internal lateral ligament, which, allowing an outward deflection of the tibia, takes off the pressure from the inner femoral condyle, whilst it gives increased pressure against the outer articular masses; thus the hypertrophy upon the inner side, and the atrophy upon the outer side, are a secondary result. Atrophy, or rather arrest of development of a growing bone, is a certain result of increased compression.

I suppose that no new operation has ever met with so cordial a reception and so general an adoption as that of osteotomy; and as regards its performance, of inestimable value, doubtless, in certain cases of knock-knee and bandy-leg, I apprehend that the only reason for its becoming less in surgical fashion will be the fact of there being no more rickety limbs discoverable; certainly, in the visionary "City of Health", the osteotomist will find his occupation almost gone. In the early days of a new operation, it is competent for every surgeon to hold his own opinion concerning it; and for my own part, I cannot but think that, in an enthusiastic adoption of mild or heroic cutting operations in dealing with these numberless ill-shapen little limbs, one is apt to lose sight of grand and conservative principles. If I am informed that such treatment is devoid of danger and disadvantage, I reply that that is nothing to the point, even if I could accept the statement as true; the method is not devoid of danger, nor do we yet know how often it is permanently efficacious. Some months since, at a meeting of one of the societies, a child was to be exhibited as a satisfactory case of osteotomy performed for genu valgum, but the patient was so young and small, that it had to be stood upon the President's table, in order that it might be visible to the members. The French Daniels have come to judgment: "*Il ne faut donc point prodiguer aveuglement l'ostéotomie*", said de Santi; nor is the caution out of place. But when the constitutional disease has entirely passed away, and only its effects remain, the patient perhaps approaching puberty, and the bones becoming solid, then, if the deformity be great and impede progression, some cutting operation may perchance be demanded. Strangest amongst the operations for the improvement of knock-knee, is that which consists in the division of the external lateral ligaments. A celebrated continental surgeon, who practised it on adults, deemed his first cases to be satisfactory enough; but afterwards, one knee refused to be straightened under the process, whilst another patient suffered from a subsequent paralysis of the external popliteal nerve on each side; and so much lateral movement remained on each side that, at the end of a year, the patient could not do without orthopædic apparatus, and was unable to stand up to his work; but from the thoroughness of the surgical interference in that case, I should be inclined to think that the unsightly deformity was entirely removed.

Talking on these matters some time since with Mr. Savory, I was struck by the utilitarian spirit in which he reviewed them. He said that the first use of the limbs is for progression; that their elegance must be regarded as a secondary consideration; that, when the deformity has been corrected by operation, the surgeon must not regard his handiwork with a one-sided glance—because he has improved the appearance of the limb, he is not justified in writing "cured" against the patient's name in the case-book; that the question is rather, "Has the usefulness of the limb been increased?" He would not go so far as to affirm that it was not, but he must have the important fact proved. If the patient could walk ten miles a-day before, can he now, and with no increased fatigue, walk ten and a half? And lowering this distance-test so as to bring it to the scale of some of these little patients whose cases we are now considering, I would say, "If it could walk from its cradle to the hearthrug before the operation, can it now accomplish the double journey without a tumble?" Some limbs, I know, relapse after the surgeon has lost sight of them: it is one thing to exhibit a patient who has just been submitted to an operation—to take him, as it were, fresh from the surgical bandbox—and to compare his straightened knee with a plaster cast taken before the treatment was begun; but it is quite another thing to examine his condition a few short years afterwards. A London surgeon showed me, the other day, a girl eight years of age, who had been operated on (not in London), many months before, for genua valga, by a most competent surgeon; but the internal malleoli, when I saw the patient, were still separated to the extent of seven inches. The patient had considerably improved under the use of the splints in the London hospital, but I could be told nothing of her condition previous to the operation; but judging from the size of the white scars over the internal condyles, there had been no lack of surgical interference. Mr. Brodhurst introduced to my notice, last October, a young woman, on whose one very valgous knee he had divided the external lateral ligament, the tendon of the biceps, and the ilio-tibial band of fascia, with comparatively great advantage. I was surprised to find little of that abnormal movement which a joint so treated might have been supposed to possess; but she is to be again exhibited at the Clinical Society after she has been allowed to bear her weight upon the limb. Evidently, what we must wait for in these cases is the time-test.

The forcible straightening of valgous knees, though a bloodless operation, is apt to be accompanied by damage to the external popliteal nerve and fracture of the femur, whilst it is occasionally followed by suppurative periostitis. We are told that the younger the child the more satisfactory is this method of treatment, to which the reply should be: the younger the child, the less need for such rough handling.

Concerning the age at which operative treatment may be undertaken, opinions vary greatly. Dr. Ogston is of opinion that most cases of knock-knee under puberty are curable without a cutting operation; he operates under Lister's precautions. Mr. Adams says that no case should be operated on under ten years; he does not employ antiseptics. Mr. Barker does not think that it would be advisable to operate earlier than about the sixth year; he adopts rigid Listerian precautions; nevertheless, he had the ill fortune to lose a patient (aged six years) from septicæmia, forty-eight hours after division of the internal condyle (*Trans. Clin. Soc.*). Here I cannot refrain from offering two remarks on that method of treating wounds which is known as "Listerian". As I look on, possibly a somewhat sceptical observer, I am apt to see a surgeon, a professed believer in the theory, failing manifestly in the practice. The instruments have been "soaked", the spray is hard at work, but the manipulative aid of a bystander with "unwashen hands" is called in, or a sponge of doubtful sweetness is used, or passages are left beneath the bulky dressings wide enough to admit the largest germs six a-breast. This mere making clean of the outside of the cup and platter is not Listerism; and when, a few days afterwards, the wound is found foul, the special dressings are quietly laid aside, and the result is allowed to show that there must have been some failure in the precautions. The other remark is Mr. Barker's; alluding to his fatal case, he writes: "I have never myself observed such scrupulous care in the use of antiseptics as in this operation, and have never seen more care used by others"; and, in conclusion, he states that the operation is dangerous, even in spite of every antiseptic precaution that can be taken—an admission, the importance of which, coming as it does from an able and rigid "Listerian", is worthy of attention. Dr. Macewen would not operate under nine years; he uses antiseptics in his osteotomies. Mr. Brodhurst is of opinion that osteotomy need never be performed in childhood. Mr. Reeves does not operate under the age of three and a half years. He has performed seventy-seven osteotomies without a fatal result, and has taken antiseptic precautions in three of the cases.[*] Mr. Barwell says that he would gladly avoid all such undertakings previously to the seventh year, but that occasionally they are "almost forced" upon him. For my own part, I would venture to suggest that no cutting operation need be undertaken before the tenth year, but that even this age should not be considered to necessitate such treatment. And now, having taken leave of the subject of osteotomy, I cannot help remarking, in the most general terms and with no *arrière pensée* whatever, how often it happens that, when we are reading the account of a cutting operation, which perchance might be considered unjustifiable, or for the performance of which there might seem at any rate to have been no urgent demand, we find it noted that "the operation was conducted throughout upon the strictest antiseptic principles". The recorder of the event would throw the fine dust of carbolic acid even into the eyes of critics who might otherwise, perhaps, have regarded the surgical interference unfavourably; and thus Lister's grand precautions for insuring cleanliness are made a stalking-horse for speculative surgery. Oh, antisepticity, how many crimes have been committed in thy name!

A single valgous knee in childhood may be treated with great advantage by a straight outside wooden splint with wide webbings and buckles, as shown in the woodcut. (Fig. 1.) The splint must reach six inches below the foot, so as entirely to prevent the child from walking. If both knees be valgous, a small firm cushion may be placed between the knees whilst the ankles and legs are secured. (Fig. 2.) In addition to this local treatment, cod-liver oil and iron should be administered, and attention must be given to the feeding and clothing, but the child must be kept off his feet. Doubtless he will fret and worry at first, but he will soon endure his crippled condition as cheerfully as if he were laid up after the performance of an osteotomy.

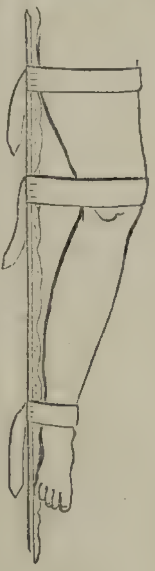

Fig. 1.

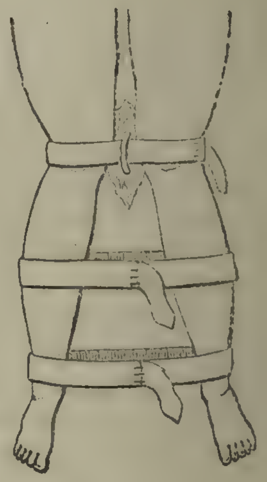

Fig. 2.

For the single bandy leg, a long inside splint will be required (fig. 3); and if each leg be bandy, the splint must be padded on each side and secured between the legs (fig. 4); but if the knees be also widely bowed, each leg will require a separate splint, otherwise the internal lateral ligaments would become stretched. Having found severe cellulitis to follow the use of Martin's India-rubber bandages in these cases, I have ceased to employ them.

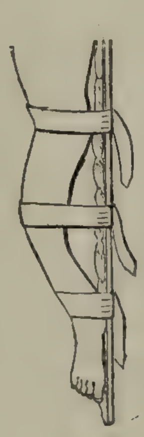

Fig. 3.

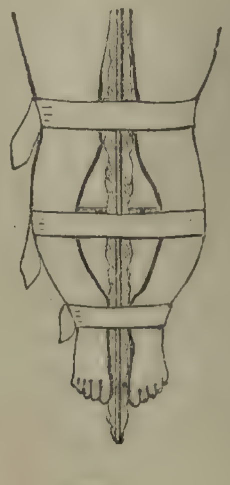

Fig. 4.

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[*] This long series of successful operations upon the knee-joint deserves more than a passing notice. Mr. Reeves would probably attribute all absence of casualty to the fact of the joint not being opened in his operation, which he called by the attractive title of "subcutaneous extra-articular separation of the internal condyle".

A REPORT

ON

ARSENICAL POISONING BY MEANS OF WALL-PAPERS, PAINTS, ETC.

Presented to the Medical Society of London on the part of a Committee of the Society.

By MALCOLM A. MORRIS, M.R.C.S.Eng.,
Secretary to the Committee.

IN submitting the following report, your Committee have to express their regret that the appeal for professional information on the subject of arsenical poisoning by means of wall-papers, paint, articles of furniture, etc., has not met with more general response. This is doubtless mainly attributable to the fact that the attention of medical men has only recently been directed to the subject, in which case the publicity that has been given to this inquiry will have the effect of ensuring more minute observation of these cases in the future.

The report will be found to be based upon replies to the number of two hundred and twenty-four, which have been received as the result of the issue of fifteen hundred circulars addressed to the Fellows of the Society and other members of the profession. The circular took the form of the following questions: 1. Have you had under your observation, during the last five years, any cases clearly traceable to arsenical poisoning, produced by wall-papers, paint, articles of furniture, or wearing apparel, etc.? 2. Any cases previous to that time? 3. What were the first symptoms that led you to suspect this form of poisoning? 4. State briefly the prominent characteristics of each case? 5. Were there any external symptoms of irritation? 6. How long was it in each case before the patient recovered health and strength? 7. Were any cases fatal? 8. What article contained the poison? What tests were employed to detect its presence? 9. How many cases occurred in men? How many in women? How many in children?

In their replies to these questions, only fifty-four of the two hundred and twenty-four correspondents were able to afford particulars of cases of poisoning by this agent that had come under their personal observation, but their remarks have reference to more than one hundred cases.

A most important feature in this testimony, is that no fewer than twenty-four instances of the poisoning occurred in the persons of the medical men themselves, or in members of their families, which, in the first place, is very strong evidence of the difficulties attending the diagnosis of this form of poisoning, and, secondly, tends to show that the better opportunities for observation afforded to a medical man in his own house may lead to the detection of mischief which, from its insidious nature, baffles ordinary tests, or, by assuming symptoms of a general character, is often erroneously treated as indicating a different class of ailments.

The following cases have occurred in the houses of medical men.

CASE I.—"For more than a year", writes a practitioner of eminence, "my own wife suffered repeated attacks (one of great severity) of enteritis. The patient was in the habit of sitting the greater part of the day in a room papered with green paper. Without any reference to the symptoms, the paper was accidentally changed to another colour. It was noticed by me afterwards that the symptoms had disappeared. It then occurred to me that it might be due to the green pigment; and, on testing a piece of the old paper, I found abundance of arsenic."

CASE II.—A physician and his wife suffered from conjunctivitis and from nausea after food. On the arrival of a relative, who soon was attacked in a similar manner, the cause was traced to the drawing-room paper, which contained arsenic.

CASE III.—A distinguished consulting surgeon lost two children from enteritis. The cause of the illness was a mystery until after their death, when the nursery-paper, the pattern of which was a fuchsia, leaves and blossom on a brown ground, was found to contain arsenic.

CASE IV.—A medical man and wife suffered from headaches, nausea, and conjunctivitis, all of which were worse early in the morning. The symptoms abated when the bedroom paper was removed. It contained arsenic.

CASE V.—A surgeon suffered severely for several days from extreme depression, diarrhœa, griping, and asthma at night; and, his wife some days afterwards being affected with similar symptoms, the paint of the sitting-room was suspected by the physician in attendance. It was found to contain a large quantity of arsenic.

CASE VI.—A consulting physician had a severe attack of enteritis, with hæmorrhage and great prostration. All the symptoms disappeared on the removal of the paper of his study. It contained a large amount of arsenic.

CASE VII.—A physician, in reporting his own case, says he had "intense cephalalgia, conjunctivitis with intolerance of light, great depression, loss of appetite with gastric irritation—worse when using the study, the wall-paper of which contained arsenic."

CASE VIII.—A physician says he suffered from griping, constipation, and headache for more than two years. He noticed that the symptoms were worse on entering the dining-room in the morning after it had been closed during the night. "I soon recovered on the removal of the cause." The dining-room paper contained arsenic.

CASE IX.—A consulting physician and his wife both suffered from restlessness, loss of sleep, malaise, and headache. The symptoms lasted a fortnight, but disappeared when the bedroom paper was removed. This was proved to contain arsenic.

CASE X.—A surgeon says that his wife, child, and himself had irritable cough, accompanied by wakefulness, restlessness during sleep, and irritation of the eyelids. All the symptoms disappeared in a week or ten days after the removal of the bedroom paper, which contained arsenic.

In the remainder of the cases reported, diarrhœa, nausea, and intestinal mischief occurred in thirty-five; severe depression in sixteen; conjunctivitis in nineteen; and cough, asthma, etc., in nine. Several instances of external irritation are mentioned, such as eczema from stockings and gloves, conjunctivitis from tulle dresses, eczema of the head from artificial flowers, etc.

It should be remarked that the foregoing statements have not emanated, by any means, exclusively from men having preconceived notions of the value of careful investigation in such circumstances. The conclusions arrived at by them have been forced upon them by stern necessity as the only solution of the enigma, and in many cases in direct opposition to their own *à priori* judgment and previous opinions. They are men, many of them standing high in the profession, whose opinions should carry weight with their colleagues; and it follows that if only after much careful watching and by a process of exhaustion or exclusion they were able to determine the real sources of the evil, there must be a vast amount of information yet to be obtained when time and a better knowledge of this subtle poison and its workings shall have brought the profession to unite their efforts to sift and study the matter. As an illustration of the difficulty of tracing the symptoms to their actual source, no stronger fact could be adduced than so large a percentage of patients were in the houses of the medical men themselves, and so directly and constantly under their scrutiny; and this seems to indicate that exceptional facilities are necessary to the discovery of the evil. Not only must the symptoms be watched and tested, but every article that suggests an explanation must be suspected. The occurrence and recurrence of the mischief under certain conditions will often lead to its detection. But as all these precautions involve much labour and assiduous attention, it is too much to expect them to be employed except by such who possess both the knowledge and the determination necessary to support them in their search, and an earnest desire to cope with a somewhat impalpable antagonist.

As to the articles referred to, thirty-six medical men report that they have observed cases of poisoning clearly due to arsenic in paper, five in paint; while several others have traced its presence in stockings, wearing apparel, artificial flowers, bedsteads, and toys.

Your Committee have come to the conclusion that the time has arrived when some check should be imposed upon the free and unrestricted sale of poisoned articles before mentioned, with a view to making it compulsory that such articles should be advertised as containing deleterious matter, in order that purchasers might at least be aware of the danger they were incurring in their use.

But before taking any steps with regard to legislation in the matter, your Committee are of opinion that some further effort might be made to obtain some more general expression of opinion from the profession, who, it may be, will, after reading this report, make more careful and fuller notes of any appearances of poisoning from arsenical compounds, and thus place at your Committee's disposal, at some not very distant period, a crushing and incontestable weight of evidence which could with confidence be brought under the notice of Parliament.

ABSTRACT OF LECTURES
ON
THE STRUCTURE AND FUNCTIONS OF THE VERTEBRATE SKELETON.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, M.R.C.S.Eng., F.R.S.,
Hunterian Professor of Anatomy in the College.

LECTURE I.

In studying the vertebrata, the first thing that suggests itself is the low origin from which they have come, and the great metamorphic changes they have undergone, till at last man is reached. To ascertain their connection with the invertebrata, from which they undoubtedly spring, we must not compare the higher invertebrates with the lowest vertebrates, as the former are specialised forms; but we must go down in the series, as far as the vermes, before we can find any archæological type from which the latter can be derived. At this point, it is probable, although the distinct chain has not yet been made out, that the vertebrates branch off from the lower or invertebrate kingdom. The differences between the vermes and the lowest vertebrata depend apparently upon a certain degree of specialisation having taken place in the present existing forms with which we are acquainted. Before we can define what a vertebrate is, it is necessary to ascertain the lowest type-form from which the others have sprung. This we find to be an animal possessing a head and body, a continuous nervous system on its dorsal aspect, and a hæmal system and mouth on its ventral—hæmastomatous. In the vermes, the nervous system is broken up into segments, the mouth is situated on the neural aspect of the body—neurostomatous; and the head is segmented. The animals, of all others now existing, which approach nearest this type-form are the amphioxus and lamprey; but they are further apart than even the latter is from man. In the lamprey, there is a solid cartilaginous skull. Tracing the earliest development of the vertebrata and invertebrata, we find that the embryo of the one is undistinguishable from that of the other till the two primitive layers—the epiblast and the hypoblast—are formed; but immediately after that the two groups diverge in different directions—the one becoming developed into a vertebrate, the other into an invertebrate. The vertebrate develops two tubes—the one the neural, the other the ventral, tube; while the invertebrate has only one. The first great specialisations in the embryo of existing vertebrates are in the development of the three brain vesicles, and in that the *continuous* skull is a structure prior in time to the *segmented* spinal column. The latter is therefore a later formation, and is modified so as to suit the spinal part of the neural axis. The skull can no more be said to be a modified spinal column than the spinal column is a modified skull. The skull in the invertebrates is only a modified form of the body-segments; as, for example, in the arthropoda we find that the eyes are placed upon two limbs, and all the appendages of their head are rudimentary limbs. In the primordial vertebrate, the head occupied a much greater proportion of the creature than it does in the existing forms, and passed into the body. The neck is comparatively a recently acquired part. That the head was of great length in primordial form is evident from the length and size of the respiratory pharynx, which, in the lamprey, has seven pairs of openings or clefts, two directly behind the mouth being suppressed, which would have made nine. The seven are supplied by branches of the vagus, which fork again and again over the clefts. After the three primary divisions of the brain are formed, the skull begins to form under the vesicles, at first in membrane, which soon becomes transformed into cartilage. The spinal cord and brain are developed from the outer layer of the blastoderm by a groove forming along its dorsal aspect; this gradually closes over till a complete tube is formed. From the inner layer or hypoblast, the ventral cavity is formed. This is covered in by soft parts, which are developed from a layer of cells which form between the two layers. Under the epiblast, even before it has become formed into a tube, there appears a condensed structure, extending the whole length of the body, called the notochord; and, on each side of this cord, the mesoblast or middle layer breaks up into the primitive segments or muscle-plates. These are not the rudiments of the vertebræ, but of the axial muscles; the vertebræ appear afterwards between these segments, and are due to a secondary segmentation.

MR SPENCE ON SURGICAL STATISTICS.

By JOSEPH LISTER, F.R.S.,
Professor of Clinical Surgery in King's College, London.

[*Concluded from page 239 of last number.*]

My former communication on this subject broke off in the course of a reply to Mr. Spence's inquiry, "What are Mr. Lister's results in excisions of the mamma?" In order to complete the answer, I have to add that my other fatal case was one in which strict antiseptic treatment had not a fair chance. The patient, sixty-two years of age, had suffered from sinuses of the mamma for forty years; and at length scirrhus had affected the gland and invaded the axilla. I made an attempt to get rid of the putrid element while removing the cancer, but in this I was foiled. Putrefaction took place in the wound, attended with sloughing; and she died exhausted three days after the operation.

Mr. Spence refers with something of a taunt to the frequency with which the presence of putrid sinuses in articular disease must render strict antiseptic treatment inapplicable. Such cases are, indeed, too common; but I would venture to say in all seriousness to Mr. Spence, that for this unfortunate fact teachers like himself are, to a great extent, responsible. How often have I had occasion to lament the irreparable mischief done by some well-meaning practitioner, who, acting in accordance with the teaching of his school, has plunged a knife, without any special precautions, into an abscess connected with a joint, perhaps within a day of sending the patient into hospital!

But when it shall come to be universally recognised in the profession that so to deal with such a case, though in accordance with the time-honoured maxims of our art, is grievously to compromise the best interests of our patients, and when, through the profession, it shall have become impressed upon the public mind, that to allow such an abscess to break of itself is a thing by all means to be avoided, as likely to sacrifice articular usefulness, limb, or perhaps even life, then will putrid sinuses about joints become rare, and the benefits of strict antiseptic surgery will be correspondingly extended.

In some of these cases, however, we have the satisfaction of undoing the mischief done by the septic surgeon—for such may be justly termed the man who needlessly introduces septic ferments into the sacred fabric of the human body. By carefully purifying the epidermis with carbolic acid, and applying chloride of zinc to the wound and sinuses after scraping away all granulations with the sharp spoon, as advised by Volkmann, we sometimes succeed in eradicating the pre-existing putrefaction, and see the wound pursue a typically aseptic course. It so happens that I have two examples of this success among my patients in King's College Hospital at present, one an excision of the wrist for caries in a young man, the other necrosis of the femur in the vicinity of the knee-joint in a youth. But even though we fail in this attempt—as is certainly my experience in a very large proportion of such cases—we gain from the use of the chloride of zinc the incalculable advantage of avoiding putrefaction during the first two or three days, and thus tiding the patient over the critical period of greatest irritability of the wound and greatest proneness to septic absorption.

But, in spite of the too great frequency of putrid sinuses, the great majority of our operations happily admit of the application of the strict antiseptic principle; that is to say, in the great majority we find present the two indispensable conditions, an unbroken skin, and the seat of operation sufficiently removed from one of the natural outlets of the body to afford space for an effectual antiseptic dressing. And thus, out of my 725 major operations during the period referred to, 553, or ten-thirteenths, were conducted strictly antiseptically. And it is important to bear in mind that the strictly antiseptic operations, besides being far the most numerous, included those which without antiseptic measures would have been the most liable to disaster, such as those for ununited fracture treated by cutting down upon the fragments, removing their extremities, and in most instances drilling and tying them together with wire. Without antiseptic treatment, the risk of pyæmia was so great after operations of this kind in the lower limb, that prudent surgeons regarded them as inadmissible; but, relying on antiseptic measures, I did not hesitate to operate upon all such cases that presented themselves; and it speaks strongly in favour of our principle that, out of twenty-six such operations, including eight in the thigh and nine in the leg, not one was followed by a fatal result. Some of them were very difficult, from the situation of the fracture and the position of the fragments; and Mr. Spence has been correctly informed to the effect that in some instances the operation was repeated in the same patient.

In answer to his inquiry as to the results in the thigh, I may say that solid osseous union was ultimately attained in all the cases except two. One, a fracture of the neck of the femur in a woman beyond the middle period of life, where fibrous union only was obtained. The patient, however, recovered the power of walking without crutches, and entirely lost the pain in sitting or turning in bed, which was the circumstance that induced me to operate. The other failure occurred in a fracture close to the knee-joint in a middle-aged man. Putrefaction took place in consequence, as it appeared, of inadequacy of the window left for antiseptic dressings; and, as soon as this was ascertained, I thought it best to amputate. With reference to the occurrence of putrefaction in this last case, it would certainly be a very serious thing if we could not reckon on being secure against such an event. I may, therefore, add, as affording some explanation, that this case occurred at an early period, when we were comparatively inexperienced in the use of our present means.

I have felt it my duty to reply to Mr. Spence's observations, so far as they can be conceived to have any bearing whatsoever upon the value of the strict antiseptic principle; but, while I have been thus led to refer again to my results after amputation, I am well aware that they *prove* nothing in favour of the system which I advocate. It would be fairly open to any one to contend that the success which I have described may have been as purely a piece of good luck as Mr. Cheyne, in the last number of the JOURNAL, has shown to have been the case with Mr. Spence's selected specimen. And even with regard to the operation for false joint, involving the conversion of simple fractures into compound ones, and universally allowed to be attended with considerable risk of pyæmia, especially in the lower limb, although I have said that the occurrence of such a considerable number without any fatal consequences speaks strongly on behalf of the principle which guided the operations, yet I know well that even a much longer unbroken series of successes with this or any other recognised surgical procedure would only afford probability, not proof, of the value of the principle.

It is this lack of demonstrative force in surgical statistics which has always made me regard them with little favour, and kept me from producing them until I found it repeatedly hinted, in published statements, that my silence implied some general failure of antiseptic treatment in my hands;* while I unexpectedly found the necessary materials in Mr. Cheyne's laborious analysis of my hospital case-books.

With regard to the general question of blood-poisoning, indeed, I have published on more than one occasion, because the facts seemed of such a character as hardly to admit of explanation on the hypothesis of mere good fortune. I described (*Lancet*, January 1st and 8th, 1870) how my wards in the Glasgow Royal Infirmary, which had for years been peculiarly liable to the three hospital pests—pyæmia, erysipelas, and hospital gangrene—entirely lost their unhealthy character coincidently with the adoption of strict antiseptic treatment, and remained "models of healthiness" during the three years in which I continued to conduct it there. This striking contrast between my own experience in the same institution, in the antiseptic and non-antiseptic periods, seemed to afford something very closely approaching demonstration of the efficacy of strict antiseptic treatment against hospital insalubrity. And further, as referred to in the former part of this communication, I described a similar almost entire immunity from hospital disease during five years in my Edinburgh wards, though under very unfavourable general hygienic conditions. I have now to thank Mr. Spence for the good service he has done by inviting special attention to his own results. For, from a careful scrutiny of the statistical tables to which Mr. Spence appeals, as well as from Dr. Braidwood's work on pyæmia, Mr. Cheyne has obtained evidence that, in the very same institution, though with much more favourable surroundings, modes of dressing which were not guided by the strict antiseptic principle, though in other respects employed under the best auspices, were powerless to prevent frequent pyæmia, not to speak of other forms of blood-poisoning.

But that which I have always felt to be especially deserving of publication is evidence of the occurrence of new pathological phenomena, implying the operation of a fundamentally new principle of treatment. Such is the organisation of the blood-clot in an exposed wound. I need hardly remark that there is nothing new in the fact of the organisation of blood-clot. It occurs not only in the thrombus within an artery, to which Mr. Spence refers, but in every coagulum that forms in a simple fracture or other subcutaneous injury, and in every case of healing by scabbing under a dry dressing placed over a bleeding open wound. The novelty consists in its occurrence under new circumstances, viz., under a moist dressing in an open wound; so that it lies open to our inspection and study, while it forms an incomparably superior substitute for the old process of putrefaction of the clot, with its attendant inflammation and fever, and subsequent healing by granulation. If Mr. Spence had ever witnessed a typical example of this; had he seen a blood-clot, occupying an open wound to the level of the skin, remain from day to day unaltered in appearance till in due time it showed evidence of its vascularisation, in bleeding when scratched with a knife; or had he, at a still later period, on raising a superficial layer of the coagulum, found beneath it a cicatrix, formed without any suppuration or granulation, he would, I doubt not, have recognised a new pathological phenomenon, implying the operation of a new principle, viz., that of the total exclusion of septic ferments, together with the avoidance, as much as may be, of the irritating influence of the agent by which their access is prevented.

Another instance of new phenomena is presented by the behaviour of a joint, healthy in its textures, treated by antiseptic incision and drainage. A wound of a healthy joint used to be a very grave occurrence, though, under careful management, including complete rest and apposition of the injured surfaces, recovery might take place without suppuration. But, supposing that a wound in a previously healthy articulation, instead of being closed, were kept systematically open by means of an India-rubber drainage-tube, having, when a large joint like the knee is concerned, a thickness about equal to that of the little finger, this drainage-tube being taken out every day, washed and replaced, while the wound was kept covered with a moist dressing, there would, if I mistake not, infallibly occur suppuration of the articular cavity, unless the process were conducted in some thoroughly efficient antiseptic fashion. Whether this is done by means of carbolic spray and gauze, or by other antiseptic agents employed under other forms, but in such a way as really to prevent putrefaction, is of course indifferent; only I would remark, that a man ought to be very sure of the trustworthiness of his means, whatever they be, before he ventures upon such procedures. When we see a wound in a healthy joint treated antiseptically in the manner I have described remain not only without suppuration, but free from uneasiness, tenderness, puffiness, or inflammatory blush, while the general health is unaffected, here again we recognise a new train of pathological phenomena, resulting from the application of the principle of the total exclusion of septic ferments—combined, in this case, with such effectual drainage as prevents the chance of irritation of the joint through distension with blood or plasma.

And when Mr. Cheyne published, some weeks ago (see BRITISH MEDICAL JOURNAL, November 29th, 1879), a statistical table giving the details of all the cases, twenty in number, in which I had opened healthy joints in operations during the period to which the case-books at his disposal referred, the treatment being by antiseptic drainage, and was able to state that in no single instance did suppuration of the articulation occur, he produced what I think will be generally regarded as a valuable piece of evidence of the trustworthiness of the means now at our disposal for carrying out the strict antiseptic principle.

How is it, I may fairly ask, that the record of facts like these produces no impression whatsoever on Mr. Spence? It must surely be either because he regards statements which proceed from me as undeserving of his notice, or else that he distrusts my word. Probably, it is from a combination of these two causes. For, in the communication to which I have felt it my painful duty to reply, he distinctly charges me with exaggeration, and hints that I give "false facts". This charge is a very serious one. I am not aware that I ever wrote anything that I did not believe to be strictly true. But if my character for truthfulness is "filched from me", there must be at once an end to any hopes I might otherwise have of usefulness in my day and generation. On what, then, is this grave charge founded? It is absolutely and utterly baseless; and I confess it fills me with astonishment that Mr. Spence has not by this time seen it to be so, but that he reiterates it in the last number of the JOURNAL. I am accused of exaggeration in stating that "I have published numerous cases to show that a great abscess connected with disease of the vertebræ may be opened by free incision, a drainage-tube introduced, strict antiseptic treatment being used, and that from that hour there is not another drop of pus"; and the proof of my exaggeration is supposed to be afforded by the fact that some cases of vertebral abscess remained in my wards in the Royal Infirmary, still uncured and discharging, when I ceased to be connected with that institution. But can Mr. Spence really imagine that, when I stated that in cases of this kind not another drop of pus might be formed after the evacuation of the original contents of the abscess, I intended to convey the impression that there was no further discharge of any kind? Even if my statement at the meeting at St. Thomas's Hospital had been my first utterance on the subject, I could hardly have been so misinterpreted, seeing that the mention of the use of a drainage-tube makes it surely abundantly plain that discharge of some kind was to be provided for. But it is now long since I first brought this matter before the profession, and from the first I have stated that a serous oozing always occurs, profuse and tinged with blood in the first instance, and afterwards diminishing, but almost invariably continuing in small amount for a protracted period. Mr. Spence's charge would have had exactly the same basis as it has, if every case of psoas abscess were cured within a week under antiseptic treatment, provided that during that week, or even during two hours, a serous discharge occurred. My statement had reference to the great new pathological truth of the cessation of *suppuration* from the pyogenic membrane and carious bone when a vertebral abscess is opened and treated antiseptically in combination with free drainage, while rest is given to the weak part of the spine by the recumbent posture. Under these circumstances, the chronically inflamed osseous tissue has opportunity afforded it to recruit. How long this process of repair may require for its completion varies greatly in different instances, and here and there we meet with a case in which, in consequence of the presence of pieces of dead bone too large to make their way to the surface, complete cure appears impossible. Happily, however, as experience has now amply proved, the great majority of these formerly hopeless cases, highly interesting to the poor creatures affected and to their relatives, though "not" yet "very interesting" to Mr. Spence, admit of complete cure, if patiently treated to the end with strict antiseptic care and rest.

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* Thus Mr. Savory, in his address at Cork last August, quoted with approbation the following passage from Mr. Bryant. "The publication of isolated cases, however good, proves nothing, whereas the withholding of the whole suggests much."

And here again I have to thank Mr. Spence for having, by his reference to my cases left in the Infirmary, brought out incidentally the fact—I had almost said the glorious fact—recorded by Dr. Bishop in the number of the JOURNAL for the 31st ult., that under his good care almost all these types of hopelessness, as they might naturally be supposed to have been from the way in which they are alluded to by Mr. Spence, have been restored to health and usefulness.

EXTROPHY OF THE BLADDER.

By JOHN WOOD, F.R.C.S., F.R.S.,

Surgeon to King's College Hospital.

THE proverbial troubles of inventors and improvers, like those of parentage, are by no means confined to the throes which attend the birth and delivery. The result must be protected and looked after, sometimes for an indefinite period, and even when it might reasonably be thought to be strong enough to assert its own rights.

The occasion on which I venture to inflict upon the readers of the JOURNAL this somewhat trite moral is in reference to a paper published in the JOURNAL of February 7th by Mr. J. Greig Smith, of the Bristol Royal Infirmary, on "Two Cases of Successful Operation for Extrophy of the Bladder by a New Method". This paper has afforded me the satisfaction of finding that my former efforts to relieve this deplorable deformity have not been without the result of directing others in what I believe to be the right way of relieving it. In his remarks upon these two interesting cases, Mr. Smith apologetically states that "he has made free use of several methods of operating, rather than invented an entirely new plan". Almost all improvements in the art of surgery have been arrived at by the slow process of building upon the work of our predecessors. But I have looked carefully and in vain through Mr. Smith's paper for any important departure from methods of operating which I have frequently practised, and which have already become public property. It must have been due to an unfortunate chance that my name is mentioned in the paper, in connection with a misapprehension of an inconsiderable part of my method of operating. I have never in any of my now numerous cases employed hare-lip pins, as he states, so as to include "*both* thicknesses of the transplanted tissue, involving as it does a doubly acute flexure, and consequently a greater or less extensive strain on the tissues", which, he adds, "cannot be otherwise than detrimental". I have, indeed, used hare-lip pins to secure the opposed edges of the groin-flaps over the reversed abdominal flap; and I have frequently made them to take up in the middle line a *small portion of the connective tissue* on the raw surface of the subjacent reversed flap. But I have never applied them so as to penetrate the *whole thickness* of the reversed flap, and never so as to produce a doubly acute flexure. They were put in (as all the steps of the operation were conducted) with every whit of the scrupulous gentleness and care so fully emphasised in Mr. Smith's paper, and no more produced the doubly acute flexure which he deprecates than they do in the operation for hare-lip, properly performed. In my late operations, I have found out (like Mr. Smith in other matters) better modes of keeping the flaps together, and for some years have used silver-wire sutures only for this purpose, applied so that they can be easily drawn when the proper time comes.

The strain upon the sutures in this operation depends almost solely upon the forcible protrusion of the hinder wall of the bladder by the action of the expiratory muscles, more than upon the way in which the sutures are made; and no operation which does not take this condition into account will succeed. Sloughing of any portion of the groin-flaps has scarcely ever occurred in my cases; but sloughing has taken place at the lower border of the reversed abdominal flap, just where I understand Mr. Smith to place his elongated portion intended to cover the urethra. Such an elongation of the flap, so far from its vascular connections with the abdomen, and subjected to the pressure of the resilient dartos and the tension of the scrotal skin brought over it, I have found to result frequently in sloughing or atrophy. Still I agree with him in thinking that it is always worth trying for. The plan of extending the groin-flaps downwards as far as the scrotum and side of the penis I have also frequently followed; and I have often found (as Mr. Smith will also find, if he watch his cases long enough) that, as the upward contraction of the cicatrix progresses and the child grows, the opening left at the root of the penis will enlarge, and in many cases will require some further procedure at a future period. In such an emergency, Mr. Smith will regret the loss of the prepuce by the sloughing he mentions, which seems to be an instance of the consequences of attempting too much at once. The retention of the urine for half an hour at a time in one of the cases is a very encouraging sign; and it tends to justify the doctrine that I have laid down, that the involuntary tonic contraction of the dartos-fibres connected with the artificial orifice into the bladder goes for something in its production. In several of my own cases, and conspicuously in one which is now under my observation at King's College Hospital, the partial power of retention, much doubted by some surgeons, is also very remarkable.

The plastic method of dealing with this deformity is shown by the cases (now numerous enough) to have been successful in restoring comfort to the patient, keeping him, with the aid of an ordinary railway India-rubber urinal, quite dry, protecting him from the constant irritation of wet clothing, and making him less an object of disgust. It is a far more safe and really a more reasonable method than any of the desperate and theoretical experiments for attaining this end, such as attempts at making a permanent communication between the bladder and rectum, or placing the ureters within the latter cavity by formidable operations, which have invariably produced the most disastrous consequences to the unfortunate patient.

In conclusion, I may add, with reference to Mr. Smith's very successful and interesting cases, that the boracic lotion, with which he carefully washes the surface of the flaps, is a very good and useful application, but that it is not absolutely essential to produce primary union of the flaps in plastic cases.

RECOVERY OF A BROKEN BOUGIE FROM THE BLADDER.

By GEORGE E. WALKER, L.R.C.P.,

Medical Officer of Parkhurst Prison, Isle of Wight.

ON the evening of October 6th, I was sent for to attend G. P., aged 47, who, I was informed, had broken the bougie—a No. 7—which he was himself in the habit of passing into his urethra for an old stricture. He informed me that the instrument was an old one that he had had in use for ten months; and that it was cracked across in several places. He also told me that he had succeeded in passing it quite easily into the bladder, and that the accident happened in withdrawing it. The portion which he produced was seven inches in length, which would leave about five inches as the length of the portion retained. As he appeared to be in great pain, with a highly distended bladder, I found it necessary to give him relief at once. I could feel the broken end nowhere along the track of the urethra, and a No. 7 gum-elastic catheter passed freely down to the stricture, which was situated a few inches above the neck of the bladder, where its further progress was arrested by some obstruction. I was equally unsuccessful with a No. 5. I then determined to try to push the broken end into the bladder with a silver catheter, as it was evident that the obstructing fragment was situated too far down to admit of its being seized by any urethral forceps. I used a No. 7 for this purpose, and succeeded, without much difficulty, in passing it into the bladder, drawing off about two pints of urine, which afforded him instantaneous relief. In withdrawing the instrument, there was some little difficulty—a circumstance which I attributed to the spasm, and which I shall have occasion to mention hereafter.

He was a bad subject for any operative interference, as he suffered from chronic cystitis, the urine that I drew off being loaded with mucus and slightly ammoniacal. I therefore used daily injections of a weak solution of nitric acid (one drachm of the dilute acid to half a pint of water), at the same time dilating the stricture by the gradual introduction of larger instruments. The course I then proposed to myself to adopt was, first, to attempt the extraction of the bougie by means of a small lithrotrite; and, failing in this, to perform cystotomy.

On October 7th, he was free from pain, and the broken bougie did not appear to be setting up so much irritation as might be expected. He could not pass his urine without the aid of a catheter. He was allowed a No. 7 elastic to pass himself. I washed out his bladder. There was the same difficulty in withdrawing the catheter as before.

On the 10th, he was in great pain the previous night, but easier in the morning. The urine was loaded with mucus, but contained no blood. A No. 10 catheter was used in washing out the bladder.

On the 12th, there was a great deal of spasm about the stricture, which held the catheter so tightly that it was withdrawn with great difficulty. There was no difficulty in introducing the instrument. The urine was very ammoniacal. The injection was continued; half a drachm of nitric acid was added to the half-pint.

On October 13th, the urine was much healthier; it was less ammoniacal and contained less mucus. Contrary to my orders, he slept with the catheter in all night; and when I visited him, I found it so firmly fixed into the bladder that it was impossible to move it, owing, possibly, to the spasm of the stricture. He was ordered to have a warm bath. This had no effect in relieving the spasm, nor could I move the catheter the next morning, although I used as much traction as I dared. The attempt gave him great pain. I determined to try to remove it in the afternoon under the influence of chloroform; but, at 4 P.M., the catheter had come away, and with it the broken piece of bougie, the two ends lightly glued together, and overlapping each other to the extent of about two inches. The patient informed me that, after my visit in the morning, he continued to use gentle traction himself; that he suddenly felt something "give with a jerk"; and that it afterwards came away without much difficulty. When I arrived, shortly afterwards, the two ends were separated, but there was an indentation along the broken end of the bougie on to which the end of the catheter exactly fitted, and the piece itself was blackened, blistered, decomposing, and stinking, with a slight deposit of "phosphates" upon it. The patient made a good recovery, and, when I last saw him, could pass a No. 10 elastic catheter quite easily.

REMARKS.—The conclusion to which I have come, as to the manner in which this remarkable and most fortunate termination was brought about, is this. The portion of urethra below the stricture must have become very much dilated, and permanently so, from constant pressure of urine consequent upon the stricture. After the broken bougie was pushed through the stricture, the end lay in this dilated portion, and there was sufficient room for the catheter to pass by the side of it into the bladder. The difficulty experienced in withdrawing the instrument must have been caused by the broken end following by the side of the catheter, in the act of withdrawal, as far as the stricture, and then the two ends becoming jammed, as it were, into it. This will also account for the retention of urine, which always puzzled me. If this hypothesis be correct—which I see no reason to doubt—the solution to the remainder becomes obvious. When the catheter was passed into the bladder, the end of it and the broken end of the bougie would lie side by side. The action of the urine, and more especially the warmth of the bladder, would tend to render them slightly sticky. If they were in contact, they would readily adhere, and this adhesion would become more complete after the lapse of several hours. Traction, also, by jamming them into the stricture, would tend to increase it, and they would thus be in a condition to bear a considerable strain. By keeping up a steady traction, the stricture became rapidly dilated, so that, at length, it "gave with a jerk", and the catheter, with the bougie attached, was easily withdrawn.

Fortunately, accidents of this kind are of rare occurrence, but they do occasionally happen, and I believe there are many such cases on record. In one or two rare instances, the broken end has been seized, by the merest chance, with a lithotrite, and thus withdrawn; but, as a rule, the serious operation of cystotomy has been found necessary. This case appears to me to afford quite a new method of treatment, and holds out great hopes of a successful issue if the following points be observed: 1. Persistent retention of urine; and 2. Difficulty in withdrawing the catheter. I believe that in all cases of stricture, the urethra is, to a certain extent, dilated behind the stricture; and I am of opinion, therefore, that under any circumstances, this method of passing a gum-elastic catheter, and leaving it in the bladder for several hours, is worthy of a trial. In no case can it do any harm.

CLINICAL MEMORANDA.

TOOTH-GRINDING AND GOUT.

THE connection between the habit of grinding the teeth and the gouty diathesis was pointed out by Dr. Graves in the *Dublin Medical Journal* as long ago as 1836, and explained by him as being due to an irritable condition of the dental nerves. The following account apparently illustrates this observation, and is in other particulars of some interest.

Eight children, the whole family of a father who has frequent attacks of acute and seemingly acquired gout, and of a mother whose grandmother and mother suffered severely from the same disease, grind their teeth almost incessantly at nights, and have done so all their lives. I am told by the mother that the conjoint noise made by several sleeping in one room is painfully audible outside the door. The eldest is twenty years old; the youngest ten months. All the children have cut their teeth at an early age, having generally two, if not four, teeth at three months. In several of these cases, there is a notable degree of that wearing down of the teeth which was frequently observed by Graves. The mother, who, as I have said, comes of gouty parentage, though herself free, used to grind her teeth at night for many years. A further symptom that these children have in common with one another is the habit of sleep-walking and talking. The father was an habitual somnambulist as a young man, and still occasionally walks. Most of the children, I am told, are extremely nervous—"even painfully so". One, a youth aged 18, has suffered considerably from bleeding at the nose. This symptom has apparently not occurred in the other cases, but is worthy of note in this context, as Dr. Sutton has made the assertion, which is supported by Dr. Wilks in his exceedingly suggestive paper on Temperaments in the *Guy's Hospital Reports* for 1868, that epistaxis and other forms of hæmorrhage are common in children of the gouty diathesis. I would mention, lastly, that I am informed by my colleague Mr. Cowell that the two eldest have had corneal ulcers, such as are common in strumous children, in both eyes. The ulceration appeared first about the age of twelve or thirteen. There is no otherwise strumous history or fact noticeable in this family.

Some at least of these facts seem worthy of being recorded, as probably illustrating the symptomatology of gout, and as likely, therefore, to be of some help, in the case of children, towards diagnosis and precautionary treatment. HORATIO DONKIN, M.B.Oxon.,

Physician to the East London Hospital for Children, and Senior Assistant-Physician to the Westminster Hospital.

MORNING SICKNESS RELIEVED BY DILATING THE OS UTERI.

MRS. M., aged 47, consulted me on the 6th of September last. She was the mother of two children, and had several miscarriages, but had not been pregnant for some years. About two years ago, she began to suffer from morning sickness, which reminded her so much of her former pregnancies that at first she believed she was so again; but it continued from that time to the present. I prescribed bromide of potassium and quassia, and regulated the action of the bowels; but, when she came to me again on November 22nd, she still always had sickness on first getting up in a morning. Her general health was good in all other respects. I examined the uterus, and found the posterior lip hard and tender, "as if", she said, "I were touching a sore place". I suspected ulceration, and told her I thought she would require caustic to be applied; but first of all I attempted dilatation of the os, and succeeded to some extent, although I could not introduce my finger quite through the cervix; and I requested to be informed whether or not the operation had any effect upon the sickness. The next day, I had a note to say she had not had any sickness that morning; and on December 2nd the husband wrote: "Mrs. M. has had no morning sickness since she last saw you." E. COPEMAN, M.D., Norwich.

SCARLET FEVER IN THE PUERPERAL WOMAN.

MRS. B., aged 31, mother of five children, was delivered of a living female child on September 19th, 1879, at 2 A.M. The midwife who was in attendance said the labour was easy and natural. On the 20th, she did not feel so well ("felt queer"); and on the 21st alarming vomiting set in, and I was sent for. On the 22nd, the body was covered with a dark scarlet rash; temperature 104°. On the 24th, the temperature was 105°; pulse 140. She was semi-conscious; her tongue was dry, brown. There were scarcely any lochia. No milk could be got by pressure. She died, free from any convulsive signs, on the afternoon of the 26th. She never had scarlet fever, and two years ago was assiduous in her maternal duties while her three children suffered from malignant scarlet fever. The source of the contagion cannot be traced. The system of registration adopted in this borough enables me to say there was no scarlet fever in the district at the time. The girl who attended Mrs. B., and who came nine hours after the delivery, had, along with the other members of her family, scarlet fever twelve months ago.

M. M. Bradley, M.D. and C.M., Jarrow-on-Tyne.

GLYCOSURIA WITH LOW SPECIFIC GRAVITY.

In the Journal of February 7th I see a report of a case read by Dr. S. O. Habershon at the Clinical Society, one of the features of which—sugar in urine with a specific gravity of 1010—reminds me of a case under my care in August last.

My patient was a gentleman aged 61, who had diabetic symptoms for about five months, commencing with debility, dyspepsia, dry cracked tongue, polyuria, and disturbed rest from frequent micturition. When I saw him, his condition was improved under treatment, restricted diet, change of scene, and rest from professional work; but he still passed from five to six pints of urine in twenty-four hours, with a specific gravity from 1008 to 1010, which gave distinct indications of sugar on repeated examination with Trommer's test, Fehling's solution, and fermentation. There was no albumen, nor any history of chyluria. The urine was clear, without sediment except a little mucus.

I had never before met with an instance in which sugar and an abnormally low specific gravity went together; and the possibility of such an occurrence does not appear to be recognised by the authorities I have been able to consult—at least, not in a persistent case of diabetes mellitus.

R. E. Heath, M.D., Torquay.

CASE OF TUMOUR OF CEREBELLUM.

The subjoined case may be deserving of record, in connection with the interesting cases of cerebellar tumour recently published in the Journal.

John S., aged 48, was admitted into the Cambridgeshire Asylum in September 1879. He was then partly demented, confused as to dates, restless, imagined himself at the bar of a public-house, had loss of memory, and understood but little. He was totally blind, and had been so for nearly two years. He had no control over his sphincters, and was frequently wet and dirty. Ophthalmoscopic examination showed neuro-retinitis, the vessels being much obscured on their emergence; and there were several hæmorrhagic patches in different parts of the fundus. Both eyes were similarly affected. He had some paralytic symptoms, and seemed like a man with locomotor ataxy. His legs moved irregularly; he often slipped off his chair, and could not walk without assistance. He had at times what the attendants called "fits", but which seemed to be attacks of tetanic rigidity; and his head was drawn back by spasmodic action of the muscles. He turned pale and faint during these seizures. On January 14th last, he had one of these attacks, was laid on a sofa, and died rather suddenly after about twenty minutes, without any struggle. *Post mortem* examination showed the existence of a tumour which originated from the internal surface of the dura mater near the right petrous bone, and had extended along the under surface of the tentorium cerebelli to the right lobe of the cerebellum, which was invaded by it to some extent, while the posterior half of the right lobe of the cerebellum was broken down and diffluent. The tentorium was also adherent on the right side to the cerebellum. The cerebrum was anæmic, but showed no structural change; nor did the optic nerves to the naked eye. Dr. Brailey of Moorfields Hospital was kind enough to examine the tumour microscopically, and reported that "it had a fibromatous structure, and was made up of very abundant and fine fibres, which enclosed a moderate number of staining nuclei, which seemed like the connective tissue corpuscles found in fibrous tissue". The tumour, then, would seem to have been of the nature of a fibroma. I did not pretend to a diagnosis during life; I only record the facts.

G. Mackenzie Bacon, M.A., M.D., Cambridgeshire County Asylum.

TETANUS TREATED BY BELLADONNA AND CHLORAL: RECOVERY.

On the 20th December last, I was called to see Patrick G., a quarryman, aged 24, who had been ill for two days. The patient had stiffness in the jaws, and pains in the back and shooting through the body. I suspected tetanus, but waited for a day before I verified my diagnosis. The temperature was 100°, and the pulse about 98. The man had had one of his fingers crushed by a stone about a fortnight previously; but there was so little appearance of irritation in the wound, that I was more inclined to believe that the disease was idiopathic, as the patient was of intemperate habits and accustomed to a great deal of exposure and hard work. The etiology is, however, doubtful.

Next day, being the fourth day of illness, when I saw the patient, I found the symptoms much aggravated. The jaws were nearly locked, and the pains in the back had developed into well marked opisthotonos. The respiratory muscles, especially the diaphragm, were affected; the skin was bathed in a cold sweat, and the slighest touch or excitement brought on the spasms, which occurred every four or five minutes and appeared to be increasing in frequency and intensity. I gave him tincture of belladonna fifteen minims, and chloral-hydrate fifteen grains, every two hours, and ordered a sinapism over the solar plexus. The bowels were acted on with croton-oil, but micturition was performed naturally. When I saw the patient next day, there was a decided improvement. The spasms of the diaphragm had disappeared, and the others had diminished in frequency and violence. I ordered liquid nourishment to be given as often as possible, and kept a stick between his teeth to prevent the jaw from becoming permanently closed. This treatment was continued until the end of the fourth week, the pupil being kept slightly dilated, when the spasms completely left him, and the patient made a good recovery.

W. B. Mackay, L.R.C.S.I., L.K.Q.C.P.I.,
Dundrum and Glencullen Dispensary District, Dublin.

REVACCINATION.

On the subject of revaccination, it may be interesting to know that I have from time to time selected a number of men (whose revaccination had "failed" after two or three operations) and performed the operation by raising a small blister about the size of a pea, and then vaccinating on the blistered surface. In each instance it has proved successful. The patients were, as a rule, men with thick coarse cuticle.

F. E. Scanlan, Surgeon-Major A.M.D., Bengal.

SURGICAL MEMORANDA.

ECZEMA OF NIPPLE FOLLOWED BY CANCER.

Having read with interest, in the Journal of the 24th January, a discussion on "Eczema of the Nipple followed by Cancer of the Breast", I beg to give the following brief description of what seems to me to be a case of the disease in question.

I was consulted, about two years ago, by a young girl of anæmic flabby appearance, for persistent superficial pain in the right nipple and areola, much aggravated by the friction of her dress. Being suspicious of cancer, I made a careful examination of the glandular tissue of the breast, which was slightly harder than that of the opposite side; but, on being interrogated as to the existence of the cancerous cachexy in her family, she replied in the negative. The cutaneous affection presented all the appearance of eczema. I tried different remedies suitable to cases of the kind; but without effect. The patient died in about a year after I first saw her of cancer of the breast, which ran a very rapid course.

R. Morgan, M.D.

Holly Hill, January 26th, 1880.

ASPIRATION OF THE BLADDER IN RETENTION OF URINE.

While agreeing with Mr. Pasley, whose communication appeared on January 31st, as to the value of aspiration of the bladder in retention, I must warn the inexperienced that the proceeding is by no means as safe as Mr. Pasley is inclined to think.

Some time ago, during my absence from home, a case of stricture was admitted into the Northern Hospital. There had been retention for some time, and no instrument could be passed. The aspirator was therefore used by the House-Surgeon, with immediate relief. Next day, as catheterism again failed, aspiration was employed again. When I saw him the following day, I managed to pass a filiform bougie, upon which an urethrotome was led, and the stricture divided internally. His progress was good for a day or two, when some inflammation appeared at one of the aspirator punctures; an abscess formed, peritonitis came on, and the man died.

The lesson I have learned by this case is that, if aspiration have been performed, the bladder must be kept undistended, as the fatal result was evidently due to the distended bladder, after the first aspiration, forcing some urine into the tissues. Tapping the bladder *per rectum* is much safer, and altogether more satisfactory.

W. Macfie Campbell, M.D., Surgeon to the Northern
Hospital, Liverpool.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 17TH, 1880.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

Congenital Occlusion of Duodenum.—Dr. GOODHART showed, for Mr. GEORGE EASTES, a specimen of this condition. The child vomited within an hour after its birth, and had continued to do so until its death, when five days old; the vomit during the latter part of its life being of a "coffee-ground" nature. A small quantity of meconium-like fluid was passed *per anum.* The child died in convulsions. After death, complete obliteration of the lower part of the duodenum was found. Only seven or eight cases of this condition have been recorded.

Gangrene of the Bowel, in connection with Cancer of the Sigmoid Flexure.—Dr. GOODHART showed this specimen. It was from the body of a married woman aged 54, of constipated habit, who, without previous symptoms, was seized with pain in the abdomen. She rapidly became collapsed, and died ten days afterwards from peritonitis. *Post mortem*, there was general peritonitis, and the transverse and descending parts of the colon were deeply ecchymosed. In the lower part of the ascending colon, large sloughs were found. The sigmoid flexure was involved in a cancerous mass, and above this growth the bowel was gangrenous. No plugs were found in the vessels, nor was there any evidence of a twist of the gut having taken place. Dr. Goodhart thought that acute colitis had been set up by some irritant, which would have been got rid of by diarrhœa had there been no cancerous stricture, and that this had led to the gangrene.

Dislocation of the External Semilunar Cartilage of the Knee-Joint.—Mr. GODLEE showed a knee-joint, in which the external semilunar cartilage had been separated from its attachment to the capsule, and was placed vertically between the condyles of the femur. The ends of the femur and tibia thus came directly into contact with one another, and had become eroded in a way that would be impossible had the cartilage been in its right place. Nothing was known of the patient's history, but probably his walking powers were not interfered with by the condition. All cases of the kind that had been diagnosed during life had ended in cure. The accounts given by most of the writers who had mentioned the accident were, however, vague, as it gave rise to little or no deformity, and was therefore difficult to detect. Mr. Godlee gave anatomical reasons for believing that the external cartilage was more likely to suffer in this way than the internal.

Cicatrices of Larynx, Trachea, and Bronchi, producing Stricture, and leading to Chronic Disease of the Lung.—Mr. EWART showed this specimen by card. It was taken from a syphilitic patient.—Dr. GOODHART asked whether any other ulcers of these parts than those due to syphilis ever cicatrised.—Dr. BARLOW believed that tubercular ulcers of the larynx and trachea might in some cases heal up.

Diaphragmatic Hernia.—Mr. EWART exhibited this specimen by card.—Dr. NORMAN MOORE remarked of it that the condition was probably congenital, and due to the fact that the original pleuro-peritoneal cavity of the embryo, instead of dividing into the peritoneal cavity, two pleural cavities, and the pericardium, had only partially split up, one pleural cavity being still continuous with the peritoneal cavity.—Mr. EWART thought that Dr. Moore's explanation was probably the correct one.

Specimens of Ulcer of the Stomach and Duodenum.—Dr. NORMAN MOORE showed a series of such specimens. No. 1, taken from a woman aged 54, and measuring an inch and a half by two-thirds of an inch, was situated at the posterior part of the lesser curvature. The floor of the ulcer was partly formed by the pancreas, and the pancreatic artery was eroded. The ulcer had partly healed, and in doing so had contracted so as to produce a constriction of the stomach, dividing it into a small pyloric and a large cardiac portion. Death had taken place from hæmorrhage. No. 2, from a man aged 57, was on the anterior wall of the stomach, an inch and a half from the pylorus; and in its neighbourhood was a second ulcer, which appeared to be healed. Death had taken place from perforation. No. 3, from a man aged 35, was situated on the posterior wall of the stomach, near the cardiac orifice, and had cicatrised. Its base was firmly adherent to the surrounding tissues, and it had set up a chronic peritonitis, which had killed the patient by exhaustion. The possibility of death from this cause appears to have been overlooked by writers on ulcer of the stomach. No. 4, from a man aged 20, was a small oval ulcer, situated on the anterior wall of the duodenum, an inch below the pylorus. Death had occurred from perforation. No. 5 was a specimen of ulcer of the duodenum produced by a gall-stone. The stone had ulcerated its way out of the gall-bladder into the duodenum, and death occurred rapidly, being preceded by uncontrollable vomiting. Dr. Moore remarked that since 1867 twelve patients had died in St. Bartholomew's Hospital with gastric ulcer. Ten of these cases were in men, and two in women. Of these cases, five died of perforation; two of exhaustion; one of fistulous opening into the liver and lung; two of hæmorrhage; and two of phthisis. There had only been one case of ulcer of the duodenum in this period. Dr. COUPLAND raised the question whether ulcers of the duodenum really occurred as the result of superficial burns, as had been stated. In a considerable *post mortem* experience of burns, he had never met with such a case.—The PRESIDENT remarked that the connection between burns and duodenal ulcers was first noted by Mr. Curling, and several such cases had been met with at the London Hospital.—Cases in point were quoted by Mr. GODLEE, Dr. PAYNE, and Dr. MOORE.—Dr. GOODHART stated that he had twice found ulcers of the pyloric end of the stomach in cases of death from burn, but never of the duodenum.—Dr. GILBART SMITH remarked that duodenal ulcers were believed to occur especially in connection with extensive superficial burns giving rise to prolonged suppuration.—Dr. PEARSON IRVINE thought contraction of the stomach like that described in Dr. Moore's first case was not so uncommon as was supposed, and that it generally occurred when the ulcer was in a position to set up chronic peritonitis, and was itself bound down to neighbouring structures.

Epithelioma of Pharynx involving the Larynx and Œsophagus.—Dr. GILBART SMITH showed this specimen, taken from a woman who had suffered some discomfort in the throat for eight or nine years. When first seen in March 1879, the voice was hoarse; there was slight pain on deglutition, and tenderness on the left side of the pharynx. She rapidly became worse, began to spit blood, and the left cervical gland became enlarged. A growth could be seen with the laryngoscope, involving the pharynx and larynx, partially blocking up the glottis. Dyspnœa came on, and on October 11th tracheotomy was performed by Mr. Walsham. The patient died on December 12th. *Post mortem*, the lower part of the pharynx was found to be involved in a large ulcerating mass. The thyroid and cricoid cartilages were partly destroyed, and the aryteno-epiglottidean folds were affected on their pharyngeal aspect by the growth. The cavity of the larynx itself was, however, not much diseased, there being only two small perforations into it. Microscopically, the growth presented the typical appearances of epithelioma. The points of interest were: 1. The length of the initial stage, which was probably due to chronic non-malignant inflammation; 2. The rapidity with which ulceration had occurred; 3. The slight degree in which the cavity of the larynx was involved. The *post mortem* appearances proved that no operative interference short of extirpation of the pharynx would have been of any avail.—Mr. WALSHAM stated that it was usual to find, in such cases, that the aryteno-epiglottidean folds were affected in their pharyngeal aspect only.—Dr. FELIX SEMON, who exhibited a specimen of a similar nature by card, stated that the larynx had been extirpated nineteen times—sixteen times for carcinoma, twice for spindle-celled sarcoma, and once for perichondritis. Fifteen of the carcinomatous cases had subsequently died, and one of the cases of spindle-celled sarcoma; but one of the latter cases was still living, four years after the operation. Primary cancer of the larynx ran a much less rapid course than primary cancer of the pharynx. This he believed to be due to the fact that the laryngeal lymphatics were much isolated, whilst the pharyngeal communicated freely with those of the surrounding parts. He believed that the greater virulency of pharyngeal diphtheria, as compared with laryngeal diphtheria, was due to the same cause. Owing to this isolation of the laryngeal lymphatics, true secondary carcinoma of the larynx was rare. He should, therefore, prefer, instead of speaking of primary and secondary laryngeal carcinoma, to speak of endolaryngeal carcinoma and carcinoma of the larynx *per contiguitatem.*—Dr. MAHOMED thought that the greater virulency of pharyngeal, as compared with laryngeal cancer, might be due to the fact that the pharynx was constantly being irritated by the passage of food.—Dr. MOORE stated that there was a specimen at St. Bartholomew's Hospital of carcinoma of the larynx, without any involvement of the pharynx or the glands.

Sarçoma of the Spermatic Cord.—Mr. WALSHAM showed this specimen, which had been removed during life from a baby a few months old, by Mr. Anderson of Nottingham. It consisted of mucous tissue enclosing sarcomatous elements. Tumours of the cord were rare. There were three specimens in the museum of the College of Surgeons. Mr. Curling mentioned another specimen, and one other was recorded in the *Transactions* of the Society. All of these were called medullary cancer.

Cystic Tumour of Spermatic Cord.—Mr. WALSHAM exhibited this specimen. It appeared to have taken origin in the meshes of the connective tissue of the cord.—Dr. GOODHART also exhibited by card a fibro-myxoma of the epididymis and spermatic cord.—Mr. CRIPPS mentioned a case of sarcomatous tumour of the cord in a child five months old, which had been removed by Mr. Willett.

Blood-Casts in the Bronchi.—Dr. SAMUEL WEST showed an arborescent cast of bronchial tubes, consisting entirely of blood-clots, which had been expectorated by a man aged 43, who had slight dulness with a little softening at the left apex. About six months after the onset of his illness, he had profuse hæmoptysis, followed by extensive dulness at the left base, which rapidly cleared up, and which was doubtless due to descent of the blood by gravity. Two months later, he had a second attack of hæmoptysis, which was followed by urgent dyspnœa. Shortly afterwards, he coughed up with great difficulty the casts exhibited. This attack was also followed by dulness at the left base. The patient was still living. Dr. Cheyne divided casts of the bronchial tubes into inflammatory fibrinous casts and blood-clots. He looked upon the latter as of very bad augury. Dr. Peacock had stated his opinion that true blood-casts of the bronchi never occurred. No such case was recorded in the *Transactions* of the Society.

Anomalous Skin-Disease.—The PRESIDENT exhibited a woman who presented a very anomalous form of skin-disease. He intended to investigate the case more fully, and to report to the Society upon it.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 13TH, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Case of Traumatic Salivary Fistula cured by passing a Fine Catgut Bougie from the Mouth along Stenson's Duct.—Mr. HENRY MORRIS read notes of this case, as follows. A shoemaker came under his care in the Middlesex Hospital, on June 24th, 1879, bleeding from several incised wounds, one of which was about two inches long, and vertical in direction, along the right cheek. On June 28th, saliva was seen trickling from the lower end of this wound, which was all but healed. The patient now stated that, since the injury, the right side of the mouth had felt very hot and dry, and that he had constantly to moisten it by carrying the fluid from the left side over to the right of his mouth. A fine catgut bougie was introduced at the oral aperture of the duct, and passed onwards towards the parotid gland until it emerged on the cheek through the fistula. The newly healed wound was laid open, and the proximal end of the injured salivary duct searched for, and found by squeezing the parotid gland until a little saliva was forced out of the duct. Into this the point of the bougie was inserted, and pushed onwards for about half an inch. The edges of the wound were brought together with three hare-lip pins and twisted sutures, and the bougie cut short, so that a short end, not long enough to be caught between the molar teeth, was left protruding into the mouth from the slit-like orifice of the duct. The patient at once appreciated a marked difference in the feeling of the right side of the mouth, which was now in all respects like the other side, and he could distinctly feel saliva trickling into it. On July 4th, the bougie came away accidentally. The wound on the cheek had been all but healed for four days, but a little discharge still escaped at its lower end. On July 9th, a little saliva was still escaping; cotton-wool and collodion were, therefore, applied over the wound until July 15th. By this date the wound was securely healed, and all the saliva flowed freely into the mouth. The man was retained in hospital for a few days longer, and was then discharged well. The facility with which a bougie could be passed along the parotid duct from the mouth encouraged the author to think that the same treatment would prove successful in most cases of parotid salivary fistula, meaning by "salivary fistula" a fistula of the parotid duct as distinct from a fistulous communication with the parotid gland itself, such as occasionally followed abscess below or behind the ear; and also as distinct from an opening into the cavity of the mouth, such as sometimes occurred after necrosis of the jaw, and in cancer. If the orifice of the duct, which was its smallest part, became obstructed after long disease, the mucous membrane of the cheek might be punctured, and then a bougie might be passed into the dilated part of the duct, which was just where it pierced the buccinator muscle, and urged along it beyond the fistulous opening. In operations for the removal of tumours of the face, when an incision must be made so as to divide the duct, it would be well to pass a parotid bougie whilst the patient was still under chloroform, so that the patency of the duct and the flow of saliva into the mouth might be secured during and after the healing of the wound.

Sutural Union of Median Nerve in the Lower Part of Forearm, Five Weeks after its Division, followed by Return of Function.—Mr. J. W. HULKE related this case. A bottle-washer, by the bursting of a seltzer-water bottle, received a deep gash across the front of the forearm, just above the wrist, which severed the median nerve, the radial artery, and several tendons. Five weeks later, on July 23rd, there having been no return of nerve-function, the nerve was exposed by dissection. The ends were found three-quarters of an inch apart, the upper bulbous, the lower pointed. Enough was cut off each end to get plain surfaces at 90° to the long axis of the nerve. The upper end was pulled down in order to lengthen it, and the ends were brought together by four stitches of very fine silk passed through the sheath; the forearm and hand were fixed on a splint. On August 15th, he was discharged; sensibility had returned in the parts before numb, except in the last phalanges of the index and middle fingers. Later, further improvement took place.—Mr. HOWARD MARSH said there had been a similar case at St. Bartholomew's Hospital, which, he hoped, would soon be reported to the Society. The nerve had been injured for some time, but after union the function began to return within twenty-four hours.—Mr. HULKE, in reply to a question by Mr. Marsh, said the nerve had been stretched in pulling down, and that he used a particularly fine silk suture, called three-plie China twist, which he had obtained from Pearsall's, in Cheapside.—The PRESIDENT remarked that the case was of interest to the physician, as illustrating the fact that pain always returned after simple section of a nerve for its relief.

Case of Disturbed Nutrition, with Suppuration and Exfoliation of the Nails.—Dr. A. SANGSTER read this paper. E. K., aged 7, came under observation on October 16th, 1879. There was a history of "chest-complaints" on the mother's side. The mother looked healthy; she had had seven children, three of whom had "lumps in the throat"; three had died in infancy. The patient was a delicate-looking girl. Her mother brought her to the hospital for the affection of the nails and ulcerative stomatitis. The terminal phalanx of the middle finger of the left hand was about twice its natural size, hot, red, and very painful; so that the child held the finger with the other hand in a vertical position, to keep it from being jarred. The nail was greenish-black, curved talon-wise, and raised from its bed, from which oozed a very fœtid purulent discharge. The skin in the immediate neighbourhood was ulcerating. The other nails showed changes. Some were ridged transversely, and discoloured at the distal portions; others were stunted and misshapen, evidently new nails; some were separated from their bed halfway towards the fold. A piece of paper could be slipped beneath them, showing that there was no massing of epidermis between the nail and its bed. The separated portion of the nail was blackened with dirt, but its texture was unaltered. The toe-nails had been stunted and misshapen for some time; none had suppurated. The mother's statement was, that the finger-nails presented no unusual appearance until twelve months ago, when certain of those on the right hand gradually turned black (presumably by separation from their beds and discoloration). When the blackened portion reached the fold, the finger-ends festered, and the nails were shed. Some of the nails of the left hand, not corresponding with those affected on the right, underwent similar changes. There were no signs of syphilis in the patient or other members of the family (the father was not seen); no history of dartrous affection (psoriasis, eczema, etc.); no traumatic cause for the disease was discoverable; no fungus could be found. Appearances were in favour of the correctness of the mother's statement. The disease seemed to consist essentially in a separation of the nail from its bed; the onychia being possibly due to accumulated dirt, most probably in some instances to the contagion of pus.

Removal of Myeloid Tumour of the Radius by Excision.—Mr. MORRIS exhibited a patient, whose case was described in the tenth volume of the Clinical Society's *Transactions*, from whom he had removed a large myeloid tumour of the radius by excising that bone from the wrist to the insertion of the supinator brevis, together with the lower four inches of the ulna. He brought her under the notice of the Society, as an encouragement to surgeons to excise rather than amputate for such growth of the bones of the upper extremity. It was now four years since the operation, and yet there was no sign of recurrence of the disease. The degree of usefulness of the hand thus preserved to the patient was very considerable. By the aid of a simple leather splint, she was able to nurse, dress, and wash her children, do all her household work, wash linen, and carve her own and her children's food. She could also stitch and darn, and was able to take up a pin from off a table between her index and middle fingers, and pin her shawl together. Without her splint, since the contraction of the soft tissues between the hand and the end of the bones of the forearm had taken place, she was able, without support, to hold her hand out straight from the elbow. Mr. Morris remarked that, before the operation, he had determined to remove a considerable part of the ulna, so as to avoid the great and permanent abduction which must have resulted if the lower end of the bone had been left untouched; and that at the time of the operation he found that, owing to the firm adhesions between the tumour and the outer side of the ulna, he would have been obliged to remove the lower part of that bone, if he had not so predetermined. His only regret now was that he had not taken away as much of the ulna as of the radius; for the retraction of the hand had been so great, that the lower end of the remaining ulna slightly overlapped the back of the carpus, and gave rise to some friction between the splint and the skin covering the bone, almost to the extent of forming a subcutaneous bursa. Indeed, for a time he thought that a bursa had been formed; but this appearance had subsided of late. It would be admitted, he was sure, by any surgeon who examined the limb, that, so far from being useless or an encumbrance, it was a very useful and serviceable member; and such was the conviction of the patient herself.

Two Cases of Popliteal Aneurism cured by Esmarch's Bandage.—Mr. C. HEATH read this paper. The first patient was a coal-miner, aged 32, with a small popliteal aneurism. Flexion of the knee having been tried without effect, Esmarch's elastic bandage was applied below the knee, and an elastic bandage and cord above the knee, so that the sac was kept tense with blood and pulseless. This was borne for one hour without anæsthetics, and for two hours under the influence of bichloride of ethylene, and at the end of the three hours the sac had become solidified. The patient had been exhibited to the Society at a previous meeting, and had now gone home to Wales. The second patient was a potman, aged 37, with a small popliteal aneurism, presumably tubular. Esmarch's bandage was applied above and below the knee; but it was noted that, though pulsation was arrested, the sac was not rendered so tense as in the former case. On removal, after three hours, pulsation returned as strongly as before. Digital compression of the femoral was then maintained for three hours with marked effect, but without curing the aneurism. A second application of Esmarch's bandage rendering the sac tense, and producing local ecchymosis, was successful in stopping the pulsation permanently. Mr. Heath laid stress upon the importance of putting no pressure upon the aneurism itself, and of keeping it tense with blood in order to induce coagulation of the contents of the sac.—Mr. SYDNEY JONES remarked that the case was of importance, as showing how long such a bandage could be used and the circulation completely stopped without impairment to the part. The bandage had done well in two cases of popliteal aneurism under his care, but in one of axillary aneurism the improvement had been temporary only. He had kept the bandage applied for an hour only. In one case he afterwards applied digital pressure, and in the other the bandage had to be reapplied. He could not agree with Mr. Heath's theory that distension of the aneurism favoured clotting. In Hunter's operation, when the artery was tied far above the aneurism, the tumour seemed to shrink, and he thought this contraction was of some value in the cure.—Mr. HULKE said that, as over-tension might produce rupture of a thin-walled aneurism, any plan tending to favour it would be more or less risky.—Mr. MARSH inquired why the bandage was removed from the part of the limb above the aneurism first of all.—Mr. CROFT said he had reported one case where the aneurism was cured in about six hours by what he called the interrupted bandage. The bandage was only kept on for one hour, but the aneurism was not solid then. In another case, he had used the bandage for one hour; the patient was syphilitic, and the aneurism was of the size of an orange. The pulsation was diminished, but not stopped, and digital compression was employed. Two hours and a half sufficed for the consolidation. Here there was a considerable difference in point of time employed, and he was unwilling to prolong the application of the bandage or the use of anæsthetics, as these were likely to retard the process of coagulation. He thought the bandage need only be applied long enough to partially solidify the contents of the sac.—Mr. T. SMITH considered that the great point established was, that the circulation could be stopped for three hours without harm. He always limited the application of the bandage to an hour and a half. He then tried an Italian tourniquet, or a reapplication of the bandage. He thought it was a good plan to use the cord over the flat bandage, as in some cases paralysis for a time seemed to follow the use of the cord alone. The clot thus formed was not, however, always permanent. In one case, it disappeared three times; and the same occurred in another case. The time of application, he thought, must vary in different cases. In one well-known case, he had used no anæsthetics; the time employed occupied three hours. In another case, where compression could not be well borne, he had allowed the patient to smoke a pipe, with which there was no difficulty in continuing the pressure.—Mr. HULKE remarked, in connection with the question of the non-interference with nutrition, even under continued compression, that, in the case of skin-grafting, the grafts might be taken from bodies as long as four hours after death with perfect success.—Dr. MAHOMED suggested that, after the application of the bandage, the sac might be punctured with an electric needle.—Mr. MORRANT BAKER mentioned a case under his care where no anæsthetic had been used. The bandage was applied one hour, and digital compression one hour, then again the bandage was used for half an hour, after which compression completed the solidification. He would like to know something more of the use of bichloride of methylene. Ether was, perhaps, too great a stimulant to the heart.—Mr. HEATH, in reply, said that the anæsthetic employed in his cases was bichloride of ethylene, not of methylene, which he believed to be a rather dangerous substance. He did not think its use removed coagulation. Pain was commonly present in excess just at the point of coagulation: hence he preferred to use anæsthetics. The aneurisms in his cases were small and thick-walled, and he believed that distension decidedly favoured coagulation. Broca, it was true, had condemned the formation of a passive clot, but experience had shown that he was wrong. The time was a purely empirical matter. The tourniquet was removed first as a matter of convenience. He would be loth to use galvano-puncture; if he were to use anything, he would introduce ordinary needles.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 4TH, 1880.

Sir JOSEPH FAYRER, K.C.S.I., M.D., F.R.S., President, in the Chair.

Enteric Fever in India, with some observations on its probable Etiology in that Country.—Deputy Surgeon-General EWART, M.D., read a paper on this subject. That enteric fever had long found a congenial home in India might be gleaned from the classic works of Clarke, Annesley, and Twining; but the honour of first identifying it there on the perfected lines laid down by Gerhard, Stewart, and Jenner, belonged to Surgeon-Major Scriven, of the Bengal Medical Service, who proved the existence of this disease by a *post mortem* examination of a case at Meerut in November 1851, and who subsequently published notes of cases met with in Burmah and Calcutta. The subjects of the disease were young Europeans. In the latter part of 1855, Dr. Ewart detected enteric fever among the native prisoners in the Ajmeer Jail, Rajputana, and published, in the seventh number of the *Indian Annals*, an epitome of the symptoms and appearances found in these cases. Dr. Ewart subsequently recorded well marked cases of enteric fever occurring in a native regiment in Kherwarrah, Rajputana, and the aborigines of the district, especially in the autumn and early months of the cold or winter season, when the worst forms of malarious remittents abounded. In 1860, he noted the prevalence of relapsing fever, and that many of the so-called malarious remittents were simply typhoid or typhus fever, masked by malarious poisoning. Frequently, the patient succumbed to the combined influence of the enteric and malarial poisons at an early period of his illness. In three of his patients in Calcutta, who died after being ill from eight to twelve days, there was very marked prominence of the agminated glands. Had these patients survived long enough, the glands would have ulcerated. In both natives and Europeans who had suffered from malaria, the morning remission of temperature was more marked during their attack from enteric fever. In natives, the rash was present, but was less obvious than in Europeans. There was no intimate relationship between the alleged potentive cause of genuine paroxysmal fevers and the poison of enteric fever. Nor was it necessary to accept in its entirety the pythogenic theory of the origin of the latter disease; yet the intensely unsanitary condition of the cities, towns, and villages throughout India, rendered the pythogenic theory the best working hypothesis hitherto advanced to explain the endemic prevalence of the disease in that country. When Dr. Ewart detected enteric fever among the native prisoners of the Ajmeer jail, no description could exaggerate the abominable filthiness of the sleeping accommodation set apart for the convicts. A few earthenware vessels were provided as urinals and commodes; the filth was taken away, but much of it was washed into narrow channels leading to a cesspool adjoining the well from which drinking-water was drawn. In Calcutta, enteric fever was most abundant in the autumn; and the modifying power of malaria was most apparent in the autumn and first half of the cold season, becoming less so in the middle and end of this, and scarcely perceptible in the remainder of the winter and during the hot months. Strangers of the dark and fair races, below the age of thirty, were most exposed to attack. Unsanitary conditions existed to a very marked extent in Calcutta. Until within the last few years, filthy open drains lined the streets of the European quarter; and still existed in most parts of the native town. The sewers were porous, and not lined with any impervious material. The sanitary defects of the native town existed in an exaggerated degree; the water-supply being in many instances very impure. The reports of the Sanitary Commissioners throughout India showed that similar unsanitary conditions were common throughout the whole country. There was no reason to deny that enteric fever in India was due to the same cause or causes which were considered potential in its production in temperate climates. In short, there was nothing repugnant to the doctrine that, in its etiology, it was intimately associated with the presence of animal or fæcal filth. The fever would be still more frequent in India than it is, if the superabundant filth everywhere met with were not exposed daily to the powerful antiseptic influences of the atmosphere and sunlight. In the Madras Command, there had been difficulties in tracing the disease to pythogenic causes, notwithstanding the fact that the military stations were surrounded with filthy bazaars. Until the incubation period of the disease had been studied, it was premature to look for other than pythogenic causes. In conclusion, Dr. Ewart protested against the system of deodorising the evacuations of enteric and cholera cases simply by the use of dry earth. Carbolic acid, chloride of zinc, or sulphate of iron solutions should be employed. If these were not available, the evacuations should be burnt.—In the discussion which followed, Sir Joseph Fayrer, Surgeon-General Murray, Surgeon-General Gordon, Surgeon-General Francis, Dr. Norman Chevers, Surgeon-Major Don, Mr. Smee, and Dr. Duka took part.

SURGICAL SOCIETY OF IRELAND.

Friday, January 2nd, 1880.

E. D. Mapother, F.R.C.S.I., President, in the Chair.

Recent Specimens.—Dr. Lombe Atthill showed an ovarian tumour which he had, four days before, removed from an old woman in the Rotunda Hospital. She had suffered from two attacks of peritonitis, and was much emaciated. The tumour was about the size of a small fœtal head, and had a very small pedicle, consisting of the Fallopian tube and nothing else. The tumour, in fact, consisted of the whole ovary, and was multilocular. The patient did not lose an ounce of blood during the operation, and was doing remarkably well. Dr. Atthill thought the case pointed to the favourable results to be obtained by an early operation, and advocated such a step in similar cases.

Dislocation of Femur on Os Pubis (*thirty-nine days' standing*) *reduced by Manipulation.*—Mr. H. G. Croly read a paper on a case of this injury. Darby O'C., aged 40, was, on September 22nd, 1879, struck by the wheel of a cart on the upper inner side of the thigh, knocking him down, and causing dislocation of the femur on os pubis. The accident happened in the country, and the local medical man tried to reduce the luxation by means of pulleys, while the patient was under the influence of chloroform. It was, however, not for two weeks after the accident that the pulleys were employed. As much force was applied as was deemed safe, but with no beneficial result. When he was sent to Dublin, five weeks after the accident, the right thigh was slightly abducted and flexed, and immovable; the head of the femur was felt like a billiard-ball in the groin. Mr. Croly had the man placed on a mattress on the floor, with his pelvis firmly fixed. He flexed the leg on the thigh, and the thigh on the abdomen, as far as possible, and rotated it forcibly for over half an hour, but with no apparent result; soon, however, there was felt crackling, as from ruptured adhesions, and towards the end of the second half-hour, the head of the femur slipped into the thyroid foramen, and then back again on to the os pubis. Some further manipulation got the head into the acetabulum, but without any sudden snap, such as was usually felt. The reduction was followed by a good deal of effusion into the joint, which gradually subsided under treatment and perfect rest. Mr. Croly shewed photographs of the man, taken before and after reduction, and quoted authorities in favour of manipulation, as being safer and more efficacious than the more violent mechanical measures.—Dr. Bennett related a case of a similar dislocation, which had come under his care a few hours after the accident. He tried to reduce dislocation by means of extension and counter-extension, and for the purpose employed six strong men, but without effect. He then tried manipulation, as recommended by Bigelow, and the bone went in very soon, with a peculiar sensation, more like that felt when a bone was fractured, than the regular snap produced in reducing dislocations of the femur. He thought these two cases demonstrated that manipulation carried to full extent succeeded in reducing dislocations where pulleys and force had failed.—Mr. Tufnell, Mr. Swan, and Mr. Wharton, also took part in the discussion.

Removal of Uterus and One Ovary, by Abdominal Section.—Mr. Thornley Stoker related a case. The patient was a sallow, slender woman twenty-six years of age, who had borne one healthy child, but none since. There was extreme difficulty in forming a diagnosis in this case, as many points were in favour of its being ovarian, and many others in favour of the uterus being the seat of the tumour. The os and cervix uteri were normal, and the size of the uterine cavity normal, and the sound gave uncertain and contradictory evidence. The tumour was of the fundus and body of the uterus, and bore on its anterior portion an outgrowth, which was freely movable, and complicated the diagnosis. Doubtful fluctuation could be felt; and some time before, in another hospital, a trocar had been passed into the tumour, but no fluid was obtained. It was determined that the tumour whatever it was, ought to be removed, as the woman had been for six months in hospital, and was sinking, emaciated and hectic. There was no interference with defæcation or urination. The girth of the abdomen was thirty-six inches, and a slight amount of ascites was present. The operation was performed on June 6th, 1878, three days after menstruation, and lasted two hours. The right ovary was removed with the uterus, but the left was allowed to remain. The cervix uteri, which was the pedicle of the tumour, was tied with a transfixion-pin; five ligatures of silk were left in the cavity of the abdomen, and one large silk one in the wound, in which was also left a glass drainage-tube for five days. The thymol spray was used during the operation. Convalescence was slow; but the woman made a most satisfactory recovery, and left the hospital after seven weeks, and had since been doing well. The opening in the abdomen remained discharging slightly for twelve months, when the large silk ligature was extruded, and the wound entirely closed. Mr. Stoker showed a cast of the tumour, which was about fourteen inches by eight inches, with the smaller one attached, about the size of the fœtal head, at its upper anterior portion. Since the operation, the woman menstruated twice; the sound could be passed about three-quarters of an inch into the cervical canal; and the os uteri felt like that of a woman who had borne three or four children, otherwise normal. Mr. Stoker then discussed the point whether, in such cases, a drainage-tube ought to be used, and was of opinion that it ought to be taken out early, as it very soon formed a sinus, and was then not required. With regard to the removal of the ovaries in such cases, Mr. Stoker thought it advisable, if the ovaries were healthy, to leave them in the abdomen, as, in his opinion, the woman lost more in vigour and health from their loss, than injury from having an ovum occasionally discharged into the abdomen, where he thought it could do but little harm. The woman, during convalescence, had been, to a very considerable extent, maintained by nutritive enemata.—Dr. Atthill and Dr. Kidd had both seen the patient on whom Mr. Stoker operated, and recounted their experiences, and the extreme difficulty of forming a definite diagnosis.—Dr. Bennett also took part in the discussion.

Friday, January 16th, 1880.

E. D. Mapother, F.R.C.S.I., President, in the Chair.

Recent Specimens.—Mr. B. W. Richardson exhibited a Vesical Calculus of unusual shape. It was mainly composed of uric acid, with a phosphatic nucleus, and was one inch and six-eighths by six-eighths of an inch in size.

Mr. William J. Wheeler exhibited the Arm of a lady, sixty-eight years of age, which he had amputated above the elbow-joint for Atonic Caries. Mr. Wheeler had used in this case the decalcified bone drainage-tubes, and found them suit admirably.

Two Cases of Acute Goitre.—Dr. E. H. Bennett, after reviewing the literature of the subject, and contrasting the diversity of opinion held by eminent surgeons regarding the existence or non-existence of acute goitre, read the notes of two cases which had come under his care in Sir P. Dun's Hospital, in neither of which were there any traces of vascular bronchocele. Case 1. A girl aged 16, who had lived all her life in Dublin, was admitted to the hospital, complaining of intense dyspnœa. She had a large bronchocele, but the larynx was free from foreign body, œdema, or spasm. One year previously, she first observed a wheezing in her throat, especially noticeable when exercising. The neck, she said, used at times to grow large, and then became small again. She had never menstruated. Dr. Bennett exhausted the *Pharmacopœia* in the hope of giving relief without operation, but at length had to perform tracheotomy to avoid suffocation. The tumour was most prominent in the middle line, and there were no traces of a vascular bronchocele about it, no large vessel being met with in making the incision. The dyspnœa was much relieved by the incision, but in two hours it returned, and in four hours a large-sized silver prostatic catheter, with a long curve, was passed into the trachea, and was followed by instant relief. The eyes of this tube, however, being inconveniently small, Dr. Bennett had a silver tube made, of the shape and curvature of a prostatic catheter, but of the size of a tracheotomy-tube, with loops for tape, etc. This he passed instead of the catheter, a distance of five inches and three-eighths, so that it must have reached as far as the bifurcation of the trachea. This she wore with great comfort, without causing any sign of local irritation. Shortly afterwards, she menstruated, and the tumour became smaller;

the wound was, therefore, allowed gradually to close, until it became about the size of a probe, when the dyspnœa returned, and the wound had to be enlarged, and the tube replaced. The girl still wore it, but was quite free from visible goitre, and in excellent health. Case II. A girl aged 15, who said the goitre came on six weeks before, at the first sign of menstruation, was suffering from rather severe dyspnœa, which did not yield to ordinary treatment. There was no sign of hysteria. This attack she got over, and when Dr. Bennett saw her again, she had just menstruated, and was looking well; and, though the goitre was present, there was no dyspnœa. He told her she was so much improved, that no operation would be necessary. She was rosy, cheerful, and chatty. When he had gone, she got up, and dressed herself as usual, but was suddenly seized with a severe attack of dyspnœa, and died very rapidly, before any relief could be obtained.

Skulls found during Excavations at Donnybrook.—Dr. WILLIAM FRAZER exhibited a number of skulls and some other bones, and ornaments, including arm and finger rings, a richly inlaid sword and sword-handle, and many arrow and spear heads, which had been found in a tumulus fifty feet in diameter, and containing over five hundred skeletons, including every age and sex, from the infant *in utero* to the most advanced senility; and of both sexes in about equal proportion. Dr. Frazer believed, from these and other things, that it must have been caused by a massacre, not by an ordinary battle. There were heads of every form, and one with orbital cavities on different levels, which he pronounced to be that of an idiot. Some of the bones showed evidence of "chronic rheumatic arthritis", others of necrosis, and many of the teeth showed the ravages of caries. He would place the date of the slaughter about the eighth or tenth century, and explained the perfect preservation of the bones, etc., by the peculiarly dry soil in which they were found.

PATHOLOGICAL SOCIETY OF DUBLIN.

Saturday, January 17th, 1880.

Edward H. Bennett, M.D., President, in the Chair.

Myoma of Uterus.—Mr. STOKES presented an enormous irregular more or less lobulated tumour, of twelve years' growth, occurring in the abdomen of a woman who had borne three children. The tumour was removed by operation, the patient sinking in forty-nine hours. It measured thirteen inches in its greatest diameter, weighed twenty pounds, and was very vascular. Much of it had a sarcomatous or cancerous appearance, and but little of it had the fibrous appearance of the ordinary uterine tumour.

Melanotic Sarcoma of Orbit.—The PRESIDENT submitted a melanotic tumour from the right orbit. It sprang from the ligamentous connections of the lower lid, projecting into the orbit, and simulated the familiar forms of tumour which spring from the choroid coat of the eye. It was a typical example of melanotic sarcoma, and was removed without any injury to the globe.

Chronic Bright's Disease and Pernicious Anæmia.—Dr. W. G. SMITH showed a series of specimens from the body of a gardener aged 55, who apparently had suffered from progressive pernicious anæmia. His illness dated from the spring of 1879. The chief symptoms were extreme prostration, and occasional diarrhœa and vomiting. There was no albumen in the urine. There were distinct and loud blood-murmurs in the veins only. The patient was extraordinarily pallid. The blood, when examined microscopically, presented the characters described in cases of idiopathic anæmia—the red corpuscles being reduced in number, not forming rouleaux; some of them being bowl-shaped, crenated, or tailed. There were numerous retinal hæmorrhages. The heart weighed 15 ounces. The left ventricle was greatly hypertrophied. The cardiac valves were healthy. There was atheromatous degeneration of the aorta. The lungs were healthy. The spleen weighed 8¾ ounces. The kidneys presented cirrhotic changes to some extent; the right kidney weighed 5¾ ounces, the left 4½ ounces. The adrenals were firmer than usual. The liver was of normal size, and of firm or tough consistence, as though it had also undergone some fibrous transformation. The mesenteric glands presented no abnormality. The microscopical characters of the blood were similar to those noted during life. The medulla of the femur was transformed into a soft reddish pulp, in which lymphoid cell-elements abounded.—Drs. FOOT and POWER regarded the case as essentially one of Bright's disease—chronic interstitial nephritis.—Drs. HEAD, FINNY, and SMITH, on the contrary, considered it to be an example of idiopathic pernicious anæmia.—The specimens were referred to the Committee of Reference.

Saturday, January 31st, 1880.

E. H. Bennett, M.D., President, in the Chair.

Myoma of Prostate Gland.—Dr. A. W. FOOT showed a specimen illustrative of the effects produced on the urinary organs by a myoma of the prostate gland. The growth sprang from the postero-superior portion of the gland, in a man aged fifty-eight years. The kidneys were double the usual size, each weighing ten ounces. Their surfaces were studded with superficial abscesses; while the cortical substance was also the seat of numerous abscesses, with ragged edges and irregular outline. This was perhaps the *pyelonephritis parasitica* of Klebs. The urine was that of chronic cystitis—alkaline, offensive, ropy, and loaded with mucus and phosphates. There was a large abscess-cavity between the bladder and rectum. The bladder was much thickened and fasciculated. The ureters were dilated. The kidneys were sacculated.

Abdominal Aneurism.—Mr. THORNLEY STOKER exhibited several of the viscera of an army pensioner aged twenty-eight years, who had had syphilis seven years before, and who was admitted to the Richmond Hospital suffering from abdominal aneurism and supposed chronic renal disease. The urine was frequently passed; it was abundant, pale, and of persistently low specific gravity; but no albumen was detected. Epileptiform seizures occurred from time to time. Numerous retinal hæmorrhages were found on ophthalmoscopical examination. Mr. Stoker believed the patient to be an epileptic lunatic. The brain was selerosed and bloodless. The left ventricle of the heart was hypertrophied. The kidneys, however, were practically healthy. The aneurism had ruptured near its lower edge. It engaged the anterior and lateral walls of the aorta, just below the diaphragm, extending downwards one inch below the superior mesenteric artery. Deposits, believed to be syphilitic, were found in the walls of the aorta, and the aneurism was, no doubt, the outcome of such a diseased condition.

Incomplete Fracture of the Forearm.—The PRESIDENT showed an example of incomplete fracture of the bones of the forearm ("greenstick fracture") in a tall strong man twenty-one years of age. The arm had been caught in machinery in rotation, and the whole body had been whirled through the air by the entangled arm. One fracture of the ulna, two fractures of the radius, all incomplete, and of the first form of the "greenstick fracture" of Professor R. W. Smith, had occurred. The fractures had been reduced during life, and that of the ulna rendered complete, while the radial fracture had been straightened without completion. The patient sank from secondary arterial hæmorrhage.

Saturday, February 7th, 1880.

E. H. Bennett, M.D., President, in the Chair.

The late Sir Dominic J. Corrigan, Bart.—The Rev. Professor HAUGHTON moved, and Mr. STOKES seconded, the following resolution, which was carried unanimously: "That the Pathological Society of Dublin have learned with deep regret the death of Sir Dominic J. Corrigan, Bart., M.D., who was one of the founders of the Society, and for many years an active member of the same; and that the Society desire to convey to Lady Corrigan and the members of her family their heartfelt sympathy with them in their bereavement."

Peritoneal Carcinoma.—Dr. G. F. DUFFEY showed specimens from the body of a woman aged sixty years, who had been admitted to Mercer's Hospital, suffering from persistent vomiting, constipation, thirst, and debility. There was extensive ascites, but no jaundice. The urine was non-albuminous. The diagnosis was: visceral cancer, with fæcal obstruction. The parietal layer of the peritoneum was studded with small nodules of carcinoma. The intestines were glued together by lymph and studded over with similar miliary nodules. The omentum was shrunken and adherent to the stomach, the mucous membrane of which was congested. There was extensive scirrhus of the pylorus, causing thickening and obstruction. The liver had, strange to say, escaped the malignant deposit, but the spleen was much affected by it. There was double hydrothorax. The lungs were in parts emphysematous. Cancerous nodules were found over both surfaces of the diaphragm and on the lower surface of the lungs, especially on the left side. The uterus, etc., were normal. The secondary cancerous disease of the left pleura (which alone was affected) was probably due to extension through the diaphragmatic canaliculi described by Recklinghausen.

Embolism of Iliac Arteries.—Mr. THOMSON laid before the Society the heart, portion of the abdominal aorta and neighbouring arteries, and a hernia, from the body of a woman aged twenty-eight, who had suffered from acute rheumatism, with endocarditis, in September 1879. Two months afterwards (on November 2nd), numbness of both lower extremities was complained of. Six days later, a blueish tinge overspread the left leg, and dry gangrene set in. Bullæ appeared on November 21st.

The patient died on December 16th, six weeks after the symptoms showed themselves. There had been a double cardiac murmur, and a friction sound at the apex of the heart. At the apex of the left ventricle, an old yellow clot was discovered. It was entangled in the trabeculæ. There was evidence of endocarditis around the aortic and mitral valves. About two inches above the bifurcation of the abdominal aorta, there was a large embolon. The left common iliac and all the succeeding arteries were occluded. On the right side, the common iliac and a portion of the external iliac arteries were likewise blocked. There was also an irreducible hernia of the cæcum, which had escaped through the right femoral ring, to the interior portion of which it had become adherent. An artificial anus had been formed.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

Friday, January 30th, 1880.

James Johnston, M.B., in the Chair.

Genu Valgum.—Mr. T. F. Chavasse showed a case of genu valgum adolescentium, in a boy aged 14, with bilateral deformity, but most marked in the left limb. The great toes were ten inches apart when the knees were in contact. On November 1st, 1879, antiseptic osteotomy (as recommended by Dr. Macewen) was performed on both femora. There was no rise of temperature, no constitutional disturbance, and in ten days the wounds had healed. In five weeks, he had left his bed, had gained in height, and his mode of progression had greatly improved. Both legs were now straight and of equal length.

Double Talipes Equino-Varus.—Mr. T. H. Bartleet showed a case of severe intractable double talipes equino-varus successfully treated by removal, with antiseptic precautions, of a part of the arch of each foot.

Staphyloma Corneæ.—Mr. Eales showed a specimen of large and complete staphyloma corneæ in an eye which he had removed with benefit from a woman (aged 45), on account of sympathetic ophthalmia of the opposite side. Forty years ago, she had small-pox, followed by sloughing, destruction, and ultimately staphyloma of the left cornea. For the last two years, she had had repeated attacks of "inflammation" in the right eye, which, on admission, presented much ciliary irritation and injection. She was nearly blind, with complete synechia posterior, and diminished tension (— 3). Three weeks after excision of the left eye, the vision of the right eye had much improved; there was no ciliary injection or irritation; and the tension was nearly normal.

MANCHESTER MEDICAL SOCIETY.

Wednesday, February 4th, 1880.

David Little, M.D., President, in the Chair.

Cranial Lesions in Congenital Syphilis.—Dr. Judson Bury showed an infant, aged 9 months, suffering from cranial syphilis. The child had two very prominent bosses on its frontal bones, near the fontanelle. The mother had noticed them for three months, and thought they were growing larger. The parietal bones felt thickened. The child had a *café au lait* tint in its complexion. The spleen was large and hard. There was no evidence of choroiditis. The family history of syphilis was slight; but Dr. Bury thought that the association of extreme pallor with enlarged spleen and cranial bosses, taken in the light of M. Parrot's recent investigations, sufficient to diagnose congenital syphilis. Dr. Bury also showed portions of five infantile skulls, kindly lent by Dr. Thomas Barlow, illustrating M. Parrot's chief propositions, viz.: the grouping of the osteophytic growths round the anterior fontanelle, the freedom of the parietal eminences, the bridging over of the sutures, the final thickening of the skull, and the condition known as craniotabes. Dr. Bury also showed a piece of the femur of a child aged 9. The bone was much enlarged and very dense; the medullary canal was almost filled up by bony trabeculæ; and the shaft of the bone was surrounded by large spongy osteophytes.

Poststernal Tumour.—Mr. Thomas Jones exhibited a boy aged 9, with a tumour in the lower part of the neck. When noticed two months ago, the growth projected slightly above the top of the sternum, and its lower limits could not be defined. The tumour was not at all affected in its position by efforts at deglutition. These facts made it almost certain that the growth originated in the anterior mediastinum, probably from the remains of the thymus gland. Some milky fluid, removed from one of the cysts of which the tumour appeared to be largely composed, was found to be made up principally of large granular cells and a quantity of granular *débris*. The patient had received a blow upon the sternum three weeks before he came under observation.

Extra-uterine Pregnancy.—Dr. Lloyd Roberts showed the uterus and appendages in a case of abdominal pregnancy from a woman aged 38. She had three children, the youngest of whom was twelve years old, and since whose birth she had always menstruated regularly. Up to two months before the operation, sounds of the fœtal heart had been audible. The uterus was small and movable, and the case had been diagnosed as one of extra-uterine fœtation. On performing abdominal section, the case was found to be one of abdominal pregnancy. The fœtus had apparently died at about the seventh month, and was found in a transparent sac floating in liquor amnii. The placenta was implanted on the bladder, which was enormously hypertrophied. The ovaries were normal. Dr. Roberts remarked on the rarity of abdominal pregnancies and the great rarity of the position of the placenta, which, however, gave rise to no vesical symptoms during life. The patient succumbed on the fifth day to violent suppurative peritonitis.

The Diagnosis and Treatment of Pleuritic Effusion.—Dr. Brierley read a paper on the diagnosis and treatment of pleurisy, in the course of which he narrated several very instructive cases of which he had taken copious and careful notes, and for which he received the thanks of the Society.

REPORTS AND ANALYSES

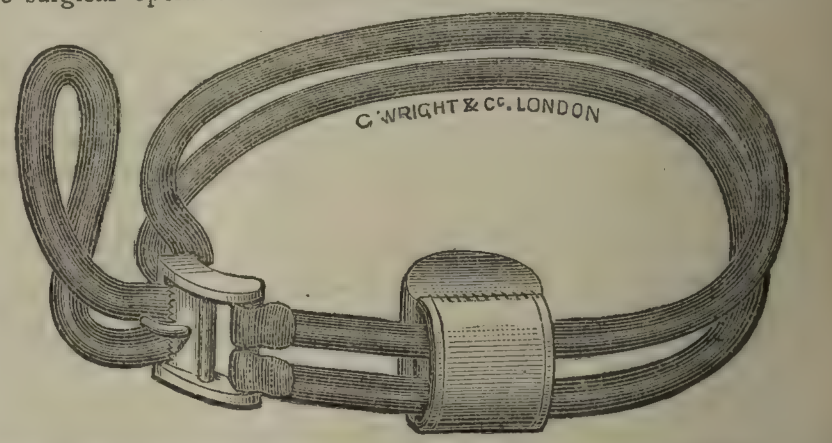
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW SPRING-TOURNIQUET.

This new and powerful tourniquet is of the simplest construction, consisting of movable pad, elastic material, and special buckle. It can be very rapidly adjusted to a limb so as to completely control the circulation. It can also be instantly opened and shut; and the ease with which it can be applied is indicated by the fact that it admits of self-application to any limb with one hand. The instrument has been designed in two forms. 1. The surgeon's tourniquet is adapted for all the surgical operations in which such an instrument is essential. Its special feature is the contrivance by which with one hand it can be instantly tightened and loosened; and thus it is especially adapted for surgeons in the country who are called to operate with very limited assistance. In amputating a limb, for example, the tourniquet can be opened with the left hand, and a bleeding vessel seized with the forceps by the right; it can then be instantly closed again, and the vessel secured. 2. The dresser's tourniquet is constructed for all the purposes of immediate surgery in case of severe accidents, before the arrival of the surgeon. With a few directions as to the method and purpose of its application, it is intended for the use of policemen, railway porters, and soldiers in the field of battle.



The new spring-tourniquet is the invention of Dr. Ward Cousins of Southsea, and is manufactured by Messrs. C. Wright and Co., of 108, Bond Street.

COCKING'S POROPLASTIC SPLINTS AND SPINAL JACKETS.

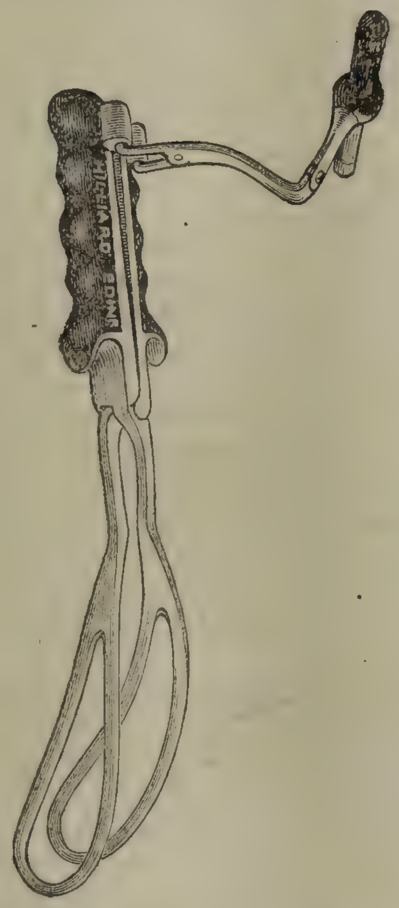
The hardened felt introduced to the profession several years ago as Cocking's poroplastic felt was generally acknowledged to be a very useful material in surgery, on account of its lightness, economy, and porosity. By being subjected to a high temperature, the felt was rendered perfectly soft and pliable, and could then be moulded to the desired form, becoming hard in a few minutes. To adapt this material, however, to a very irregular surface was found a difficult matter, and therefore the inventor has modified his original plan, and greatly improved upon it.

In its manufacture, the felt can be moulded perfectly to any model, and by this means splints and jackets can be supplied to the surgeon, which, when heated, can be made to fit the subject very accurately. If the case present more than ordinary difficulties, the manufacturers advise a mould to be taken and sent to them. A model is then made from this mould, and the poroplastic felt adapted to it with great precision. In the manufacture of the material, any portion may be left in its original soft condition, so that soft spots can be left in a jacket or hinges formed in splints—a modification which appears to us capable of being turned to great advantage by the surgeon.

OBSTETRIC FORCEPS.

SIR,—The accompanying engraving is an illustration of a new appliance invented by my brother, Mr. F. Hilliard, surgical instrument maker, of Edinburgh, which, I think, will prove of considerable utility in obstetric operations.

It consists of a peculiarly bent steel bar, with two hinged processes and a transverse wooden handle; these two processes fit into corresponding slots or sockets, which can be easily attached to the handles of any midwifery forceps.



In using the instrument, the forceps is first applied and locked in the usual way, after which the lever is readily adapted. The right hand grasps the transverse handle of the lever, while the left is firmly closed upon the handles of the forceps; traction can then be made in the proper direction with greatly increased leverage, and without necessitating any change of posture on the part of the operator.

The instrument is on the same principle as Tarnier's forceps, of which it is a modification. I have used it with great satisfaction, and believe it to be a valuable addition to the ordinary forceps.—Yours truly,

R. HARVEY HILLIARD, M.D.

Fairmead House, Upper Holloway Road, N., January 17th, 1880.

NEW SPRING MATTRESS.

WE have in use at our Cottage Hospital a spring mattress, which seems worthy of recommendation to similar institutions. Each bed consists of two separated halves, the division being crosswise; and this permits each being changed at will in position, thus preventing uneven wear—the bane of most spring beds. Each half consists of two palliasses, separated by steel-coppered springs, and each movement of the patient puffs out the air between, preventing damp and smell. These beds wear well from their reversibility; and if straw stuffed are cheap, a three-feet one costing 25s. 6d. Moreover, should one of the palliasses be fouled, it can be restuffed at a trifling cost, without the other part of the bed being pulled about. S. GROSE, M.D.

Melksham, Wilts, January 29th, 1880.

REVIEWS AND NOTICES.

THE PRINCIPLES AND PRACTICE OF GYNÆCOLOGY. By THOMAS ADDIS EMMET, M.D., Physician to the Women's Hospital for the State of New York. London: J. & A. Churchill. 1879.

IN no country in the world has gynæcology received more earnest attention than in America. It is now a matter of medical history that some of the most important steps in operative gynæcology were first undertaken there. The author of this book has himself initiated a new method of treatment of laceration of the os uteri in labour, which is already widely known by the title of "Emmet's operation". It is, then, with a feeling of pleasure that we welcome a work on diseases of women from so eminent a gynæcologist as Dr. EMMET, perhaps the most distinguished of the many distinguished pupils and followers of Dr. Marion Sims.

The work is essentially clinical, and bears a strong impress of the author's individuality. It is, in fact, a collection of essays, in which are set forth the practice and opinions of the author and some of his American colleagues. It cannot be called a representative systematic work, dealing with the European as well as the American knowledge on the subject. Perhaps this is not so much to be regretted, seeing that we possess the writings of Barnes, Graily Hewitt, Courty, and others, as standard works. With the exception of two plates from Savage's *Atlas*, all the illustrations are original from drawings by the author.

The book commences with an introductory chapter on the relation of climate, education, and social conditions to development. Some of the remarks on the effects of the American climate on the Anglo-Saxon race are new and interesting.

"We certainly possess", says Dr. Emmet, "a most changeable climate, which taxes the nervous system at the expense of nutrition, and stimulates to constant action, rendering us a restless people in both mind and body. Rest and quiet recreation, in an European sense, are unknown to the mass of our population. We develop early, and live a life crossed by more than our share of dyspepsia, neuralgia, and other nervous disorders. The average degree of intelligence I judge to be greater in this than in any other country, on account of our heterogeneous origin. Our field of education is as extensive as, if not more so than, that of our neighbours, but it is more superficial. Profundity is granted to comparatively few, since the same mental application on which a German, in his own land, would thrive, will, in this country, impair the physical condition, or result in some serious nervous disorder. With no lack of perseverance, we generally accomplish an undertaking, but the end is gained only at the expense of a vast amount of wear and tear. We are, from necessity, eminently a practical people, and are always seeking the most direct method by which we may accomplish a purpose."

We cannot refrain from quoting his observations upon the pernicious effect of ill devised and unseasonable study on young girls.

"At the period of life when the young girl's whole nerve-force is taxed for the full development of her organs of generation, we deflect this force by hard study, or it may be for the acquirement of some accomplishment, which in all probability will be forgotten or laid aside after marriage. The spirit of emulation which is cultivated in all schools has a deleterious influence on the nervous system of girls at any age, but particularly about the time of puberty, while those who are the least fitted to bear the strain are always the ones who make the most effort. Music, also, from its emotional effect on a sensitive nervous system, has arrested the development of the ovaries and uterus of many a young girl. On looking over my case-books, I have been surprised to find the same statements repeated again and again, viz., that the sufferer had taken the highest honours at some noted female school or college, and gave no tangible signs of weakness until reaction took place after her return home. I would advocate the highest degree of education for woman, in keeping with her means and station, but the wrong method and the wrong period of life have been settled upon for acquiring it."

In the treatment of lacerations of the perinæum, the author has found great benefit in the use of Dr. Marion Sims' rectal tube. It acts beneficially in several ways: by turning up the freshened edges, and so aiding the sutures above in keeping these in contact, and by allowing free vent to the escape of flatus. The size of the tube is about equal to that of a No. 12 bougie.

The chapters on recto- and vesico-vaginal fistulæ, as might be expected from any pupil of Dr. Marion Sims, are full of practical hints, and form a perfect storehouse of knowledge and matured experience on the subject. Dr. Emmet lays great stress upon the importance of the careful preparation of every case previously to the operation; and this, he says, was a custom he first learnt from Dr. Sims. Dr. Emmet has operated upon nearly four hundred cases of vesico-vaginal fistula. This is, we believe, the largest number which has fallen to any one practitioner. In our own country, where the accident is comparatively rare, such an experience is happily unknown. The frequency of vesico- and recto-vaginal fistulæ in America is not a favourable testimonial of the skill in midwifery possessed by those midwives who practise among the poorer classes, from whom Dr. Emmet's cases were recruited. It is worthy of notice that a large proportion of the fistulæ occurred in cases terminated by the unaided efforts of labour. It was one of the many unfair taunts addressed to the advocates of the timely use of the forceps, that the instrument was the cause of the fistula. Observation has demonstrated that the accident arises almost entirely from the continuous pressure exercised by the fœtal head left fixed for hours in the pelvis. Where the delivery was finally, but all too late, effected by the forceps, the instrument received the blame. No doubt the rarity of fistula in this country is due to the more timely and effective use of the forceps now made in this country, and is in itself the highest testimonial to our obstetric skill.

During the autumn of 1862, Dr. Emmet accidentally recognised the importance of laceration of the cervix uteri, and instituted for its relief the operation now known by his name. We are disappointed to find that the author does not throw more definite light upon the etiology of this condition. The lesion is, he says, found as frequently among the well-to-do as among the poor. When laceration occurs from delivery by forceps, it is almost always double. This results, in Dr. Emmet's opinion, from some physicians, in order to save time, applying the forceps without apparently the slightest reference to the stage of labour. He finds lacerations through the median line to be the most frequent, and those through the anterior lip to be more common than those in the posterior one. In exaggerated cases, vesico-vaginal fistulæ result.

One point seems to us to be quite new, and likely to all but eliminate an operation long practised with the blindest perseverance—the amputation of the cervix uteri. In many of the so-called cases of hypertrophic elongation of the cervix after labour, we have recognised the presence of one or more lacerations of the os. It has then often been set down as a case of hypertrophy of one or other lip; the ectropion resulting from the laceration being regarded as hypertrophy. Dr. Emmet denies the existence of true elongation of the cervix, and points out that double laceration is frequently mistaken for elongation. In cases of amputation of the cervix, the author resorts to Dr. Sims' procedure of covering the stump with vaginal tissue by sutures. This he regards as preferable to the plan more usually adopted of leaving the stump to heal by granulation—a process which requires from four to six weeks.

The chapter on cellulitis should be read by every physician, whether practising obstetrics or not. It is stated by Dr. Emmet to be by far the most important disease with which woman is afflicted. It is admitted by all gynæcologists to be the most common, and is, unfortunately, most commonly overlooked by those who have not a special knowledge of uterine disease. When a patient is examined for the first time, the starting-point should be to determine the existence of the slightest trace of cellulitis. We believe, with the author, that the greatest advance yet to be made in this branch of surgery will be from the intimate study of the cellular or connective tissue of the pelvis.

We have selected for observation some of the ideas and methods which struck us as being most recent, and characteristic of the distinguished author and the school to which he belongs. To criticise with the care it merits the book throughout would demand far more space than is at our command. In parting, we can say that the work teems with original ideas, fresh and valuable methods of practice, and is written in a clear and elegant style worthy of the literary reputation of the country of Longfellow and Oliver Wendell Holmes.

NOTES ON BOOKS.

SIR CHARLES TREVELYAN's valuable pamphlet on *Metropolitan Medical Relief* (Longmans, 1879) appears in a second edition. This excellent paper, which was read at a conference convened by the Charity Organisation Society, over which Dr. Acland presided, is invaluable in itself as an exposition of the grounds for regulating the out-patient departments of hospitals, and for the formation of provident dispensaries. Its importance is increased in this edition by the addition of extremely practical documents in the appendix, giving the results of inquiries into the existing mismanagement of hospitals and rules for the formation of provident dispensaries. The subject is one of large interest to medical men; and Sir C. Trevelyan deserves and has earned the gratitude of all thinking men for the untiring energy and devotion with which he has pursued this great matter of public reform. We trust he will bring his labours to a successful issue; his exertions claim the support of the profession. This pamphlet cannot be too largely circulated or too widely read.

LETTS's *Popular Atlas* more than merits its name. Messrs. Letts are here supplying in each part three large maps, 17 by 14 inches, in colours, in a stout wrapper, for sevenpence. At this singularly moderate rate are furnished maps in which both the sea as well as land reveals its physical features: its currents, its hills and valleys, its telegraph cables, and its lines of steam-ships. In offering at so low a price maps of such remarkable merit and clearness, the publishers are conferring a benefit on the progress of physical science, and aiding not only geography but climatological and meteorological study.

CUTTER's *Dictionary of German Terms used in Medicine* (G. B. Putnam's Sons, New York).—Dr. Cutter has here supplied what will be found by medical men and medical students reading German medical works an extremely useful book. The absence of any good dictionary containing a correct technical translation of German medical terms is a great stumbling-block to students; and the deficiency is here supplied in a very handy little volume, which we can say, after trying it pretty severely, is really well executed. Dr. Cutter's work has been suggested probably by his own experience of the want of such a book; and he has certainly succeeded in hitting a blank in medical literature, and we have no doubt that his success will be commensurate with the utility of the book which he has produced.

FAIRLIE CLARKE's *Manual of Surgery* (Renshaw).—This little edition of Dr. Fairlie Clarke's very handy little manual is considerably improved by an increase in the number of illustrations, and a thorough revision of the text. This book has already attained popularity for its condensed and simple character. Too much must, of course, not be expected from a book of these dimensions; and it is creditable to Dr. Clarke that he has been able to put so much into a small compass. We should be glad to see a better account of antiseptic dressings; it is hardly yet brought up to the day. The use of drainage-tubes, for instance, appears to have been overlooked; and the mode of applying the antiseptic method of dressing is altogether treated much too curtly, considering the great importance of the subject. Without, however, being too critical on such points, we can say for this little handbook that it is, on the whole, condensed without being confused, and concise without being scanty in its information.

MR. BERKELEY HILL's *Essentials of Bandaging* (Smith, Elder, and Co.) appears in a fourth edition, revised and much enlarged. Acting upon the hint given by Mr. Luther Holden, a chapter of surgical landmarks has been added and carefully revised. Sayre's method of applying the plaster-of-Paris jacket for spinal disease, to which Mr. Hill has in his practice given much attention, is carefully described here; and the chapter on antiseptic dressing of wounds has been brought up to the day by Mr. Godlee, who has for a long time carefully carried out this method at the University College Hospital; and altogether a great deal has been done to preserve for this excellent little book the claims which it has already established to the favour and confidence of students and junior surgeons.

MR. MALCOLM MORRIS's *Manual of Skin-Diseases* (London: Smith, Elder, and Co.)—The tendency to the multiplication of manuals on skin-diseases will probably ultimately receive a check, since the market will become overstocked with books of this sort. On looking through Mr. Morris's manual, we are inclined to think, however, that it will not founder on this rock, and that it is likely to create for itself a considerable demand. It is an extremely skilful and intelligent condensation of the essentials of dermatology; and it shows throughout the marks of careful clinical observation, as well as well-grounded scientific study. The short chapters on morbid anatomy and on classification are both of them excellent; and it is evident that Mr. Morris has studied in a good school for scientific investigation, while he has not at all learnt to despise the very practical question of treatment. The arrangement is systematic, the style clear, and the matter accurate. This manual possesses, therefore, all the essentials of sound instruction, and is likely to lead to satisfactory practice on the part of those who rely on it for their guidance. Mr. Morris is comparatively a new worker in this field, and we are glad to see so satisfactory a piece of work as the early result of his activity.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 21ST, 1880.

THE GOVERNMENT AND ANIMAL VACCINATION.

MR. SCLATER-BOOTH appears hardly to have had time to master fully the facts relating to animal vaccination, concerning which the deputation of the Parliamentary Bills Committee on Monday week presented to him a report. At any rate, in his answer, he appeared to indicate that he did not apprehend clearly the precise points which it was desired to submit to him. He very solemnly warned the deputation against upsetting that which they did not propose to upset—namely, the system of arm-to-arm vaccination at the public stations; and, oddly enough, he declared this tendency to give preference to calf-lymph as the material to be supplied from the central Government station to public vaccinators, over humanised lymph of more or less uncertain origin, as a matter of confidence in his department. "If", he said, "you have not full confidence in our humanised lymph, why should you have confidence in our calf-lymph?" Of course it would have been easy to explain to Mr. Sclater-Booth that it was on scientific and not on personal grounds that a preference is felt for lymph proceeding direct from the calf, over lymph proceeding from infants not all of whom have been seen by the officers of the department, or can subsequently be traced. It is, however, hardly in accordance with etiquette to make any answer to a minister who replies to a deputation; and, therefore, this rather singular utterance must remain on record as indicating the standard of information on this subject which Mr. Sclater-Booth has acquired up to the present time. If, however, the Local Government Board is to be credited with an open mind and with a frank intention to inquire into the matter, with which he asks that it shall be credited, it will not be difficult for the Board over which he presides to go beyond this difficulty; and there are certainly many eminent men on the staff of that Board who sufficiently understand the difference between calf-lymph and humanised lymph to know that the preference for the one over the other as a source of "government lymph" does not imply any want of confidence in the Board itself. It is rather incomprehensible, also, that Mr. Sclater-Booth should have told the deputation that he thought their proposition "suicidal". It certainly was not with any suicidal intention that they appeared before him; and it would not be easy to discover in what way the propositions addressed to him were "mutually destructive". The suggestion made to him was one which is perfectly simple and administratively workable; namely, that, provided the Board could satisfy itself that the evidence in favour of calf-lymph justifies the change, which ought not to be difficult, it shall, after a given date, issue nothing but calf-lymph to the public vaccinators from which they shall start their local series of arm-to-arm vaccinations, thus constantly "renewing their stocks". Reasons were given for believing that such lymph is the most effective, the purest, and that which best meets the exigencies of a central Government station, inasmuch as it is available in almost any quantity for periods of emergency and for revaccination. The question of expense was satisfactorily dealt with in the report laid before him; and it is difficult to understand where the suicidal character of the proposition appears. No doubt some administrative difficulty might be felt, unless precaution were taken to make provision such as Dr. Cameron proposed, and such as we think might with due limitations be accepted, for allowing persons who claim to have their children vaccinated by calf-lymph to be so vaccinated at public stations, *upon giving due preliminary notice.* Such provisions would require to be hedged about with some caution; but it does not require any great stretch of administrative genius to see that arrangements of the kind could be made without in any way dislocating the existing vaccination system of the country. This would meet the scruples of many anti-vaccinators, and especially of that section with whom the public are disposed to sympathise. If anyone doubt that, it can easily be proved by the avowals which are frequently made at the police courts.

A deputation such as that which waited on Mr. Sclater-Booth was, as he partly admitted, unlikely to underrate the gravity of the subject, or to make any propositions which have not been very carefully thought out. We have reason to hope, however, that by the time Dr. Cameron's Bill comes into the House of Commons Mr. Sclater-Booth will have found time to master the details of the question with more completeness, and he will certainly not find it so complex as to prevent his arriving at more reasonable conclusions. We shall expect, then, to hear that immediate steps will be taken to carry out, at least experimentally at one central government station, vaccination from the calf, and that the results will be communicated in a parliamentary paper.

It is not to be supposed that any more difficulty will be experienced here than elsewhere in maintaining a series of vaccinated calves at a public station; and, even on the showing of Dr. Ballard and of his own department, there is good *primâ facie* ground for ascertaining definitely how far the matter so furnished will or will not fulfil all the requirements of a central official source of lymph-supply for public vaccinators, from which to start their series of arm-to-arm vaccinations. This is all that we at present ask; and this will, we do not doubt, be very soon granted, for no reason has been alleged for withholding it; and the readiness of the Government to undertake the "experimental" inquiry needed has been more than once indicated. In any case, it will, we believe, be generally felt, as the president of the Dublin Branch of the Association pointed out at the recent annual meeting, that, in accumulating so large a mass of evidence on the subject from all sides, and in bringing the recent information into a focus for professional inspection and discussion by experts, at a moment when Parliament is about to devote attention to Dr. Cameron's Bill, the Parliamentary Bills Committee has carried out one of the most useful of the declared objects of the Association, and has rendered good service to the public and the profession.

NURSING DIFFICULTIES.

THE nursing difficulties at Guy's Hospital, are far from being arranged, and indeed are at present in a more acute phase than ever. The treasurer has taken what appears to be the rather unwise course of appearing to array himself against the medical staff, instead of taking counsel with them, and has put them in the very unpleasant position of asking them to make, formally, their complaints against his action, thus pitting himself and the matron, whom he supports, against the whole of the staff, and endeavouring to induce the governors to take the same side. Nothing could be more unwise or betray a less acute perception of what ought to be the position of a treasurer in such a institution, than to provoke an avowed official antagonism of the kind. The great object of a hospital is the welfare of the patients, and the persons directly responsible for their treatment and cure are the medical officers; and, however dignified a post that of the treasurer may be, a very little consideration will satisfy anyone that it cannot add to its dignity for the treasurer to separate himself from the medical staff and to place himself in copartnership with the matron. In the present instance, the staff have perforce accepted the unpleasant situation which the treasurer has created, and have officially replied by making their complaints in a printed document, which is very detailed, and will probably be considered by the governors, as it appears to us, to be very convincing. The proposition taken up by Mr. Lushington and the matron can hardly be considered to be tenable much longer, and it is quite clear, since they make common cause, that either one or both must give way or quit the field. Against the unanimous decision of an united staff, if firmly and unflinchingly maintained, on such a matter as the nursing of their patients, expressed with so much care and so much detail, no individual favour of the treasurer can prevail. At the same time, we may point out to the staff that they have assumed a position of which the responsibility extends, as the effects must be felt, beyond the limits of their hospital or the precincts of their walls. They have, voluntarily or involuntarily, come to typify a principle, and to assume the champion's part in a struggle which has apparently been fitfully progressing in other parts of the country; and the result in their case will be looked to with no small interest, because it will not be easy for others to succeed should the Guy's hospital staff give way through indifference or want of union. There is a growing tendency everywhere on the part of "lady-superintendents" to develope an exaggerated view of their own importance, and to organise "a system" by which the medical officers are powerless to direct the nursing or contest the *personnel* of the attendants on the patients for whose well-doing they are responsible. The "lady-superintendent" tends more and more to unite the functions in her own person which used to be expressed with three separate titles of "house-governor", "medical superintendent", and "matron". There is a tendency to establish a system of training which really aims at substituting a floating nursing staff for a fixed *personnel*, and at making the whole machinery so dependent upon the word and will of the one lady who controls it and the institution which she represents, that the doctors are reduced to a relatively subordinate position; that "orders" are revised, "complaints" are resented, and met by defiant threats or obstinate inattention; and, moreover, we are told that, in some places, a system of "reporting" verging on espionage is organised, of which the unavowed object is to collect materials which may provide for counter-complaints, if necessary. Of course this is the reverse of a shield, which has another very much brighter side; but it is one which requires to be looked at, and all the more because it is the side which is now presented to the public or professional view.

ABERRANT LOCAL LEGISLATION.

It has been contended in influential quarters that, however desirable the extension of the registration of infectious disease may be, the power of requiring notification of infectious cases should not be granted to sanitary authorities except on the condition precedent, that they have already provided proper means of isolation and of disinfection of infected articles, and have shown in other ways that they are prepared to exercise their statutory powers for the prevention of the spread of infection. It is urged that to require the notification of infectious cases, while these public duties remain unfulfilled, is to begin at the wrong end, and is in effect to shift responsibility from the authority to the individual. It must be confessed that this argument is a very strong one, and is eminently deserving of the attention of our legislators. Authorities are allowed to take all sorts of powers without any guarantee being required that they will be used, or that their use will be correlated to the exercise of some other department of sanitary work, without which the new powers may be useless, and even mischievous. This is a view with which, if not pushed to extremes, we have great sympathy. It is plain that the usefulness of early knowledge of the existence of infectious disease is grievously mutilated, indeed almost nullified, if the authority that finds itself in face of an outbreak of infectious disease have no weapons wherewith to attack the epidemic whilst it is yet in its infancy. And it is not, of course, sufficient that these weapons should exist; they must not be allowed to rust in the armoury, or to be put carefully by for improbable emergencies; they must be brought out and used at once and unsparingly. For example: in the majority of places in which the Registrar-General records last quarter an exceptional fatality of scarlatina, there is no hospital accommodation available for the isolation of the cases; in a smaller number of cases, where means of isolation have in fact been provided, hospital treatment has been made too expensive or too irksome in other ways for the hospital to render any important service in checking the epidemic; and it is only in a few of those places in which the infectious hospital is liberally and judiciously administered, that scarlatina is found to have been seriously prevalent. The moral of this is obvious; but it is difficult to teach. Whilst hospital accommodation remains, as at present, a permissive power of the sanitary authority, not much good can be expected in this direction; but the legislature might do something by insisting that those authorities, who come before it with a request for further powers as to infectious diseases, shall provide proper hospital accommodation, disinfecting apparatus, and the like. This was strongly illustrated and emphasized in the report which the Chairman of the Parliamentary Committee of the British Medical Association last week submitted to the Committee, and which has been adopted and forwarded to the President of the Local Government Board.

The Town Council of Burton-on-Trent are now able, under the provisions of their local Act of 1878, to insist upon every case of "small-pox, cholera, typhus, typhoid, scarlet fever, diphtheria, or relapsing fever", being reported to them. On the other hand, the authority has provided no hospital, no ambulance, no disinfecting chamber, and no mortuary; so that, beyond helping the medical officer of health in his statistics, it is difficult to tell to what really practical purpose the information can be applied. During the last half of 1879, there were nearly four hundred cases of scarlatina at Burton-on-Trent, and about forty-three deaths. Is it possible to suppose that this distressing mortality, in a population of twenty-five thousand persons, would have taken place if the authority had been prepared with appropriate means for checking the spread of the infection? The same experience comes from Blackburn. Here, although the authority have power to require notification of cases of infectious disease, together with various other stringent powers affecting individual action, they have provided, for the teeming population of ninety thousand persons under their charge, no hospital accommodation whatever for cases of infectious disease. Yet 181 deaths occurred here from scarlatina alone during the past year. It would be idle to say that in a place like Blackburn, with its numberless operatives, the compulsory power of removal to hospital could not be carried into effect; and it seems clearly a mistake to grant the authority so many new powers whilst it thus grossly neglects its old ones. Similar examples, though of a somewhat different kind, may be taken from the recent figures of scarlatina mortality at Derby and Blackpool. Whilst at Derby scarlatina was, in the words of the Registrar-General, "severely epidemic throughout the whole of 1879, causing 247 deaths", the death-rate from this disease alone being equal to no less than 3.36 per 1,000, the infectious hospital was kept closed because it was not in a fit condition to receive patients. Blackpool, again, where scarlatina was prevalent during the whole of 1879, and where 25 deaths from that disease were recorded last quarter, has a hospital; but it seems to be of very little value, and is described as practically useless. Yet, all these towns receive immediate information of the existence of infectious disease—information of which they are practically unable to make any use for the immediate benefit of the community.

It is time that mistakes such as these should be corrected for the future; and it would seem well that the Local Government Board, who have the duty of reporting to Parliament as to the advisability of the clauses in the several local Bills, should be called upon to satisfy themselves that the general administration of the several authorities is such as to justify their being clothed with the more extended powers that they ask for. As regards the particular Bills now under the consideration of Parliament, the majority of the six authorities (for Stafford must be added to the list given last week in the report of Mr. Ernest Hart to the Parliamentary Bills Committee) may perhaps be considered to have given sufficient earnest in other ways of their activity in sanitary administration, to warrant their being clothed with power to require the notification of infectious diseases. But with regard to Stafford, the case is different. The Stafford Town Council, not profiting in the least by a fierce epidemic of scarlatina which, at the end of 1877 and the beginning of 1878, killed nearly a hundred of the inhabitants of the town, have steadily refused to yield to the pressure brought upon them to provide a hospital. Yet, the corporation now wishes for power to require the compulsory notification by the occupier, as well as by the medical attendant, of all cases of "small-pox, cholera, scarlatina, diphtheria, typhus fever, enteric or typhoid fever, relapsing fever, and puerperal fever"; and to enforce a penalty of five pounds, with a penalty of ten pounds for a second or any subsequent offence, for non-compliance with the requirement. Not only so, but (having no hospital) the Corporation seek to obtain further powers for enabling them to insist upon the removal of persons who are without proper lodging or accommodation to "some suitable hospital within or near the borough", without the necessity—excepting under certain circumstances—of obtaining a justice's order. Anything more ridiculous than the enactment of this clause, whilst the Town Council positively decline to provide the hospital which alone would make its exercise possible, it is difficult to conceive; and it is time to protest against such patchwork legislation as is going under the cloak of local Bills, which, from the beginning to the end, are illogically and inconsistently dealt with by the legislature.

THE APPROACHING CENSUS.

If the experience of those engaged in taking the census of 1871 is not to be disregarded, the Census Act for 1881 will necessarily engage the attention of Parliament early in the session which has just commenced. The recommendations of the Census Committee of the Social Science Association have, therefore, been opportunely brought under the notice of the President of the Local Government Board, to whom the newly appointed Registrar-General will be responsible for the organisation and control of the next census-enumeration early in April 1881.

With most of these recommendations, which are twelve in number, all who have had any opportunity or cause for considering the statistical aspect of our census-enumerations must of necessity agree. It is scarcely necessary to assert that, as regards information to be ascertained at the next census, it should not fall behind that which was obtained at the last census in 1871. It is similarly undeniable, that all possible uniformity should be secured both in the information and in the mode of its collection in the several portions of the United Kingdom. Greater difference of opinion naturally prevails, however, with regard to the proposal to ask for the religious profession of all adults in England and Scotland, and also for returns of sickness or injury. With regard to a religious census, the proposal was made and rejected when the Census Acts for 1861 and 1871 were under discussion, and it is more than doubtful whether such a column in the householder's schedule would yield information worth the amount of irritation which in many quarters would be excited by the inquiry. It is true that the census schedule for the Irish census of 1871 asked the religious profession of every inhabitant; but the condition of religious opinion in Ireland is exceptional, and the population is either distinctly Roman Catholic or Protestant. In England and Scotland, however, it is very different; and, if the census inquiry could be relied upon to supply trustworthy information as to the relative numbers of persons professing to belong to the innumerable and distinct religious bodies, the real value of such information is very problematical. Less doubt will be felt as to the value of trustworthy sickness returns, if they could be obtained. Bearing in mind, however, the machinery by which the census-enumeration is effected, and the necessity for completing the collection of the schedules in one day, there is good ground for hesitating before complicating the inquiry by asking questions the answers to which involve more or less matters of opinion. It is essential that the census-schedule should only deal with matters of fact, and should only ask questions which can be answered without doubt or hesitation. It is proposed to ascertain the number of "sick" on the census-day, and to include among that number "all who *require* medical advice, or who are disabled from following their usual employment". It is further proposed to insert the name of the disease from which each patient is suffering. The vast majority of our population consists of the labouring poor, concerning whom it would be simply impossible to ascertain what number *required* medical advice; neither would it be easier to draw any useful conclusions from any information likely to be supplied as to the numbers returned as "disabled from following their usual employment". Sickness returns, if carefully and uniformly filled in, would possess an undoubted value; but we more than doubt any practical utility from such returns of sickness as would be supplied to the army of enumerators on the census-morning.

There is considerable room for improvement in the nature and the classification of the information relating to houses at the next census. The figures given in the Census Report for 1871, for instance, as to inhabited houses, are far from satisfactory. As a basis for estimating population between two census-enumerations, the number of inhabited houses on the rate-books is often resorted to; but the value of this information is much destroyed, because the definition of a house for census and rating purposes is variable. The suggestion that those houses *intended* for habitation should be distinguished from those not so intended, is not sufficiently practical. It is impossible to deal with intentions in a census inquiry. It is only possible to draw up clear instructions as to what shall for census-purposes be deemed a house, and to ascertain how many of such houses are or are not inhabited on the census-night.

All must desire that, at the next census, more satisfactory information as to the occupation and employment of the population shall be forthcoming. Whether, for this purpose, it would be necessary to alter the census-schedule, however, is very doubtful. The inquiry is a complicated one; and the utility of the results depends fully as much upon the classification of the returns at the central office as upon the returns themselves. The ninth and tenth suggestions are not very clearly worded. They appear, however, to propose that, for each town, an arbitrary boundary embracing the area of "concentrated population" should be adopted for census purposes, independent of all and every "legally defined boundary or boundaries". It is not pointed out what machinery is to be employed for fixing these arbitrary boundaries of "concentrated population". It is true that municipal and other legally defined boundaries frequently give very erroneous impressions with regard to density of population for comparative purposes. This difficulty, however, would scarcely be met by adopting a new census-boundary for all towns, even if the difficulty of settling this proposed boundary were surmounted.

The last suggestion, to the effect that a census should be taken quinquennially instead of decennially, has our most cordial sympathy, and must be approved by all who have occasion to study and use the Census Reports.

It is to be hoped that Parliament will before long be called upon to pass the Census Act for 1881. The Act for 1871 was not passed until August 1870, which allowed too short a time for necessary preparations at the central office. The suggestion that the Census Act should apply to the whole of the United Kingdom deserves consideration, as hitherto separate Acts have been passed for England and Wales, Scotland, and Ireland, which is not conducive to that uniformity necessary for giving increased value to our national census reports.

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Last week, in Paris, small-pox caused 70, and typhoid fever 102, deaths.

Mr. Edward Robert Bickersteth of Liverpool has been selected as the Conservative candidate for the Universities of Edinburgh and St. Andrews.

The Duke of Edinburgh has accepted the office of President to the Charing Cross Hospital, in succession to Lord Overstone, who has resigned.

The fatal cases of whooping-cough in London, which had steadily increased from 114 to 248 in the four preceding weeks, were 197 last week, and exceeded the corrected weekly average by 123 : 68 occurred in the South, and 52 in the North groups of registration districts.

THE Prince of Wales has consented to preside at a festival dinner in aid of the funds of the Westminster Hospital, to be held on Saturday, March 13th, at Willis's Rooms.

AN outbreak of typhoid fever at Penzance has been traced to a milk-vendor's. There were twenty-two cases, and in all of them milk had been obtained from the same source.

AN extraordinary prize of three thousand *francs* has been awarded by the French Académie des Sciences to Mr. Crookes, F.R.S., in recognition of his recent discoveries in Molecular Physics and Radiant Matter.

DURING the thirteen weeks ending last Saturday, the deaths in the metropolis averaged 2101 per week, and the mean annual death-rate was 30.1 per 1000; in the two preceding corresponding periods, the death-rate averaged but 25.1 and 26.5 per 1000 respectively.

THE managers of the Women's Hospital in Birmingham have made arrangements to connect by telephone the in-door and out-door departments, and these with the doctors' residences. This arrangement will save time and trouble, and enables the managers to control the out-patient department in the county as easily as the in-patient department in the town.

A GENERAL order has been issued from the Horse Guards, sanctioning exchanges between officers of the Army Medical Department at home and foreign stations to the same extent as in the case of combatant officers, as specified in the Royal Warrant of last November. Except under special circumstances, exchanges between medical officers in the United Kingdom will not be permitted unless the officers have been at least two years at their respective stations.

WE are sorry to learn that the funds of the County Hospital at Kemp Town, Brighton, are now at such a low ebb, that the Committee of Management fear they may be compelled to restrict the operations of the institution by closing some of the wards. The Earl of Sheffield has contributed £1,000; other gentlemen have also sent handsome donations; and special performances in aid have been given at the Brighton Theatre and Aquarium. Surely so prosperous a town as Brighton can find means to support so necessary an institution.

ANOTHER Paris medical student has fallen a victim to diphtheria. M. Reverdy was one of M. Bouchut's assistants at the Hôpital des Enfants-Malades; and, although he became seriously ill, continued his work until M. Bouchut insisted on his going to his home at Laval. It was, however, too late; and the poor young man died a week after leaving his post—the seventh medical student who has died from diphtheria contracted in this hospital during the last year. These melancholy facts speak highly for the devotion of the young men, but we fear also point out but too plainly the unsanitary condition of the French hospitals.

THE LONDON FEVER HOSPITAL.

AT the last annual meeting of this institution, Dr. Cayley read the annual report of the medical officer, showing that during the year 908 cases were treated; 666 with scarlet fever, 82 with typhoid, 7 with typhus, 74 with measles, and 10 with diphtheria; the others being undefined cases of a febrile character. Of the whole number, 180 were domestic servants and nurses, and 119 clerks and *employés* of business-houses, for whom the hospital was the only available institution; and 123 came from other hospitals, charitable institutions, and schools, which had thus been saved from the evil of a spread of contagion. The Chairman (Lord Devon) expressed his regret to see, from the report of the Committee, that the claims of the institution had been so overlooked of late years, that the capital had to be sold out to meet its annual expenditure. Surgeon-General Bostock, C.B., bore testimony to the useful work discharged by the institution in guarding the public against the ravages of fever. Dr. Mahomed was re-elected physician, and Drs. Buchanan and Broadbent consulting physicians.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following is the syllabus of Professor Flower's course of nine lectures, commencing on Monday, March 1st, at 4 o'clock, viz.: Additions to the Museum since the last Course. The Barnard Davis Collection. Baron von Hügel's collection of Crania from the Fiji Islands, presented by Mr. Erasmus Wilson; Anatomical characters of the Fijians as derived from this series. The Races of America. Prevalence of Artificial Cranial Deformity. Antiquity of Man in America; Unity or Diversity of Race. Native Races of North, Central, and South America. The Races of Africa. Physical Characters of the Typical Negro. Modifications of the Negro Type; Bantu or Kaffirs. Hottentots; Bushmen. Inhabitants of North Africa; Berbers; Guanches; Arabs; Egyptians, ancient and modern. The course will conclude on Friday, March 19th.

THE LEVÉE.

THE following members of the medical profession were presented at the levée held on Tuesday last by the Prince of Wales on behalf of Her Majesty the Queen: Surgeon H. E. F. Cross, R.N., by the First Lord of the Admiralty; Surgeon-Major W. Furden, Bengal Medical Department, on return from Afghanistan, by the Secretary of State for India; Dr. Laking, on appointment as Surgeon-Apothecary to Her Majesty, by the Lord Chamberlain; Dr. William Little and Dr. William Williams, Surgeons Royal Naval Artillery Volunteers, by the First Lord of the Admiralty; Surgeon-General Ross, on being made a C.I.E., by the Secretary of State for India; Fleet-Surgeon R. R. Siccama, R.N., by the First Lord of the Admiralty; Surgeon-Major F. B. Scott, on return from the Cape, by Major-General Lord Chelmsford.

THE RECENT FOGS.

THE last touch in the production of the remarkable character of the fogs which have recently afflicted us was (says *Nature*) doubtless given by the smoke of London, in the manner explained by Sir John Herschel in his *Meteorology*, whereby each particle of soot acting as an insulated radiant, collects dew on itself, and sinks rapidly down through the fog as a heavy body, thus giving to these fogs their yellow thick consistency and the suffocating and unwholesome sensation experienced in breathing them.

HOSPITAL SATURDAY FUND.

THE annual report of the Council of this Fund has just been issued. Its statements clearly confirm the justice of the former criticisms we have felt it necessary to make in the interests of the institutions concerned and of the public. Although the expenses of management have been reduced considerably, they still exceed fifteen per cent. of the receipts. It is therefore clear that the managers of the best conducted medical charities are practically fined to the extent of five per cent. on the amounts awarded to them by the Council of the Hospital Saturday Fund, as they are enabled to raise the rest of their contributions at a gross expense of something like ten per cent. of their total receipts. Again, charities like the London and University College Hospitals have been fined to the extent of £200, because they have obtained for some years, and do still endeavour to obtain, contributions from the classes from which the bulk of the patients are drawn. Thrifty management is censured by the Council; and all attempts to inculcate provident habits into the people receiving relief are to be put down by penalties, because there is a Hospital Saturday Fund in London; and its promoters consider all such attempts on the part of the hospital managers to be a gratuitous interference with the work of the Council. Now, it is notorious that the Hospital Saturday Council do not possess the confidence of the working classes, who rightly regard the system adopted for obtaining money by every means and from all classes of people as little short of an insult to themselves. The hospital authorities cannot well refuse money offered to them by the Council, but the majority would not be sorry to see the present organisation dissolved. The verdict thus given against the Hospital Saturday Council is justified, in a measure, by the present report; for not only do they fine the few hospitals where thrift is practised, but they devote the penalties thus recovered from the most deserving hospitals to the purchase of tickets from a few of the most popular special hospitals—or, in other words, to increase the patronage of the Council. It is notorious that the cases sent with Hospital Saturday tickets are often anything but deserving; and this last action of the Council should lead to the withdrawal of the hospitals from participation in the fund.

THE COST OF DRUGS.

In the course of last year, a distinguished physician was called to a late consultation at an urgent case of illness in a western suburb. It was two o'clock in the morning when he reached his patient, and he prescribed some necessary medicines. The husband of the patient accompanied him in his carriage to the nearest druggist, and rang up the man to get the supply of medicine wanted. The druggist put his head out of the window, and said "Who are you? What do you want?" He was informed of the name and the errand, and his reply was: "I am afraid I cannot be of any use to you." He was told by Mr. —— that he wanted the medicine made up at once for his wife. The answer was, "Yes, I quite understand, and I know who you are; but I think you had better go to the stores, where you are in the habit of having your medicines generally made up. I only get up at night for my regular customers. I could not afford to keep my shop open all day if I were to live by the payments of those who only come to me when they want me in an emergency at night." As a matter of fact, we believe the statement of the druggist was rather more brief and more strongly expressed than we think it consistent with propriety to transcribe; but this was pretty accurately the substance of the expressions in which he indulged. This authentic anecdote illustrates a side that is apt to be overlooked in the discussion of the rather old story of the heavy charges of dispensing chemists for medicines, which is again coming forward. More than one correspondent has shown, quite to his own satisfaction, that the charges for a mixture in a druggist's shop are apt to be three or four times as much as the price at which the same drug can be purchased at one of the co-operative stores. This is perfectly true; and it is so well known, that it does not admit of regulation. On the other hand, it may reasonably be doubted whether any change is likely to be made in this matter by complaints of the kind, which do not take all the circumstances into consideration. The store is a warehouse of large dimensions, set up in a particular part of town, for the sale of goods in a leisurely manner to persons who are willing to come and fetch them, and give the least possible amount of trouble in having their orders fulfilled. If people were always willing to send to a considerable distance for their medicines; if they would send again to fetch them when they are made up, and be willing to wait some hours; if they did not require a drug-store close at hand, available at any moment, night or day, for their emergencies, and employing always a highly skilled dispenser, ready to make up prescriptions; and if it were not within the nature of the public necessities that such a drug-shop should be found in every street—it would be very easy for drugs to be sold much more cheaply than they are; but the fact is that, when medicine is wanted, it is very commonly wanted in a hurry, and it must be of the best quality; the infusion must be fresh, the tincture clear and aromatic, and the medicine must be sent home with the least possible delay. It is this multiplication of centres, and the consequent subdivision of business and of profits, the large amount of stock of a perishable nature kept on hand, and the great increase of the number of skilled persons employed, which make the dispensing drugs from the local druggist more difficult than the sale of drugs on a large scale by a co-operative store. We by no means say that it is not fair that the capacity of the one or the other to supply public interests should be brought into comparison and have free play. If druggists' shops are not needed, by all means let us do without them; but it is hardly reasonable for the same class of persons to exclaim violently if the drug-shops are not open night and morning, and seven days in the week, and if the assistants are not skilled, well trained, and certified persons, and at the same time to declare that it is an imposition that the drug sold and the mixture prepared cannot be supplied under such circumstances at the same cost as if they were dealt out leisurely and by the pound at a co-operative store. None the less it is possible that there are more druggists' shops than are needed, and that the end of the struggle for existence will be the survival of the fittest. It has been alleged that, in some of the leading thoroughfares, there are almost as many drug-shops as public-houses. This is an exaggeration, but not without meaning.

DR. FARQUHARSON.

Dr. Robert Farquharson of London, and of Finzean, Aberdeenshire, has been selected by the Liberal Committee of his division of the county as a new candidate for parliamentary honours at the next election. Dr. Farquharson is well known and highly esteemed in the profession and in the Association. As honorary secretary of the Metropolitan Counties Branch and a member of the Committee of Council, he has rendered good service to his fellow-members in various professional capacities. Dr. Farquharson has always approved himself a frank, honourable, judicious, and trustworthy gentleman. His presence in Parliament would be a source of satisfaction to all who know him, and he would undoubtedly reflect credit upon any constituency; while they would be able implicitly to rely upon the straightforwardness of his conduct, the moderation of his character, and the intelligence of his judgment.

THE WORTHING INFIRMARY.

The present Worthing Infirmary is declared to be inadequate to meet the increasing requirements of the inhabitants of that rising little watering-place. A movement is on foot to obtain a site in a more suitable locality than that at present occupied. It is proposed to build a new hospital of such proportions that the comforts and conveniences provided for the patients may be of the best possible kind. At present, the arrangements are anything but satisfactory. The servant has to occupy a bed in the female ward; the sanitary arrangements are inadequate; and there is no efficient means of bathing the patients. In many other respects the old infirmary is deficient, and a new hospital is much needed. Already about £1,500 have been promised, and we hear that a lady has undertaken to endow the new building on certain conditions. It is estimated that the new hospital will cost about £3,500, and there is little doubt that the necessary funds will be forthcoming. We congratulate the committee upon the prospect of soon possessing an adequate, a complete, and a conveniently situated institution for the relief of the sick poor of Worthing and its vicinity.

SMALL-POX IN LONDON.

The deaths from small-pox in London, which had been 11 and 13 in the two previous weeks, were 12 last week, of which 9 occurred in the metropolitan asylum hospitals at Fulham and Deptford, and 3 in private dwelling-houses. The number of small-pox patients in the metropolitan asylum hospitals, which had been 80 and 91 at the end of the two preceding weeks, rose to 126 on Saturday last; and no fewer than 57 new cases were admitted to these hospitals during last week, against 22 and 36 in the two previous weeks—a higher number than in any week since March last.

INQUESTS IN CASES OF SUDDEN DEATH.

We learn from the *Western Daily Mercury* that a complaint was laid last week, at the meeting of the Plymouth Board of Guardians, respecting the conduct of the coroner in holding an inquest upon a woman aged 64, who had died in the workhouse, two hours after the commencement of an attack of vomiting, which came on soon after her breakfast. The Deputy-Governor said that an inquest was held, but no medical evidence was taken, and no *post mortem* examination made. He thought the coroner's jury had no right to return a verdict of "Death from natural causes". He trusted that the Local Government Board would take up the matter. Another member of the Board said he could not understand how the jury had arrived at such a verdict without the assistance of a medical man. The medical officer stated that he communicated to the coroner the facts connected with the death of the woman. He was not able to say how the jury could have arrived at their verdict without medical evidence. He thought that a medical man should be called in on all similar occasions. The symptoms led to a suspicion of poisoning. It was moved and carried, after a stormy discussion, that the coroner should be called upon to explain his conduct, and that the judgment of the Board should be suspended until they had heard the explanation. Such cases as this are of frequent occurrence. The verdict throws no light on the cause of death, and, in the absence of medical evidence, the so-called inquiry is admirably adapted to conceal actual death from poison. This case clearly proves that an experienced medical man is really required, in order to determine in what cases an inquest should be held and the *post mortem* examination of the body made.

THE LATE DEPUTY SURGEON-GENERAL PORTER.

LIEUTENANT-GENERAL SIR FREDERICK ROBERTS, in a Divisional Order, has thus placed on record his high opinion of this lamented member of the Army Medical Department.

"The Lieutenant-General announces, with deep regret, the death of officiating Deputy Surgeon-General J. H. Porter, Principal Medical Officer of the Division. Dr. Porter served in the Crimean, Ashantee, and the late Afghan campaign, with distinction, and had gained experience from them which has been invaluable in the important office he has lately held. By his death, Her Majesty's Service is deprived of an officer of great merit. The Lieutenant-General, in company with the officers and men of the force, loses a friend whose professional skill was always at the service of the sick and suffering, and whose kindness of disposition had endeared him to all."

THE JURY OF MATRONS.

IN a trial for murder at the Liverpool Assizes before Lord Coleridge, a few days since, a woman was convicted of the crime, and sentenced in the usual form. Her counsel then pleaded that she was quick with child, and asked that a jury of matrons might be empanneled to try the question. Lord Coleridge said it was not necessary. He would take it upon himself to see that the sentence was respited, as he was satisfied of the prisoner's condition. This is a reasonable course, but subsequently reason had to give way to antiquated legal prescription, and the old farce of a "jury of matrons" was re-enacted which Lord Coleridge had desired to dispense with. The skilled opinion of a medical practitioners is of course that which the judge really has to rely on in such cases.

CERTIFICATION OF CAUSES OF DEATH.

THE Registrar-General states that the causes of 122,524, or 90.2 per cent., of the 135,885 deaths registered last quarter in England and Wales were certified by registered medical practitioners, and 7,100, or 5.2 per cent., by coroners in inquest cases. The causes of the remaining 6,261, or 4.6 per cent. of the total deaths, were uncertified, no certificate signed either by a medical practitioner or by a coroner being furnished to the registrar. The proportion of uncertified deaths showed a slight increase upon the proportions in the three preceding quarters of the year, when they were 5.0, 4.6, and 4.4 per cent. respectively. The proportions of uncertified causes of death last quarter ranged from 1.5 and 2.9 per cent. in the Metropolitan and South-eastern, to 6.9 in the York and 11.3 in the Welsh registration divisions. The percentage of uncertified deaths was equal to 6.8 in Derbyshire, 7.1 in Durham, 9.5 in Cornwall, and 13.5 in Herefordshire. In the twenty large English towns, the proportion of uncertified deaths averaged 2.7 per cent., and differed but slightly from that which prevailed in the three preceding quarters of the year; in London, this percentage did not exceed 1.5, whereas it averaged 3.8 in the nineteen provincial towns. The proportions of uncertified deaths last quarter in these nineteen towns ranged from 0.9 and 1.9 in Portsmouth and Birmingham, to 6.7 in Sheffield, and 6.8 both in Hull and Sunderland. The proportion of uncertified deaths in Sunderland, though again exceeding that which prevailed in any other of the twenty large towns, showed a decline last quarter; the proportion, however, which in the year 1878 did not exceed 4.1 per cent., rose to 7.5 in 1879. The proportion of uncertified deaths has shown a marked decline both in Nottingham and Bristol since the medical officers of health called local attention to the subject. There is every reason to believe that similar action on the part of the medical officers of health of Sheffield, Hull, and Sunderland, would have a similarly satisfactory result.

RAPID DIAGNOSIS.

THE editor of the *Canada Medical Journal* says: "As our friend, Dr. G., was showing some lady visitors over the asylum of which he is the medical superintendent, they came to a room in which three women were sewing. 'Dear me!' one of the visitors whispered, 'what vicious-looking creatures! Pray what are they here for?' 'Because they have no other home; this is our sitting-room, and they are my wife and two daughters', blandly replied the doctor."

AN UNUSUAL DISORDER.

THE Russian *Molva* announces the receipt of information from Koslow, under date of January 19th, respecting a new and serious disorder. The sufferers are in the first instance seized with rigors, followed by a violent headache accompanied by fever and delirium, with profuse perspiration. A fatal termination is said to be inevitable. The first symptoms of this disorder, which point to a serious form of influenza, differ so slightly from a violent catarrh, that a fatal issue would never be predicated.

THE DEATH OF REAR-ADMIRAL HOPE.

ACCOUNTS which have reached us seem to show but too plainly that the death of this respected and useful officer, like that of Inspector-General Domville, C.B., has been due to structural defects in the system of sewerage in connection with his official residence. It is stated that, when Admiral Hope entered on the duties of his post, the drainage of the official residences was investigated, and a considerable sum was expended on alterations and improvements. It would seem, however, that the system adopted was faulty; for complaints have since been made by a resident of bad smells supposed to come from the sewers, and it is said that more than one death from typhoid fever has occurred in the families of officers occupying houses within Devonport Dockyard. Doubtless a thorough search for the source of mischief will now be made; but it is truly melancholy to think that some priceless life must be destroyed, before the safeguards which can be obtained from the approved sanitary science of the day are made available. It would naturally be supposed that the Government establishments and public offices would be models of sanitary safety, so far as mechanical ingenuity could make them so. Such, however, is so far from being the fact, that we are constantly being shocked by hearing of some valuable public servant cut off in his prime by that strictly preventable disease typhoid or enteric fever, which is eventually traced to faulty traps, old or ill-constructed sewers, or some similar sanitary defect.

THE GOVERNMENT POLICY CONCERNING VACCINATION.

THE rather obscurely worded speech of Mr. Sclater-Booth to the deputation of the British Medical Association last week, on the subject of the policy of the Government concerning animal vaccination, is rendered somewhat clearer in its meaning by a statement of the general policy of the Local Government Board on the subject of animal vaccination, contained in a letter written a few days ago to the guardians of St. George's, Hanover Square. The guardians had asked whether some steps could not with advantage be taken to introduce animal vaccination into England, so as to "remove almost the only objection of a popular character against vaccination". In the course of a long reply, the Board state that this question has long been under their most careful consideration. In determining, however, whether such lymph should even in part be substituted for humanised lymph in public vaccination and in the public lymph-supply of the kingdom, the Board must have paramount regard to the question whether the change could be effected without introducing into public vaccination practical difficulties which would diminish the total amount of protection now afforded to the community against small-pox. Apparently, the Board think that these difficulties would now arise from the encouragement of animal vaccination; for they observe that if, *hereafter*, as the results of their sustained inquiries into both the scientific and practical aspects of the question, the Board should become satisfied that there would be advantage to vaccination, without impairing the general vaccine service of the kingdom, in some use of animal instead of humanised lymph, the Board would not be slow to make change in the existing arrangements for public vaccination, just as heretofore a succession of changes in former arrangements was made by the central authority, with the result of attaining the present high degree of efficiency and safety. The difference, therefore, between ourselves and the Local Government Board would appear to be one of time only; and it may be hoped that the inquiries which the latter state that they are pursuing in the matter will speedily convince them that their "hereafter" must not be too long delayed. Probably more will be heard on this subject in the discussion which, under present arrangements, will take place in the House of Commons on the 10th proximo, that being the day set down for the second reading of Dr. Cameron's Bill.

THE MOVEMENTS OF THE UTERUS.

M. POLAILLON lately read some results of researches on this subject at the Paris Academy of Sciences. A registering apparatus and manometer were connected with the enlarging instrument sometimes introduced into that organ. The author calculated the specific force of the uterus to be about 178, and therefore very much below the force of striated muscles in man, which is about 1087. Uterine contraction produces a regular movement without shock, and remarkable for its length, nearly two minutes (contraction and relaxation together; the former being the shorter). Violent respiratory movements raise the pressure considerably.

METROPOLITAN WATER-SUPPLY.

DR. FRANKLAND reports, as the result of his analyses of the waters supplied to the metropolis during January, that taking the average amount of organic impurity in a given volume of the Kent Company's water during the nine years ending December 1876 to represent unity, the proportional amount of such impurity in an equal volume of water supplied by each of the other metropolitan water companies, and by the Tottenham Local Board, was: Kent, 1.6; Colne Valley, 1.6; Tottenham, 1.7; West Middlesex, 2.2; East London, 3.4; New River, 4.3; Chelsea, 4.7; Grand Junction, 4.9; Southwark, 5.2; and Lambeth, 5.9. The Thames water delivered by all the companies drawing their supply from that source, except the West Middlesex, was very inferior in quality to that supplied during December. The West Middlesex Company's water, although drawn from the Thames, contained less than half the organic impurity found in the other Thames waters. All the Thames waters had been efficiently filtered, except that supplied by the Grand Junction Company, which was slightly turbid, and contained moving organisms. The East London Company's Lea water was of superior quality, while the New River Company's water from the same source was only slightly better than Thames water. The water sent out by both companies had been efficiently filtered.

DEATH FROM SALIVATION.

AN inquest was recently held at Okehampton, on the body of a child aged five, alleged to have died from salivation while being treated for measles. The child was attended by Mr. Waters, and was progressing favourably. After a week's attendance, he found the child suffering from swelling of the face and an increased flow of saliva. There were such symptoms as would be produced by mercury, and he mentioned to the parents his suspicion that mercury had been given without his knowledge, and had caused the symptoms. The mother admitted that three or four powders had been given by a Mrs. Osborne, a "recognised nurse", who undertook the medical treatment of children. The swelling of the mouth and fauces continued, offensive effluvia were emitted, and several of the teeth dropped out. The child died, in the opinion of Mr. Waters, from exhaustion produced by mercurial salivation. Shortly before the child's death, Mr. Northey had been consulted by the parents. His evidence corroborated that of Mr. Waters. He found the child suffering from severe salivation, almost pulseless, and in a state of extreme prostration. The cheeks were swollen and inflamed; the gums had become absorbed; some of the front teeth had fallen out; and the lower jaw was in a state of manifest necrosis. Some of the "nurse's" powders were obtained, and found on analysis to contain mercury. The coroner laid down the law to the jury very clearly, showing by a reference to authorities that, when powerful medicines are used by persons ignorant of their properties, and they cause death, the person using them would be guilty of manslaughter. The jury dealt very leniently with the "recognised nurse" (Mrs. Osborne). In spite of the proof of the secret administration of mercury and its usual fatal effects, they found unanimously that "the deceased died from measles and other disorders". It is probable that in this case, as in others in which the children were labouring under exanthematous disease, the mercury acted on the salivary organs and mouth with unusual virulence. The accuracy of some registration-returns of the causes of death may be estimated from this inquest. Although a clear case of mineral poisoning, it will doubtless be set down as a case of death from measles.

HEALTH OF COLONIAL AND FOREIGN CITIES.

A SUMMARY of the weekly returns with which the Registrar-General is favoured by various authorities abroad shows that the average annual death-rate during the fourth quarter of 1879, in thirty Colonial and Foreign cities, having an aggregate population of rather more than thirteen millions, was equal to 26.2 per 1000. In the twenty European cities, the average rate was 27.4 per 1000, against 24.6 in twenty of the largest English towns. In the thirty Colonial and Foreign cities, the lowest death-rates were 14.8 in Philadelphia, 16.2 in Cincinnati, 17.3 in Christiania, and 19.2 in Baltimore; whereas the rate was equal to 34.2 in St. Petersburg, 35.0 in Bombay, 36.5 in Trieste, 37.2 in Rome and Alexandria, and 37.9 in Madras. Trieste and Alexandria also showed the highest death-rate in the preceding quarter of the year. Cholera caused 89 deaths in Calcutta and 61 in Bombay, each number showing a decline from that returned in the previous three months. The fatal cases of small-pox had declined in St. Petersburgh, but showed a marked increase in Paris. The deaths referred to diphtheria were excessive in Berlin, Paris, Vienna, Munich, Hamburg, New York, Brooklyn, and Baltimore. Typhus and typhoid fever caused 381 deaths in St. Petersburg; and the deaths referred to these diseases in Paris further rose to 326 from 203 and 307 in the two preceding quarters. Measles showed exceptionally fatal prevalence in Copenhagen, and scarlet fever excessive fatality in Hamburg.

SCOTLAND.

FOR some time past, in the district of Auchtermuchty, Fifeshire, typhoid fever has been very prevalent.

ABERDEEN SICK CHILDREN'S HOSPITAL.

THE annual meeting of the supporters of the Aberdeen Sick Children's Hospital was held on Monday afternoon. From the report of the directors, it appears that there are now thirty beds fully provided for, and that recent alterations towards that end have cost £600. Half of this expense has already been defrayed by subscriptions. During last year, 154 children were treated in the wards, and 1,968 children received treatment as out-patients. The expenditure had slightly exceeded the income.

HEALTH OF THE EIGHT PRINCIPAL SCOTTISH TOWNS.

ACCORDING to the report of the Registrar-General for the month of January, there were 2,594 deaths registered, of which 1,310 were males, 1,284 females. This, allowing for proportionate increase of population, was 616 under the average of the same month during the preceding ten years; 1,078 of those deaths (constituting 42 per cent. of the entire mortality) were of children under five years of age, Perth having the lowest percentage (26), and Glasgow the highest (44). The respective death-rates were as follow, per 1,000: Greenock, 20; Perth, 21; Edinburgh and Leith, 22; Glasgow and Aberdeen, 25; Dundee, 26; and Paisley, 33. Zymotic diseases caused 328 deaths (12.6 per cent.). Of these, whooping-cough caused 135 deaths, being most prevalent in Glasgow and Aberdeen, where it caused 7.2 per cent. and 7.5 per cent. respectively of the entire mortality. Scarlet fever caused 52 deaths, croup 28, diarrhœa 26, and diphtheria 18. There were 55 deaths from apoplexy, 57 from paralysis, 65 from hydrocephalus, 69 from premature birth debility; 152 deaths were attributed to cardiac diseases. Inflammatory affections of the respiratory organs (not including phthisis, pertussis, or croup) caused 700 deaths, or 27.0 per cent. of the whole. Phthisis alone caused 277 deaths, or 10.7 per cent. Of 99 deaths due to violent causes, 31 were registered as occasioned by the Tay Bridge disaster (more have since been recovered). One male and seven females died over 90 years of age, the oldest, a woman, being 97. There were 3,681 births during the month, of whom 1,908 were males and 1,773 females. The mean barometric pressure was greater by .468 of an inch; the mean temperature less by 0.1°; the mean humidity greater by 1°; rain-depth less by 2.61 inches, and the wind-pressure less by 0.15 lb. per square foot than during the same months in the preceding 23 years. The prevailing direction of wind was W.S.W. The lowest mean temperature (37°) was at Edinburgh, and the highest (38.8°) at Paisley.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

THE twenty-first annual general meeting of the subscribers to the Edinburgh Royal Sick Children's Hospital was held at 20, St. Andrew's Square, on Thursday. The meeting comprised many ministers of religion and eminent philanthropic citizens. From the annual report, it appeared that, during the year, 432 children had been treated in the wards of the hospital; 4,961 had been treated at the dispensary, and 270 had been visited at their own homes. The system of visiting had been taken advantage of by some who really did not require gratuitous medical attendance, so the directors have discontinued this department of the hospital work, and without apparently injuring the usefulness of the institution. Since the hospital was established twenty years ago, nearly 90,000 poor children have been treated as patients by it. By the death of Dr. James Cumming, and the expiring of the terms of office of Drs. Linton and Peel Ritchie during the year, a number of changes have taken place in the medical staff, Drs. Underhill and Blair Cunynghame having become ordinary physicians, and Dr. John Playfair extra-physician. The financial report was not quite so satisfactory as could have been wished in the case of an institution which does so much real good work, both benevolently and educationally. It is satisfactory to know that means have been provided for direct access to the Sick Children's Hospital from the Royal Infirmary grounds.

REGISTRAR-GENERAL'S RETURNS.

FROM the weekly returns of the Registrar-General published for the week ending February 7th, it appears that the death-rate in the eight principal towns was 23.8 per thousand of estimated population. This rate is 3.0 below that for the previous week of the current year. The lowest mortality was recorded in Greenock, viz., 13.8 per thousand, and the highest in Paisley, viz., 29.7 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.9 per thousand. The number of deaths from whooping-cough and from inflammatory diseases of the lungs was almost the same as in the previous week. An increase, however, occurred in the number of deaths from scarlet fever. The mean temperature was 45.1°, being 4.8° above that of the week immediately preceding.

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IRELAND.

THE SANITARY CONDITION OF BELFAST.

SOME newspapers which have been sent to us do not give a favourable impression of the sanitary condition or administration of Belfast. It appears that the town buildings themselves are improperly constructed, and the stench occasioned in the police-courts by defective drainage or insufficient ventilation has at times been so great as to render an immediate adjournment necessary. In many localities, the drainage is very imperfect, and the Sanitary Acts are reported to be openly and flagrantly violated without any attempt at interference on the part of the authorities. Overcrowding is very frequent, and the smallest and most confined back-yards in the most crowded thoroughfares are regarded as fit places for the keeping of pigs and other animals. The latter nuisance, Dr. Spedding, one of the medical officers of health of the town, has set himself to attempt to remedy, and has brought the matter under the special notice of the authorities. It is greatly to be hoped that Dr. Spedding may be successful in his crusade against pig-keeping, though the result of his first prosecution is certainly very discouraging.

ADULTERATION IN BELFAST.

DR. HODGES, analyst for the borough, in his report for the last quarter of 1879, states that he had made 73 examinations of articles of food, etc., and found 31 adulterated. In 12 samples of buttermilk, 9 were adulterated; in 29 of sweet milk, 8 were adulterated; in 13 samples of aerated waters, 11 were found impure; and in 5 specimens of rice-flour, 3 were found adulterated.

HEALTH OF PROVINCIAL TOWN DISTRICTS IN 1879.

THE deaths registered in Belfast afforded a rate of 31 in every 1,000 of the population; in Cork, 29; in Limerick, 31; in Londonderry, 22; in Waterford, 25; in Galway, 26; and in Sligo, 21 per 1,000 inhabitants respectively. The death-rate represented by the mortality from the seven principal zymotic diseases during the year were: Belfast, 4.4 per 1,000; Cork, 3.8; Limerick, 3.1; Sligo, 2.3; Galway, 2.1; Londonderry, 1.6; and Waterford, 1.0 per 1,000. Small-pox caused 15 deaths in Galway and one in Belfast; whilst scarlatina, which was very prevalent in Cork, produced 165 deaths in that town. Whooping-cough prevailed to a considerable extent in Belfast, causing 258 deaths, viz., 63 in the first quarter of the year, 94 in the second, 53 in the third, and 48 in the fourth quarter.

THE LATE MR. O'LEARY, M.P.

WE understand that Mr. O'Leary, whose untimely death we have to regret, travelled from Ireland to London last Sunday week, as it appears, without having taken the precaution of providing sufficient wraps for the time of year. He caught a chill on the journey, and was so unwell on his arrival in London on the Monday, that he got into bed in his clothes in order to get warm. He went about during the week with more or less difficulty until Friday, when he was obliged to take to his bed. Dr. Hawksley, who saw him late on the evening of that day, found his temperature at 103° Fahr., his pulse 140, and his breathing laboured and rough. There was evidence of considerable renal congestion. Next day, Dr. Hawksley invited Sir William Gull to see him; he was then much worse, and the symptoms of pneumonia more pronounced. He was slightly delirious on the Saturday; and, in spite of the unceasing attention of Dr. Hawksley and Mr. Tegart, he expired at 1.30 P.M. on Sunday last. The chill he had caught had evidently extended to the excretory organs as well as the lungs, and had no small share in the unfortunate result. Mr. O'Leary was only in his forty-first year. He was professionally educated in the Ledwich School of Medicine, and soon after obtaining his diploma became a private teacher and demonstrator, and subsequently, a lecturer on anatomy and physiology in that school. As an anatomist Mr. O'Leary gained considerable reputation, and his evidence at the trial of Robert Kelly for the murder of head-constable Talbot brought him at the time very prominently before the public. He was Fellow and Examiner of the Royal College of Surgeons in Ireland, and one of the surgeons of St. Vincent's Hospital. In 1874, Mr. O'Leary was elected M.P. for Drogheda in the Home Rule interest, and was a member of the Select Committee appointed last session to consider the medical bills before Parliament.

ANIMAL VACCINATION.

On Monday, February 9th, a deputation from the Parliamentary Bills Committee of the Association waited upon the Right Hon. G. Sclater-Booth, President of the Local Government Board, for the purpose of laying before him the results of the recent conference on animal vaccination, and to urge that there should be stations from which animal lymph might be distributed, not in order to supersede the arm-to-arm system, but to allow the public and the profession an alternative means of procuring a lymph which would not be liable to the objections sometimes raised against the lymph now in use. The deputation consisted of Dr. Alfred Carpenter, Chairman of Council of the British Medical Association, Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee; Dr. Ransome (Manchester), Chairman of the Committee on the Registration of Diseases; Dr. Cameron, M.P., Dr. Bristowe, Dr. Paul (Camberwell), Dr. Norman Kerr, Dr. Alfred Meadows, Dr. Fancourt Barnes, Dr. Nicolson (Broadmoor), Mr. John Greene (Birmingham), Mr. Sibley, Mr. Wickham Barnes, Honorary Secretary of the Poor-Law Medical Officers' Association; Dr. E. H. Vinen, Mr. Lamb (Hull), and Mr. Francis Fowke, Secretary. Dr. Cameron, M.P., introduced the deputation.

Mr. Ernest Hart, on the part of the deputation, handed to Mr. Sclater-Booth a copy of a report of the recent conference on Animal Vaccination. He said that the Parliamentary Bills Committee instituted that conference, chiefly in consequence of the honourable member for Glasgow having introduced into Parliament a bill to make vaccination from the calf part of the vaccination system of the country. The Committee had invited gentlemen who were specially informed upon the subject. They had also communicated with the President of the Local Government Board, who was good enough to direct one of the most able of the medical inspectors of the department to attend. Dr. Warlomont of Brussels, who had presided for many years over the system of direct vaccination from the calf-lymph, attended; also, Mr. Ceely of Aylesbury, Mr. Greene of Birmingham, Sir Thomas Watson, and many others, whose opinions would be likely to have weight. In presenting the conclusions of the conference, Mr. Ernest Hart said that it was not their object in any way to impugn the action of the Government in respect to the system of vaccination carried out in this country. On the contrary, they considered the Local Government Board was entitled to the gratitude of the country for having carried out in a most complete manner the most complete system yet known in the civilised world. They were fully aware of the benefits of arm-to-arm vaccination; and they believed that it was organised by Dr. Seaton, under Mr. John Simon, in a manner which entitled them to the gratitude of all who desired to see the public protected from the ravages of small-pox. This was not the first time that the subject of vaccination from the calf had been brought before this Board; and in the inquiry conducted by Dr. Seaton, in or about 1869, he arrived at conclusions which led him to consider that the system could not be introduced as part of the system of the country. Since that time, however, great progress had been made in perfecting the system; and, independently of Dr. Cameron's action, Mr. Hart had collected information and documents showing the progress of the system in England, Ireland, the Continent and America; and the results of investigations and personal examination were in the report which the deputation presented. The report showed that animal vaccination was a simple, effectual, and easy process; that it did not now produce anything like severe inflammatory results, but was as mild in its effects as the arm-to-arm system. Dr. Warlomont had expressly sought for persons who, after being vaccinated by this system, should have been attacked by the disease against which it was held to be a protection, and had distinctly challenged the production of any such case, but no such case had ever been brought to his notice. Dr. Seaton had dwelt upon the difficulty of maintaining the vaccine series in the calf; but for many years the obstacles had been altogether overcome, and there was now no difficulty in maintaining uninterruptedly, and in long series, the vaccine from calf to calf. As to the success of the lymph, Dr. Ballard had stated that, the number of vesicles compared with the insertions after animal lymph did not compare favourably with the results obtained by successful vaccinators in the arm-to-arm system. This, however, was a formal and not an actual objection. The animal vaccinators rapidly pricked the arm over with a spring lancet, and scratched the skin, while they applied a little of the lymph to the surface, and did not trouble themselves about the number of insertions. Many of them held that protection followed if there were only one vesicle; and thus the vaccinators abroad differed from those of this country, in being less careful to define the number of vesicles to be produced. The use of animal vaccine would rid the English system of many of the objections which attended it as practised at present. In looking back to the epidemic of 1871, it was impossible not to see that the number of deaths from small-pox were very much larger than they should be, and that vaccination was not so thoroughly protective as it should be. No doubt a great deal of this was in some measure due to the want of care on the part of vaccinators. The examination of the arms of children showed that this was so. These facts were not denied, nor was it denied that there were cases in which, from time to time, lymph of relatively ineffective character had got into circulation and had not afforded due protection. It had also been frequently objected that vaccination had been the means of propagating other diseases. This was a fact, though extremely rare; yet that there was such a possibility had been pressed to the extent that people would allow themselves to be fined repeatedly, and even would suffer imprisonment, in preference to exposing their children to what they considered those dangers. The members of the deputation thought that the adoption of animal lymph would surmount this difficulty. The deputation did not wish to interfere with the admirable system of vaccination carried out under the Local Government Board, but they proposed that a supplemental system should be admitted, and, that the lymph direct from the calf, should be sent out from the Board to central stations, for the use of vaccinators and the profession, instead of, as now, humanised lymph, much of which could not be traced back to its source. In adopting this, there would be no difficulty on the question of cost. The deputation proposed that the Department should only send out lymph direct from the calf, of known activity, and of absolute purity. They believed that the use of such lymph would have the best results, directly and indirectly, first, in removing the objections of the small margin of people who now kept out from vaccination, and thus tended to keep alive small-pox; and the lymph being of known efficacy, of known origin, and of known properties, its active results would be of the utmost benefit. This system too would be ready to meet with certainty those emergencies which the present system was not always able to meet, namely, those which arose in times of epidemic. The Department could supply any quantity of calf-lymph for vaccination and for revaccination. If persons, too, had very strong objections to arm-to-arm vaccination, it should be in the power of the public vaccinator to vaccinate direct from the calf, after receiving such notice of this demand as would obviate administrative difficulties. The Department, by the adoption of this system, would be able to overcome many scruples, and strike at the root of many objections. The deputation trusted that they had made out a case of sufficient importance to justify the President in putting on trial a system which would be fraught with good.

Mr. Greene stated that for eight years he had carried on the system, and had inoculated nearly four hundred calves. The result had been to lead him strongly to the opinion that the authorities should assist in providing, by this system, a due supply of properly authenticated lymph. There was this advantage in animal vaccination, that there was no doubt about the lymph; and, as to the quantity which could be obtained, if several calves were operated upon every week by experienced men, there would be no difficulty in carrying on the lymph from calf to calf, and keeping it up in an unimpaired condition for any length of time. As to the effect of calf-lymph upon the human being, it had surpassed the humanised lymph in manifesting secondary effects, which showed that it was more certain in its prophylactic qualities. He had supplied calf-lymph to a large number of vaccinators, and they had used it with satisfaction; and they continued to apply to him for it. This showed that the lymph was of good character. With regard to the protection which it afforded against small-pox, he mentioned two examples in proof of its advantage. In one case, small-pox broke out in a family, and the whole family were vaccinated with the exception of the father, who was between seventy and eighty years of age. The others were much exposed to the disease, being in attendance upon the patient; but the only one who took it was the unvaccinated father, who died of small-pox, although he was far less exposed to it than others. In the other case, Mr. Greene inoculated with the cow-pox lymph a family, with the exception of a child eighteen months old, which had the mark of vaccination on the arm. The mother had small-pox and died. None of the family vaccinated with the calf-lymph caught the small-pox, though exposed to it; but the infant caught it and died. Like cases could be multiplied. It might be said that the profession could do this; but it was desirable that they should be relieved of the responsibility of carrying out the matter. It was attended by difficulties of experience and of expense. These difficulties, however, would not arise if the department were to take the matter up. The Department could obtain the best lymph and the most experienced aid at a very trifling cost; and he thought that there should be very stringent rules with regard to the sending out of the lymph. If this lymph were sent out to the profession, great benefit would accrue by the renovating of the stocks of lymph now in use; some of which, indeed, were worn out in respect to preventive efficiency. It was possible to cultivate lymph. It was not worn out in the hands of experienced and careful men; but it degenerated and became inefficient in other cases. The vaccinators had to send up to the Local Government Board to obtain lymph. They were obliged to take it upon trust as regarded its source and its character. The Board was also obliged to take it upon trust; and the person whose child was to be vaccinated had to ask in vain for information as to the history of the lymph. The vaccinator was thus placed in a most difficult and disagreeable position; for, when the question was put to him, he felt that there was a want of confidence in it.

Dr. CARPENTER said that he wished to press upon the President of the Local Government Board the fact that the movement in favour of animal lymph was not antagonistic to the arm-to-arm system. He stood there as a medical man, and also as a magistrate; and, having sometimes to convict individuals for disobeying the law in regard to vaccination, he felt a difficulty with regard to those impediments which had been placed in the way by the allegations in regard to the vaccine, about the origin of which the vaccinator knew nothing. He felt that animal vaccination would remove the objections of those who honestly and conscientiously objected to the use of human lymph. If power were given to the vaccinators to use animal lymph in the place of human lymph in cases where it was demanded, and if the means of doing so were supplied by the Local Government Board, it would be an advantage to the health of the country; it would enable those who vaccinated to do it with more judgment and more confidence than at present; and it would lessen the difficulties of those who administered the law. Two classes of persons appeared before the magistrates charged with refusing to have their children vaccinated. There were the antivaccinators, who were not to be convinced that it was their duty to have their children vaccinated; and there were those who feared the transmission of other diseases by vaccination. The adoption of what was asked by the deputation would take away the objection pressed by the conscientious persons; for they would be sure of the purity of the lymph, and they would not object to what was entirely free from danger. If the lymph were supplied by the Board, the security would be double of what it would be if the supply were obtained from those who might prepare the lymph in order to sell it to those who desired to buy. It would be a mistake on the part of the Government to say that it was quite competent for the medical men to obtain their vaccine by purchase from private sources, for then there would be still a doubt as to its purity. The Government should have the lymph prepared, and should encourage its use by supplying it so that there could be no doubt with regard to the nature of the vaccine supplied. He thought it a very serious blot upon the administration of justice, that the magistrates had to fine over and over again the same people for the same offence. The fact that the people were frequently fined, and that vaccination was not then carried out in these cases, showed that there was serious necessity for other measures. If animal lymph were supplied to the vaccinators, there should be power given to magistrates to order the child to be vaccinated with it. It was a most serious thing to the magistrate's mind to have to send a man to prison, or to fine him over and over again, simply because that man refused to have his child vaccinated with lymph which might be considered impure.

Mr. SCLATER-BOOTH said he desired to speak upon the subject of animal vaccination as a layman, and his words must be taken as expressing his own views merely. He must first remark upon the very great loss which the Department had sustained by the illness, resignation, and death, of Dr. Seaton. The Board was now deprived of the very great knowledge and great experience of the late medical officer. He regretted this, not only upon general grounds, but because, for some years, Dr. Seaton had directed his attention to this particular subject. The Department received from him a general report, and this would have been completed had Dr. Seaton's life been spared. He had himself given a great deal of attention to the subject. He had no *à priori* objection to the adoption of a better lymph, provided that there was reason to know that it was for the public advantage; but he had a very strong conviction that the deputation would be doing a great harm and incurring a very serious responsibility, by urging the authorities to interfere in any way with a system which had been in work for many years, and which it was acknowledged had been of the greatest possible advantage to the public. With this proviso, the department did not desire to object to the best article being supplied for the use of the public vaccinators; but when he came to the statements laid before him, some objections had arisen in his mind. It had been admitted that there was no desire to interfere with the arm-to-arm system. That was a most important point; for large numbers of children were yearly vaccinated by the present system, and, if he rightly understood the objections now made to the present system of vaccination, it was from this system of arm-to-arm vaccination that the chance of communicating other diseases arose. Dr. Warlomont, as he understood, held that the arm-to-arm system must be maintained. Mr. Hart had said that anyone who wished it should be vaccinated with calf-lymph. It was said that there was not confidence in the lymph which came from the Local Government Board, and yet they urged that the calf-lymph should be supplied to the vaccinators by this same Board. But if there were no confidence in the one case, how could there be confidence in the other? The proposal appeared to him to be suicidal, and to show very great inconsistency. Dr. Carpenter alluded with great force to the objections urged by antivaccinators. He (the President) had had great experience in this matter with regard to these objections, and he was not aware that any of the people who now objected to vaccination on principle, would have their objections in the slightest way mitigated by the substitution of calf-lymph for humanised lymph. Many people were of opinion that vaccination from the calf would be preferable, but to do this would not require the aid of the Government. The wealth of this country did not render it necessary for the Department to make a provision to obtain this system for those who desired to have it. The public vaccinators vaccinated nearly five hundred thousand persons a-year, and it was impossible to say for a moment that there were so many objections to the present system as it was represented. The question was a very important one, and one upon which it was important to obtain information. The deputation had laid before him full information in the report of the conference, and he would assure them that the subject should receive his most anxious and constant attention. He would only urge upon them not to take upon themselves the responsibility of pressing the Government to withdraw from the system which the medical profession had admitted to have worked exceedingly well.

THE NAVAL MEDICAL SERVICE.

THE Chairman of the Parliamentary Bills Committee of the British Medical Association had this week an interview with the Naval Lord of the Admiralty on the subject of the present position of medical officers in the Navy, which was recently brought under the notice of the Committee. Subsequently, Mr. Hart forwarded officially to the First Lord of the Admiralty a draft scheme for the improvement of the position of the medical officers (which appeared last week in the pages of the JOURNAL), together with a detailed statement of the reasons for the suggestions made. Mr. Smith, in reply, has given the assurance that "the subject shall receive his serious attention". It is understood that an Admiralty committee will shortly be appointed to consider the present state of the Naval Medical Service, to which this memorandum will, with others, be referred.

DR. WILLIAM FARR, F.R.S.

LORD BEACONSFIELD has explained, in the House of Lords, his reason for refusing to appoint Dr. Farr Registrar-General, and for selecting, by preference, Sir Bridges Henniker. If advanced years and a state of health such as that which commonly goes with it be a valid reason for refusing promotion to an officer of the highest merit and capacity, the explanation may be considered satisfactory. It is, however, remarkable that a minister who affords so conspicuous an example of the intellectual vigour which often accompanies advanced years should establish the canon; and, on the other hand, the fact that Dr. Farr, while still performing the duties of his office, has found time to prepare the admirable and elaborate paper on the Fecundity of the Human Race, which he last week presented to the Royal Society, is at least some answer to any imputation on his intellectual vigour. Of course, if physical vigour be the great requisite for "taking the census", a comparatively inexperienced ex-Guardsman has a distinct advantage over an elderly statistician and administrator, however eminent, experienced, and distinguished for special knowledge and capabilities. We cannot but think that the use which Lord Beaconsfield made of the claim which has been made for superannuation, since the appointment was refused to Dr. Farr, somewhat likely to mislead. No such claim had been made until the appointment, which was bestowed upon Sir Brydges Henniker, had been refused to Dr. Farr; and if any doubt exist on this point, it might be well that the document should be published, and its date established.

We must now, however, look more to the present than to the past in this matter. On the subject of Dr. Farr's eminent and unusual services to the country, to science, and to mankind, all are happily agreed. His services have been long and great; his salary has been moderate; and his reward not great. Will it not be well that, in addition to any retiring pension which can, under any circumstances, be but small and short-lived, a spontaneous recognition of a substantial kind should be made by the profession and public?

At a meeting of the Council of the Metropolitan Counties Branch held on February 2nd, John Wood, Esq., F.R.S., President, in the chair, the following resolution was unanimously adopted, and the President was directed to forward it to the Earl of Beaconsfield.

"That the Council of the Metropolitan Counties Branch of the British Medical Association desire to express its deep sense of the very distinguished services which have been rendered by Dr. William Farr, F.R.S., as superintendent during forty-two years of the Statistical Department of the General Register Office, and which have had the result of placing the science of vital statistics in its present position of soundness and efficiency; and the Council earnestly hopes that Her Majesty's Government will recommend that some signal token of the Royal favour be bestowed on Dr. Farr in recognition of the great public benefits conferred by his labours."

A letter has been received by Mr. Wood acknowledging the receipt of the resolution by Lord Beaconsfield.

THE WAR IN SOUTH AFRICA: MEDICAL ARRANGEMENTS UNDER SIR GARNET WOLSELEY.

The last of the fights is over; and, although accompanied by considerable bloodshed, the result is satisfactory. The medical preparations for the Sekukuni campaign were conducted with great care and judgment when the arduous nature of the enterprise is remembered. Medical officers, field-hospitals, ambulances, and stores were despatched, in numbers and quantities that left no chance of any deficiencies being felt, to Fort Wecker, the first depôt, about one hundred miles north of Middleburg, and one hundred and fifty north-east from Pretoria, there to assemble for disposition as required. Another depôt and hospital was established at Fort Albert Edward, a post forty miles north of Fort Wecker, and within eighteen of Sekukuni's stronghold.

On November 15th, Sir Garnet Wolseley inspected the detachment of Army Hospital Corps, and expressed much satisfaction at their smartness and efficiency in the use of the stretchers. On November 23rd, the advanced guard, consisting of Ferreira's Horse and the Rustenburg Contingent, attacked Umkwani's place in the valley protecting the approach to Sekukuni's fortress, and carried it, with a loss of one white trooper killed and two wounded, seven natives killed and six wounded. The wounded were brought in to Fort Albert Edward to hospital. On the 28th, Sekukuni's stadt or town was attacked without much loss and taken; and then, with the assistance of the Swazies, who appeared from the north side, the "vecht koppie" or "fighting hill" was assaulted by the combined force and carried after two hours' fighting, during which a great number of troops were killed and wounded. The stronghold was situated on a hill composed of an immense aggregation of separate granite boulders, with stone walls constructed to strengthen the nooks and crevices and caves from which the defenders fought. The stadt was placed a little below the stronghold, and was taken first and burnt. The Swazies, our allies, lost two hundred killed and several hundred wounded. Surgeon-Major B. Cowan Kerr was senior medical officer of the force. Surgeon-Major Johnston was in charge of the dressing-station, with three assistants; and Surgeon-Major Hector had command of the stretcher-bearer company, with whose work Sir Garnet was much pleased. This was the first time on active service that European stretcher-bearers were employed, and the result was most satisfactory to the general. At the battle of Ulundi, it will be remembered, the stretcher-bearers were untutored natives under Surgeon-Major Stafford; and, although these latter did fairly well through the interpreter, they could not equal the well-drilled and brave European bearers under Dr. Hector. Surgeon-Major Johnston wisely brought his ambulances into the engagement. Surgeons Martin, Frazer, and Lloyd rendered good assistance. A convoy left the Victoria Fortress for Pretoria on the 30th of November. About half the number of wounded went to Pretoria; whilst the remaining half, with Captain Maurice, R.A., Lieutenant O'Grady, 94th Regiment, and Lieutenant Dewar, were sent to Middleburg, where there is a large field-hospital under Surgeon-Major Comerford. Mrs. Deeble, the lady-superintendent of nurses from Netley, is also at Middleburg, with three sisters, who are affording great comfort and assistance to the wounded, and are doing their duties quietly and without ostentation. Captain Maurice and Lieutenant O'Grady are doing very well.

There is much sickness amongst the troops from fevers and diarrhœa. The men are nearly worn out; and, to make matters worse, Sir Garnet was obliged, from a deficiency of tea and sugar at the front, to cut down the men's daily allowance of these articles for a time.

Sekukuni surrendered four days after the attack, from a cave eight miles distant, where he had fled, and was brought into Pretoria very ill with fever, on a long cart, and lodged in the gaol, whence he was permitted to view the grand peace review held by Sir Garnet Wolseley on December 11th. The 21st Regiment remains at Pretoria. Its health is better than some of the other regiments. The Queen's Dragoon Guards return to Wakkerstroom, a healthy station for horses, but the men of this regiment have not done well at this station. Their horses are picketed in lines between the tents, a most pernicious cavalry custom, difficult to eradicate, and one that produces a stale stench, which is intensified during the present hot season. Indeed, some proper means must be taken before the next campaign to ensure the adoption of many sanitary measures, which have been quite disregarded by commanding officers; the result being an excessive expenditure of valuable lives.

The 4th and 80th Regiments go down to Pinetown to await embarkation. The Army Hospital Corps will go home in the *Ontario*, hired trooper. Utrecht station is being broken up; also Luneburg; and the troops and their hospitals will be sent to Wakkerstroom, which is to be made the head-quarters station of the Utrecht district. Surgeon-Major Skene, lately Senior Medical Officer of Lines and Communications, goes from Newcastle to Pretoria as Senior Medical Officer of the Transvaal force. The medical officers remaining after the close of the campaign will embark for England, India, and the Mediterranean, with the troops for these destinations; only a few being retained in the colony with the regiments also temporarily detained.

THE PUBLIC HEALTH IN 1879.

In the United Kingdom, 1,144,571 births, and 707,379 deaths, were registered during the four quarters of 1879, equal to rates of 33.5 and 20.7 per 1000, respectively, of the population estimated to be living in the middle of the year. The natural increase of population, by excess of births over deaths, was 437,192, against 436,360 in 1878. According to returns issued by the Board of Trade, 164,161 British emigrants left the various ports of the United Kingdom, at which emigration officers are stationed, during 1879; this number showed a further increase of 50,722 upon the numbers recorded in the two preceding years. The increase of emigration during 1879, compared with 1878, was equal to 40.8 per cent. in England, 67.2 in Scotland, and 43.0 in Ireland. Of the British emigrants during last year, 55 per cent. left for the United States, 24 for the Australian Colonies, 11 for British North America, and 10 for all other places. Emigration to the United States and to British North America showed a marked increase during 1879, whereas the number of emigrants to Australia showed a decrease of 23 per cent.

In England and Wales, 882,866 births, and 528,194 deaths, were registered during 1879; the birth-rate was equal to 35.1, and the death-rate to 21.0 per 1,000 persons living. The birth-rate was 0.6, and the death-rate 0.8, below the average rate in the ten preceding years. The death-rate in 1879 was 0.7 below that which prevailed in 1878, but somewhat exceeded the rate in 1877, which was the lowest on record.

The annual death-rate in England and Wales averaged 22.4, 22.2, and 22.4 per 1,000 respectively during the three decades 1841-50, 1851-60, and 1861-70. Notwithstanding the marked increase of density of population in urban districts, English mortality may be said to have remained stationary during the thirty years 1841-70. Last year was the ninth of the current decade 1871-80, during which the average annual death-rate in England and Wales has not exceeded 21.6 per 1,000. This decline of mortality, which may be accepted as evidence of improving sanitary condition, implies that, during the past nine years, more than 150,000 persons have survived in England and Wales, whose deaths would have been recorded had the average annual rate of mortality in the previous thirty years been maintained.

The 528,194 deaths in England and Wales during 1879 included 119,808 infants under one year of age, and 146,549 of persons aged upwards of sixty years. The rate of infant mortality, measured by the proportions of deaths under one year to births registered, was equal to 136 per 1,000, against 146, 136, and 153, in the three preceding years. During the past nine years of the current decade, the proportion of infant mortality has averaged 148 per 1,000, against 152 in the ten years 1841-50, and 154 in each of the following decades 1851-60 and 1861-70. The marked decline of infant mortality in 1879, compared with that which prevailed in the preceding year, was mainly due to the exceptionally small fatality of summer diarrhœa.

The rate of mortality among persons aged upwards of sixty years, which had been equal to 68.3, 68.7, and 73.4 per 1,000 persons living at those ages in the three preceding years, further rose in 1879 to 77.9. The nearest approach to so so high a death-rate at these ages in recent years occurred in 1875, when it was equal to 77.5 per 1,000. The high death-rate among elderly persons during 1879 appears to have been principally due to the excessive fatality of diseases of the respiratory organs during the first quarter of the year.

The 528,194 deaths last year included 17,407 from scarlet fever, 12,047 from whooping-cough, 10,906 from diarrhœa, 8,840 from measles, 7,554 from fever, 2,856 from diphtheria, and 547 from small-pox. Thus 60,157 deaths were referred to the seven principal zymotic diseases, and were equal to an annual rate of 2.39 per 1,000. The death-rate from these seven diseases in the four preceding years was equal to 3.44, 3.11, 2.71, and 3.32 per 1,000 respectively. The zymotic death-rate last year was 0.32 below the unprecedentedly low death-rate from these diseases in 1877. During the past nine years of the current decade, the death-rate from these seven diseases has averaged 3.37 per 1,000, against 4.11 and 4.14 in the two preceding decades, 1851-60 and 1861-70. Compared with the numbers in 1878, the fatal cases of measles showed a slight increase, whereas those of each of the six other diseases had considerably declined. The decrease of deaths referred to diarrhœa and small-pox was specially marked; the fatal cases of small-pox were, without a single exception, considerably fewer than those returned in any previous year since the establishment of civil registration in 1837. The death-rate from fever (principally enteric or typhoid), which was equal to 1.11 per 1,000 in 1865, has since declined with but slight fluctuations, and in 1879 did not exceed 0.30. In the past nine years, the annual death-rate from fever has average but 0.51 per 1,000, against 0.91 and 0.88 in the two preceding decades. This marked decline of fever fatality is a satisfactory sign of sanitary progress.

The inquest cases registered in 1879 were 26,521, and equal to 5.0 per cent. of the total deaths registered; this proportion corresponded with that which prevailed in 1878. The deaths referred to different forms of violence were 16,824, and showed a decline of 947 from the number recorded in the previous year; they were equal to 3.2 per cent. of the deaths from all causes.

The Registrar-General states that the foregoing numbers for 1879 are subject to revision when the causes of death and other details are finally classified and tabled for publication in the Annual Report for 1879.

PUBLIC HEALTH.—During last week, being the sixth week of the year, 4,937 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 30 deaths annually in every 1,000 persons living. The annual death-rate was 19 in Edinburgh, 23 in Glasgow, and 45 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Leeds 19, Leicester 20, Brighton 20, Portsmouth 20, Sheffield 21, Sunderland 22, Birmingham 23, Oldham 23, Norwich 24, Bristol 25, Wolverhampton 25, Salford 26, Bradford 26, Manchester 26, Hull 27, Newcastle-upon-Tyne 29, Liverpool 30, Plymouth 31, Nottingham, 31, and the highest rate was 36 in London. The death-rate in the nineteen provincial towns averaged only 24.9 per 1,000, against 35.5 in the Metropolis. The annual death-rate from the seven principal zymotic diseases averaged 4.0 per 1,000 in the twenty towns, and ranged from 0.8 in Portsmouth and Leicester, to 6.3 and 6.9 in Plymouth and Nottingham. In London, 2,495 deaths were registered, which exceeded the average by so many as 730. The annual death-rate from all causes, which had been equal to 27.1, 31.3, and 48.1 per 1,000 in the three preceding weeks, declined again last week to 35.5. The 2,495 deaths included 12 from small-pox, 23 from measles, 56 from scarlet fever, 13 from diphtheria, 197 from whooping-cough, 19 from different forms of fever, and 19 from diarrhœa—altogether 339 zymotic deaths, which were 98 above the average, and were equal to an annual rate of 4.8 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 757 and 1,557 in the two preceding weeks, declined again last week to 1,020, put exceeded the corrected weekly average by 551; 760 more fatal cases of bronchitis were recorded, and 171 of pneumonia. Different forms of violence caused 81 deaths; 75 were the result of negligence or accident, including 28 from fractures and contusions, 8 from burns and scalds, 14 from drowning, and 18 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 40.6°, and 1.4° above the average. The general direction of the wind was southerly, and the horizontal movement of the air averaged 13.4 miles per hour, which was slightly above the average. Rain fell on four days of the week, to the aggregate amount of 0.61 of an inch. The duration of registered bright sunshine in the week was equal to 21 per cent. of its possible duration. The recorded amount of ozone in the atmosphere exceeded the average, especially on Monday.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-EIGHTH ANNUAL MEETING.

THE Forty-Eighth Annual Meeting of the British Medical Association will be held at Cambridge on Tuesday, Wednesday, Thursday, and Friday, August 10th, 11th, 12th, and 13th, 1880.

President: DENIS C. O'CONNOR, A.B., M.D., Professor of Medicine in Queen's College, Cork.

President-elect: G. M. HUMPHRY, M.D., F.R.C.S., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

An Address in Medicine will be delivered by J. B. BRADBURY, M.D., F.R.C.P., Physician to Addenbrooke's Hospital; Linacre Lecturer in Physic.

An Address in Surgery will be delivered by TIMOTHY HOLMES, M.A., F.R.C.S., Surgeon to St. George's Hospital.

An Address in Physiology will be delivered by MICHAEL FOSTER, M.D., Hon. M.A., F.R.S., Prælector in Physiology in Trinity College, Cambridge.

The business of the Association will be transacted in Eight Sections.

SECTION A.: MEDICINE.—*President:* George Edward Paget, M.D., D.C.L., F.R.S., Cambridge. *Vice-Presidents:* George Johnson, M.D., F.R.S., London; P. W. Latham, M.A., M.D., Cambridge. *Secretaries:* W. B. Cheadle, M.A., M.D., 2, Hyde Park Place, London, W.; D. B. Lees, M.A., M.D., 2, Thurloe Houses, Thurloe Square, London, S.W.

SECTION B.: SURGERY.—*President:* William S. Savory, M.B., F.R.S., London. *Vice-Presidents:* William Cadge, F.R.C.S., Norwich; John Wood F.R.C.S., F.R.S., London. *Secretaries:* John Chiene, F.R.C.S.Ed., F.R.S.Edin., 21, Ainslie Place, Edinburgh; George E. Wherry, M.B., M.C., F.R.C.S., 63, Trumpington Street, Cambridge.

SECTION C.: OBSTETRIC MEDICINE.—*President:* W. S. Playfair, M.D., London. *Vice-Presidents:* H. Macnaughton Jones, M.D., Cork; Henry Gervis, M.D., London. *Secretaries:* R. N. Ingle, M.D., 21, Regent Street, Cambridge; C. E. Underhill, M.D., 8, Coates Crescent, Edinburgh.

SECTION D.: PUBLIC MEDICINE.—*President:* Henry W. Acland, M.D., LL.D., F.R.S., Oxford. *Vice-Presidents:* Arthur Ransome, M.A., M.D., Manchester; Thomas Pridgin Teale, M.A., F.R.C.S., Leeds. *Secretaries:* William Armistead, M.B., St. Mary's Villa, Station Road, Cambridge; Thomas Walker, M.D., 19, Westgate, Peterborough.

SECTION E.: PSYCHOLOGY.—*President:* J. Crichton Browne, M.D., LL.D., F.R.S., London. *Vice-Presidents:* G. F. Blandford, M.D., London; P. M. Deas, M.B., Macclesfield. *Secretaries:* G. M. Bacon, Hon. M.A., M.D., Lunatic Asylum, Fulbourn, Cambridge; Henry Sutherland, M.A., M.D., 6, Richmond Terrace, Whitehall, S.W.

SECTION F.: PHYSIOLOGY.—*President:* William Rutherford, M.D., F.R.S., Edinburgh. *Vice-Presidents:* Arthur Gamgee, M.D., F.R.S., Manchester; Robert McDonnell, M.D., F.R.S., Dublin. *Secretaries:* W. H. Gaskell, M.A., M.D., Grantchester, Cambridge; William Stirling, D.Sc., M.B., Marischal College, Aberdeen.

SECTION G.: PATHOLOGY.—*President:* Sir James Paget, Bart., D.C.L., LL.D., F.R.S. *Vice-Presidents:* Samuel Wilks, M.D., F.R.S.; W. Howship Dickinson, M.D. *Secretaries:* W. S. Greenfield, M.D., 15, Palace Road, Albert Embankment; Charles Creighton, M.A., M.D., Anatomical Museum, Cambridge.

SECTION H.: OPHTHALMOLOGY.—*President:* William Bowman, F.R.C.S., F.R.S., London. *Vice-Presidents:* Henry Power, F.R.C.S., London; Henry R. Swanzy, M.B., Dublin. *Secretaries:* W. A. Brailey, M.A., M.D., 38, King's Road, Brownswood Park, London, N.; David Little, M.D., 21, St. John Street, Manchester.

A Subsection of Otology will be formed, of which Mr. W. B. Dalby, F.R.C.S., of London, will be Chairman, and Dr. James Patterson Cassells of Newton Terrace, Sauchiehall Street, Glasgow, honorary secretary.

Honorary Local Secretaries: Bushell Anningson, M.A., M.D. (Hon. Medical Secretary), Walt-ham-sal, Barton Road, Cambridge; A. P. Humphry, Esq., M.A. (Hon. Reception Secretary), Corpus Buildings, Cambridge.

Letters relating to the strictly medical work (Sections, Museums, etc.) of the meeting should be addressed to Dr. Anningson; other letters to Mr. A. P. Humphry.

TUESDAY, AUGUST 10TH, 1880.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1879-80.
8 P.M.—General Meeting. President's Address; Annual Report of Council; and other business.

WEDNESDAY, AUGUST 11TH.

9.30 A.M.—Meeting of Council of 1880-81.
11 A.M.—Second General Meeting. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.

THURSDAY, AUGUST 12TH.

9.30 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, AUGUST 13TH.

10 A.M.—Address in Physiology.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting.

SOUTH OF IRELAND BRANCH.

THE usual quarterly meeting of the Branch will be held in the Royal Cork Institution, on Thursday, February 26th, at 4 P.M.

Dinner at the Victoria Hotel, at 6.30 P.M. Tickets, 12s. each, wine included.

Members intending to read papers, or send communications, will kindly intimate their intention to the Secretaries.

P. J. CREMEN, M.D., } *Honorary Secretaries.*
T. G. ATKINS, M.D., }
Cork, January 22nd, 1880.

STAFFORDSHIRE BRANCH.

THE second ordinary meeting of the present session will be held at the Board Room of the Infirmary, Stafford, on Thursday, February 26th, at 3.30 P.M.

VINCENT JACKSON, Wolverhampton } *Honorary Secretaries.*
J. G. U. WEST, Stoke-upon-Trent }
Wolverhampton, February 2nd, 1880.

SOUTHERN BRANCH: SOUTHAMPTON DISTRICT.

THE next meeting of this district will be held at the house of Professor De Chaumont, M.D., F.R.S., Woolston Lawn, Woolston, on Friday, February 27th, at 8 P.M.

A paper entitled "Notes on Midwifery Cases" will be read by Surgeon-Major Veale, M.D.

THEOPH. W. TREND, *Honorary Secretary.*
Raeberry Lodge, February 13th, 1880.

NORTH OF IRELAND BRANCH.

A MEETING of this Branch will be held on Friday, the 5th March next, at 12 o'clock, in the Belfast Royal Hospital.

Members intending to make any communication or read any papers are requested to inform

JOHN MOORE, M.D., *Honorary Secretary.*
2, Carlisle Terrace, Belfast, February 9th, 1880.

GLASGOW AND WEST OF SCOTLAND BRANCH.

DISCUSSION ON THE RELATION OF CROUP AND DIPHTHERIA.

AT a meeting of this Branch on Friday, December 19th, the principal business was a discussion on the above subject, of which the following is a condensed report. Dr. W. T. GAIRDNER, President of the Branch, occupied the chair.

Dr. RUSSELL, Medical Officer of Health for Glasgow, introduced the discussion. He stated that, as he had not had any clinical experience of croup and diphtheria, the only contribution he could make to a discussion on their relation was from a statistical aspect. He proposed to present such facts as admitted of expression in figures, in a form suited for use in debate, without himself deriving any argument therefrom. It could not but be that the isolated units of diagnosis, made without concert, when gathered up should establish facts eventually related to the nature of the disease, and bound to be considered alike by those who adopted the view of identity or of non-identity. Nearly all the information was graphically displayed in diagrams, and his remarks would only be by way of explaining these diagrams, and pointing out their salient features. The first pair of diagrams showed the comparative rise and fall of croup and diphtheria in all Scotland from year to year from 1857 to 1874. This was divided into two periods of nine years, the first ending with 1865, during which both croup and diphtheria became epidemic; the second following 1865, when both were endemic. Differences were pointed out in the former period; and in the latter, the movements of both coincided in direction in seven years and diverged in two years. In the second pair of diagrams, Scotland was divided into districts, representing town and insular and mainland rural. The same epidemic and endemic periods were then observed. The absolutely highest epidemic point of croup was reached in the insular, and of diphtheria in the mainland rural districts. In the endemic period, the general result was that croup and diphtheria had in their movements as often gone divergently as together in the insular districts, while in the mainland and town districts they, as a rule, were together. In the third pair of diagrams, the aggregate comparative fatality of croup and diphtheria was shown for the ten years 1861-70 in the towns, as contrasted with the counties in which the towns were situated. The first conclusion to which the comparison led was, that there was no relation over the period between the amount of the fatality of the two diseases. The next conclusion was that, while diphtheria affected most the rural districts, croup affected most the towns, and was less fatal in the country round the towns. Of the counties of Scotland, twenty-one were purely rural, *i.e.*, they contained no large towns. There was, in these, no relation between the comparative fatality of croup and diphtheria. Two, which were among the lowest as to diphtheria, were the absolutely highest as to croup; while Caithness, which was only exceeded by rural Aberdeenshire as to diphtheria, was among the lowest as to croup. The comparative seasonal fatality of croup and diphtheria was shown in diagrams enlarged from Mr. Buchan and Dr. Mitchell's paper "On the Influence of Weather upon Mortality". They were founded on the experience of London and New York. From these, it was evident that diphtheria was a disease of autumn and winter, while croup was a disease of winter and spring. The bronchitis curves of both cities were also given. The affinity between the croup and bronchitis curves was obvious, especially in London. Both were diseases of winter and spring. The comparative fatality from croup and diphtheria at different ages was determined from the Scotch statistics of 1861-70. These showed that while croup was wholly a disease fatal to children, diphtheria was fatal at all ages. Below four years, croup was uniformly the most fatal; above that age, diphtheria. There were only four deaths out of 11,186 from croup above fifteen years. Dr. Russell then turned to the development of certain comparative facts of a more intimate kind as to the habits and habitats of croup and diphtheria in Glasgow, such as—1. Their district relations; 2. The comparative size of the houses in which they were found; 3. Their comparative death-rate in houses of the same size; 4. Their relation to sewer-connection of houses; 5. Their relations to houses of small size with and without internal sewer-connections; 6. The comparative number of instances in which more than one death occurred from each in the same family.

Dr. GEORGE BUCHANAN (Glasgow) speaking from the point of view of a surgeon, submitted that he had repeatedly seen members of the same family suffering at the same time from disease which, basing the diagnosis upon the occurrence or absence of false membrane on the tonsils or fauces, would in some of the cases be called croup, and in others diphtheria. He had also satisfied himself, by *post mortem* examination, that there was no recognisable difference in the viscid secretion and partially membranous effusion in the smaller bronchial tubes, in cases which might be differentiated into croup and diphtheria by reference to the tonsils and fauces. By examining the bronchi and smaller tubes alone, in a case which had died from the extension of the disease below the trachea, a pathologist could not affirm whether it had been a case of croup or of diphtheria. This identity of the effusion into the bronchial tubes, when the disease extended so far down, favoured the theory of the essential identity of the affections. Taking the membranous effusion as the distinguishing mark, there were three varieties: (1) when the false membrane was limited to the fauces and tonsils; (2) to the fauces and trachea; (3) to the trachea. The first might be termed diphtheria; the second, tracheal diphtheria; the third, croup. The first was rarely seen in the sthenic form; the last as rarely in the asthenic; while the second was as often seen in the sthenic as in the asthenic form. Whatever the variety, in the asthenic form the tendency was to rapid failure of the vital powers, the membranous effusion being the least important factor. In the sthenic form, the tendency was to the rapid formation of false membrane. Clinically, the last two varieties had a closer affinity to each other than had the first two. Croup he would define as sthenic tracheal diphtheria; but if they turned out to be different diseases, he would divide diphtheria into faucial and tracheal, as a practical means of drawing attention to the totally different forms of danger.

Dr. Macleod (Kilmarnock) was of opinion that the diseases were not identical; that the difference was radical, being shown equally in the modes of commencement, in their courses, and in their terminations. The situation of the false membrane was different in each; and he held that there was a difference in the pathological appearances. The membrane of croup was more friable and less organised than that of diphtheria. In inflammatory croup, the disease did not usually extend to the smaller tubes, as it did in the other affection. Excluding those exceptional cases in which diphtheria began in the trachea, the diagnosis between them was tolerably certain. The fact that opposite modes of treatment were indicated, also gave colour to the non-identity of the diseases.

Dr. Bruce Goff (Bothwell) thought that, as the treatment depended on the stage of the disease, it had little bearing on the question at issue. In an experience extending through one great and several smaller epidemics of diphtheria, he had noted the apparent points of difference between croup and diphtheria. In croup, he had never seen the dusky red hue of the fauces; in diphtheria, he had never once observed its absence. In the latter affection, also, he had seen the appearance on the fauces of other children in the family, otherwise unaffected. In one point, Dr. Russell's statistics were apparently contradictory. Diphtheria Dr. Russell had found to be largely a disease of villages and small towns; while in towns, it was most prevalent in houses supplied with waterclosets. Now, in villages and small towns, waterclosets were generally absent. How was this apparent discrepancy to be explained?

Dr. Marshall (Greenock) adverted to the confusion arising from different practitioners calling the same things by different names, and especially to the manner in which the name was modified by the presence or absence of false membrane. He believed that in acute cases the inflammatory action was sometimes checked by treatment, and no false membrane formed. He objected to any such classification as that suggested by Dr. George Buchanan, founded on the mere locality of the inflammatory action (such as faucial, faucial and tracheal, and simply tracheal). It was much preferable to found on general systemic symptoms; and in croup and diphtheria, these were different. In acute croup, especially, the course of the affection was more rapid, leading up to a point at which the reactive powers of the system were called into play; while in diphtheria, the progress was comparatively languid, and the vital powers reacted less vigorously, if at all. This difference in systemic symptoms pointed to an essential distinction in the two diseases.

Dr. Renfrew contended that croup and diphtheria were distinct diseases. From observation on croup before the other disease appeared, he declared it to be tracheitis with false membrane (an essential product of the disease), non-contagious, with cough and hoarse voice, and tight breathing, with pain at the lower part of the throat. There was no change in the mucous membrane or secretion in the fauces or about the glottis. The cervical glands were neither swollen nor painful. The disease was violent, with violent pyrexia; the age of those attacked from two to six years. Spasmodic croup, or laryngismus stridulus, attacked children from three months to two years; after the age of six, the laryngitis was not generally accompanied by exudation, but by effusion. Croup was not a frequent disease; it occurred more frequently in some districts than in others. Bits of fibrinous membrane were coughed up for two or three weeks after recovery, in cases in which exudation had taken place. Diphtheria, on the other hand, was a specific constitutional disease of an asthenic character arising from a poison in the blood, manifesting itself by local affections in the fauces, larynx, and nose. In these parts, it was usually accompanied by an exudation arising from the fact that the poison was eliminated at these places. The exudation, which was contagious, was an accidental rather than an essential part of the disease; and from some cause, local or constitutional, the false membrane might be absent; the cervical glands were frequently swollen. The disease was asthenic; the patient looked contracted and shrivelled, the skin pale and dusky, the eyes having a peculiar heavy look; temperature 99° to 102°; pulse from normal up to 100 or 108. The whole symptoms were, therefore, different from those of croup, which was essentially a sthenic inflammatory disease, with violent fever. In diphtheria, the false membrane was occasionally absent, even in fatal cases, but there were always irritation and inflammation, with an increase of the mucous secretion, which was tough and glairy. The spasmodic action noticed in some of the worst cases was due to the irritating eliminated material and the inflamed state of the parts acting upon the superior laryngeal nerve, producing spasm through the inferior or recurrent laryngeal. For the last ten or twelve years, he had treated all his cases with croupy symptoms as diphtheria. Croup (tracheitis) he was inclined to consider now an extinct disease.

Dr. Eben. Duncan (Crosshill) referred to what might be called the "safe" diagnostic view of the question adopted by many practitioners, of classifying all doubtful and difficult cases as diphtheria. After all, something might be said for this method; for the question—What constituted diphtheria?—was very difficult to answer. Some would limit the term to cases of sore-throat with exudation on the tonsils; others would add such additional symptoms as swelling of the glands. But the diagnosis, under any definition, was complicated by perplexing facts. Thus, in an epidemic of sore-throat which he had witnessed, all the local appearances were those of commencing diphtheria. In many cases, by brushing the tonsils with a caustic solution, the exudation was brought out. Hence, after all, the "safe" plan might not be very far wrong. In a case of laryngitis, he had lately shown to the Pathological Society the coughed-up membrane and the larynx removed after death. In the exudation of the latter, there were found micrococci, though none were found in the membrane. These organisms were no doubt the result of ordinary putrefactive changes; and he did not consider them as at all pathognomic of diphtheria. In the present case, there were no other symptoms special to diphtheria. The anomaly referred to by Dr. Goff might be explained in this way. In the larger houses, the physician saw the disease at an early stage, and pronounced it diphtheria from the appearance of the tonsils; while, in the smaller houses, he was called in later, after the disease had spread downwards, and the character of the breathing caused him to call it croup. It might be also that, in the latter cases, the examination might sometimes be more cursory and less careful than in the former.

Dr. Hector Cameron, speaking as a surgeon, stated that his experience had forced him to the conclusion that croup and diphtheria were either identical diseases, or that, at all events, the diagnosis between them could not be made out by competent physicians. The facts which had convinced him of this were such as these: Some time ago, he was called in by two well known physicians to operate in a case of what was described as simple inflammatory croup, without exudation and with no albumen in the urine. Two or three days after the operation, the urine was found loaded with albumen. It was not uncommon to find a child taken ill with croup, while another in the same family would shortly afterwards manifest all the symptoms of well marked diphtheria. Or the disease would be called croup for a week, and then, on the occurrence of marked exudation on the tonsils, with albuminous urine and other symptoms, the name would be altered to diphtheria. In the same family, a child died of what was entered as croup, and shortly afterwards another succumbed to what was set down as diphtheria. It was surely unfortunate to have two names for what was, during life, apparently the same thing, and which, even after death, could not be distinguished as separate diseases. The family predisposition to the affection was noteworthy. Dr. Cameron gave a number of illustrations of the family tendency, some of them of a striking character. On pointing out this feature in a communication to the British Medical Journal some time ago, he received a letter on the subject from a gentleman, who mentioned to him a very extraordinary example of family predisposition. In the Royal family, there appeared to exist a constitutional liability both to enteric fever and to diphtheria; the death of the Princess Alice from the latter affection, and some months thereafter of a child of the Princess Royal from the former, being the most recent illustrations. Dr. Cameron concluded by giving some details of a recent outbreak of diphtheria in a farmhouse at Kilbarchan, six or eight members of the family being attacked, some of them fatally. The outbreak appeared to be connected with the fact of a drain blocked with fæces communicating with a bedroom.

Dr. Hugh Thomson, as one who had experience of croup before diphtheria was spoken of, said that in those early days he had never seen any more than one in a family attacked by croup at the same time. No one ever dreamed of contagion in the disease. This feature of croup appeared to mark it as essentially distinct from diphtheria. To provide some data for the solution of the question whether what was called diphtheritic croup was identical with the old croup, Dr. Thomson read notes of a case of his own in 1843. The onset of the croupy symptoms was sudden, coming on in the evening. Difficulty of breathing was so great, that there were doubts whether the child would see the morning. When seen at eleven o'clock next day, the face was livid and swollen, the general surface was cold and dry. He was comatose; respiration was difficult, short, and loudly croupy. Percussion yielded all over the chest a clear sound. Respiratory murmurs were everywhere obscured by moist *râles*. Venesection was employed without effect, and death took place shortly after noon. A *post mortem* examination revealed a little false membrane adhering to the inflamed epiglottis. The false membrane lined the larynx and trachea, being thickest in the larynx.

Dr. **Wood Smith** suggested that there had been a change of type from the last generation. Cases of inflammatory croup, with exudation, he had occasionally seen; but the great majority of cases might now be classed as diphtheritic croup.

Dr. **Gairdner** said that, brought up as he had been in the opinion that croup and diphtheria were distinct diseases, his position at the present time was that he had the greatest difficulty in making up his mind what to believe, and especially what to teach to his students. The report of the Committee of the Royal Medical and Chirurgical Society, which he had read through, had not lifted him out of his difficulty. On the one hand, the statistics of croup were no doubt loaded with a mass of cases which might be dismissed at once as lying on the outside of the debatable land—cases of simple inflammatory croup, spasmodic croup, etc.; cases that were sporadic, non-contagious, non-membranous. The large proportion of these cases recovered. On the other side, the figures of diphtheria were complicated by an unknown proportion of cases of both simple and ulcerative sore-throat, which could not be regarded as true diphtheria in the absence of evidence of the membranous exudation. Was laryngo-tracheal diphtheria identical with membranous croup? Or was there ever a disease observed having a fibrinous exudation as a part of its pathology, but which could be distinguished nosologically from epidemic contagious diphtheria? To this question pathological research gave no certain reply. Nor did Dr. Russell's statistics, interesting though they were, decisively settle the question. Medical statistics were the arithmetical expressions, not of absolute facts, but only of medical opinions; and no amount of aggregations of opinions, in themselves doubtful or wrong, would ever eliminate the error or enable these opinions to take the place of facts. If, for example, croup and diphtheria had been inextricably confused together in medical diagnosis, the mere fact that some cases had gone into one column and others into another column of the registrar's returns, would not redeem the statistical results from the ambiguity that attached to them in virtue of their origin. But were these medical opinions so classified doubtful or wrong? He (Dr. Gairdner) had great difficulty in saying so, and he would briefly indicate the nature of the difficulty he had in accepting the doctrine, now much in favour, of the identity of membranous croup and diphtheria. Let anyone call to mind a really typical case of diphtheria as it had been too often witnessed of late years. The initial symptoms were generally like simple sore-throat or scarlet fever—anything rather than croup. At this stage, one was tempted to suspend judgment until something or other occurred to determine the diagnosis; it might be the false membrane on the uvula and fauces, or the glandular swelling in the neck, or the albuminous urine, or the unwholesome fetid discharge from the nostrils, with great asthenia and blanching of the surface, and symptoms of collapse. Any or all of these symptoms might occur in a typical case, before there was the slightest vestige of laryngeal implication. The croupy symptoms might occur last in order, or not at all, and the patient might nevertheless die of pure asthenia, with diphtheria of the fauces alone. Now cases of this kind, which were so common in the experience of physicians as to have formed the nosological picture of diphtheria as now understood, did not seem to have been known to Francis Home, or Cheyne. Was it possible or conceivable that these acute clinical observers had entirely overlooked such cases, while describing membranous croup as cynanche trachealis? In appealing to the experience of practitioners who had accepted the definitions of these authors, and whose practice extended back to the earlier part of the century, it was impossible to disregard the statement, which Dr. Gairdner believed his own father would have made unreservedly, that up to a certain date no such case as that just adverted to had occurred to him in practice; while, on the other hand, he had seen scores of cases of croup, including a few with fibrinous exudation. If diphtheria existed in these days, how was it not observed and described as they now knew it to exist? But this was not all. Diphtheria had been described, and in Scotland, as a local epidemic, before the time of Bretonneau; and when so described, it was not called croup, but a peculiar kind of sore-throat with ulcers. He (Dr. Gairdner) remembered being present at a meeting of the Forfarshire Medical Society many years ago, when Dr. Guthrie of Brechin, a practitioner well known and widely respected, read a series of questions which had been addressed to him in the early days of his practice, about a peculiar and dangerous epidemic sore-throat in Fife, which Dr. Guthrie had no difficulty from subsequent experience from recognising as identical with diphtheria. Yet no one had thought of calling this sore-throat croup at that time; and it was only the documents stowed away in a drawer that enabled Dr. Guthrie, after a lifetime of experience, to reproduce the epidemic as identical with Bretonneau's disease. Was it possible for whole generations of practitioners to miss observing a disease like this? or for that disease to have appeared to earlier observers a simple laryngeal disease, and then to have disappeared from sight altogether, and again to make its appearance as diphtheria in our own day? He had no bias or prejudice in the question; but to his mind it was beset with the greatest difficulty.

Dr. **Russell**, in reply, said a word in regard to Dr. Goff's difficulty. His (Dr. Russell's) statement as to the comparative prevalence of diphtheria in town houses with internal sewer-connections had reference to the smaller houses, in which water-closets were admittedly a great nuisance. The middens in which their country friends delighted, with want of proper drainage, were the counterpart of the water-closet in the small town-house.

DUBLIN BRANCH: THIRD ANNUAL MEETING.

The third annual meeting of the Dublin Branch was held on Thursday, January 29th, in the hall of the King and Queen's College of Physicians: S. **Gordon**, M.D., President, in the chair. There was a large and influential attendance. Amongst those present were the President of the Association, the Presidents and Vice-Presidents of the King and Queen's College of Physicians and of the Royal College of Surgeons in Ireland, Dr. Sinclair, Dr. Whistler (Bray), Dr. Marks, Dr. Brown, Dr. Bennett, Dr. Ashe, Dr. Crozier, Dr. Hepburn, Dr. Atthill, Dr. S. Gordon, junior, Dr. Hayden, Dr. Nixon, Dr. Stoney, Dr. Roe, Dr. Cranny, Mr. Ormsby, Dr. Bridgford, Dr. Purcell, Dr. Scott, Dr. H. Kennedy, Dr. Roche, Dr. Doyle, Dr. Charlton, Dr. C. A. Cameron, Dr. Murphy, Dr. Robinson, Dr. J. W. Moore, Dr. Peele, Dr. Pollock, Dr. Dickinson, Dr. Morrogh, Dr. Baxter, Dr. Robert McDonnell, Dr. Charles J. Moore, Dr. Purser, Dr. Foot, Dr. Duncan, Dr. Quinlan, Dr. Lalor, Dr. Finny, Dr. Wheeler, Dr. Denham, Rev. S. Haughton, Dr. Hillary, Dr. Scott, Mr. Stokes, Dr. W. G. Smith, Dr. Grimshaw, Registrar-General; Dr. A. H. Jacob, Mr. Thomson, Mr. Pearsall, Dr. Corley, Dr. Ringwood (Kells), Dr. Hadden, Dr. Croghan, Mr. L'Estrange, Dr. Wharton, Dr. Barton, Dr. Thornley Stoker, etc.

Dr. George F. Duffey (honorary secretary) read letters of apology from Dr. Humphry of Cambridge (President-elect of the Association). Dr. Kinkead (President of the West of Ireland Branch), Dr. B. O'Flynn (President of the South of Ireland Branch), and Dr. Maconchy (President of the North of Ireland Branch), regretting their inability to be present.

New Members.—Seven gentlemen were elected members of the Association, and thirteen gentlemen members of the Branch.

Report of Council.—Dr. **Duffey**, honorary secretary, read the annual report, which was as follows.

"During the past year, your Council have held five meetings, and have elected twenty-six gentlemen members of the parent Association. The number of members on the roll of the Branch for the year was 179; 38 of whom were admitted since the last annual general meeting. Your Council unfortunately cannot, as in the last report, congratulate the Branch on the absence of death from its ranks, since they have to regret the loss of five members, viz., Dr. B. F. McDowell, Mr. Ledwich, Dr. Malachi Burke, Registrar-General; Dr. Adams, and Dr. Bookey. Four gentlemen resigned membership during the year, and six have left the district; the actual numerical strength of the Branch on this day being, accordingly, 162 members; showing an increase of twenty, as compared with last year.

The great success of the Annual Meeting of the Association at Cork last August was most satisfactory to your Council; and the assistance which they and the Branch generally were happy to be able to afford to the indefatigable Local Honorary Secretary and to the Annual Museum Committee especially, was, they have reason to believe, much appreciated.

"In accordance with the recommendation contained in the report adopted at the last Annual General Meeting, a Subcommittee of the Council, consisting of the Reverend Dr. Haughton, Dr. Grimshaw, and Dr. Bennett, was appointed in February last to watch the progress of the various Parliamentary Bills relating to medical education. A meeting of the Medical Reform Committee of the Association having been convened in London on March 19th to consider what action should be taken relative to the several Medical Bills before Parliament early last session, a letter was written by your Council to the Chairman of the Committee (Dr. Waters), informing him that, having considered the provisions of those Bills, the Council was of opinion that no Bill could be considered satisfactory which did not contain the following provisions: 1. That absolute uniformity shall be enforced as to curriculum of study, standard of examination, and fees payable by candidates in all parts of the United Kingdom, and that diplomas may be granted on "like terms" in all cases: 2. That the responsibility of framing examination rules should rest solely on the General Medical Council: 3. That the surplus fees from the conjoint board shall be placed at the entire disposal of the co-operating bodies in each branch of the United

Kingdom for expenditure for the public purposes of these authorities. It was further stated that the Council of the Branch believed that any measure which did not fulfil the first two of the foregoing conditions would prove injurious to the profession and to the public. Dr. Grimshaw, a member of the Reform Committee, was deputed to support these opinions of the Council at the meeting. Your Council are pleased to state that their views on these matters, as on all other questions affecting the profession since the formation of the Branch, have been in perfect accord with the Council of the Irish Medical Association, whom Dr. Grimshaw conjointly represented on this occasion.

"The importance of having an influential representative of a Metropolitan Branch like ours at such a meeting, as well as the advisability of the Branch being represented at the meetings of the Committee of Council, and at occasional conferences—such as that recently held in London with reference to the Bill legalising Animal Vaccination, about to be introduced into the House of Commons by Dr. Cameron, M.P.—will, your Council believe, be acknowledged by the Branch.

"Your Council have had much pleasure in acting with the Council of the Irish Medical Association, by sharing the expenses incurred by their joint representative in attending the meeting already referred to. Your Honorary Secretary has on two occasions attended the meetings of the Committee of Council at his own expense; and Professor Sinclair, Secretary of the Vaccine Department of the Local Government Board for Ireland, also was good enough, in the same manner, to represent the Branch at the late conference on Animal Vaccination. But, in order to have funds available to defray the expenses which may be incurred in future by your representatives in fulfilling similar duties (which cannot always be expected to be performed gratuitously), as well as for the more efficient working of the Branch, it was necessary to increase the annual subscription of members. Accordingly, the Council called a special general meeting of the Branch on the 3rd November last, at which it was unanimously resolved that the annual subscription to the Branch for the year 1880 and in future should be 5s. Your Council consider that, by this small addition to each member's subscription, the usefulness and importance of the Branch will be much increased.

"The subject of the grievances of the Irish prisons surgeons received the attention of the Council; and the assistance of the British Medical Association and its JOURNAL, proferred to these gentlemen in the name of the Branch, was gladly availed of.

"Anxious to aid in every measure for the improvement of the public health, your Council—with the assistance of Dr. J. W. Moore—will bring before you to-day an important subject in connection with the prevention of disease, viz., the compulsory notification of infectious epidemic diseases; believing that a full discussion of this question will be of signal interest at the present time.

"Your Council recommend that the Parliamentary Committee be reappointed, and that the Council be empowered, if it consider it advisable, to offer evidence before the Parliamentary Committee on the Medical Bills next session, should the Committee receive further evidence.

"As the number of members now in the Branch entitles it to have eight representatives on the General Council of the Association, Dr. Robert McDonnell, F.R.S., President-elect, has been nominated as a representative, in addition to the seven outgoing representatives, who have been also nominated for re-election. All these gentlemen have signified their present intention of attending, if possible, the next Annual Meeting of the Association at Cambridge as your representatives.

"The accounts of the Branch, up to the 26th instant, have been audited by Dr. E. H. Bennett, and show a balance in favour of the Branch of £8 4s. 10d.

"The thanks of the Branch and of the Council are again eminently due to the President and Fellows of this College for their courteous permission to hold our meetings within its walls."

Dr. M'CLINTOCK, Vice-President of the Royal College of Surgeons, moved the adoption of the report, which, he said, was a model of perspicuity and brevity—full without being tedious, and brief without being obscure. Tried by the double test of numbers and finance, the Branch had prospered in the past year; their roll of members showing an increase, and their accounts a balance, though small, on the right side.

Dr. CHURCHILL, Vice-President of the College of Physicians, seconded the motion, which was adopted.

President's Address.—The President, Dr. GORDON, delivered the annual address. It was published at page 195 of the JOURNAL for February 7th.

Communication.—Dr. J. W. MOORE read a paper on "The Compulsory Notification and Registration of Infectious Diseases", which was published in the JOURNAL for January 31st, page 158.

Dr. C. A. CAMERON, Superintendent Medical Officer of Health for Dublin, agreed with Dr. Moore in thinking there ought to be some system of registration of diseases, and more especially of infectious diseases. In Brooklyn, the system had been brought to such a state of perfection that intimation of the existence of an infectious disease in a particular house is conveyed within about an hour to the eighty schools in the city, and next morning the brother or sister of the child attacked is refused admission to the school. But, although such a system as was proposed by Dr. Moore would, no doubt, be highly interesting from a scientific point of view, yet he feared laymen who did not share the enthusiasm of the profession would not care to pay for it unless some practical result was likely to follow in the prevention of disease, and, in fact, unless the sanitary authority was to intervene in the matter. He found great difference of opinion, too, amongst medical men as to what constituted want of proper accommodation in tenement houses, for example, for the treatment of infectious diseases—some being of opinion that if there were two rooms in the immediate occupation of the family infected the accommodation was sufficient. He thought, on the other hand, that in all tenement houses, it should be held that there was not adequate accommodation, and that it should be lawful, compulsorily, to remove the infected persons to hospital. If a Bill for the purpose suggested by Dr. Moore were introduced, a clause might be inserted in it defining more strictly what constitutes adequate accommodation.—Dr. QUINLAN feared that the measure proposed by Dr. Moore would destroy the confidential relations of medical men and their patients. He further objected to putting additional labour on medical men for State purposes for which they got no remuneration.

Dr. HEAD, President of the College of Physicians, moved: "That this Branch is of opinion that the compulsory and early notification of the occurrence of cases of epidemic disease in a large city like Dublin is of the greatest importance; and that the Council be requested, with as little delay as possible, to take whatever steps may seem to them best calculated to promote the attainment of this object."

Dr. MAPOTHER, President of the College of Surgeons, seconded the motion, which was adopted unanimously.

Election of Officers.—The following were elected officers and council for 1880. *President:* Robert McDonnell, M.D., F.R.S. *President-elect:* Thomas Hayden, F.K.Q.C.P. *Vice-Presidents:* A. H. McClintock, M.D.; H. H. Head, M.D. *Council:* Isaac Ashe, M.D.; Lombe Atthill, M.D.; Edward Bennett, M.D.; T. Darby, F.R.C.S.I.; Samuel Gordon, M.D.; T. W. Grimshaw, M.D.; Edward Hamilton, M.D.; Rev. Samuel Haughton, M.D., F.R.S.D.; Alfred Hudson, M.D.; E. Mapother, M.D.; George H. Porter, M.D.; W. Stokes, M.D. *Representatives on the General Council:* Isaac Ashe, M.D.; Rev. S. Haughton, M.D., F.R.S.; A. Hudson, M.D.; James Little, M.D.; A. H. McClintock, M.D.; R. McDonnell, M.D., F.R.S.; G. H. Porter, M.D.; W. Stokes, M.D. *Honorary Secretary and Treasurer:* George W. Duffey, M.D., 30, Fitzwilliam Place.

The New President.—Dr. MCDONNELL, the newly elected President, then took the chair.

Vote of Thanks.—A warm vote of thanks to Dr. GORDON for the manner in which he had fulfilled the office of President during the past year was passed, on the motion of Dr. Head, President of the College of Physicians, seconded by Dr. Mapother, President of the College of Surgeons.

Dr. MCDONNELL, in putting the motion, briefly thanked the members for the honour they had done him in placing him in that high position—an honour which he considered very much enhanced by the fact that he succeeded Dr. Gordon.

Dr. GORDON, in returning thanks, said that the chief credit was not due to himself, but to their excellent honorary secretary, Dr. Duffey.

The proceedings of the meeting then terminated.

The Dinner.—In the evening, the members and their friends sat down to dinner in the great hall of the College of Physicians: Dr. ROBERT MCDONNELL, President, in the chair. Covers were laid for ninety. Amongst those present were the Right Honourable the Lord Mayor, M.P.; Dr. O'Connor of Cork, President of the British Medical Association; Hon. David Plunket, M.P.; Dr. Croker King, Medical Commissioner of the Local Government Board; the President of the College of Physicians; the President and the Vice-President of the Royal College of Surgeons; the Presidents of the Pathological and of the Obstetrical Societies; the Registrar-General; Mr. Purcell, Q.C.; Dr. Gordon; Mr. Furlong, B.L.; Dr. Banks; Surgeon-Major Reynolds, V.C.; Dr. Atthill; Dr. Jacob; Dr. Patton; Mr. Shaw; Mr. James Maunsell; Dr. Chapman, Honorary Secretary of the Irish Medical Association; Dr. Finny; Dr. Duffey, etc. The arrangements were very successful; and during the evening, in addition to the usual loyal toasts, those of "The Houses of Lords and Commons", "The Lord Mayor and City of Dublin", "The British Medical Association and its Branches", "The Irish Medical Association", "The Colleges of Physicians and Surgeons", "Our Visitors", and "The Press", were given; and among the speakers were, besides the President, the Lord Mayor, Dr. O'Connor, President of the Association, the Hon. D. Plunket, M.P., Dr. Gordon, Dr. Head, Dr. Chapman, Dr. Mapother, and Dr. Duffey, Mr. T. A. Purcell, Q.C., Mr. Scott, and Dr. Jacob. The toast of Dr. Duffey's health was most warmly received. Several glees and quartets were sung during the evening in a charming manner, and the operations of the Association were referred to in such a way as to establish beyond any doubt its rapidly increasing usefulness, and the large hold it has upon the most eminent members of the profession. Lord O'Hagan, the Right Hon. the Attorney-General, M.P., and the President of the Irish Medical Association, were unavoidably prevented at the last moment from being present at the dinner.

CORRESPONDENCE.

HOSPITAL STATISTICS.

Sir,—I have no wish to interfere in any way in this controversy; but being engaged in investigating the results of an operation, extending over many years, I am more than ever convinced of the many errors and fallacies which may creep into numerical statistics. For the sake of your many readers who are engaged in arduous practice, I may state the principle on which hospital statistics are registered.

If a patient who is admitted to a hospital lives for less than twenty-four hours, the case is considered moribund, and the name is not entered in the books as affecting mortality. If, during the few hours before death, an operation have been performed—as an amputation, or the ligature of an artery, or trephining, or the like—the operation is not credited with the death. But if the patient live twenty-four hours or more, and then die, the operation appears in statistics of operations with the result, "death".

When an operation has been performed, the date and cause of death do not alter the numerical table. A patient enters a hospital; he undergoes an operation; he leaves the ward alive; and the operation is put down as successful or cure. But if he be carried out dead, in the register the word "death" is marked against the operation. Thus, a man has disease of the bladder and purulent urine, along with the presence of a calculus, which causes his life to be intolerable; he undergoes lithotomy; the wound heals, he is relieved of the agony; but the other urinary disease goes on and gradually exhausts him. If he have a comfortable home, he elects to go home and spend his few remaining days with his family. He is dismissed, "cured", as to the operation. But if he have no home to go to, the benevolence of the hospital authorities allows him to linger on, and after two or three months he dies. The operation is marked "death".

Last summer, in a case of diffuse aneurism of the common femoral artery, I ligatured the external iliac high up. The wound healed perfectly, partial consolidation of the aneurism took place, and I went to the continent for three weeks, intending, on my return, to ligature the artery below, and then perhaps in the sac. During my absence, the collateral circulation suddenly caused the aneurism to distend and burst into the thigh, and the man died. The operation had been successful; but the man was carried dead out of my ward. In the operation register appears, "Ligature of the external iliac; death".

Some years ago, I performed excision on the tongue in what proved to be the only fatal case among many that I have done. Somewhere about a week after the operation, the man was able to sit up, swallow, speak a little, and walk across his room; when suddenly suppression of urine occurred, with symptoms of uræmic poisoning, of which he died comatose in less than forty-eight hours. On *post mortem* examination, the kidneys were found to be completely hollowed by cystic degeneration, leaving almost no perceptible secreting substance. This case is recorded as excision of the tongue; "death".

Every hospital-surgeon's private case-book is crowded with such particulars, which can never appear in a numerical table. And only the surgeon himself, and those who actually observed the patient along with him, are qualified to state in what degree mortality depends on an operation, or after treatment, or on causes which are avoidable or are unavoidable, for whatever reason.—I am, etc.,

George Buchanan,
Professor of Clinical Surgery, University of Glasgow.

THE RELATIONS OF SMALL-POX AND COW-POX.

Sir,—I venture to believe that every medical man who reads Sir Thomas Watson's letter on the above subject in the Journal of the 17th ult. would echo the last sentence in your foot-note thereto: "that it would be a matter of great interest if he would restate his argument". For well-nigh half a century, hundreds, if not thousands, of us have been so accustomed to associate nothing but reverence with the able and clear teaching of Sir Thomas Watson, that it comes to us as a great surprise to see him now deliberately declaring that what, in repeated editions of his *Principles and Practice of Physic*, he described as "demonstrated fact", he now regards as quite the reverse; "that the vaccine disease is *sui generis*, and in no sense owes its origin to small-pox", and so on; and then adding "that the attempts made forty years ago to procure fresh lymph for vaccination purposes, by inoculating the cow with the virus of human small-pox were a mistake;......that the ensuing so-called vaccination was not vaccination at all,......but the introduction of small-pox to the community......in multitudes of places to which otherwise it might never have come".

I suppose it is pretty well known that one of the most active propagators of small-pox virus to the cow, and thence back (as vaccine virus) to the human subject, in this country, was Mr. Badcock, formerly of this town, and still living near London. Mr. Badcock continued this practice for many years here, and also after he left. For thirty years I have been familiar with the use of this virus myself, and I know that it has been, and still is, extensively used by both the public and the private vaccinators here; not exclusively, however, as some of us occasionally have replenished our stock from the Jennerian source, and then again from Badcock's. The two seem to me identical in every respect (and my eyes have been intimate with the appearances of all stages of vaccination for the last forty years). It is very exceptional indeed for me to find either to fail, whether used fresh or preserved. Moreover, that the public vaccinations in this town (as well as the private ones) are not wanting in character is pretty well proved, firstly, by the fact that, large though it be and so ready its communication with London, small-pox of late years has scarcely been known here, and an occasional introduced case has not led to its extension; secondly, that each of the present public vaccinators—Mr. Dixon, Dr. Ross, and Dr. Badcock (a son of the experimenter)—has on three separate occasions received a grant through the Government inspector for the excellency of his work.—I am, sir, yours truly, G. F. Hodgson.

Brighton, February 3rd, 1880.

P.S. It is remarkable that another living author of a *Practice of Medicine* has recently changed his opinion on the relation of small-pox to cow-pox; viz., Dr. Bristowe, who in his first edition (1876) considered them *not* identical, but in the 1878 edition expresses his adhesion to the view of Ceely and Badcock. Consequently, his conversion has been in the reverse direction of Sir Thomas Watson's.

THE MANCHESTER CHILDREN'S HOSPITAL AND DR. HUMPHREYS.

Sir,—The correspondence on the above subject becomes each week more embittered, while the main facts at issue are still unsettled. As an outsider, I would suggest a general reconciliation; for, if there be one point clearer than another, it is that the several contending parties are all anxious, each in his own way, for the advancement and success of the hospital. I cannot but think that some secret influence has been at work, unconsciously biassing one party against the other, with the result that the hospital suffers, while the officials connected with it fail in the object they have in view.

Dr. Borchardt, the promoter and firm friend of the hospital, I am sure has but one object in view, whatever policy he advocates, and that is, to make the hospital successful; and while I am sorry that he has appeared to adopt an antagonism to Dr. Humphreys, it has resulted from circumstances—probably an over-zeal in a cause he loves so well—which I should think may easily be pardoned him.

Now, might it not be well to introduce a new mode of governing the hospital, in substitution for that which does not seem to have been very successful during the past few years? It is my privilege to belong to a hospital, on the Board of Management of which all the staff are *ex officio* members, and I can testify to the success which this amalgamation of lay and medical authority ensures. Furthermore, I would introduce, or rather reintroduce, the plan, general in London and elsewhere, of periodical visits from the staff; they being at liberty in the intervals to engage in private practice or accept other hospital appointments, instead of the present plan of heavily subsidising them, and claiming their entire services. Then, in place of the large salary, an *honorarium* for travelling expenses could be allowed, and the remaining money utilised for the general working of the hospital.

I am sure this plan is better, both for patients and doctors; it answers perfectly at Great Ormond Street, and at my own hospital at Shadwell, although most of my colleagues, like myself, live at some miles' distance from the hospital. The services of a good resident are required, who is responsible for the safe conduct of the institution during the intervals of the visits.

The hospital at Pendlebury is a magnificent one, and does great credit to its promoter. We should all be sorry to think that superficial misunderstandings were allowed to interfere with the good work which ought to go on within its walls.

I would recommend the Board of Management to reconstitute themselves; then to make an *amende honorable* to Dr. Humphreys. The only one which the profession could regard as sufficient would be to invite him to reassume office as senior physician, and to place him and the other members of the staff on the Board of Management, and so carry on the hospital jointly.—I remain, sir, yours, etc.,

Robert William Parker.

Old Cavendish Street, London, W., February 15th, 1880.

Sir,—Dr. Barlow, in his letter published in your last issue, reiterates his statement, that I have given my "*imprimatur*" to Dr. Humphreys' suspension, without adducing any act of mine to prove his assertion. If the unvarnished history of Dr. Humphreys' connection with the Pendlebury Hospital, given in my letter of January 24th, becomes an impeachment against Dr. Humphreys in the eyes of his friend and protector Dr. Barlow, such is not my fault. *Facta loquuntur.*

It will suffice to state, in answer to the remainder of Dr. Barlow's letter, that I had neither directly or indirectly anything to do with the continuance of the arrangements of the fever-ward at Pendlebury since my resignation of the office of directing physician. The arrangement that cases of typhoid, scarlet fever, and measles had been nursed in one and the same ward, had existed in the Manchester Children's Hospital for about twenty years; and experience had proved that, under strict surveillance and control on the part of the physician, who had the responsibility of the ward, the risks of this system were not greater than the risks of the separate ward system. If, however, the medical staff considered modifications of this system necessary, they ought not to have been satisfied to "point out" modifications; they ought to have insisted on their introduction. This they did not do; but they laid down some regulations for the management of the fever-ward, which were accepted by the House Committee. These were made known to me through the courtesy of my colleague Dr. Ashby. That is all the autocracy I exercised in this instance.

With regard to Dr. Barlow's second proof of my autocracy, namely, "my appointment as directing physician", a post which I formerly held at Pendlebury, it will be sufficient to state, that this appointment was not made by the Board until after they had ascertained that my return to my old office would be agreeable to the members of the medical staff. This having been ascertained, I accepted reappointment, with no other desire than to assist the institution, the medical staff, and the Board of Governors, under the existing difficulties.—I am, sir, your obedient servant,

Louis Borchardt, M.D.

February 17th, 1880.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DIPHTHERIA AT SWANSCOMBE.

Dr. Thorne Thorne has made his report to the Local Government Board on the epidemic of diphtheria at Swanscombe, to which reference was made on page 663 of last volume of this Journal. Owing to an accidental omission on the part of the medical officer of health to report the circumstances, the official inquiry was not made until the epidemic was at an end. The sick had also been attended by at least five different medical practitioners, several of whom had not preserved any accurate record either of the dates when the patients first came under treatment, or when they had first been attacked. These and other circumstances materially hindered the objects of the inquiry, and greatly lessened its value so far as the probable cause and the early history of the diphtheria were concerned. It is, however, certain that the houses first attacked had nothing in common as regards water-supply, drainage, or milk-supply, nor had school-attendance much, if anything, to do with the spread of the disease.

The occurrence, however, in several families attacked with diphtheria of previous attacks of "sore-throat" led to an inquiry whether the disease had not, either as sporadic diphtheria, or in an unrecognised and perhaps in a modified form, been already prevalent either in Swanscombe or the neighbourhood. Any general prevalence of "sore-throat" was not ascertained to have existed; but, in the first week of July, before the epidemic commenced, a child aged 3 years, residing at Galley Hill, was attacked with a disease which was considered to be "croup", and, the child dying, it was so registered. The medical practitioner in attendance did not observe any deposit on the fauces or any glandular enlargement, but there appears to have been distinct febrile disturbance. No communication is, however, known to have taken place between any member of this family and either of the families in which diphtheria subsequently occurred. Again, in February 1879, a death from diphtheria in a child five years of age was registered as having occurred at Galley Hill, and another took place in the same locality in September 1878. Besides this, in the first quarter of 1879, diphtheria was prevalent in the adjoining parish of Northfleet, four deaths being registered as due to this cause. Between Northfleet and Swanscombe there is very free communication. There is very little doubt that cases of genuine diphtheria had been prevalent in and about Swanscombe prior to July; and there are strong grounds for believing that the cases which were believed to constitute the commencement of the epidemic had, at varying intervals, been preceded by other cases of "sore-throat". In all, thirty-two cases of throat-affection, most being cases of genuine diphtheria, occurred in Swanscombe during July, August, and September last; and, inclusive of the case of "croup" above referred to, fourteen terminated fatally. Directly the disease was recognised as diphtheria, the medical officer of health visited all the cases he could then hear of; and the inspector of nuisances, under his directions, provided the inhabitants with disinfectants, with advice as to their use. The school was also closed before the usual time for the holidays, and it remained closed for six weeks.

REFORM IN SANITARY STATISTICS.

At a meeting of the Society of Medical Officers of Health, held on Friday, January 16th, Dr. Bristowe, President, in the chair, Dr. John Tatham, Medical Officer of Health for Salford, read a paper on certain reforms which appear desirable in the statistical tables adopted in their annual reports by medical officers of health acting for large urban districts. After acknowledging that the tables recommended by the Society were of value to metropolitan health-officers, he pointed out that they were but sparingly adopted in the provinces. Moreover, the tables had been drawn up five years ago, and it was now worth while considering whether these forms could not be modified so as to answer the purpose of metropolitan as well as extrametropolitan officers of health. Though the whole of England had been parcelled out into sanitary districts, the national collection of local sanitary statistics was very meagre. This result was due to the fact that the health-officers were working solely with regard to local requirements and entirely without reference to a national statistical system. Dr. Tatham suggested that the tables which he submitted to the Society should be referred to the same Committee which, five years ago, compiled the statistical forms of 1874; and at the same time he stated that the tables were the work of a friend, who had had great experience in vital statistics. The following is a ummary of the information given in the tables.

Table A gives the density and birth and death rates.—*Table B* gives an analysis of the mortality for a series of years. It shows the deaths of children at ages under one year, under five years, and those of persons over sixty years; and also the death-rates at those ages and from seven zymotic diseases, the infantile mortality being measured by the number of children dying under twelve months old per 1000 births.—*Table C* gives the births registered in a town and in its various registration subdistricts, wards, or other statistical subdivisions, distinguishing legitimate and illegitimate births.—*Table D* gives the estimated population, the births and birth-rate, the deaths and rate of mortality per 1000 living in the various statistical subdivisions of a town. The death-rates are also given for these areas from the five principal classes of disease. The deaths occurring in public institutions having been distributed.—*Table E* gives the population and the annual rate of mortality occurring in a town at five groups of ages compared with the English life-table rate at those ages for males and females.—*Table F* shows the principal causes of death in combination with ages at the five selected groups.—*Table G* gives the deaths from several specified causes, without distinction of age, occurring in the various wards of the borough, and also the deaths occurring in the various public institutions.—*Table H* gives the annual rate of mortality during the twelve months from the five classes of disease at five groups of ages per 1000 persons estimated to be living at those ages.—*Table I* gives the number of deaths and proportion of deaths certified by medical practitioners, by the coroner, and the number and proportion of uncertified deaths.—*Table J* gives the prices paid by the Poor-law authority for the principal articles of food and fuel.

In the discussion which followed, the President, Dr. Longstaff, Dr. Tripe, Mr. Humphreys, Dr. Browning, and Mr. Shirley Murphy, took part.

DUTIES AND FEES OF PAROCHIAL MEDICAL OFFICERS.

SIR,—I am a parochial medical officer for a parish in the neighbourhood of Glasgow, and as such I am asked by the local authorities to vaccinate paupers and paupers' children, and keep a half-yearly register of the same. I wish to ask you the question, am I entitled to a fee? If so, is it mentioned in the Vaccination Act, and what that fee should be? The same authority asked me to visit and report on a property consisting of five large tenements. I found it necessary to visit the place twice. At the first visit, I made a general survey; and at the second one, I had workmen with me and had drains reopened and examined. I then drew up a full report and presented the same, and on that report legal action has been instituted. The question I would now ask is, what fee am I entitled to? I am asked also to visit and report where a case of fever occurs in a crowded district. On my instructions, those cases are removed to fever hospitals. Again I would ask, to what fee am I entitled? Your attention will very much oblige.—Apologising for troubling you, I am, yours sincerely, R. A. M.

*** Before answering the questions submitted by our correspondent, we should like to know the nature of the arrangement made by him with the local authority at the time of his appointment, because it is just possible that all extra work was commuted in the salary offered him. Should, however, such not be the case, then in our judgment he would be entitled to receive for public vaccination a fee varying from 1s. 6d. to 3s. 6d., according to the distance from his residence. As regards the sanitary survey, we hold that a fee varying from two guineas to five, according to distance and time employed, would be a fair amount to claim. In reference to the last question, we are again confronted with the difficulty: does this form part of our querist's specified duties? If not, then an application for a fee of one guinea would be just. The sanitary and Poor-law medical relief arrangements in Scotland are in an imperfect—nay more, chaotic and discreditable state. We have been promised annually for ten weary years by successive Lord-Advocates legislation on the subject; but the second reading of the various bills has always been deferred to the dog-days, and then dropped on account of the heat of the weather, or of indifference. Medical men in Scotland should bestir themselves in the matter.

SANITARY TOPICS.

SIR,—Your address of Tuesday last, before the National Health Society, on the subject of vaccination, resisted by a too numerous section of humanity, is much too important to be passed over in silence, and suggests, in fact, the propriety of making that address as effective as possible, by its widest possible diffusion amongst the misguided persons who, in all such cases, are difficult to reach, and more difficult still to enlighten. The address should be printed in the cheapest form to be readable. In Carlisle, we have had no trouble whatever with the class of persons whom in your address you impale; but the position of our old city is most creditably peculiar, owing to the marvellously happy and unwaveringly efficient action of the self-acting reading-rooms for weekly-wage men, established in 1848, five in number (for particulars of which see *Transactions of the Social Science Association* for 1861, p. 676, and Dickens's *Household Words* for September 1851, No. 77, p. 581). These institutions originated in Carlisle nearly thirty-two years ago, and actually have not yet been correctly imitated elsewhere. Reasonably and manifestly is our ancient city indebted for not only its immunity from this popular delusion, but for immunity from many other forms of baneful ignorance and gullibility. Nor are these unpretending institutions, potential as they have been found in stemming ignorance and folly, the only useful lessons which Carlisle has supplied to the British public. One especially occurs to me: I allude to the Carlisle life-insurance tables, given to us by Mr. Milne and Dr. John Heysham nearly a century ago with incredible accuracy, as attested by that greatest of authorities in all matters connected with vital statistics, Dr. William Farr.

Whilst amongst *les archives sanitaires*, I cannot refrain from drawing attention to a curiosity of the olden time connecting this locality with attention to public health—casually, no doubt, but still a fact. Edward I, in the thirty-fourth year of his reign, on the 3rd November, 1306, issued writs for a national gathering of his nobility, knights, and burgesses, for a third time, at Carlisle, that he might take the advice of his Parliament respecting the sustained vigour of the war with Scotland and the unabated pretensions of the Papal See (the petition of that date, from the clergy as well as the laity, as entered on the rolls of this Parliament). At this Parliament, historically remarkable for the well known "Statute of Carlisle", the Earl of Lincoln sought redress about the restricted channel and the general condition of the river Thames, "so obstructed by filth and the refuse from tanyards. Wherewith the earl prays that the mayor and sheriffs and *discreet* aldermen of London inspect the river." All the three Edwards appear to have issued prohibitions that neither the refuse of slaughter-houses, nor ordure nor common nuisances, should be cast into the Thames (see 44th Edw. III). Had such mandates been obeyed, and steadily obeyed, to this day (says the Rev. Charles Hartshorn in August 1859, in the *Archæological Institute*, "the huge metropolitan evil would not have existed"; but this leads to sewage utilisation.—I am, yours obediently, ROBT. ELLIOT, M.D.

Carlisle, February 2nd, 1880.

MAGISTERIAL DEFINITION OF INSANITY.

SIR,—Under the above heading, at page 1048 of your issue for December 27th, there appears a letter from Dr. Joseph Rogers, which raises points of great practical importance in the certifying of alleged pauper lunatics; and as Dr. Rogers, while misspelling, yet obviously introduces, my name, I must ask you to allow me to make an additional statement as to the facts of this case. Dr. Rogers twice represents me as having "gone with the patient to the magistrate's office". The fact is, that I simply met the patient there, as requested, in pursuance of a duty cast upon me by the fact that I was some time since requested to re-examine certified pauper lunatics, and attend at the magistrate's office for the purpose of advising him in any way that he might require when called upon to approve of their being sent away to an asylum. In this case I was decidedly of opinion that not only was the patient of unsound mind, but also a fit and proper person to be detained and taken care of; and I fully advised the magistrate to this effect.

As regards Dr. Rogers' impeachment of "Mr. Newton's conduct", Mr. Newton is well known to be a most able and painstaking member of the metropolitan stipendiaries, and the position held by him at Marlborough Street is one of the most important in London. In this case, he devoted at one interview nearly half-an-hour to this poor fellow's case. He sent for his friends; had his Polish speech interpreted, so as to get fully into communication with him; and he elicited facts which were not known to Dr. Rogers or to me. He thought it a case for getting the poor fellow back to work, instead of consigning him to an asylum at the cost of the ratepayers: he promised pecuniary help, and instructed his friends to see if his old employer would take him back; and, on this being all arranged, he sent to the workhouse for the man, and was informed that Dr. Rogers would not allow him to leave because he was insane. The man protested violently against not being allowed to go back to his work; he objected altogether to go to the asylum; and he certainly argued his case most intelligently to that end when the interpreter again put us into communication with him at the second interview. But I venture to say that whether the magistrate was right or wrong in this case is not material. He had cast upon him a statutory duty: he discharged that duty, and adjudicated upon the case to the best of his judgment, and in a manner which, as I have shown, was most kindly and thoughtful; and for Dr. Rogers to publicly impeach "Mr. Newton's conduct", as is done in his letter to your widely circulated columns, seems to me not likely to increase either the influence or the usefulness of the profession. The fact that the patient became "at times guilty of insubordination and violence" after having been, as described by Dr. Rogers, "kept for nearly two months in one room with imbeciles, cases of delirium tremens, and others", is probably only what I might myself be "guilty of" if "taken care of" in a similar manner. Dr. Rogers might just as fairly impeach my "conduct", because in a few instances I have not been able to certify for patients whose lunacy had already been satisfactorily demonstrated to him. Indeed, not long ago, a woman certified by Dr. Rogers, and afterwards by myself, was sent back by the Commissioners with a letter stating that they considered her not insane. In this case, the "conduct" of the Commissioners might as well be impugned, on the ground that they differed from the "two medical certificates".—I have the honour to remain, sir, your obedient servant,

JAMES EDMUNDS, M.D., M.R.C.P.LOND.

8, Grafton Street, Piccadilly, W.

POOR-LAW MEDICAL APPOINTMENTS.

*BURMAN, J. Wilkie, M.D., appointed Medical Officer to the Third District of the Hungerford Union, *vice* E. J. L. Whitmore, M.R.C.S.Eng., deceased.

EASTALL, Henry F., M.R.C.S., appointed Medical Officer to the Halford District of the Shipton-on-Stour Union, *vice* D. J. S. Lerrard, M.B., resigned.

POWELL, Blacker C., M.B., appointed Medical Officer to No. 1 Dispensary District and the Workhouse of the Roscrea Union, *vice* J. A. Powell, L.K.Q.C.P., deceased.

WOODHOUSE, William, M.R.C.S.Eng., appointed Medical Officer to the First District of the Norwich Union, *vice* A. M. F. Morgan, M.R.C.S.Eng., deceased.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

*ASHWORTH, HANDEL, L.R.C.P., L.R.C.S., appointed Medical Officer of Health to the Borough of Bury, *vice* T. B. Bott, M.D., resigned.

RODWELL, Edward M., M.R.C.S.Eng., appointed Medical Officer of Health for the Loddon and Clavering District, Norfolk.

MILITARY AND NAVAL MEDICAL SERVICES.

THE BRITISH AND INDIAN ARMY MEDICAL SERVICES.

SIR,—From the 31st of March next, the so-called fusion of the British and Indian Medical Departments will take place in India, and thenceforth they will form one department for the medical administration of the army in the three Presidencies. I do not object to the fusion as such, if it were only carried out in a spirit of fairness and liberality to the local services; nor do I grudge whatever advantages have been secured to the Army Medical Department by the late Warrant in the shape of improved pensions and prospects of promotion; but I strongly object to the contemplated spoliation of the Indian Medical Service. The new order is calculated to give great offence, and inflict grievous injury to the officers of the Indian Medical Service, for it virtually deprives them of the privilege of rising to the top of their own department in any of the three Presidencies; nay, it even goes further, as from the small number of deputy surgeon-generalships left to the Indian Medical Service, not ten per cent. of the present members can ever reasonably hope to get beyond the position of surgeon-major. Bengal loses its surgeon-general from the local service and six out of eleven deputies; Madras loses its surgeon-general from the local service and two out of its six deputies; and the Bombay Medical Service loses its surgeon-general and two of its four deputies.

It is amazing that the Indian Government does not see that, by depriving the Indian Medical Service of its few prizes, the service itself is shorn of most of the attractions it possesses for young doctors. The day is clearly gone by when India will any longer attract picked men from the medical schools. The sooner the facts are made known throughout every medical school in Great Britain, the better it will be for intending candidates. It is no longer a department to which a man can have any special pride in belonging; it is one on which a grievous slur has been cast by the assumption that none of its officers, no matter how long or meritorious their services may be, are fit to be put at the head of a department in which the number of administrative appointments, the prizes of the service, already few enough, have been, or are to be within a few months, reduced by one-half.

Ninety per cent. of the present members of the service will have to be content with serving in civil stations—many of them small and obscure, and, it may be, unhealthy, or in charge of a native regiment, until the time comes for them to be retired on wretched pensions; for, be it remembered, our pensions are now smaller than those of the Army Medical Department, and this after a life of expatriation in the tropics, where every day's sick leave, exclusive of the short period of furlough allowed, counts against one, and where the cost of living has so much increased within late years as to practically debar all but a very few indeed from laying by anything worth speaking of.

Why the Indian Medical Service should be treated in this way I am unable to make out, unless it is that we are nobody's children, and are unrepresented and uncared for at the head-quarters of the Government of India, or at the India Office. It is certainly not because it is effete and incapable, for it has for many years attracted most of the best men from the medical schools of the kingdom; and it certainly is not because it can be alleged that its officers have ever failed to perform their duties cheerfully and efficiently, whether in famine, in pestilence, or in the field.—Your obedient servant,

INDICUS.

India, January 1880.

NAVAL MEDICAL SERVICE.—The following appointments have been made: Staff-Surgeon—J. P. Courtenay, to the *President*. Surgeons—A. W. Russell, to the *Indus*; W. J. B. Bookey, and J. H. L. Hayne, to the *President*.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, February 13th.

The Appointment of Registrar-General.—The Marquis of LOTHIAN asked the First Lord of the Treasury, with reference to the recent appointment to the office of Registrar-General, whether the long services of Dr. Farr had been taken into consideration, and whether he would state why Dr. Farr had not been selected as the successor of George Graham, Esq., in that office. It seemed generally to be assumed that a public servant in the position of Dr. Farr, unless promoted when a vacancy occurred, such as the one to which reference was made in the question, was under the imputation of having something against him. An impression had arisen among the medical profession, which he was sure was altogether owing to a misapprehension, that Dr. Farr was not promoted simply because he was a member of the medical profession. He was quite sure that, in appointing Sir Brydges Henniker, there was no intention whatever to throw any reflection upon that profession; and he was sure the noble Earl would agree with him that it would be unfortunate if such an impression were allowed to remain.—The Earl of BEACONSFIELD said that it was the original wish of the Government to appoint Dr. Farr to the post. He had obtained a very high reputation by his labours in his office; they had always been admitted, and they had been amply recognised by the public and the State. But when he (Lord Beaconsfield) had to make those inquiries which were necessary before the appointment was made, such a representation was made to him as to the state of health of Dr. Farr, that he shrank from the responsibility of appointing him to discharge the very arduous duties of the office of Registrar-General. He had before him an official document which had previously been sent in asking for a superannuation for Dr. Farr; and the statement of his health in that document, combined with his advanced age—seventy-two—was such that he felt confident that not one of their lordships would feel himself authorised, after reading that document, to appoint Dr. Farr to the office. That was the only ground on which the Government proceeded; and as to supposing that there was a prejudice on the part of the Government against the appointment of a medical man to an office the duties of which were intimately connected with the acquisition of statistics relating to life and death, he was sure their lordships would, without a moment's hesitation, acquit him, or any person who might occupy his present position, of being influenced by such considerations. After he found it impossible to appoint Dr. Farr, the office was open for a considerable period, and many names were sent in. He selected the gentleman who had received the appointment because, on the whole, he believed him most competent to fulfil its duties. He was an individual with whom Lord Beaconsfield had no personal acquaintance, but who in his mind gave the greatest promise of the ability to fulfil duties of the greatest importance, and which certainly required health and vigour for their performance, particularly when preparations were being made for taking a new census.

HOUSE OF COMMONS.—Tuesday, February 17th.

The New Master in Lunacy.—The CHANCELLOR OF THE EXCHEQUER, in reply to Mr. ANDERSON, said that Mr. Henry Graham, who had recently been appointed Master in Lunacy, had not been, as stated in the question, the private secretary to the Lord Chancellor, but for the last six years the principal secretary to the Lord Chancellor's department; and, in further reply to the hon. gentleman, he might state that the office required the appointment not only of a lawyer, but of a man of learning, accomplishment, and judgment. In addition to these qualities, Mr. Graham had acquired a great experience of a very varied kind. He was called to the bar in 1868. The duties were chiefly administrative, and he was also fully competent to conduct the inquiries which he would have to hold.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having passed the required examination, were elected Licentiates at the quarterly meeting of the College, on January 29th, 1880.

Alvares, Nicolas Santana, 24, Ampthill Square, N.W.
McKee, Gerard Macklin Eccles, 2, Overstone Road, W.

The following passed as Licentiates on February 16th.

Baker, William James, Millbrook, Southampton
Paddle, James Isaac, University Hospital, W.C.
Shears, Charles Hartley Bedwell, St. Bartholomew's Hospital, E.C.
Stokes, Henry Fraser, 21, Compton Terrace, N.
Weed, Theodore Arthur, M.D.Wooster, 449, Strand, W.C.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH: DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the February sittings of the examiners.

John Benson Cooke, Dorking, Surrey; Alexander Cook, Greenock; Herbert Gleison Stacey, Halifax; Walter Humphries, Tipperary; John Moore Tweed, Antrim; Hugh Hopper, Gateshead-on-Tyne; Richard Clegg, Burnley; Robt. Love, Belfast; Hugh Owen Hughes, Denbigh; Robert Roberts, Chester: George Pearce Baldwin, Wolverhampton; Patrick MacDonogh, London; John Mackenzie, Sutherlandshire; James Daniel Ross, County Cork, and Charles Edward Watson, Hertfordshire.

The following gentlemen passed their final examination, and were admitted L.R.C.P.Edinburgh, and L.R.C.S.Edinburgh.

John Benson Cooke, Dorking, Surrey; Henry Richard Leech, Bloxwich; Samuel Alexander, County Tyrone; George Joseph Walsh, Enniskillen; James Robert Wallace, Bengal; Arthur Hickman, Edinburgh; George Frederick Wales, Belfast; William Francis Blyth, Dublin; James Harran, Dublin; Charles Harold Bloxsome, Sheffield; David Gault, Tyrone; Thomas Matthews, County Down; Michael Doyle Foley, County Kerry; George Edward Pollard, London; Arthur Nathaniel Davis, Mayo; Corneby Austin, Banbury; Gilbert Marshall, Armagh; Alfred William Fox, Whitlock, Scarborough; James William Beeman Hodsdon, Bermuda; John Garbutt Hutchinson, Cumberland; John Galbraith Hyde, Stratford, Ontario; Theodore Arthur Weed, Cleveland, Ohio; Richard Condon Daly, City of Cork; Frederic John William Cox, Edinburgh; Reginald Latimer Wellington Greene, Antrim; David Henry Walsh, Bristol; William Albert Maurice de Watteville, Berne, and Robert William Gentles, Jedburgh.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The following gentlemen passed their first professional examination during the January sittings of the examiners.

Arthur William Egerton Brydges Barrett, Bath, and George William Robinson, Huddersfield.

The following gentlemen passed their final examination, and were admitted Licentiates of the College.

Horwasji Merwanjii Hakim, Bombay; Manekshaw Jamshedji Kelawala, Bombay; Merwanje Dhunjebhai Karanjia, Bombay; Eduljee Sorabjee Chenai, Bombay; John Hugh Mackenzie, Cawnpore; James Hamilton Nicholas, Dublin, and John Fell Edmund Cotman, Thorpe, near Norwich.

Mr. Frank Earle Huxley of Birmingham, having passed the necessary examinations, obtained the diploma of Dental Surgery.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

ASHTON-UNDER-LYNE DISTRICT INFIRMARY—House-Surgeon. Salary to commence at £80 per annum, with residence and maintenance. Applications not later than February 25th.

BALROTHERY UNION—Medical Officer for Kilsallaghan Dispensary District, at a salary of £100 per annum, and £15 per annum as Medical Officer of Health, with Registration and Vaccination Fees. Election on March 5th.

BASFORD UNION—Medical Officer for the Carlton District.

BUCKINGHAMSHIRE GENERAL INFIRMARY—Resident Surgeon and Apothecary. Salary, £80 per annum, with board, lodging, coal, and furnished apartments. Applications to the Secretary on or before the 28th instant.

BURY ST. EDMUND'S FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £180 per annum, with house, coal, gas, and additional fees for Midwifery. Applications, stating age, testimonials, etc., on or before February 23rd.

*CARMARTHEN INFIRMARY—House-Surgeon. Salary, £125 per annum, with lodging, fire, and washing. Applications to the Secretary on or before March 31st.

*DISPENSARY FOR SICK CHILDREN, Manchester—Assistant or Visiting Medical Officer. Salary, £180 per annum. Applications, with testimonials, on or before the 25th instant.

GLANFORD BRIGG UNION—Medical Officer for the Broughton District. Salary, £57 per annum.

GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary, on or before March 18th.

IRVINESTOWN UNION—Medical Officer for Ederney Dispensary District, at a salary of £120 per annum, £15 as Medical Officer of Health, Registration and Vaccination Fees. Election on the 21st instant.

*HOSPITAL FOR EPILEPSY AND PARALYSIS—Physician. Applications, with testimonials, on or before March 13th.

KELLS UNION—Medical Officer for Kells Dispensary District, at a salary of £120 per annum, £15 as Medical Officer of Health, with Registration and Vaccination Fees. Election on the 21st instant.

*LEAVESDEN ASYLUM FOR IMBECILES, near Watford—Two Assistant Medical Officers. First Assistant, £150 per annum; second Assistant, £120 per annum, rising £10 annually to £150, with board, furnished apartments, and washing. Applications, with copies of testimonials, on or before February 28th.

*LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance in the house. Applications and testimonials to be addressed to the Chairman of the Committee not later than February 21st.

LONDON HOSPITAL MEDICAL SCHOOL—Lectureship in Botany. Applications on or before the 23rd instant.

MANORHAMILTON UNION—Medical Officer for Drumkeeran Dispensary District, at an annual salary of £100, with Sanitary, Registration, and Vaccination Fees. Election on March 5th.

*NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC—Resident Medical Officer. Salary, £100 per annum, with board and apartments. Applications, with testimonials, to the Secretary, on or before the 21st instant.

NAVAN UNION—Medical Officer for Painestown Dispensary District, at a salary of £120 per annum, and £15 per annum as Medical Officer of Health, with Registration and Vaccination Fees. Election on the 27th instant.

NORWICH UNION—Medical Officer for the Fifth District. Salary, £80.

*ROYAL FREE HOSPITAL—Junior Resident Medical Officer. Applications on or before the 25th instant.

*ROYAL HOSPITAL FOR DISEASES OF THE CHEST—Two Assistant-Physicians. Applications, with testimonials, before February 26th.

ROYAL SEA-BATHING INFIRMARY, Margate—Resident Surgeon. Applications, with testimonials, to the Secretary on or before the 21st instant.

ROYAL SOUTH LONDON DISPENSARY—Honorary District Surgeon. Applications on or before the 26th instant.

*ST. BARTHOLOMEW'S HOSPITAL, Chatham—Assistant House-Surgeon. Salary, £80 per annum, with board, washing, etc. Applications on or before March 22nd.

*SUNDERLAND HOSPITAL FOR SICK CHILDREN—Three Honorary Medical Officers. Applications to the Honorary Secretary on or before March 2nd.

WEST LONDON HOSPITAL, Hammersmith—Assistant Surgeon. Applications on or before the 21st instant.

*WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY AND DISPENSARY—Honorary Physician and Honorary Surgeon. Applications on or before March 1st.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*BROADBENT, W. H., M.D., apppointed Consulting Physician to the London Fever Hospital.

*BUCHANAN, George, M.D., appointed Consulting Physician to the London Fever Hospital.

*GOURLEY, S., M.D., appointed Certifying Factory Surgeon and Admiralty Surgeon for the Hartlepools.

HALL, F. De Havilland, M.D., elected Honorary Physician to St. Mark's Hospital, *vice* Arthur Leared, M.D., deceased.

HENDERSON, G. C., M.B., appointed Assistant Physician to the London Fever Hospital, *vice* F. A. Mahomed, M.D.

KITCHENER, Thomas, M.D., appointed Physician to the Southern Dispensary, Bath, *vice* G. E. Lawrence, L.R.C.P., resigned.

MCHARDY, Malcolm McD., F.R.C.S.Ed., appointed Professor of Ophthalmic Surgery in King's College, and Ophthalmic Surgeon to King's College Hospital, *vice* J. Soelberg Wells, M.D., deceased.

*MAHOMED, F. A., M.D., appointed Physician to the London Fever Hospital, *vice* W. H. Broadbent, M.D., resigned.

PARISH, Frank, M.R.C.S., appointed House-Surgeon to the West Kent General Hospital, *vice* John Knowles, M.R.C.S.Eng., resigned.

*ROSSITER, George F., M.B., appointed an Honorary Assistant Medical Officer to the Weston-super-Mare Hospital and Dispensary.

STEELE, W. C., M.R.C.S., appointed House-Surgeon to the Huntingdon County Hospital, *vice* D. McRitchie, M.B., resigned.

WRIGHT, Herbert E., M.R.C.S., appointed House-Surgeon to the Bootle Borough Hospital, *vice* D. Forbes, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

DEATH.

CLOUTING.—On the 12th ultimo, Grace Rebecca, the infant daughter of J. R. Clouting, M.R.C.S., aged six weeks.

DR. THOMAS MCNAUGHTAN has been elected Mayor of Blackpool.

DR. V. JAGIELSKI has been made a corresponding member of the Royal and Imperial National Academy (La Scuola Italica) in Rome.

ROYAL MICROSCOPICAL SOCIETY.—The last report shows a very flourishing state of affairs. The total number of Fellows is now 575. Improvements have been made in the library; several additions have been made to the collection of instruments and objects; and it is proposed to enlarge the *Journal* of the Society.

THE VICTORIA HOSPITAL FOR CHILDREN.—A donation of one hundred guineas from Mrs. Sidney Hayward, in memory of her late husband Dr. Sidney Hayward, who was one of the earliest promoters of the hospital, and, till his retirement to a country practice and his early death, was one of its physicians and most active supporters, is most gratefully acknowledged by the Committee of Management.

CARDIFF MEDICAL SOCIETY.—The annual meeting of the members was held at the Infirmary on January 15th, when the following officers were elected. *President:* A. P. Fiddian, M.B. *Vice-President:* Thos. Wallace, M.D. *Committee:* C. E. Hardyman; John Evans; F. W. Evans, M.D.; and W. Campbell, M.D. *Honorary Secretary and Treasurer:* F. Garrett Horder.

DR. H. CROOKSHANK, one of the chief instructors of the St. John's ambulance classes, and Acting Surgeon to the 49th Middlesex (Post Office) Rifle Volunteers, has been decorated with the Order of the Osmanli by the Ottoman Government, as a further recognition of his services during the bombardment of Rustchuk and on the battle-field of the Lom, when in charge of the ambulances of the National Aid Society during the late Turko-Russian war. Dr. Crookshank had already received the military war-medal and the Order of the Medjidie.

SUPERSTITION IN SOMERSETSHIRE.—The Taunton Town Council are advertising for a man and wife to take charge of the Sanitary Hospital. The circumstances are curious. The present lodge-keeper is fully persuaded that his wife has been "bewitched" by one of the nurses. Questioned by the Hospital Committee, the man persisted in his conviction that the nurse "bewitched" his wife by "burning dragon's blood", causing her to vary considerably in her health; one day, as he explains, she is much better, and the next day much worse. That this is the consequence of the "dragon's blood" he cannot doubt. In these circumstances, the Taunton Town Council have decided on getting another caretaker for the hospital.

MEMORIAL TO THE LATE DR. WOODS.—The members of Sandy Row Presbyterian Church, Belfast, have erected, in the vestibule of the church, a mural tablet to the memory of the late Dr. Woods, civil surgeon to the troops in South Africa. The tablet is of Gothic design, eight-and-a-half feet high, and composed of Caen stone. On the slab is the following inscription: "In affectionate remembrance of Arthur Appleton Woods, M.D., M.Ch. Born August 14th, 1850; died May 1879. He served on the British Medical Staff during the Russo-Turkish War 1878; afterwards engaged in the Zulu campaign, while attached professionally to Barrow's cavalry, No. 1 relieving column; he was present at the battle of Gingholove, and, in active discharge of his duty in the field, he caught the fever epidemic prevailing among the troops, of which he fell a victim at Herwin, Port Natal. Beloved in life, lamented in death. To testify their sense of the loss of this valued and gifted member of their congregation, and ornament of his profession."

THE HEALTH OF ROME.—The *Times* correspondent writes, under date February 6th: "The following statistics, recently published by the municipality of Rome, are not only interesting, but important, as showing the steadily improving hygienic condition of the city. During 1879, the births numbered 7,987, of which 7,800 were among the resident population. The deaths among the resident population were 6,724, *plus* 1,970 non-residents, among whom are included the great number of workmen and labourers from other cities and from the neighbouring villages who flock to Rome to find occupation, the soldiers, Italian travellers, and a few foreigners of all nations. To the above are to be added 138 births and 356 deaths among the domiciled population casually absent from Rome. Marriages, 1,839; immigration, 9,799; emigration, 1,178. The deaths among the military stationed in Rome numbered 160 less than during 1878. The births among the domiciled population were 858 in excess of the deaths. On December 31st, 1879, the population numbered 298,960; while, on December 31st, 1878, the number was 289,321, showing an increase in the last year of 9,639 persons. The births during the twelve months were at the rate of 26.7 and the deaths at the rate of 22.7 per 1,000 inhabitants on the average population of 296,783. The census of 1871 gave 244,484 as the population of Rome; and therefore there has, in the course of eight years, been an increase of 54,476 persons. This augmentation has been almost entirely due to the great immigration, inasmuch as during the first years of this period the deaths were in excess of the births, whereas during the latter years the reverse has been the case; for example: in 1877, the births exceeded the deaths in number by 660; in 1878, by 815; in 1879, by 858. These results are in accord with the improvement verified in the average mortality per 1,000 inhabitants. In 1872, the average was 37.1; in 1873, 29.3; in 1874, 26.6; in 1875, 30.3; in 1876, 28.3; in 1877, 23.4; in 1878, 23.0; in 1879, 22.7. These statistics should do much to dissipate the erroneous reports circulated regarding the insalubrity of the climate of Rome."

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.— Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S,. 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Thorowgood, "On Suppressed Gout"; Dr. Corfield, "Leaves from a Sanitary Note-Book"; Mr. Dewar, "A Case of Jaundice".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Vandyke Carter, "Experimental Pathology of Spirillum Fever"; Dr. Alfred Sangster, "Non-Glandular Theory of Origin of Molluscum Contagiosum".

WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Stephen Mackenzie will show a Case of Urticaria Pigmentosa (living subject); and read a paper on "Annular Stricture of the Intestine".

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Teevan, "A Case of Retention of Urine from Impacted Urethral Calculus, relieved by pushing the Stone back into the Bladder and Crushing it"; Dr. Buzzard, "A Case of Paraplegia from Pott's Disease treated by Sayre's Splint: Intestinal Obstruction: Death from a Kick in the Abdomen"; Dr. Buzzard, "A Case of Rapid and almost Universal Paralysis, involving the Four Extremities, both sides of the Face, Respiration, and Deglutition: Recovery": Dr. Sangster, "A Case of Molluscum Fibrosum"; Dr. Greenhow, "A Case of Typhoid Fever, with Acute Nephritis and Profuse Hæmaturia".—Quekett Microscopical Club, 8 P.M. Dr. T. Spencer Cobbold, F.R.S., "On Human and Canine Filariæ"; Dr. Sylvester Marsh, jun., "On Bleaching and Washing Microscopical Sections".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

AN APPEAL.

THE widow and orphans of the late Dr. Harry Molony, medical officer of the Kilrush (co. Clare) Workhouse and Fever Hospital, having been left in very distressed circumstances by his sudden and early death, a fund is being now raised for their assistance. Dr. Molony, who was respected and beloved by all who knew him, left three sons. The eldest is in Christ's Hospital, and is therefore for the present partially provided for. But as Dr. Molony's income was a very small one, little or no means have been left for his widow and the younger children, who are aged respectively seven and five years.

Subscriptions, which are earnestly requested in aid of the fund, will be thankfully received and acknowledged by George F. Duffey, M.D., 30, Fitzwilliam Place Dublin; C. E. Fitzgerald, M.D., 27, Upper Merrion Street, Dublin; or by H. T. Land, Esq., Treasurer Provincial Bank, Kilrush, co. Clare.

MR. W. WYNWARD (Hurley) should apply to a bookseller. We do not execute commissions for the purchase of books or pamphlets.

SURGICAL PYROTECHNICS.

THE following is from the *New York Hospital Gazette*:—I don't know with whom originated the brilliant idea of employing local anæsthesia (with ether) just before the cautery is applied, but I have heard that a distinguished physician relates the following personal experience. Desiring to cauterise a patient's spine, he applied the ether in spray until he deemed the part sufficiently frozen. He then applied the cautery. The ether took fire and scorched some of the patient's hair. When asked how the patient liked it, he replied that the patient supposed it was all right, and "a part of the regular pyrotechnics".

INFANT CRÊCHES.

SIR,—In reference to a letter in the BRITISH MEDICAL JOURNAL about nurseries, I enclose some circulars printed at different times that may be of some use. It is two years since the Patricroft nursery was opened, and the greatest difficulty has been to find a suitable nurse. She must not be too particular, as the children are sometimes brought in a dirty state, and if anything is said about it the mothers are offended. She must be methodical and good-tempered, and have many good qualities, which are not easy to find combined. The mothers themselves in many cases are opposed to a day-nursery from some feeling of pride. A subscription-list will also be required, as it is not possible to get sufficient from the children's payment to work the institution as it should be. I do not think any nursery should be begun, whatever the number of children, with less than £60 *per annum* of voluntary subscriptions. The children pay in most cases 2s. 6d. per week for six days. The nursery is open from 5.45 A.M. to 7 P.M. Those remaining the night, pay from 3s. to 5s., according to the number from one family. I send them out when I can in a large basket-perambulator holding eight; but I find a difficulty in getting a person to go out with it. You will observe in the last report that as much was spent in milk as in all the other food together. I find, compared with other nurseries, that I receive more by children's payments. Other nurseries charge from nothing to 2d. or 4d. per day. I have just succeeded in raising over £500. I hope before long to start the new building. The first year's daily attendances of children were 1620, the second year 2619, and last month (January) 626.—I am, yours,

A. S. ROE.

The Poplars, Patricroft, February 1880.

"DR. TATHAM is justified in asserting that the rate of mortality under five years of age affords the surest test of sanitary conditions. It may be hoped that the Town Council of Salford will realise the importance of this sad waste of infant life within their sanitary district" (BRITISH MEDICAL JOURNAL, p. 137). *Mutato nomine de Mancunio fabula narratur.*

A. S.

DISINFECTION OF DRAINS.

SIR,—It appears to me that in disinfecting drains we have not arrived at a thorough and efficient method. It is true we do disinfect drains; but in my opinion we do not disinfect them properly. In order to dispel bad smells and kill miasmata, it is necessary to apply the carbolic acid (or whatever disinfectant we use) equally all through the contents of the drain and its principal communications. To do this would not involve very much trouble or expense. All we would require would be an engine, a force-pump, and small pipes. These pipes should be inlaid in the main drain and its branches to the second, third, or fourth degree. These pipes should be armed, at intervals of a few feet, with perforated expansions, so as to cause a spray, and should be protected from the current (on the side or surface which faces the current) by a sort of metallic screen, sloping from the side of the drain forwards, not directly, but at an angle of thirty degrees, the small angle being towards the perforated expansion: the screen would in this way protect the expansion or spray-tube from dirt, filth, etc. These tubes must be connected with the force-pump, and the latter with the engine. Suppose we have a solution of common carbolic acid or ether, and we place it into the receptacle connected with the pump, it is sucked up and forced along these tubes. When it arrives at the expanded parts of the tubes, a spray is formed, which diffuses itself equally throughout the drain.—Believe me, yours faithfully,

HENRY YARROW.

Chesterfield, January 28th, 1880.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

THE CLIMATE OF BOURNEMOUTH.

SIR,—In the JOURNAL of Saturday last (January 31st) is a paragraph referring to Dr. Compton's memoranda on the lowest temperatures at Bournemouth in December 1878. I agree with your remarks that so limited a period for comparison affords but a narrow basis for a claim as to superior climate, and also that the question of comparative winter *warmth* has received too much attention, to the exclusion of considerations of rainfall, etc.

A further examination of Dr. Compton's paper, in the latter part of which he gives statistics of the rain and snow-fall for the last three months of 1878 (a fairly long period), shows that of the forty-four stations given, Bournemouth shows the least fall—viz., 5.32 inches on thirty-eight days, while at Ventnor there was 8.99 inches on fifty-two days, and at Torquay 9.90 inches on fifty-two days. At Cannes, 16.48 inches fell on thirty-five days. Any one acquainted with Bournemouth also knows how rapidly the soil dries after rain, rendering walking exercise possible and safe. A high degree of winter warmth can perhaps scarcely be claimed for Bournemouth, though the sun shines more frequently, and the sky is more cloudless than in most other places; but a small rainfall, both as regards actual amount and as to number of rainy days, and a dry soil, are indisputable facts in its climatology. These, as you say, are often as necessary for consideration by an invalid, and of as much value in influencing the health, as actual high night-temperature.—Yours,

Bournemouth, February 2nd, 1880. W. DOUGLAS HEMMING, F.R.C.S.Ed.

⁂ The writer of the above note on our remarks on the lowest temperatures of Bournemouth and certain other stations is apparently of opinion that more prominence should have been given to the small rainfall in the last quarter of 1878 at this health-resort. He bases his opinion on the supposition that three months is a fairly long period on which to make a comparison of the rainfall at different places. This is an error, as less than three years should not be taken, and, if possible, even a longer period than that. To show the small reliance to be placed on so short a time, we will give the rainfall at sixteen stations during the following quarter to that mentioned by Dr. Compton—viz., the first quarter of 1879. At Bournemouth (Eastbourn), where Dr. Compton says the rainfall is ten per cent. less than at another station in Bournemouth), 8.80 inches, which, with ten per cent. added, makes 9.68 in.; at Ventnor, 8.90 in.; at Osborne, 7.96 in.; at Bywell (Northumberland), 6.85 in.; at Brighton, 6.76 in.; at Ramsgate, 6.14 in.; at Cambridge, 5.61 in.; at Llandudno, 5.47 in.; at Stockton (near Rugby), 5.33 in.; at North Shields, 5.14 in.; at Bradford, 5.06 in.; at Lowestoft, 4.97 in.; at Leicester, 3.85 in.; at Carlisle, 3.74 in.; and at Norwich, 3.38 in. The rainfall in Cornwall, Devon, and Somerset, was in excess of that at Bournemouth, but at nearly all the other stations it was less. The facts, therefore, for 1879 reverse the position almost entirely. As we were aware of these, we did not deem it necessary to refer to the rainfall during the last quarter of 1878, as reported by Dr. Compton in his small *brochure*.

MR. STOCKER is referred to the standing notices published every week, in which the notice is weekly given that we cannot undertake to return manuscripts.

AN ANOMALOUS ERUPTION.

MR. JAMES STARTIN, referring to Mr. Lattey's letter in the JOURNAL of January 17th, suggests that the anomalous eruption was, no doubt, acute epidemic pemphigus, which attacks, and most severely sometimes, the children of the poor, who are badly fed and clothed, and exposed to bad air. These cases always recover under careful hygienic treatment and better food, requiring little medicine.

DR. THOMPSON.—The decision of the Jacksonian Committee of the Royal College of Surgeons with regard to the triennial prize will perhaps be made known next week. It is stated that only one essay was sent in for this prize. The subject for the Jacksonian Prize will then be decided on.

THE USE OF THE GUM-LANCET.

SIR,—In reply to Dr. Pearse's queries in your last number, I would say—1. That the connection of at least some of the so-called disorders of dentition with the process of eruption of the teeth appears certain; and the relief afforded by lancing the gums is often so immediate and so complete that there can be no doubt the operation is frequently called for. 2. It can be only during the last stage in the eruption of the teeth that lancing the gums can do good. Prior to this stage, the teeth are confined within separate completely closed bony crypts, and it is not until the bony plate over the emerging tooth has been absorbed that the lancet is able to divide the tissues which impede the advance of the developing organ. 3. The local symptoms calling for the use of the gum-lancet are redness, heat, and swelling of the gum over the advancing tooth. And lastly, excepting the infliction of unnecessary pain, no ill effects are likely to arise from the indiscriminate employment of the lancet.—Your obedient servant, HENRY SEWILL.

6, Wimpole Street, February 7th, 1880.

SIR,—In those good old days when the apprentice was taken round and instructed at the bedside by his master, the advice was: Always examine a child's gums if called in for any ailment during the period of dentition, and if the gums be swollen and show any symptoms of irritation, lance them. About this time, Marshall Hall was prosecuting his interesting investigations on the nervous system, and enunciated the doctrine that it was better to lance a child's gums nine hundred and ninety-nine times unsuccessfully than to omit doing so once when it was necessary. On these principles I have acted, much, I believe, to the benefit of my patients, as I have several times seen children who had been passing from one convulsive attack to another immediately relieved by freely lancing the gums and removing the tension over the teeth. I have repeatedly seen brain-excitement removed and refreshing sleep induced by this measure before the special action of bromide of potassium was known. A common objection to lancing the gums is that if it be done too soon they harden, and that this makes it more difficult for the tooth to come through the cicatrix. I believe the fact is the reverse. A tooth presses its way through the gums by ulceration, and new tissues are more readily absorbed than original.—Faithfully yours, M.R.C.S., 1846.

NOTICE TO ADVERTISERS. — Advertisements for insertion in the BRITISH MEDICAL JOURNAL should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

POSTNASAL CATARRH.

MR. N. S. FOSTER (Bicester) advises "Schneiderian" to try the glycerine of tannic acid, applying it night and morning to the upper part of the pharynx and towards the posterior nares with a curved brush, also to the anterior nares of the affected side with a smaller brush, to be inserted as far as possible, and sniffing the liquid along the remainder of the tract. Possibly the powdered tannic acid adhered to the mucous membrane before reaching the affected part, and so failed to be of benefit.

MR. R. C. APPLETON (Beverley) writes that, if "Schneiderian" will communicate with him, he will give him particulars of a somewhat similar case successfully treated by him this winter.

MR. W. E. C. NOURSE (Exeter) suggests that careful search should be made in the house of the patient for arsenical paper-hangings. The ailment, though apparently localised, may have this kind of origin. A number of years ago, Mr. Nourse had a somewhat similar case, with no distinctive indications of arsenical irritation. Many remedies were tried, and several practitioners were consulted. At length the cause was discovered in arsenical wall-paper, in the room chiefly used by the family. One person only was affected. The paper was not of a bright green, and had excited no suspicion. On its removal, the affection ceased, and has never returned.

COD-LIVER OIL AND ALCOHOL.

SIR,—It is with much satisfaction that I see a protest raised by one who is competent to judge from practical experience against the advisability of administering alcohol in combination with cod-liver oil. Recently house-surgeon at the North-Eastern Hospital for Children, London, I had abundant opportunity to observe cases of what might be considered a "pretubercular" condition, and I cannot agree that alcohol is at all desirable in such circumstances. I would submit, firstly, that the great majority of cases that would give one a suspicion that a tubercular diathesis was present will so markedly improve under good food and air as to compel one to abandon the suspicion; and, secondly, that precisely in those cases in which tubercle is the least expected it will eventually appear. Tubercle is, I venture to think, the great bugbear of the young physician. In the former class of cases, I cannot conceive how alcohol can possibly be assumed to be beneficial when a careful survey of its action is gone into; and in the second class, I should certainly think the cod-liver oil and phosphorus to be the elements in the mixture which give rise to the improvement. The case mentioned by Mr. E. N. Smith is a good comment upon the subject of alcohol in children's diseases. Surely it is rather deficient assimilation from which they suffer than from an asthenia to be benefited by stimulation. And further, my experience tends to show that children will very rarely refuse cod-liver oil, especially if given immediately after food, and that often after the first few doses they take quite a liking to it. Our resources will always suggest some form of emulsion made pleasant to the taste, which the little patients will take readily. Mr. Livy's remark about the "unseemly" hilarity" of children taking the mixture which he recommends is a sorry comment upon its benefits.—I am, etc., WILLIAM CASH REED, M.B.Ed.

2, Athenæum Street, Plymouth, February 9th, 1880.

THE HYPODERMIC SYRINGE AS AN EXHAUSTING APPARATUS.

SIR,—It may be of interest to some of your readers to know how useful the ordinary hypodermic syringe may be as an aspirator. Lately, I had a case of ganglion which I treated by forcing the hypodermic needle into the sac, and then exhausting the contents by drawing the piston upwards. Almost nothing but a little blood made its appearance in the syringe. From that date, the swelling, which was on one of the tendons of the extensor communis digitorum, gradually disappeared, and in a week or two the hand was quite normal. The puncture and exhaustion were followed by a slight swelling, which lasted for some hours. In performing this operation, it might be better to draw the skin tightly over the swelling and then puncture, so that the hole in the skin and in the sac would not be opposite one another, and thus prevent septic mischief; or a little dressing of antiseptic gauze might be fastened on by means of collodion, as I have seen Mr. Lister frequently do in cases of wen in the scalp. But this may almost be discarded, for if the punctures of the large needles of Dieulafoy's aspirator are followed by no mischief, the small hypodermic needle will certainly not cause trouble, especially as we can see that the puncture is sealed almost immediately after the withdrawal of the needle by a plug of lymph. I have also used the hypodermic syringe as an aspirator on such cases as those of ecchymosis and of inflammatory induration of the cellular tissue. I had a case lately of a "black eye", presumably from a blow, where I made a puncture with the needle and used the syringe as an exhauster, and then withdrew the needle. The puncture bled freely for some minutes, at the end of which time the colour of the skin was of the natural hue, whereas a few minutes before it was swollen and ecchymosed. Of course, this method can only be applied in recent cases, where the blood has not begun to clot. In a case of inflammatory induration of the cellular tissue, following hypodermic injection of morphia, I have adopted the same course as in the above case of ecchymosis, and, by relieving the intense hyperæmia of the part by the escape of the blood, have kept off a bad abscess. I have never used the hypodermic syringe as an aspirator in cases of abscess; but a medical friend of mine, lately resident in this district, told me that he had used it to exhaust superficial abscesses, and also to withdraw the serum from the prepuce in cases of phimosis or paraphimosis before reducing the lesion.

In conclusion, there is no doubt that many other cases suitable for this method of treatment will suggest themselves to the observing practitioner. For instance, in cases of gum-boil the abscess could be exhausted and the pus removed without the patient getting a mouthful of it, as he must necessarily do where the knife is used. In doubtful cases, where there is a difficulty between a collection of fluid and a solid tumour, the introduction of the needle and the subsequent exhaustion by the syringe would prove what is really the matter.—I am, etc.,

Dunse, N.B., February 1880. JOHN A. ERSKINE STUART, L.R.C.S.E.

UTILISING DELUSION.

AT an asylum in Vienna (says the *Danube*), a novel method of treatment has been adopted. The director has established a lithographed journal for circulation in the asylum, and he induces the patients to contribute to it. Especially he encourages them to refute the manias of their comrades. The man who believes his nose to be made of sugar-candy, and liable to dissolve, he says, can argue with excellent logic against the folly of his friend's theory that his beard is a tender plant and needs frequent watering. As a rule, they are able to discuss with good sense all subjects except those which concern their peculiar delusion.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

SICK CLUBS AND THEIR MEDICAL OFFICERS.

SIR,—Permit me to draw the attention of the members of the profession (country practitioners in particular) to the unsatisfactory and very unremunerative scale of pay given by friendly societies to their medical officers. In many parts of the country 3s. 6d., 4s., or 5s. *per annum* per member is the rate; and this sum, taking into consideration the high price of drugs and heavy stable expenses, cannot by any means be considered adequate for the lengthy attendances often incurred by club-members. Every medical man who has held these appointments is well aware that persons who pay a trifling annual sum for their medicine and attendance, are only too eager to send for the doctor for the most trivial complaint, whereas, if they had to pay for such attendance, they would think twice before doing so. The clubs I hold bring in about £40 *per annum*, and I do not hesitate to say that were I to sum up the total amount of attendance, etc., in the year, and charge the modest fee of 2s. 6d. for each visit (including medicine), it would amount to more than six times £40. If general practitioners would make a determined stand against this beggarly rate of pay, and demand a fair sum for their services (say 10s. per member *per annum*), they would have the satisfaction of knowing that they were not working for next to nothing. It is a notorious fact that club officials exercise no discretion as to the pecuniary means of those whom they admit as members, and that there are farmers and tradesmen (whose incomes are quadruple that of the doctor) obtaining their attendance for a few shillings a year. What I would suggest is, that we should form an union amongst ourselves—in fact, "strike" against this injustice.—Trusting this matter will receive the earnest attention of my professional brethren, and not be allowed to fall through, I remain, yours faithfully,

February 10th, 1880. QUID PRO QUO.

TESTS FOR COLOUR-BLINDNESS.

INCERTUS.—The mode of testing colour-perception, which is at once simplest and most trustworthy, requires the person to choose from among a number of coloured objects all that resemble some particular one chosen as a sample. The best set of tests are Holmgren's coloured worsteds (Horne and Thornethwaite, 416, Strand; or Pickard and Curry, 195, Great Portland Street, W.) The subject is well explained in Joy Jeffries' book on colour-blindness. Hawkesley, 300, Oxford Street, sells a set of pocket colour-tests. A railway-servant who shows partial colour-blindness—*e.g.*, confuses between *pale* green, gray, and rose colour, should be passed on for special examination to an expert, as a low degree does not incapacitate for the railway signals. Confusion between strong colours, scarlet and full green, or either of these colours and dark brown or black, speaks for itself.

THE MORTALITY REFERABLE TO ALCOHOL.

SIR,—It is stated in the JOURNAL of January 31st, that the Council of the Harveian Society has resolved to inquire of all the London general practitioners as to the mortality from alcohol. The result which they have already obtained makes it absolutely necessary that further investigations should be made. If the same percentage of deaths be caused by alcohol throughout the country, then, in round numbers, there are annually 32,000 deaths from the direct effects of alcohol, and 81,000 from its indirect effects. This is a fearful mortality. But I would urge the Council not to confine their inquiry to a city such as London. No fair estimate for the whole country can be obtained, unless a due proportion of the rural districts is likewise included. It would seem that the middle classes have principally furnished the above figures: it is absolutely necessary that the poorer classes should also be reported on. Lastly, I would urge that a wise discretion should be exercised respecting the returns sent in. It is very easy to exaggerate in this matter. The Council of the British Medical Temperance Association endeavoured some time ago to collect evidence of a similar kind. It was found, however, that the returns from one medical man presented such an extravagant idea of the noxious influence of alcohol, that the whole value of the statistics was vitiated thereby, and they were accordingly suppressed. If only some hundreds of medical men can be induced to take this matter up, it is obvious that such isolated extravagances will be of less consequence. It is of vital importance to the people to know the truth on this matter, the whole truth, but nothing but the truth. The Council of the Harveian Society deserves the thanks and support of all, and I trust they will see their way to extending this inquiry, or to getting the matter taken up by Government.—I am, sir, yours obediently,

Enfield, January 31st, 1880. J. JAMES RIDGE.

SIR,—In the cause of temperance itself, may I utter one word of warning and protest against the statistics which a committee of the Harveian Society has already collected, and which, as it would appear from a paragraph in a recent number, the Society seeks to extend by further inquiry? Statistics, to be of any real value, must be established upon data which will stand the test of rigid and impartial scrutiny. It must, I think, be obvious that the data on which the statistics of the Harveian Society are to be based are in their very foundation unsure. What is it that the Society asks general practitioners to do? To look through the counterfoils of old death-certificates and thence to tell what influence, wholly or in part, they consider alcohol to have had in causing the deaths which they have certified "within the last few years". Now and then it is manifest that alcohol has been the parent of disease which has directly led to death, and *post mortem* examination merely adds another link to a chain of evidence already strong; but in cases where the influence of alcohol has not been so abundantly clear, *post mortem* examination can alone confirm with certainty that which has been, perhaps, no more than hearsay or suspicion of a habit during life. In the absence, therefore, of *post mortem* examination of these, the more numerous, cases, can any one speak with accuracy as to the cause of death? and is it not well known how rarely such necessary examinations are made in private practice? With no certain record to guide him, the practitioner must appeal to his memory, and he assigns, according to an estimate altogether arbitrary, a larger or smaller share to alcohol in causing this or that death, as he turns over the counterfoils before him. And as the man with largest practice meets in all probability with the greatest number of deaths, it comes to pass that he who has given the largest number of death-certificates, and who is presumably the man of largest experience, will supply to the Harveian Society data the least trustworthy, for more than any other man is his memory encumbered, and more than any other man he has to rely upon this faculty. Notably, too, in the absence of accurate facts, both of recorded lives and of examinations after death, will estimation of the morbific powers of alcohol be influenced by the opinions which this or that man may hold upon the alcohol question in general. At the discussion which arose at the Harveian Society when this alcohol committee was proposed, one speaker went so far as to say that the death of an innocent child in the street by the carelessness of some driver who had had too much to drink, must be regarded as a death due to alcohol. Of what earthly value can be the returns to the Society of any observer, who can propound anything so absurd as this?

Before it be too late, I would urge the Society to pause before it lends the weight of its name and gives the sanction—as in the end it will surely be thought by the public and the medical profession at large—to statistics which slight investigation will suffice to show to be without value. If statistics such as those which the Harveian Society desires to collect can be of service to the cause which so many have at heart, let it be freely and in all wisdom acknowledged that the data for forming them do not yet exist. Rather let the Society, after requisite thought and care, lay down precise and definite rules for future observation; and then, but not before, let it call upon practitioners in general to aid in the inquiry by making observations and recording facts according to one common plan. Thus may the committee of the Society be able to prepare a statistical report which shall merit the confidence of friend and foe alike, and which, of inestimable value, may perchance promote the cause of temperance throughout the land.—Your obedient servant, M.A.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. T. Spencer Wells, London; Dr. T. Clifford Allbutt, Leeds; Dr. G. Johnson, London; Dr. Yandell, Louisville; Dr. Alfred Carpenter, Croydon; Dr. Heath, Torquay; Mr. W. S. Davies, Mountain Ash; Dr. Waters, Chester; Mr. J. F. O'Ryan, Tipperary; Mr. W. F. M. Jackson, Smethwick; Dr. McKee, Randalstown; Mrs. Mary O'Connell, Cashel; Dr. Bacon, Fulbourn; Dr. Brabazon, Lymm; Mr. J. J. Lee, Stoke, Devonport; M.D.; Mr. W. J. Gard, Devonport; Mr. Hughes, Woodbridge; Mr. Teevan, London; Dr. J. N. Vinen, London; Dr. Batten, Gloucester; Dr. Murray Lindsay, Mickleover; Dr. Glascott, Manchester; Dr. J. W. Moore, Dublin; The Secretary of Apothecaries' Hall; Dr. Balfour, Edinburgh; Mr. Tomes, Brampton; The Secretary of the Charing Cross Hospital; Dr. John Moore, Belfast; Dr. F. Warner, London; Dr. Anningson, Cambridge; The Secretary of the Medical Society of London; Dr. A. Hughes Bennett, London; Mr. W. Watson Cheyne, London; Dr. Morris, London; Mr. Cox, Winchcombe; Mr. Malcolm Morris, London; Dr. Thin, London; Mr. G. E. Walker, Newport; Dr. J. Byrne, Londonderry; Dr. W. Murrell, London; The Registrar-General of England; Dr. W. W. Moore, Brighton: Mr. R. W. Parker, London; Mr. W. R. Barker, London; Mr. J. Mortimer, London; Dr. Brabazon, Bath; Mr. W. Wynyard, Hursley; Mr. Lewis Jones, Carmarthen; Dr. De Courcy Morris, Birkenhead; The Registrar-General of Ireland; Mr. Nelson Hardy, London; Dr. Bond, Gloucester; Dr. R. Atkins, Waterford; Mr. James Startin, London; Mr. H. B. Blackburn, London; Dr. Beatty, Leamington; Dr. A. S. Taylor, London; The Secretary of the Quekett Microscopical Club; Dr. R. Farquharson, London; Dr. Anderson, Glasgow; Mr. James Edwards, Rochester; Dr. Kinkead, Galway; The Secretary of the Clinical Society; Dr. Francis, Cranleigh; Mr. P. Burroughs, Weston-super-Mare; Dr. W. Easby, March; Dr. C. Smith, Sheffield; Mr. E. Jenkings, Arbroath; Dr. Galabin, London; Dr. Crichton Browne, London; X.; Mr. A. Kebbell, Flaxton, York; Dr. W. Wood, London; Mr. G. F. Rossiter, Weston-super-Mare; Mr. W. Trenerry, Bristol; Our Edinburgh Correspondent; Mr. E. Smith, Torquay; Dr. Farr, London; Dr. W. A. Brailey, London; Dr. C. Creighton, Cambridge; Dr. W. W. Moore, Brighton; Our Dublin Correspondent; Dr. W. A. Sturge, London; Dr. Atkinson, Kingston-on-Thames; Assistant Medical Officer; Mrs. Morgan J. O'Connell, Cashel; Mr. E. Clarke, London; Dr. J. G. Black, Rothbury; Our Glasgow Correspondent; Messrs. Bates, Hendy, and Co., London; Mr. R. R. Maddison, Barnsley; Dr. Rabagliati, Edinburgh; Dr. Borchardt, Manchester; Dr. R. Bridges, London; Mr. C. A. Rayne, Devonport; Dr. L. Conner, Detroit; Messrs. Macmillan and Co., London; Dr. Annibale di Giacomo, London; Mr. C. Marriott, Sevenoaks; Mr. J. E. Ingpen, Putney; Mr. W. D. Hemming, Bournemouth; Mr. E. Nettleship, London; Mr. J. H. Bannister, London; Mr. Morton Smale, London; Dr. A. S. Taylor, London; Mr. F. W. Lowndes, Liverpool; Mr. J. J. Nason, Stratford-on-Avon; Dr. Crookshank, London; Dr. M. G. Evans, Cardiff; Mr. G. H. Jeffery, London; Mr. E. Johnson, Bury; Dr. Warner, London; Mr. Henry H. Masters, Bungay; Mr. G. J. Thurston, Sandown; Dr. A. S. Currie, Sydney; Mr. W. Hayward, Rochester; Dr. J. B. Gill, Hastings; Dr. J. A. Thompson, London; Dr. F. Quinlan, Dublin; Mr. J. E. Given, Dublin; Mr. W. H. Arrowsmith, Darlington; Dr. Grimshaw, Dublin; Dr. Brandt, Oporto; Dr. Gillespie, London; Mr. Lister, London; etc.

BOOKS, ETC., RECEIVED.

The Retrospect of Medicine. Edited by W. Braithwaite, M.D., and J. Braithwaite, M.D. Vol. lxxx. July-December, 1879. London: Simpkin and Marshall.

St. Bartholomew's Hospital Reports. Vol. xv. Edited by W. S. Church, M.D., and A. Willett, F.R.C.S. London: Smith, Elder, and Co. 1879.

Aids to Physiology. By B. Thompson Lowne, F.R.C.S. London: Baillière, Tindall, and Cox. 1880.

The Spectroscope in Medicine. By C. A. MacMunn, B.A., M.D. London: J. and A. Churchill.

On Pseudo-Hypertrophic Muscular Paralysis. By W. R. Gowers, M.D., F.R.C.P. London: J. and A. Churchill.

ABSTRACT OF LECTURES
ON
CERTAIN PRACTICAL POINTS IN CONNECTION WITH THE SURGERY OF CHILDHOOD.

Delivered before the Harveian Society of London.

By EDMUND OWEN, F.R.C.S.,
Senior Assistant-Surgeon to St. Mary's Hospital, and to the Hospital for Sick Children.

LECTURE II.

An interesting expression of the rickety diathesis in early childhood is occasionally to be discovered in a somewhat sudden antero-posterior bending of the spinal column. When associated with the bandy leg or knock-knee, its diagnosis is easily made; but when the angle is more than usually sharp and confined to a short series of vertebræ, the deformity produced bears considerable resemblance to that which results from caries. But other signs of the imperfect nutrition are not absent; and if the child be placed flat upon the back, the hump may be partially unfolded without causing the patient to exhibit signs of distress. If the subject be old enough, he will bend down with ease, and for a small bribe will even dare to jump from a chair on to the ground—a sure sign of the absence of ulcerative disease of the spine—nor will he complain of pains in the chest or belly. Such persistent pains are often the early warnings of the invasion of caries; they therefore demand that a searching examination be made of that part of the column from which the nerves emerge for the supply of the painful area. If there be pain in the thighs, the lumbar region should first attract attention; if it be in the upper part of the chest, the lower cervical; if in the head, the upper part of the cervical region must be examined. Pains in bilaterally symmetrical areas are caused by a central source of irritation. A small girl was lately brought to me who complained of constant "belly-ache" in the neck and headache. The neuralgic area was that which received the terminal filaments of the divisions of the second cervical nerve. There was no postpharyngeal abscess; she could not turn her head without twisting the shoulders; and pressure upon the top of the head increased the pain tenfold. The application of a jury-mast obtained absolute physiological rest, and eventually effected a cure. Rigidity in any part of the spinal column is about the earliest sign of the inflammatory disease; if any of the dorsal or lumbar series be affected, the back will be kept quite stiff if the child stoop to touch its toes—the patient will reach down by bending the knees only. But many children have neither the desire nor the sense so to help the surgeon in effecting a diagnosis; they cry as soon as they are stripped for examination; the slightest touch, even in the soundest part, is apt to increase the apprehension in these frightened and irritable—one should say "irritated"—little patients; no bribe will induce them to stoop. Such an one may often be got off his guard by throwing his socks or shirt into the middle of the floor, and telling him to be dressed and taken home; he will almost invariably make for his garments, and by watching the way in which he performs his movements much may be learnt. The mother of the child with caries of the spine will tell, on inquiry, that he comes downstairs differently now from the way in which he used to do; he puts each foot on every stair, and clings on by the balusters; he cries when he is lifted out of the bath, and screams when he is raised by the arms. If the disease be in the cervical or in the lumbar region, prominence of the spinous processes may be one of the last signs of the condition; but rigidity will always have been the earliest.

The child with the curvature of malnutrition must be carefully fed and clothed; he must not stand or sit until his bony frame is stronger; and he must be compelled to pass the greater part of the day—when he cannot be taken out—upon the hearthrug with his toys, and there also should he be made to take his meals. It is hardly necessary to remark that he will be in need of no spinal support of any kind.

Regarding caries of the spine as an affection of a series of joints, we should endeavour to treat it on just those principles which would direct us in dealing with an inflammatory condition in and between the small bones of the hand or foot; we therefore apply a light and strong splint. For this purpose, the best and cheapest kind, and that most easily obtainable, is, in my experience, that composed of crinoline muslin rollers into which fresh plaster-of-Paris has been thoroughly rubbed. Under the vest, a long thick pad should run along each side of the spinous processes, to secure the most prominent of them from chafing, and the jacket should not require removal for three, four, or six months; and so we have provided for all that can be needed, viz., "absolute, continuous, and uninterrupted rest". To insist upon the necessity of suspension while applying the jacket is, I believe, the only fallacy in connection with the method as introduced to us by Dr. Sayre. Unfortunately, in my humble opinion, he talks in his book about straightening the spine weakened by caries, in such a manner that "the weight of the body is borne by the transverse processes". He afterwards thus cautions those who are about to adopt his method of treatment: "If nature has already thrown out ossific matter and adhesions are beginning to take place, *do not break them up* by too severe extension." Surely this caution ought not to have been necessary; but, somehow or other, the idea has been gaining ground that by suspension and splinting a carious angle can be straightened and blotted out. When, after a series of jackets have been worn for a year or two, the child improves and the hump seems less, the amelioration in the latter should be attributed to the patient having grown, whilst the hump has not.

I have lately had under supervision a boy, ten years of age, who had been bedridden for somewhat less than a year from caries of the dorsi-lumbar region with psoas abscess; and when, in the course of time, he had been removed from hospital to mortuary, I made a critical examination of the parts, and in this way. Having taken away the anterior wall of the abdomen, and having extracted from the cavity all the viscera, I inserted a large pin into the body of a sound vertebra above the ulceration, and another into a segment below it, and having taken a careful measurement of the distance between the pins as the subject lay upon the table, I had the body cautiously hung up by the arms, and I again measured to see if the weight of the pelvis and lower extremities had increased the distance between the pins, straightening the diseased angle, but the measurement showed not a hair's breadth of increase. I repeated the experiment, with a like result, which those who were with me verified. Nevertheless, this vertebral column was so extensively diseased in the interval between the pins that I was prepared to find it break through. I wonder if such a calamitous result has ever attended the suspension by the head and arms of a struggling child whose cervical vertebræ were deeply carious; at present, I have not seen the report of such a case, not even in "Our Confessional".

Another matter to which I wish to direct attention consists in a necessary criticism of Professor Sayre's excellent work on *Spinal Disease;* and having professed an honest belief in the value of his practice, I trust that my remarks may not be attributed to ungenerous motives.

Case XXIX in his book you will find illustrated by four photographs, two of which I show upon the wall enlarged to scale. Fig. 1 shows, with considerable advantage, the angular deformity of the spine in a boy who is about to be suspended for the application of a jacket. Fig. 2 is intended to represent the same boy after the application of the jacket; but you will remark that the former is the photograph of the back, where the deformity is; the latter is a portrait of the front and side of the chest, where the deformity was not. This rotation which the photographer has inadvertently given to the patient would be quite enough to lead to the disappointment of a surgeon who, impressed with and influenced by these "before" and "after" photographs, is induced to strive for a like result in a similar case; but let him dismiss from his mind all thought of straightening an angular curvature of the spine, and an intelligent use of Sayre's plaster-of-Paris jackets is sure to be attended with the greatest advantage. I cannot understand how it is that one so constantly hears expressions of disappointment in connection with the use of the jackets. So unapproachable in its simplicity and so efficacious in its dealing with these little surgical outcasts do I consider the treatment to be, that I sincerely regret to see signs of its dropping out of surgical fashion.

Hernia.—Hernia in childhood, like prolapsus ani, is generally but a symptom of some pathological condition. As a rule, the trusses which the maker supplies for the "rupture" are much too strong and unyielding. I have seen, in a babe, a large ulcer in each groin from the result of the pressure of a double truss, which probably was never required at all. The most troublesome cases of congenital hernia are those which are associated with an imperfectly descended testis; if a truss be applied to keep up the bowel, the gland is prevented from descending; and I advise that an infant with such a condition of parts be kept lying as much as possible, so as to avoid the need of a truss to the utmost. I have seen good result from the nurse following instructions to constantly coax down the testicle by pressing the finger close above it, but I suppose that it happens more often than not that the gland which refuses to take its proper place in the scrotum, which lingers in the canal, or wanders into the perinæum, is and will be physiologically worthless.

Perhaps the commonest cause of hernia in childhood is a small preputial or urethral orifice; and, next to that, I would put the smegma-hiding or adherent prepuce. All such conditions give rise to frequent

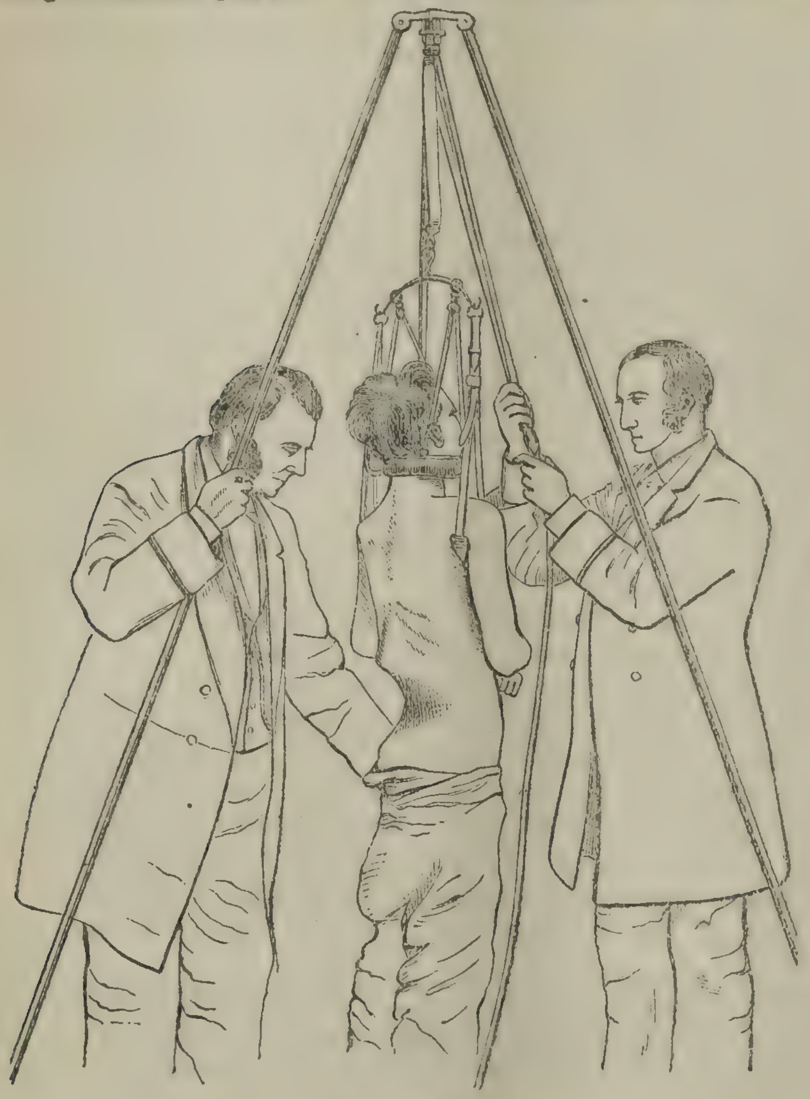

Fig. 1.

and forcible expulsive efforts, but these facts have been sufficiently dealt with by Mr. Arthur Kempe in the *Lancet* of 1878. That a long prepuce is apt to give rise to "irritation of the bladder" is a matter of such

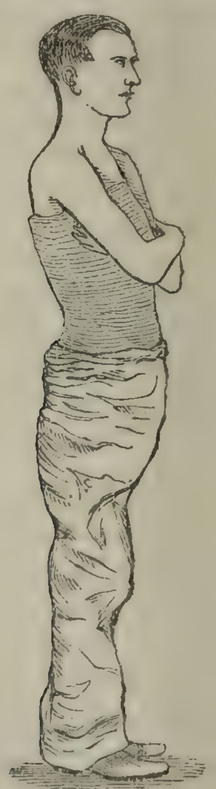

Fig. 2.

requent occurrence as ofttimes to escape our serious attention; it is the converse of the proposition of stone in the bladder giving rise to an itching at the end of the penis. By day, the boy endeavours to allay the symptoms by pinching the prepuce; but by night, when the brain is dormant and the voluntary movements are suspended, and the supervision of the genito-urinary tract is given over to the well-meaning but misguided cells of the grey matter of the cord, a slight physiological mismanagement is apt to occur. The sensory filaments which are distributed to the muco-cutaneous tissue at the end of the penis are derived from the internal pudic trunk, itself a branch of the sacral plexus (fig. 3).

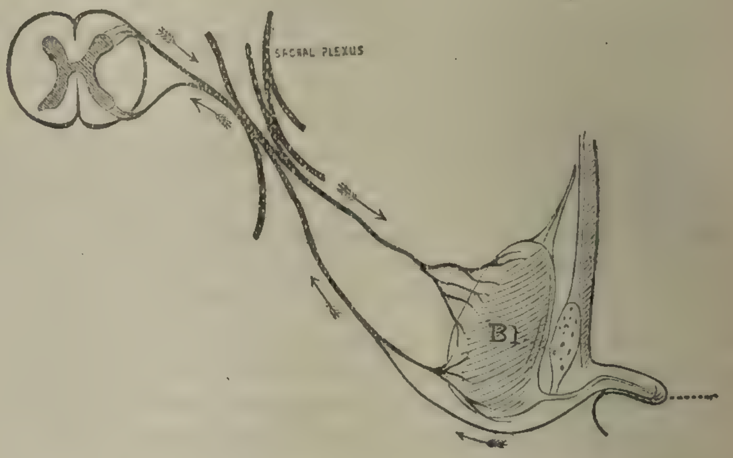

Fig 3.—Sacral Plexus: Nerves of the Bladder and Penis.

The nerves of this plexus lose themselves in the grey matter of a certain part of the spinal cord, from which are passing out, through that same interlacement, the efferent fibres which are destined for the supply of the muscular walls of the bladder. But more than this, that same colony of cells receive the filaments which carry up sensations from the mucous membrane which lines that viscus. It may be on account of the exceeding instability of the protoplasmic substance of those cells; or it may be that by education and design they are more specially occupied with the care of the bladder rather than of the end of the penis; but in one way or another, they are induced to interpret the isomeric transformations propagated by the axis bands of the filaments coming from the latter and less important area as messages of unrest and distress from the bladder itself. Now for this disquieting condition they know of one, and only one, means of affording relief and, putting it in force, the unfortunate boy is, in the morning, perhaps severely reprimanded for having unconsciously wetted his bed. The narrower the field of work in which nerve-tissue is occupied, the greater is the risk of its failing to appreciate morbid conditions which happen to be in any way foreign to that specialism.

Nævi.—If a nævus be small, quiescent, and not unsightly, it is well when the anxious mother can be induced to leave it uninterfered with; but if for one reason or another treatment be advisable, I do not think that any better application can be found than the old-fashioned one of nitric acid. But as this valuable caustic is colour-blind, and attacks with equal energy the healthy pink and the deeply stained skin, a thick layer of grease should always be spread close around the margin of the skin to be destroyed; from a neglect of this simple precaution, one frequently sees scars far more unsightly than the nævi ever were; but as the latter had disappeared in the process of treatment the parents are not discontented. For the obliteration of small nævi, almost any treatment avails, but the large subcutaneous vascular tumours often met with in infancy are apt to prove troublesome and obstinate in the extreme; for these, ethylate of sodium is almost useless, whilst electrolysis has to be employed time after time before effectual impression can be made upon them; and as the process is painful in the extreme, and demands the frequent administration of an anæsthetic, I have now almost ceased to employ it. The treatment by setons soaked in a solution of perchloride of iron is often effectual, but it is tedious and somewhat objectionable. In my experience, Paquelin's thermo-cautery affords us the means of attacking and destroying with well-nigh certainty at a single sitting the largest nævus. I lately removed in this way at one operation a large nævus, which involved the nipple and a great deal of the mammary tissue of a female infant, taking away the whole of the gland with the affected piece of skin; the cicatrix which was left was extremely small.

In dealing with small nævi, I have experimented a good deal with a sample of ethylate of sodium which Dr. John Brunton was kind enough to give me, but I found it unequal to the maintenance of its reputation; with many advantages, it is not so certain in its action as the strong acid, though, for superficial growths, it answers well enough.

REMARKS
ON
DILATATION OF THE STOMACH AND ITS TREATMENT.*

By T. CLIFFORD ALLBUTT, M.A., M.D.,
Physician to the Leeds General Infirmary.

In the year 1869, my attention was arrested, when reading the *Archiv für Klinische Medicin*, by a paper of Professor Kussmaul's on dilatation of the stomach and its treatment. The method described by the author seemed so reasonable and appropriate, that I at once formed hopes of its success, which, if they have dwindled somewhat in the following ten years, are by no means extinguished.

But before I begin to speak of Professor Kussmaul's method of treating this malady, I must confess that the perusal of his paper instructed me much concerning the nature of dilatation of the stomach, and indeed concerning the existence of dilatation of the stomach as a primary state. I have reason to know that many, even eminent physicians, are not familiar with the fact, that dilatation of the stomach may appear as a simple disease, apart from the well known secondary forms of it, which result from pyloric and other mechanical obstructions.

My mind was prepared to receive this proposition for, in the year of the publication of the aforesaid essay, I had a case which seemed to correspond with Kussmaul's description, and this, on subsequent examination, turned out to be of that kind. Since that time, I have met with many cases; but the comparative failure of treatment, and still more the difficulty and discomfort of the method in private practice, cooled down my ardour in its application. Moreover, I found it very difficult to persuade family practitioners to undertake a treatment which is often disgusting, and always very troublesome. Some practitioners promised to carry it out and did not; others refused to do it, and afterwards did try imperfectly. In some other cases, the patients absolutely declined to submit to the method; and lastly, in some cases, both doctor and patient happily so far agreed in the work as to give it a fair trial, but with success not always brilliant. Still, I gradually gained experience—of a fragmentary kind, it is true, and oftentimes more negative than positive, which yet prevented my losing sight of the method of treatment—which year by year impressed upon me the modes and course of cases of dilatation of the stomach, and which made many obscure cases clear to me.

When Dr. Jacob was appointed house-physician to the Leeds Infirmary, I expressed a wish to have a case of simple dilatation of the stomach treated on Kussmaul's method, and to his perseverance I owe almost the only complete examples of this method to which I can refer. These cases Dr. Jacob publishes in connection with my present paper; and he would here join with me in thanking more than one resident assistant officer who gallantly aided him in his disagreeable task.

Although the existence of simple and primary dilatation of the stomach as a substantial malady was a new discovery to me in 1869, and although, as I have said, it still comes as a novelty to many of my brethren, yet it has been recognised by not a few of our predecessors and contemporaries. Leube, in his section on this malady in Ziemssen's *Handbuch*, vol. vii, part 2, 1876, states that the malady was recognised among others by Spigelius in 1623, by Van Swieten in 1754, by Sauvages in 1768, by Morgagni in 1774, and in our own time by Oppolzer and Traube. Of modern writers on the subject, I am chiefly indebted to the treatise of Kussmaul, already indicated; to a treatise on the subject by Penzoldt, published at Erlangen in 1875; and to Leube's section in the *Handbuch*. To these sources I must refer my hearers for much of the detail; and I shall content myself now with describing the main features of the ailment and of its treatment, confining myself almost entirely to those facts of which I have personal experience.

I have had but two opportunities of seeing on the *post mortem* table specimens of dilated stomach, apart, that is, from causation by mechanical obstruction. In both cases, the stomach was enormously enlarged, and indeed, on section of the abdominal wall, was seen to occupy the whole of the anterior portion of the abdominal cavity. I have not measured the cubic contents of such a stomach. The pylorus and duodenum in these two cases were also dilated. Neighbouring organs were thrust into the rear, and the bowels were nearly empty. The coats of the stomach when cut into were seen to be thickened, chiefly, it would seem, by development of the muscular coat. The mucous membrane was smooth and thin, but I have no notes of its structure. The enlargement of the cavity was uniform in both cases, the larger curvature reaching into the hypogastrium. Indeed, to my eye, these stomachs differed but little, if at all, from those in which dilatation had been caused by pyloric obstruction.

The more careful necropsies of other writers speak of a general thinning of all the coats of the organ (Penzoldt) in a minority of cases, which are to be contrasted with those other published cases in which the walls of the stomach have seemed, by great hypertrophy, to have resisted dilatation, in which, indeed, an enormous hypertrophy of the muscular coat has actually diminished the cavity of the organ. Commonly it is found that, although the stomach be greatly enlarged, yet the muscular coat is not atrophied, but decidedly hypertrophied; and, moreover, that the intimate structure of the muscular coat is not degraded. The parallels which may be drawn between such a state of the stomach and like states of the bladder and of the heart, will not escape notice; though in these latter cases the dilatation is mostly due to obstruction and growth, and not to simple distension by excess of ingestion, or like agency. The only other detail now to be noticed in these necropsies is the position of the colon, which, in well marked cases, occupies the lower hypogastrium, or may be overlaid by the stomach.

Such, in rough outline, is the dilated stomach. The chief cause of a dilated stomach is, no doubt, obstruction forwards—a thickening of the pylorus by cancer, cicatrix, or otherwise; and, as in the cases of the heart and bladder, the relation of hypertrophy to distension depends on the health of the individual, and on the gradual advance of the obstruction. In simple dilatation of the stomach, the cause is not found in pyloric obstruction, the pylorus being often itself dilated. The causes lie in the stomach itself. In those cases in which the muscular coat is atrophied, the sac gives way, perhaps from its own inability to resist ordinary strain. Such cases are certainly a small minority of those recorded in the *post mortem* room, but I believe the condition to be a common one in patients debilitated by prolonged disease, and especially by febrile disease. These patients often recover; or if they die, their death is due to more direct causes, and these are the causes which occupy the attention of the dissector. At the same time, dilatation of the stomach is certainly a serious drawback in the recovery of weakly persons from prolonged, and especially febrile, disease. I repeat "from febrile disease", because it is an especial property of febrile disease to deteriorate muscular fibre. Such a dilatation is at present, and for many months has been, the chief obstacle to the convalescence of a gentleman whom I often saw in rheumatic fever twelve months ago, with Dr. Wilson Fox and Dr. Deighton of Clapham. The state of his heart was the graver evil, but the simple dilatation of the stomach was more immediately troublesome. In peritonitis, dilatation of the stomach is often an annoyance and a difficulty, and in tubercular peritonitis with extensive adhesions, I have often found the stomach to occupy the whole of the middle of the abdomen. The adhesions themselves are probably the chief cause of this unfortunate complication, for it is stated by other writers (*vide* Leube, *loc. cit.*, etc.) that single bands and like chance adhesions are potent causes of simple dilatation. It is intelligible that this should be so, but I have no experience of the process except in these general adhesions. Leube hints that there may be direct nervous palsies of the stomach; this, again, is intelligible, but beyond my own knowledge.

Among the most patent causes of gastric dilatation are large and indigestible meals; as for instance in in the stomachs of those races of men who live upon coarse vegetation, or even upon a kind of earth. In one of my earliest and best marked cases, a lady patient of Mr. Nowell of Halifax, the dilatation was caused by the long-continued use of large quantities of aërated waters and of effervescent salines. In another class of cases, the stomach gives way under ordinary weights of ingesta, perhaps on account of weakness in the walls of the organ, but more probably, as I think, because, by defect of peptic power in some way, ordinary weights of food fail to be rapidly melted down, and fermenting, set up meteorism, and thus the stomach becomes enlarged. Leube and Penzoldt say that dilatation is found as a consequence of chlorosis, and I presume partly in the above way. If the dilatation be due to simple yielding of the walls of the sac, I imagine that the muscular coat would be atrophied. In some cases, no doubt, this is the course of events; but, as I have said, the muscular coat is often hypertrophied, as we see in the bladder and the chambers of the heart.

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

So far as my experience goes, the disease occurs in both sexes. If it be the consequence of debilitating disease or of tubercular peritonitis, it is found in young life; but as a primary event, it belongs to middle or advancing years.*

Among the changes which, in my experience, do not as a rule produce dilatation of the stomach, are, hysterical vomiting, ulcer of the stomach, and even catarrh of the stomach. I believe that the intolerance of ingesta in these states prevents dilatation, vomiting being readily induced, repeated at short intervals and for small quantities. Chronic catarrh of the stomach without much vomiting, but with defect of peptic power, may well end in dilatation.

The symptoms and signs of dilatation of the stomach are not easily made out in the early stages of the malady. The aspect of the face and abdomen, and the physical examination, do not give very strong grounds for inference. It will be an easier task to speak now of the well marked stages of the malady.

The patient at first sight appears wan, both in colour and flesh, and, if in mature life, the face takes a parchment hue, and gathers itself in more and deeper wrinkles. The emaciation of the frame falls upon fat and muscle alike, and the patient drags himself wearily, and bears upon his countenance the expression of chronic distress. He complains, however, rather of an ill-defined misery than of precise pain, and suffers rather from the wretched gnawing depression of abdominal disease than from the acuter forms of agony. It is often hard to distinguish the aspect of one thus afflicted from that of cancerous disease. Nor can it be said that cancerous disease is to be distinguished from simple dilatation by this—that the appetite in dilatation is often preserved, nay, is often bulimic; for in some cases of dilatation the appetite fails, though usually it does not, while, conversely, the appetite is not defective in all cases nor in all stages of pyloric cancer.

There is some help, however, in this consideration, that the appetite is mostly good, or even large, where the dilatation is of local causation, and is defective rather in cases where the dilatation is a marked local result of a general cause, such as a continued fever or anæmic debility. Defect of appetite may in many cases be simulated, the patient's desire for food being subordinate to his fear of the discomfort which food creates. He has an appetite, but he dare not satisfy it. Heartburn, sour eructations, and meteorism follow his meals, and peace is only obtained by a copious vomiting of the fœtid accumulations which sicken and torment him. The quantity and character of the ejecta are generally characteristic of dilatation, whatever its cause. The vomiting is often deferred until the accumulation of its contents is more even than the amplified organ can tolerate. Forced by the energy of the hypertrophied muscular coat with exceptional violence from the gullet, a mixture of fermented matters, sour liquid and half-changed food may fill a wash-hand basin, and may, to eye and nose, nearly or quite resemble the offensive mess known to the housewife as swill. Sarcinæ are commonly present. Although this vomiting may be so deferred as to become almost periodical, yet failure to vomit may well be a bad sign.

Constipation is usually well marked. The urine is diminished, as in all cases of vomiting; and Quincke, as quoted by Leube, says that the rejection of so much acid by the gullet leaves the urine alkaline. Muscular debility is of course great, or even extreme. Kussmaul says that the patients are liable to severe cramps of the flexors of the limbs, trunk, face, neck, and even pupils. These were noted in Case II. Kussmaul attributes the cramps to the drying of the nerves and muscles. I never saw dilatation produce dyspnœa by mechanical pressure.

The aspect of the abdomen is often very characteristic. It is rarely tense, but the skin, withered and gathered into folds, sinks with the fossæ which surround the visible bag of the stomach. This tumid viscus may occupy the chief part of the abdomen, and be easily distinguished by the eye alone. Not uncommonly, its peristalsis may also be seen. If the outlines of such a stomach be indistinct, they may be brought out by the administration of an effervescing draught. The outlines and volume of the viscus are still more perceptible on palpation, and on lighter or firmer grasp peristalsis may often be excited. By percussion, the dimensions of the resonant sac may be more carefully defined, the colon being often depressed into the hypogastrium. The limits of dulness may vary with the position of the patient if the contents of the stomach be sufficient, and by such means the stomach may be distinguished from the colon. Most characteristic, however, are the splashings in the stomach, audible even to bystanders when the trunk of the patient is sharply moved, or when the stomach itself is purposely shaken by the hands of the observer. A dilated stomach no longer closes upon its contents, but its contents lie in a resonant air-chamber, and splash in this on any commotion, as water will splash in a decanter. This splashing, so artificially produced, cannot be mistaken for the capricious rumblings common in the intestines of the gastralgic. Finally, the sound may be used, and the degree of dilatation made out in part, by marking off the length of the instrument passed beyond the barrier of the teeth, partly perhaps by manipulation of its point through the walls of the abdomen. This latter method, freely referred to by the German writers, does not seem to Dr. Jacob or myself to be always practicable or easy. If the point of the sound should be felt below the umbilicus there will be a strong presumption in favour of dilatation of the stomach, though the possible stretching of the viscus by a rude experiment is not to be forgotten. I have myself, however, seen the point of the sound but little above the pubes, in a case in which every care was used. The absence of any evidence of pyloric tumour to the touch of the physician cannot be taken as evidence of simple dilatation, and a precise diagnosis herein is sometimes impossible, though the history of the case is often of great assistance to us. Fortunately, the distinction, however important for prognosis, is not very important in respect of treatment.

Diagnosis being thus attained, we have to consider the treatment. The condition to be relieved is the accumulation of decomposing food in the dilated and more or less flaccid stomach. It is this accumulation of foul contents which pains and poisons the patient, and which prevents due absorption of nutriment. We have here a condition not unlike that of the bladder in retention—a small remnant of decomposing matter is left behind after each attempt at evacuation, and thus a constant process of fermentation is secured and the distension and catarrhal irritation of the viscus perpetuated. Catheterism in the one case as in the other is the essential remedy, and but little certainty of relief can be promised on any other plan. The use of disinfectants may of course give us some help, and the careful regulation of diet may aid us still more. By the use of hyposulphites, of alkalies, of carbolic acid, of iodine, and the like, the contents of the stomach may be kept sweeter, and the prescription of small quantities of easily digested food will prevent the gathering together of volumes of unabsorbed ingesta. Such measures, with the use of nitrate of silver and bismuth in cases of catarrh, will perhaps promote relief and even a tardy cure. Still, if the organ be day by day imperfectly emptied, the daily remnant will with difficulty be kept sweet, and progress will be difficult, slow or invisible. To secure more prompt and decisive results, the stomach must be cleansed daily by mechanical means. Thus absorption of purer aliment is favoured, while the presence of disinfectant medicines does not favour either solution or absorption. By daily washing out of the stomach only can we hope to do good at once, and this may be done in three ways: 1. By the free daily use of such saline purgatives as the Carlsbad salts, which sweep the digestive tube clean and favour the passage of its contents from above downwards. This I use in all cases except those in which I believe the pylorus to be much constricted; but I prefer not to administer such salines in effervescence, as this aggravates the distension; 2. By the use of the stomach-pump; or 3. By the use of the stomach-syphon.

Both Dr. Jacob and myself are agreed that the stomach-pump is unnecessary, and we always use a syphon of the kind which Dr. Jacob will hereafter describe. Herein we are in opposition to Leube and other writers, who contend that the stomach can only be emptied of liquids by the syphon, solid matters remaining.* But we believe by free irrigation of the stomach such semi-solid matters as the dietary may admit may be as well removed by the syphon as by the pump, and the syphon is an easier and a safer instrument to use. By its means, the stomach is washed out and freely irrigated with simple warm water or with water slightly acidulated with nitric acid, and the mucous membrane is thus kept clean and wholesome. For the first few days, the treatment may be unwelcome to the patient, but the unpleasant sensations of the tube and its passage are soon overcome, and the relief given is soon found to be so great that patients cry out for its repetition. If there be any defect in peptic power, it is well to add lactopeptine to the ingesta, but as a rule the syphon alone is sufficient. The class of cases under consideration are often of long standing; and recovery of the viscus must at best be a tedious affair.

Dr. Jacob will now read the records of the cases we have recently treated on this method.

CASE I. *Simple Dilated Stomach.*—R. G., aged 50, teacher of languages, was admitted to the Leeds Infirmary, under Dr. Allbutt, June 17th, 1878. He lived nine years in Mauritius, where he suffered for three years from dysentery, followed by "liver-complaint". He used to drink, while there, much brandy and soda-water, but never to excess. In 1850, he was in Belgium, and suffered there from ague, of which he had an attack in

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* In the postscript will be found reasons to modify this statement.

* This statement I also modify in the postscript.

Leeds two years previously. He had had gonorrhœa and orchitis, but not syphilis. During the last few years, he had been involved in several Chancery suits, had lost much money in business, and had great worry and anxiety. About four years ago, soon after his business troubles commenced, he began to suffer from sleeplessness and loss of appetite; this improved slightly when he went into the country, but had remained severe since. Three years ago, he began to suffer from pain and vomiting soon after meals. This continued till a year ago, when the pain immediately after meals ceased, and he began to vomit at intervals large quantities of "bile and mucus", as much as six quarts at a time.

A month ago, he began to attend as an out-patient: he was then ordered Carlsbad salts every morning, and slightly improved, but vomited now about three times a week. He had lived almost entirely on eggs, stewed cowheels, cocoa, and a little bread. Milk made him sick. Some hours after meals, he was troubled with flatulence and pain, only relieved by vomiting. After vomiting, he felt very well and could eat heartily. A week before admission, while he was attending as an out-patient, his stomach was washed out. This gave him great relief, and he did not vomit for four days afterwards. He had lost, in the last five years, about six stones in weight, but had gained a little flesh the last month.

On admission, he was thin and sallow. The tongue was large and flabby, and slightly coated, but moist. The abdominal walls were flaccid, but slighly distended at the lower part. The stomach-resonance extended from the fifth intercostal space to the level of the umbilicus in the left nipple-line (six inches). There was a succussion-splash on palpation. No tumour or thickening was perceptible. Nothing abnormal was detected in the liver, heart, lungs, or spleen. He was ordered some bismuth and strychnia three times a day, and two drachms of Carlsbad salt every morning. His diet was ordered to consist of cocoa, chop, three eggs, and a little bread. His stomach was emptied by a syphon-tube, about four pints of yeasty fluid being removed.

June 24th (one week after admission). His stomach had been emptied every day up to the 23rd, when it was proposed to omit a day; but he vomited in the evening, and was in such pain in the night that he begged to have the tube used. This was done with perfect relief to the pain. The washing out was continued every night.

August 2nd. He felt well, and had gained seven pounds and a quarter. He continued to improve under the same treatment, but suffered occasionally from sleeplessness, for which draughts of chloral and potassium-bromide were prescribed.

On August 20th, he was made an out-patient. He was then fairly well-looking; he suffered from no pain, provided his stomach was kept regularly empty. He had learned to empty his own stomach with the tube, which he took away with him. Since that time, he has been occasionally seen as an out-patient, and lately (June 25th, 1879), the following note was taken. "He looks well in the face; weighs ten stone (one stone more than on leaving the hospital ten months ago). He feels pretty strong, but cannot bear much work. His usual occupation, that of teaching languages, worries his mind and 'affects his stomach'. (He has been breeding rabbits lately). He still adheres to the prescribed diet (chops, eggs, cocoa, and bread). Three months after leaving the hospital, he was so well as to require to use the tube but four times a week; but lately he has been writing a book on *The Treatment of Stomachs in the Leeds Infirmary*, which has kept him up at night; and he has been much worse. The last few days, he has emptied his stomach twice a day. He is most enthusiastic in his praise of the treatment, and wishes all dyspeptic sufferers to provide themselves with stomach-tubes and do likewise."

CASE II. *Simple Dilatation.*—W. N., a blacksmith, aged 64, was admitted under Dr. Allbutt on October 5th, 1878. He had been a large eater, and had drunk much beer and porter, but little spirits. He had had good health (except for a severe blow on the head in 1848) up to ten years ago, when he began to vomit his food. This occurred about once a day, at varying periods after food. The vomited matter was sometimes "coffee-coloured", sometimes "yellowish", always thin and large in quantity, with a "fermenting smell". The longer the vomiting was delayed, the larger was the amount expelled. He had at the same time severe epigastric pain, worse just before vomiting, and relieved by that act. Ten years ago, he weighed fifteen stone; he now weighed eight stone four pounds. He had not varied much in the last few years, and had managed to do some work.

On admission, he was poorly nourished and anæmic. The tongue was slightly coated; the bowels regular. His appetite was good; but there was pain after food, and much flatulence. He suffered frequently from cramp in the legs, especially in the winter. The stomach-resonance extended to midway between the sternum and umbilicus. There was a succussion-splash on palpation. He had very little abdominal tenderness. He had never vomited any blood. He vomited, at 2 A.M. this morning, three pints of dark fluid with a sour smell, and had had no pain since. He was ordered a bismuth mixture and Carlsbad salt in the morning.

October 15th (ten days after admission). The stomach-resonance was slightly increased. There was no perceptible thickening or tumour. He had now very little pain after food.

October 25th. He vomited a large quantity last night.

October 26th. The stomach-tube was passed, and two pints of thick yeasty matter removed. About the same amount of warm water was injected and removed. This gave considerable relief.

October 31st. He vomited a small amount. The stomach was ordered to be washed out every night.

November 30th. He had gained eleven pounds in weight. There was very little to draw off when the tube was used. He felt well. He was made an out-patient; and he continued to attend about twice a week to have his stomach emptied, which he did for about two months. He was then apparently well.

CASE III. *Gastric Weakness: ? Dilatation.*—W. S., aged 31, draper, was admitted under Dr. Eddison on April 1st, 1878. His father died of "constipation of bowels". He had had no previous illness except pneumonia twenty years ago. He had lived on ordinary food in ordinary quantities, with two or three glasses of beer a day. About a year ago, he began to suffer from costiveness and flatulence. He used to vomit about once a day, which gave him relief. This was generally about an hour after meals. He also suffered much from pain in the epigastrium and between the shoulders. Occasionally he had been three or four weeks free from vomiting. A fortnight ago, he vomited at night something like coffee-grounds, and after this fainted. He had occasionally vomited a large quantity of frothy material. He had lost much flesh. Liquids agreed with him better than solids. He was very thin. His face was pale, of waxy tint. There was no clubbing of the nails. The abdomen was slightly distended and tympanitic, especially in the gastric region, with a well-marked succussion-splash. No tumour could be felt. There was nothing abnormal in the heart or lungs. The bowels were confined.

April 4th. The bowels had not been open four days. He vomited two pints of bilious matter mixed with food last night.

April 6th. He vomited three pints of turbid yeasty fluid. Two and a half pints of turbid fluid were drawn off by a syphon-tube; and the stomach was washed out with slightly acidulated water, which gave great relief.

April 12th. He had vomited once only since last note. The tube had been used daily, and now brought away only a few ounces. He continued to improve, and on June 2nd the tube was used every alternate day. He was discharged practically well on June 18th. The medicinal treatment consisted of strychnia, creasote, and dilute hydrochloric acid.

CASE IV. *Simple Dilatation.*—J. McC., aged 19, forgeman, was admitted on May 3rd, 1878, under Dr. Heaton. For the last six years, he had had occasional pain in the epigastrium. A year ago, he began to have severe abdominal pain, with vomiting about once a week. Two months ago, he went to sea for a month. He was sea-sick the whole time. On leaving the ship, he became worse; and in walking from Grimsby to Leeds, he had some sort of a fit, lost his senses, and was laid up two weeks with sickness and pain as before.

On admission, he was pale and anæmic, emaciated, and feeble. He complained of epigastric pain and swelling, worse after food. For the last week, he had vomited daily, generally in the evening, bilious matter, not food. He had had to take aperients for the last five or six weeks. His tongue was slightly coated; his appetite bad. He slept badly. The abdomen was retracted, not tender; the stomach-resonance was increased, measuring five inches vertically. There was a succussion-wave on palpation. Nothing abnormal was detected in the heart or lungs. He vomited nearly three pints of watery yeasty fluid tinged with bile last night.

May 18th. He had vomited daily once or more since admission, in spite of bismuth and hydrocyanic acid, and a blister to the epigastrium. To-day, the stomach-resonance extended from the fifth rib to a point one inch below the ribs in the left nipple-line, six inches and a half in extent.

May 23rd. He was ordered two drachms of Carlsbad salt every morning.

June 7th (one month after admission). He was still generally sick at night. He began to have pain about 11 P.M., which lasted till morning, disturbing his sleep. At noon to-day, a tube was passed, and a pint of brownish fluid evacuated. He felt relieved, and had very little pain at night, sleeping better than he had done for some time.

July 3rd. He had very little pain, slept well, and had gained flesh. Washing out was continued.

July 9th. The stomach-tube had not been used for the last three days, but he complained of severe pain last night, and it was again applied, with relief.

July 10th. He was made an out-patient, but ceased to attend after a week, and did not reappear at the hospital.

CASE V. *Dilated Stomach with Pyloric Obstruction (Malignant).*—D. M., aged 43, was admitted October 30th, 1878, under the care of Dr. Allbutt. He was a retired soldier. He had ague in India, and left the service in 1875. Since then, he had been a labourer. He used to drink. He had good health till five weeks ago. He then began to feel a fulness of stomach, with loss of appetite and "heart-burn". Two weeks ago, he began to vomit, occasionally bringing it on himself to obtain ease. He never vomited any blood. He had lost much flesh in the last five weeks. His bowels had been costive, but open with aperients. He had eaten regularly, but not his usual amount. At 2 A.M. this morning, he vomited about a pint of brown glairy matter.

On admission, he was thin, and pale in complexion. There was some epigastric distension, tympanitic on percussion, extending from the sternum to the umbilicus, with a succussion-splash obtainable on palpation. His tongue was clean, but flabby. He slept badly, but complained only of pain in the epigastrium after food.

November 2nd. He vomited a pint last night.

November 6th. His stomach was washed out this morning, about a pint and a half of glairy fluid being extracted. A similar amount was removed in the evening, with relief to the pain.

November 11th. He had been washed out daily since the 6th, but the introduction of the tube provoked vomiting.

November 18th. The passage of the tube produced some pain, and it was discontinued. He became gradually weaker, vomiting frequently, restless, and delirious.

December 5th. He was more sensible. The stomach contained a large amount of fluid.

December 9th. He was about the same, very weak. The stomach was very full. He vomited mouthfuls of blackish material. A tube was passed for the last time, and three pints of dark fluid drawn off.

He died on December 10th. The *post mortem* examination showed cancer of the pylorus.

In the cases above related, the amount of dilatation detected varied considerably. This seems of comparatively little moment, gastric dilatation being a normal state of many classes of people who live on large amounts of coarse food. The pathological condition begins only when, as in the case of the bladder or the heart, the viscus becomes unable to empty itself.

Cases I, II, and IV appear to have suffered from symptoms of simple dilatation. In the third case, the symptoms seemed to point to a possibility of malignant disease, though this was ultimately negatived by the recovery of the patient.

In every case, fair trial was given to drugs and diet before commencing the use of the stomach-pump; though, in the course of the treatment, the Carlsbad salt especially was of great use. The case of malignant disease is detailed to show that, even in cases where severe organic disease exists, the mechanical emptying of the stomach may be of use. At all events, in this case, it did no harm. We have found in hospital practice no repugnance to the introduction of the tube after the relief given by its use has been once experienced, and have completely realised the picture given by Niemeyer of the impatient patient, tired of waiting for the doctor's arrival, begging his assistant to operate forthwith. The relief given by the stomach-pump is speedy and effectual.

The instrument used was a soft œsophageal tube of Parisian make, of black material similar to that of which French catheters are made. This was preferred to those of the ordinary gum-elastic material, or the flexible red India-rubber tubes now in general use. These tubes are more easy to pass than the rubber ones, and are soft enough not to injure the throat. To the tube are attached about three feet of rubber tubing and a glass funnel. The whole operation of emptying the stomach occupies only about three minutes, if the contents be sufficiently fluid. About a pint of warm water was then injected and removed. If there be much semisolid matter in the stomach, it is more difficult to remove, and may require a more powerful suction-pump. It is remarkable how soon the œsophagus learns to tolerate the tube; and after a short time the patient will pass it himself rather than have it done by another hand.

How far this treatment may ever come into general use, as a means of treating other forms of dyspepsia, it is not for us to say; but it appears to us to be in every way preferable to the nausea and discomfort of an emetic when the evacuation of the stomach is the only object aimed at.—E. J.

POSTSCRIPT.—Since the above paper was read, two cases have come under my care which so far modify the opinions expressed above, that I have delayed publication in order to add some remarks upon them.

The first case is remarkable in respect of the age at which dilatation of the stomach has occurred. Miss A. D., aged 13, was brought to my chambers at the kind suggestion of Dr. Ingham of Haworth. The child had never enjoyed good health. For many months past, it had been noticed that the patient suffered from great distension of the abdomen, and from frequent and noisy rumblings. Vomiting also occurred very often. The appetite had changed, and the bowels as a rule were constipated, although sharp diarrhœa had appeared at intervals. The catamenia had appeared once or twice eighteen months before, but not since. The appetite is further described as not being always bad, but that the child would be fairly well for a day or two, that then the appetite would fail and the bowels get wrong, and, finally, abundant vomiting come on, when the child would be easier again for a time. The first event seemed to the parents to be a growing distension of the abdomen, which fell again when free vomiting had taken place. The vomit was described as profuse, and ejected with great violence as "in a spurt", so that half a washhand-basin is soon filled; food, mucus, and liquid came up, representing apparently the accumulation of days. The mass was often very frothy, offensive dark in colour; at other times there was rather water and catarrhal matter. Loud rumblings occurred at all times. On examination, the child was thin and had lost much flesh. The pulse was 70-80, and occasionally intermittent. The tongue was clean. The abdomen was tumid and had the elastic quality of a dilated stomach. It was painless to pressure, very resonant, and rumbled loudly when irritated by handling. The stomach was visibly hypertrophied even to the eye, and obviously so to the hand, for by grasping it its contractions were to be excited as readily as in the case of a distended uterus, and its twistings and sectional contractions were curiously evident. On succussion, large splashings were obtained with ease.

The second case is also in a young woman who now occupies one of my beds in the Leeds Infirmary. She is about twenty-five years of age and fresh-looking, not seeming at first sight to be emaciated. She presents the usual signs of dilatation of the stomach, and was sent in under my care by the kindness of my friend Mr. Fowler of Wakefield, who had recognised the nature of the case. I refer to her for this reason, that, on coming round the ward one morning, I found splashing in the stomach, although the organ had been syphoned but a short time before. This surprised me, and I requested Dr. Barrs to make a comparative experiment with the stomach-pump. He has reported to me that in this case he finds himself often unable to remove all signs of splashing by the use of the syphon alone, but that if he then completes the washing with the stomach-pump, he succeeds in dispelling all splashing on palpation. There is, however, the objection to the stomach-pump that solid matters when withdrawn are liable to stick in the valves. As we find that it is still open to question which instrument is in any case the best adapted for thoroughly emptying the stomach, we must work at this subject a little longer before expressing a final opinion. Both pump and syphon have their advantages, and in some cases the use of both may be necessary.—T. C. A.

Leeds, February 1880.

MEDICAL MAGISTRATE.—Mr. John James Nason, M.B., has been placed by the Lord Chancellor on the commission of the peace for the borough of Stratford-on-Avon.

OPEN SPACES.—The trustees of Lincoln's Inn Fields have refused the request of the Kyrle Society that these gardens should be thrown open at certain times like the Temple Gardens, the expense of supervision being borne by the Kyrle Society. They give the reasons that the gardens were purchased, inclosed, and planted under the authority of an Act of Parliament passed in the eighth year of the reign of George II (1734-5), at the instance of the then owners of the houses round Lincoln's Inn Fields, and that the whole cost of the purchase of the ground, and of the formation and maintenance of the gardens, has been borne by the successive owners and occupiers of these houses, the amount required for the purpose having been raised from time to time by means of rates levied upon them by the trustees under the powers of the Act. The right to the use of the gardens belongs, therefore, to the owners and occupiers of the houses round Lincoln's Inn Fields. The trustees are satisfied that the admission of the public would cause serious injury to the trees, shrubs, and flowers, and also occasion annoyance to many of the owners and occupiers of houses in Lincoln's Inn-Fields, who would resist this encroachment on their rights, as being beyond the powers of the trustees.

REMARKS
ON
PRIVATE LUNATIC ASYLUMS:
A REPLY TO DR. BUCKNILL.*

By W. G. BALFOUR, L.R.C.P.Edin., Westbrook House, Alton.

At the last meeting of this Society, Dr. Bucknill fully explained to you what are regarded as the defects and shortcomings of private asylums and their proprietors. These defects and shortcomings are denied by asylum-proprietors, who believe that they have no existence except in the lively imaginations of a few chronic lunatics, whose insanity is of a type that unfits them to associate in the same buildings with their fellows more honestly afflicted. With such conflicting assertions put before them, it is not a matter for wonder that the public have a dim idea that all is not as it should be as regards the care and treatment of the insane; that they readily pay attention to any description of a private asylum, however far-fetched, that is put before them in the lay and medical papers; and that they too easily believe what they hear.

When a veteran in lunacy like Dr. Bucknill throws the weight of his vast experience into the question, and, by writing and speaking, joins in the crusade against private asylums, not only the public, but even our own profession, have their faith in the value of these institutions shaken, and entertain grave doubts as to the worth of their proprietors.

Unfortunately for all interested in the treatment of the insane, there is not one of the charges brought against private asylums and those who have to do with them which might not be true. Fortunately, however, for us all, these charges cannot be substantiated. Dr. Bucknill and those with whom he associates himself in this matter fail to distinguish between what might be and what is; hence the antagonism between them and the proprietors of private asylums. If we go to the root of the whole matter, we will find that the unsatisfactory state of the lunacy law gives origin to the question in dispute. This lunacy law, were it not for the honesty of the medical profession, could be so manipulated as to render insecure the liberty of any one of Her Majesty's subjects. It is perfectly possible for any person to be falsely sent as insane to an asylum, to be unjustly treated while there, and to be detained, even when properly confined, longer than necessary, if the lunacy law, and the lunacy law alone, were the protecting agent; and it is this possibility of wrong being done (that agitators lay hold of and convert into a reality) which furnishes the basis for all attacks upon private asylums and their proprietors.

We can excuse the public for being led astray in this matter; but, gentlemen, can we extend the same forbearance to members of our own profession, who seem to ignore the great glory of their calling, that its honour is above the law and prevents wrong-doing, for which the law makes, to say the least, most insecure provisions?

On the question of profit derived from keeping private asylums, Dr. Bucknill expresses himself as adverse to members of the medical profession deriving gain from the treatment of the disease insanity in private asylums. I do not think he specified any particular gain obtained from the care and treatment of the insane in private asylums as an unfair gain; it seemed that any gain from such a source was wrong. From one point of view, Dr. Bucknill's idea on this subject is highly laudable and deserving of our most serious consideration, whilst from another it is simply absurd. Dr. Bucknill will forgive me for pointing out that physicians, when they receive a guinea for a prescription, are not in the habit of calculating this guinea as the profit they derive for the paper and ink they use in writing the prescription. Of course, the paper and ink used by the physician cost money; but so do bricks, mortar, lands, servants, food and clothing used in the treatment of the insane; and even the medical profession cannot entirely overlook the cost of such things. Private asylums are to their proprietors neither more nor less than the paper and ink to the physician. In both cases, it is the knowledge of the disease which is treated that is the source of income, and it is for this knowledge that payment is expected.

All the same, statements and counterstatements on the subject under consideration will not allay the feeling against private asylums that exists in the minds of the public; and it behoves us, therefore, to see if by anything we can do we can give the public what it wants, and, at the same time, secure for our speciality that position which it ought to have. Would it not be advisable for asylum-proprietors, instead of persistently refusing to recognise the defective state of the lunacy law, and being always ready to do battle for its defects by meeting charges unjustly brought against them, and for which the law alone is answerable, to turn to the public, and say—You think so badly of us and our asylums that you wish them done away with; we are quite willing that it shall be so; and, in order to help you, we advise you to go to Government and ask that the powers conferred on the justices of counties and boroughs to raise money for the purpose of providing accommodation for pauper lunatics in their respective districts should be extended, to enable the justices of counties and boroughs to raise money in like manner for the purpose of purchasing the private asylums and licensed houses, with all rights, etc., belonging to them in those districts? Such a proposal as this, coming from asylum-proprietors, would show that they, at any rate, were willing to bow to the opinion of the majority, which in all cases of public weal must be followed; and, on this point, Dr. Bucknill and I are agreed, but we arrive at the same opinion by very different roads.

If, gentlemen, you agree with Dr. Bucknill and myself that it *may* be advisable to abolish private asylums as such, and hand them over to Government, and that we ourselves should take the initiative in this change, the transfer could only be made on strictly commercial principles, for asylum-proprietors have their rights as well as other people; and, in parting with their asylums, they would expect, and are entitled, to receive adequate remuneration for what they give up.

I would suggest that the price paid by the justices to the proprietors of private asylums and licensed houses for the said establishments ought to be determined by the value of the land, buildings, plant, etc., belonging to, and used in the working of, the establishments, and by a sum of money paid to the proprietors in lieu of goodwill. As a business transaction, the total sum to be paid would require to be one which, if invested at fair interest, would return to asylum-proprietors a yearly income equal to what they had when they parted with their asylums. Adopt this view of the question, and I can see no reason why the change of proprietary should not take place; at the same time, I can see for ourselves an opportunity of promoting the highest interests of our profession.

If private asylums become Government property, it would be necessary to allocate them into districts; and that the justices of counties and boroughs should appoint for each district a duly qualified medical man to act as medical director of the public asylums in those counties and boroughs, to generally superintend the management of all the asylums. The medical director so appointed should be responsible to the justices in general and quarter sessions, who would determine his salary, and provide him with such assistance as might be deemed advisable to enable him to discharge the duties imposed on him.

It would also be necessary that the officers, medical and otherwise, holding office in private asylums or licensed houses at the time of transfer of these establishments from the proprietors to the justices, should be continued in their offices. The salaries should be arranged between the said officers and the committee of visitors, subject to appeal by the officers to the Commissioners in Lunacy in the event of any salary offered by the committee of visitors being considered by them unfair. The decision of the Commissioners in Lunacy to be final. All officers so appointed should be entitled to the provision as to superannuation grants, etc., at present in use in public asylums.

These two proposals, I submit, would, if carried out at once, raise the specialty to the front rank of medical services. A new and valuable appointment would be created, open to all connected with lunacy. The present medical proprietors of asylums would retain their original capital, and would receive Government appointments at fixed salaries whilst they were able to work, and a pension when incapacitated for further service. They would have independent positions, and be freed from much that, in discharging their duty, is at present distasteful to them. Last, but not least, they would be cleared of that unjust suspicion which now attaches to them, that they, and they alone amongst medical men, do professional work for gain, and gain only.

In order to place all private asylums in the country on the same footing, it would be necessary that Dr. Bucknill's proposal regarding private asylums in the metropolitan districts should be carried out; and for this purpose it should be enacted that private asylums and licensed houses situated in the metropolitan district, and being under what is termed "the *immediate jurisdiction*" of the Commissioners in Lunacy, should be in future under the jurisdiction of the justices in their respective districts. In addition to the reason given above for such a step, there is another, and one of much greater importance to us as medical men.

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* Read before the South London District of the Metropolitan Counties Branch.

The law, as it at present stands, provides for the Commissioners in Lunacy granting licences within a certain area to persons to receive lunatics for care and treatment into their houses. The Commissioners in Lunacy interpret this clause of the law as conferring on them the power to refuse to licence houses, notwithstanding compliance with all the requirements necessary before a licence can be granted. By this course of action, they virtually establish a monopoly in the treatment of disease in the metropolitan district, and conserve to a number of our profession, and to them alone, the power to receive patients in that district. On this ground, we, as medical men, are bound to come into antagonism with the Commissioners, as it is our duty to maintain that we, and we only, are the proper persons to decide how and where our patients shall be treated.

Dr. Bucknill suggested that the Lunacy Commissioners and the Lord Chancellor's visitors should be amalgamated. Such a step as this would, in all probability, be highly advantageous; and, in contemplating such a change, it might be well were we to try to have the Commissioners more largely represented by members of our own profession.

Thus far I have dealt with Dr. Bucknill's remarks mainly as they relate to the profession; they must also be considered as affecting the public. As before stated, any person may, under the present law, grant an order for the reception of any other person as a lunatic into a private asylum. A wife may give an order for the confinement of her husband, a husband for his wife, a servant for his master, or a master for his servant; even a complete stranger may sign away the liberty of a person regarding whom he absolutely does not know anything. It is quite possible, as stated by Dr. Bucknill, for a wife to be sent to an asylum without the knowledge of her husband; but I am at a loss to conceive by what power of reasoning he should imply, far less hold it up as a cause of complaint to you, that medical proprietors of asylums are responsible for such a state of things. Would he accuse the surgeons of any hospital in the country of wrong-doing, because they receive into their hospitals and treat people who require treatment unknown to their relatives? Asylum-proprietors have legal authority for such a step; and if, acting strictly on this authority, they receive persons into their asylums, are they to be blamed because some of the relatives are ignorant as to where their friends may be?

There is a protecting agent which prevents persons from being unjustly deprived of their liberty by being sent as lunatics to asylums; for, before such a step can be taken, two medical certificates of insanity must be obtained. It is these medical certificates, which cannot, I am proud to say, be dishonestly bought, that are the safeguard of the public. That not one of the agitators can point to a single case of false certificates having been granted, and substantiate it, is only another instance of *the integrity of an honourable profession*. This, gentlemen, is the opinion we asylum-proprietors entertain as to how you do *your* duty; and I feel sure you will believe me when I say that, were it possible for a sane person to be brought to us certified as a lunatic, we should refuse to receive such a case. Nevertheless, there still remains, as an inheritance from bygone days, the vulgar delusion that insanity is different from any other disease, and requires for its treatment isolation in some establishment which shall combine the properties of hospital and menagerie. Many things are concerned in keeping this feeling alive in the country; and I am sorry to see that the Commissioners in Lunacy, by objecting to persons, feeling for the first time that they are going insane, being received as voluntary patients into asylums, are helping to perpetuate such an unhealthy idea. The evidence given before the Select Committee of the House of Commons showed that, in regard to the law as it provides for the admission of persons said to be of unsound mind into asylums, twenty-eight witnesses were asked to state whether or not they considered that it was sufficiently stringent to prevent injustice from being done. Of the twenty-eight, twenty-five were of opinion thats by alterations affecting either the order of admission or the medical certificates, increased protection would be afforded. In order that the public may have their desire fulfilled, that when any of their number go insane they shall receive not only treatment, but a legal right to be secluded from the world whilst undergoing this treatment, granted by some constituted legal authority, it would be well to provide that it shall not be lawful for any person to be received as a lunatic into any asylum, except upon an order granted by a justice of the peace of the district n which the lunatic resides. Such order should be granted by the justice upon a petition subscribed by the party applying for the same, who must be a blood-relation or a householder, and of age, accompanied by a statement of particulars regarding said lunatic, and by certificates under the hands of two registered medical persons, neither of whom should be related to the lunatic, or in any way interested in the asylum to which it is proposed to send the lunatic; and no superintendent of any asylum should receive or detain any person as a lunatic therein, unless there should be produced to, and left with, such superintendent such order by a justice, dated within fourteen days' prior to the reception of the lunatic. Provided that the superintendent of any asylum might receive and detain therein, for any period not exceeding forty-eight hours, any person as a lunatic, whose case was duly certified by one medical person to be a case of emergency, thereby affording time to obtain the additional certificate and the order of the justice.

One of Dr. Bucknill's strongest accusations against private asylums is, that persons are detained in those places longer than necessary. This assertion has two sides to it, like everything else. It is just possible that what might appear to Dr. Bucknill, with only limited knowledge of a particular case, unnecessary detention, would, to those most conversant with all the circumstances of the case, be not only necessary, but essential for the safety of the individual whom it most concerns—viz., the patient. Even if an error in this way sometimes take place, it is, as a rule, an error on the right side.

At present, it is extremely difficult for asylum proprietors to advise continued detention when the friends of patients wish them to be liberated, although their experience tells them that the detention is needful; and I should think that they more frequently err in discharging rather than keeping persons in their asylums. Seventeen witnesses were asked by the Select Committee whether detention in private asylums was unduly prolonged, and of those, ten admitted that it was possible and probable, and four that it might take place.

The transfer of private asylums to the Government would relieve their proprietors from all suspicion of wrong-doing in this way; and to make the public security more complete, it would be well to provide that, in no case shall the powers conferred by the justice's order remain in force longer than the first day of January first occurring after the expiry of two years from the date on which it was granted, or than the first day of January in each succeeding year, unless the superintendent or medical attendant of the asylum in which the lunatic is detained, on each of the said first days of January, or within fourteen clear days immediately preceding, grant and transmit to the Commissioners in Lunacy a certificate to the effect that the detention is necessary and proper, either for his or her own welfare, or the safety of the public.

And as complaints were made to the Select Committee regarding the difficulty there is for persons interested in lunatics obtaining access to them, and it has been pointed out that the necessary permission could only be granted by the person who signed the order for admission or by the Commissioners in Lunacy, it would be well to provide that it shall be lawful for any person, having procured and produced the certificate of two medical persons approved by the Commissioners in Lunacy, hearing that any lunatic may without risk or injury to the public or to the lunatic himself be set at large, and also an order from the Commissioners in Lunacy for the liberation of the lunatic, to require the superintendent of the asylum in which such lunatic is confined to liberate such lunatic. These suggestions are found to work perfectly well in other countries; they legally provide a valuable safeguard against unjust detention in asylums, and there seems no reason why they should not be used in England.

Dr. Bucknill advocates the individual rather than the associated treatment of the insane. I have seen both plans tried, and where they can be worked together they are productive of great good; but once admit that chronic and harmless lunatics should be removed from asylums and placed under private care, and (independent of the difficulties which would arise alike to patient and the profession) you implant into the country a source of evil for the present and the future which nothing will get rid of. The removal of chronic lunatics from asylums would result in the loss of one of the principal curative agents which asylum doctors possess; to increased taxation, as what is paid for chronic cases helps to balance the cost of keeping acute; to asylums becoming places where it would be impossible for sane persons to live for any length of time, without reverting to the old system of treatment with chains and whip, and to numerous other ills, which only those connected with asylums can realise.

The suggestions placed before you as a means of remedying some of the ills alluded to by Dr. Bucknill, are only meant to furnish a basis upon which a measure, partly of reform and partly of alteration, might be constructed. I have tried to put matters relating to private asylums and their proprietors, complained of by those who are opposed to them, in their true light. I have pointed out that the insinuations which are being constantly laid before the public against private asylums and their proprietors are founded on a defective state of the lunacy law, and not on faults attaching to the asylums, or to those to whom they belong. I sincerely trust that, if accusations are brought against asylum proprietors in the future, they will be individual and specific, in order that they may be answered; and where defects exist having their origin in the lunacy law, that the lunacy law may bear the blame.

ABSTRACT OF LECTURES
ON
THE STRUCTURE AND FUNCTIONS OF THE VERTEBRATE SKELETON.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, M.R.C.S.Eng., F.R.S.,
Hunterian Professor of Anatomy in the College.

LECTURE II.

IT is by no means easy to tell which part of the head in the early embryo is the terminal end of the body, from the circular manner in which the primary vesicles are placed. The most prominent part (which is composed of the middle vesicle) is not the termination, but the vesicle which lies underneath it—the fore-brain. This view is favoured by a study of the development of the cranium and notochord. The notochord has been traced up along the basis cranii as far as the posterior clinoid process, in which it forms a hook by bending over of the notochord. As far as this point (the posterior clinoid process of the sphenoid) the development of the skull and spinal column has been clearly demonstrated, but there exists great varieties of opinion regarding the development of portions anterior to this; as knowledge is gained regarding the various arches of the face and their morphology, so will the development of the anterior portions of the cranium be explained.

The vertebrate kingdom is divided primarily into two great groups, namely, the anamniotic and amniotic vertebrates, according as the embryo possesses an amnion or not. The first group contains only one subdivision, viz., the ichthyopsida, which comprises the fishes and the amphibia; while the amniotica contains two: the sauropsida, which includes the reptiles and birds, and the mammalia, which are usually classified into non-placental and placental, according as they possess or do not possess a placenta. The young of the anamniotica are developed directly upon the ovum without any amnion, allantois, and chorion. In adult life, some of them acquire what may be taken to represent the allantois, but it has no allantoic function. Of this group, the lamprey and the frog are taken as the type specimens, the former being the lowest and the latter the highest in development. Of the next group—the sauropsida—the lizard may be taken as the type. The development of the two classes of this group, namely, the reptiles and birds, is for a considerable time alike; so much so, that one description is applicable to the embryo of both. It is not till the embryos have developed to about 9 *millimètres* in length that they begin to diverge, the beak of the bird becoming gradually longer. This takes place between the sixth and ninth days of incubation. One distinguishing peculiarity of the sauropsida is that the skull possesses only one condyle, which is formed as a ball-and-socket joint. The mammalia not possessing a placenta are a limited subclass, containing only the monotremes and marsupials, though the former may almost be considered an intermediate stage between the sauropsida and the mammalia, so widely do they differ from true mammals. The great majority of the mammalia belong to the placental group. The lowest of these are probably the insectivora and edentata, and the highest bimana, of which man is the only representative.

LECTURE III.

IN the early embryo, there is only an axial skeleton developed in the first instance, and it is not till a later period that the extra-axial parts appear. The earliest part of the extra-axial skeleton to be developed is the labial skeleton, or the skeletal parts around the mouth; the next parts we find are the extrabranchials, which appear in the form of bands supporting the branchial arches. After those, we find the basis cranii developed. This is formed, in the first instance, in cartilage, which in most cases becomes ossified. The mandible and hyoid bone shortly afterwards appear, and immediately afterwards the intrabrachials. The vesicles of the brain are covered over by the gradual extension upwards on each side of the ossification of the superficial parts of the cranium, which became the parietal and frontal bones. About this time, the segmental spinal column appears as a series of paired cartilages, over the myelon, enclosing the notochord. An elongated head seems to have been the particular form of that part of the body in the early condition of all the low forms of vertebrates, and can still be seen in the lancelet. In those forms, the vagus nerve can be seen to come out between each respiratory cleft, and immediately divide into two branches. Before the head is completely formed, the spinal cord makes its appearance. This it does by a groove forming in the epiblast, which becomes converted into a tube by the sides of the groove enlarging and approximating till they unite. The layer of the hypoblast also increases in size, and forms the digestive tract. Between the two layers appears a third layer of cells, called the mesoblast; from this are developed all the structures which lie between the epidermis and the digestive tract. The mouth does not exist at first, but is formed afterwards as an involution, which is probably not terminal, as the alimentary tract possibly extended beyond the mouth in ancient forms. The limbs appear, in the first instance, as thickenings in the body-wall, consisting of masses of cells which soon form themselves into small cartilaginous plates. They then assume the form of buds, the extreme terminations of which are quinquifid, projecting from the sides of the body. These at a later stage have increased in size, and become supported on frameworks of cartilage which gradually ossifies as the embryo becomes older and more mature.

The rigidity with which nature adheres to typical numbers of segments and organs in the body is very remarkable, and when a deviation from the number has taken place in any particular form, there is constantly a tendency to return to the original number, although great variations in the particular structure or organ may have occurred. Examples of this are seen in the gills of fishes and in the number of segments of the fingers and toes, although the former become modified in the thumb; that is, however, explained by its being one of the series, that has a new function assigned to it.

EXTROPHY OF THE BLADDER.

By J. GREIG SMITH, M.A., C.M.,
Surgeon to the Bristol Royal Infirmary.

IT is to me a matter of sincere regret that, in my paper describing two cases of operation for extrophy of the bladder, I neglected to give due prominence to the highly distinguished labours of Professor Wood in this department of surgery. So closely is his name connected with the successful treatment of these cases, that it would be absurd for anyone to undertake similar operations without, in the first place, mastering the methods he pursues. To every surgeon these are, in a general way, so familiar, that I thought it unnecessary to occupy the limited space at my disposal by referring to them. No one could suppose that I had not profited greatly by his labours, as, indeed, I hope I have profited by the labours of others in the same department.

That Mr. Wood (probably through my fault) misunderstands my plan of operating is evident, partly from his statement that it differs in no important particulars from his own, and partly from his criticism of procedures I never instituted. But there is one point on which, I think, the fault is not with me. If Mr. Wood "has never in his now numerous cases employed hare-lip pins so as to include *both* thicknesses of the transplanted tissue", how are we to interpret these words of his?—"Three hare-lip pins were then passed across the median line from one of the superficial flaps to the other, *each being made to transfix the deep or reversed flap*, and so to hold the three firmly together." And, if I have erred, it has been in good company, for Erichsen writes: "The flaps are then secured in position by hare-lip pins, each pin passed so as to transfix both the groin flaps and a *fold of the umbilical flap* beneath, holding the three firmly together." Now, I know that "a fold of the umbilical flap" means "a small piece of connective tissue"; but I think that, from the language I have quoted, most people would have drawn the inference that I did. Still, I fail to see how flaps can be "held firmly together" by small pieces of lax connective tissue; and, seeing that the blood-vessels lie in this connective tissue, the firm holding and compression are of that very tissue we wish to conserve. And, even if the analogy of the hare-lip operation were correct (which it is not, differing as the tissues do both as to direction and as to abundance of blood-supply), no amount of argument will convince anyone that a straight body can enter a plane at one point and come out at another, without causing a flexure of that plane. Lastly, if none of the evils I dreaded follow the introduction of hare-lip pins, on what grounds, may I ask, has Mr. Wood, after his great experience, given up the proceeding which I, on purely theoretical principles, rejected from the first?

Mr. Wood's further criticisms are of procedures I did not institute; and I am warned to beware of contingencies which can never occur. "The strain upon the sutures (central, he must mean, for he uses no other) in this operation depends almost solely upon the forcible protrusion of the hinder wall of the bladder by the action of the expiratory muscles, and no operation which does not take this condition into account will succeed." This may be so in Mr. Wood's operation; it is not so in mine. The protrusive force of the respiratory muscles was ignored; no strapping or any other adhesive agent, such as he employs, was used; so far as tension was concerned, sutures might have been dispensed with altogether; the feeblest of restraining agents, to prevent the natural resilience of the skin, were used and succeeded. The abdominal flap, by its fixation around the abdominal opening, and by the silver loops over the India-rubber tubing, resisted abdominal tension; the groin-flaps suffered no tension whatever. It seemed to me a serious drawback to the probable success of the operation: first, to permit any strain at all on the sutures uniting the groin-flaps; and, secondly, not to keep the incisions free from contact with urine. This could be prevented only by transferring the tension to the under flap, and by so closely approximating the edges of this flap to the abdominal opening (by elastic compression) that urine could not reach them. Neither of these contingencies is provided against in Mr. Wood's operation. Again, fixation by strapping across the transplanted tissues must be a positive evil, tending to cause sloughing by compression. Compression by the herniated bladder, even on the abdominal flap, does little harm, for resistance is offered by the dense epidermis within, and is scarcely felt on the lax connective tissue outside.

When he says, "Such an elongation of the flap, so far from its vascular connections with the abdomen, and subjected to the pressure of the resilient dartos and the tension of the scrotal skin brought over it, I have found to result frequently in sloughing or atrophy", Mr. Wood must be thinking of his own operation, not of mine. There is neither scrotal skin nor resilient dartos over the penile flap to compress it. The upper covering of the penile flap was got partly from the mucous membrane on the floor of the urethra, partly from the sides of the penis; and the scrotal skin was dissected up, not with a view to transplantation, but that, by stretching out the corrugated folds of skin, more freedom might be afforded for raising the groin-flaps over the umbilical flap. Retention of urine in these cases, first noted, I believe, by Neudörfer of Prague, is more likely to depend upon the abundant muscle naturally existing at the neck of the bladder, than on the sparse fibres of the transplanted dartos; and the probability of retention taking place may be increased by a judicious management of the incisions at that part.

"As the upward contraction of the cicatrix progresses, and the child grows, the opening left at the root of the penis will enlarge, etc." The opening is not at the *root* but at the *point* of the penis. Contraction of cicatrix can, in my cases, only do good by diminishing the calibre of the urethra; and, if it draw up the abdominal flap, it must draw the neck of the bladder and penis with it. Again and again I dwelt upon the importance of avoiding this contingency, which, in Mr. Wood's cases, usually demands a second operation; I particularly noted the fact that this contingency had been avoided. The further plan of completing the formation of the new penis which I adopted is, I think, that of Thiersch, and is entirely different from Mr. Wood's second operation.

If Mr. Wood will again do me the honour of looking over my paper, he will, I think, see that, if an "unfortunate chance" have to be credited with the introduction of his name, a deliberate intention guided me in describing the peculiarities of the operation. So profoundly was I impressed with the consummate skill he exhibited, that I built my chief hopes of success on endeavouring to make stronger the least strong points in his operation; and the imperfect summing-up chiefly referred to points where I had departed not from other operations, but from his. I borrowed freely from several methods, and I said so. The first part of the plan I followed resembles Mr. Wood's in having one umbilical and two groin flaps; it differs in the shape of the flaps, their size, and the manner in which they were secured. The second, most difficult, and, in my opinion, the most important part of the operation, is entirely different from Mr. Wood's second operation. At one operation, and by different methods, I did what Mr. Wood does not attempt in less than two, and usually requires more to complete. That so much success, in the face of most unpromising circumstances, has attended my first efforts is due, not to my being able to operate with one tithe of the skill of Mr. Wood, but to the plan of the operation.

Though the plastic method of treating this deformity has hitherto proved the most successful, I think Mr. Wood is too severe in his condemnation of the procedures of Simon and Holmes by diverting the course of the urine into the rectum. The most perfect success of the plastic method can never give more than a very small bladder with incomplete control over its contents; and, until some restraining power as strong as the rectus muscle can be laid in front of it, the bladder will bulge forwards according to its size and dilatability, and be correspondingly an encumbrance and deformity. If either of the above methods succeeded, and the extroverted mucous membrane could be covered with skin, and the epispadias cured, the result would probably surpass any that had followed the plastic method. In this belief, I intend to treat any case that may in future come under my care after some such method as that of Simon or Holmes.

A YEAR'S EXPERIENCE OF GALL-STONES.*

By THOMAS COLE, M.D.Lond., etc.,
Physician to the Royal United Hospital, Bath.

As hepatic diseases are seldom alluded to at our meetings, it has occurred to me that it would be not altogether unprofitable to string together a few results of my experience during the past year in the matter of gall-stones; and I do so more from a desire to excite discussion on the subject, and thereby to benefit by the remarks of others, than from the hope of being able to impart any knowledge of a special character.

Observation would lead me to believe that gall-stones are far more common than they are generally supposed to be by our profession; and I would add that they are often also very much more dangerous. Many cases that are diagnosed as gastric spasm, flatulence, or colic, are, no doubt, due to the escape of gall-stones from their habitat into the intestines. For instance, a lady consulted me recently for sudden and severe attacks of pain in the epigastrium, and radiating thence all over the abdomen, with sickness. They lasted for from a few minutes to an hour or two. She had usually been treated for cramp in the stomach, and was surprised when I told her she was suffering from gall-stones. My opinion was shortly confirmed by my finding at least twenty calculi after one of her seizures, which lasted only about an hour—too short a time, of course, for the development of any jaundice or other symptoms of obstruction.

Only last week, I asserted with some confidence that a lady sixty-eight years old was passing a stone. She had severe pain in the hepatic region, with vomiting, loss of appetite, and constipation; and had had many similar attacks. Her sister, who has suffered from gall-stones from childhood, was most sceptical as to the nature of the illness, because the pain did not seem to be severe enough, and no jaundice had supervened. The next day, I was able to produce, very triumphantly, a small stone, in shape exactly like a flint implement of the prehistoric period; and I found two more a few days afterwards. I do not know anything that inspires confidence more than the fulfilment of a prophecy like this, which you can prove so easily to a patient, and just at a time, too, when his gratitude for relief from the pain his enemy has caused has not vanished from his heart. By way of parenthesis, I would express the belief that gall-stones are not particularly uncommon in the young. I have lately attended a lad aged 16, who expelled twenty-seven stones in a week; and I shall allude further on to a case which proved fatal in a man aged only 24.

It is interesting to note the occurrence of gall-stones in two members of a family, in one of whom the tendency to the disease had been so strong as to have existed from childhood. The worst attack this lady ever had was during last year, and it lasted about seven weeks. Vomiting and intense paroxysms of pain tortured her more or less the whole time; the deepest jaundice prevailed; and there was the most intense prostration. At last, the mouse that had troubled the mountain came forth, and a tiny one it was—not bigger than a bean; and she had passed hundreds in her life, so that the ducts should have been fairly patulous. But I think the passage of the stone was probably hindered by catarrh of the ducts, from irritation produced by the presence of the stone, which was very rough and sharp. The patient was so constantly sick as to preclude any use of emetics. It was somewhat curious that the exciting cause of this attack was the vomiting attendant upon the progress of an uric acid calculus from the left kidney. The patient's being subject to both uric acid and hepatic calculi would seem to favour the opinion, that gout and biliary stones are closely related as effects of one common cause.

Another of my patients has passed quantities of uric acid calculi, and has suffered too from gall-stones, and is now the subject of granular kidney. She is also a female. Two or three patients also have been the victims of gall-stones and regular gout.

Rather a rare occurrence has happened to two of my patients, both females—that of vomiting gall-stones. No doubt they were squeezed, by the action of the abdominal muscles in vomiting, back from the duodenum into the stomach, just as bile regurgitates from the same cause when people are sick, making them think they are bilious, whatever that term may mean. According to works on liver-diseases, it is extremely unusual for gall-stones to be ejected from the stomach, unless, they have ulcerated their way through directly from the gall-bladder into the stomach. This obviously was not the case in the two instances I have mentioned.

I will now briefly relate a case in which five gall-stones about the size of peas were impacted in the ducts for six weeks. The patient, who had had transient attacks of pain from time to time, was seized with pain, not at all severe, in the right hypochondrium, extending to the back, and considerable dyspnœa, no doubt of an instinctive character. He was not sick, only nauseated. The pain subsided in twenty-four hours; but jaundice, with clay-stools and dark urine, came on rapidly, with moderate fever. My diagnosis was catarrh of bile-ducts, and probably gall-stones. In a few days, I found a small piece of one, which settled the matter. Weeks, however, passed away, and there was no improvement. The patient lost much flesh, due conjointly, I should say, to imperfect nutrition and fever. Œdema of the lungs and legs set in, and the breathing became very embarrassed, the patient having had a weak heart for years. Remedies of all kinds were of no avail. I began to feel very uneasy as to the result, my patient being beyond the prime of life. An emetic was suggested; but he was perfectly horrified at the idea, having always suffered very much when he was sick. But this plan was supported by the advice of one of my medical friends, and an emetic of sulphate of zinc was tried. It produced very little vomiting, and no bile was thrown up; but during the day some copious bilious motions, the result of an early dose of Carlsbad salts, were passed, and in them I found five stones, as the reward of his obedience to our wishes. My patient suffered, however, a good deal from the action of the emetic; and when, unfortunately, about a week afterwards, some more stones began their travels, he declined any further assistance from this source. After a week's waiting, I gave him fair doses of salicylate of soda and benzoate of ammonia, with almost immediate effect. The motions became very yellow, and several calculi passed; and the patient was quickly convalescent. He has passed a considerable number since.

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* Read before the Bath and Bristol Branch.

I will now advance a step further, and mention a case in which jaundice prevailed to a greater or less degree for eighteen months, with ultimate cure. The patient, a Yorkshire gentleman sixty-six years old, had lived somewhat freely and taken enormous exercise. A year before his hepatic troubles came on, he had some head-affection, and was accordingly very strictly dieted; and to this restricted diet I really imputed his attack. After a long day's shooting, he was seized with agonising pain in the epigastrium and vomiting, etc., and quickly became jaundiced. The motions were never of a right colour again for a year and a half; the urine was always dark, and the skin deeply tinted. Occasionally the cuticle seemed to improve a little in colour, and the urine to become lighter; but the clay-colour of the motions was invariable. I am quite sure that the urine and the skin can assume their natural colour almost completely, and yet the obstruction to the flow of bile be as persistent as ever. The only explanation of this is diminished production of bile, through interference with the functions of the liver. Every few weeks, a paroxysm of pain and vomiting would come on, with great weakness; yet no stone could be discovered, and the most careful search was always made.

The patient lost flesh, the liver became large and hard, and, as he had taken freely of spirits, commencing cirrhosis was suspected. There was occasional albumen in the urine, and the appetite became very poor. At last, eighteen months after the first futile attack, an awful paroxysm ensued—pain, vomiting, rigors, œdema of lungs and feet, dry mahogany tongue, fearful thirst and anorexia, and the deepest jaundice. It would be an interesting question why the jaundice deepened at this time. The sweats drenched his bed. Two and three weeks passed, and remedies were of no avail, except as palliatives to his sufferings. But one day, I found a slight change in the colour of the stools, coincident with a cessation of pain. A day or two afterwards, I discovered the stone I now hand round. It has, of course, shrunk much by keeping, owing to its brittle structure. You will see that its ends have been ground off from rough treatment by the muscular coats of the gall-bladder and duct. I would search through a thousand evacuations, however odorous, to witness the pleasure and satisfaction which the announcement of my discovery gave to my patient and his devoted family.

I did not find another stone, and convalescence, though naturally very slow, was complete. The œdema of lungs and legs faded away, and my friend has been shooting in the north this winter, the attack having taken place last March. For many days, he was at the point of death. One morning, after an awful rigor, I found him with a temperature of 105½° Fahr. Two days before the stone escaped, he became utterly collapsed, with intermitting irregular pulse and icy-cold extremities, and felt he was dying. Now, rigors and sweats are common in attacks of gall-stones; but I never saw such us these; and the fluctuations of temperature were remarkable. The extraordinary part of the case was the continuance of the rigors after the stone was gone: two, three, and four times a day, he had a paroxysm, simulating ague of the most severe type. My heart sank within me, and I began to fear lest extensive suppuration was going on from injury sustained by the passage of the stone. But I poured in large doses of quinine and digitalis, with a sort of forlorn hope, and had the infinite satisfaction of finding the attacks growing less and less frequent and severe, until at last they ceased altogether. No pus could be detected by a minute and constant examination of the stools. I thought some might possibly escape from a suppurating gall-bladder. None having been found, I can furnish no more rational explanation of these terrible rigors than that they were probably due to profound disturbance of the sympathetic system, inducing violent vaso-motor storms. Be that as it may, the case is in very instructive contrast with one I will presently relate. As to the position the stone occupied so long before its final discharge, although it is possible it blocked the cystic duct, and by its large size pressed upon and occluded the hepatic duct, yet I think it most probably occupied the common duct itself; for, otherwise, I cannot account for the permanent want of colour in the stools.

I will now call attention to a case of fatal obstruction of the common duct by a large calculus. The patient, aged 34 and very delicate, had had a great many attacks, and had passed some very large stones. Every time she became pregnant, the gall-bladder seemed to become irritable, and calculi were expelled. Her last attack came on when she was five months pregnant, and was most violent. Pain and vomiting were incessant, the jaundice intense, and rigors and sweats most prostrating. Hypodermic injection of morphia, thrice daily, was the only means of relief, and kept her in comparative ease. For many weeks, there was no change; but at last a stone escaped, and I hoped all would be well, although the patient was most exhausted. But, alas! another stone took the place of the one released, and the poor creature slowly but surely sank, worn out by suffering and exhausted by innutrition, although nourishing enemata had been freely resorted to. The stone, which was cone-shaped, was wedged into the duct, just under its narrowed ending in the duodenum. It was so fixed that I do not think any force, short of sufficient to rupture the duct, could possibly have dislodged it. Her violent sickness produced no effect upon its progress. The abdomen was extremely tender and tympanitic for some time before death; but no marked traces of peritonitis were found *post mortem*. Each stone was about 2½ inches in circumference.

I will now briefly sketch out a case of gall-stone, with ulceration of the gall-bladder and secondary hepatic abscesses. M. H., aged 60, an upholsteress, was admitted into the Royal United Hospital, Bath, on December 27th, 1877. Nine months before, she was suddenly attacked by excruciating pain all over the abdomen and back, accompanied by jaundice. The urine became dark, and the motions were described as dark also. She had six similar attacks afterwards, the last being attended by sickness. After this, she lost appetite and had pain after food. On admission, she looked pale, slightly yellow, and complained of weakness, anorexia, and a good deal of tenderness in the right hypochondrium, where the liver could be felt. The temperature that night was 102° Fahr. She had some emphysema and a little bronchial catarrh. The urine was turbid, with urates; no albumen. The bowels were more or less loose all the time she was in the hospital. The morning temperature was generally normal; but the evening temperature varied from 100° Fahr. to 104½° Fahr., never being below 100° Fahr. The right lobe of the liver extended down below the umbilicus, but not across it, being peculiarly elongated, and the left normal. The right lobe enlarged considerably while the patient was under observation. It was immovable on inspiration. There seemed some slight extension of the liver area upwards in the right infra-axillary region. On February 18th, 1878, the evening rise reached to 104° Fahr., and, on the night of the 20th, a rigor occurred. The next day, there was a little albumen. The pulse had up to this time kept remarkably normal. The patient had never experienced a rigor before, save the nervous shivering so common when a gall-stone is passing, and that only in the last attack. But now rigors took place pretty constantly, and the patient assumed a more asthenic aspect, the tongue being dry and the respirations hurried, with mucous *râles* in the lungs. The pulse, too, mounted—often being 115 or 120. She died exhausted on March 7th.

The diagnosis formed of the case was inflammatory mischief in the gall-bladder, from irritation of a calculus. It had been suggested that the case might be one of carcinoma of the liver; and the growth of the organ, and the fact that a case had been observed in the hospital with distinct nightly rises of temperature, lent some support to this view. But I never wavered in my opinion; and the onset of rigors not only strengthened me in it, but also informed me of the occurrence of suppuration. One would hardly have supposed at first there was much the matter with the patient; and it was only the careful registering of the temperature which gave gravity to her condition.

The *post mortem* examination fully justified the diagnosis. A large, not particularly rough, gall-stone, of the shape of the gall-bladder, had set up the most extensive ulceration of its mucous membrane, which in places was remarkably thinned, with large numbers of varicose vessels quite exposed. The opening into the cystic duct was obliterated, and its place occupied by a stellate scar. There were ten or twelve secondary abscesses in the right lobe of the liver, principally beneath its upper surface; one, the largest, holding about three ounces of pus, projected beyond the ordinary level, and probably accounted for the slight upward increase of hepatic dulness I had noticed before death. An explanation of the secondary abscesses in the liver is furnished by the fact that the cystic vein empties itself into the portal vein, thus forming a direct channel for the conveyance of pyæmic influences. A point worthy of remark was the immovability of the liver on inspiration, although it was large and unhindered by perihepatic adhesions. It is obvious how important this might have been, had an abscess existed in the lower part of the liver and invited operative interference. It was interesting, also, from a general pathological point of view, to observe that the temperature ran up at the very commencement of a rigor. For example, immediately one began, the temperature was found to be 100° F.; and at the conclusion of the same, it was 103° F. The pulse also invariably ran up when the rigors ensued.

As to the cause of the gall-stone in this case, I found a deep sulcus running across the upper surface of the liver from right to left, just on a level with the neck of the gall-bladder. This furrow was no doubt due to the poor woman tying her clothes too tightly; and to this I am disposed to attribute the formation of the stones, the cystic duct being thus constantly more or less pressed upon.

Lastly, I would allude to a case, the nature of which I could not clearly make out, even with the aid of light borrowed from a *post mortem* examination. I would say, at the outset, that the opinion I formed of the case was that it was one of jaundice due to obstruction by a calculus. How far I was right, will be seen directly.

The patient, a labourer, aged 24, was admitted into the hospital on November 18th, 1878, and died on December 19th. He was taken with jaundice a year before, having been suddenly seized, while working in a damp place, with pain in the stomach and vomiting, lasting for three weeks. He was very yellow. He was in the Royal United Hospital a month, but the jaundice lasted till March. He worked on and off till August, when the vomiting and pain came on again, and the jaundice returned. The pain left him again in about five weeks, but the skin remained tinted till his admission, when he was considerably jaundiced. His legs had swollen on walking about, and were œdematous when he came in. He was very weak, and short-breathed on exertion. His bowels were loose; the motions clay-coloured. He had been accustomed to a good deal of beer. The chest was emphysematous; the spleen considerably enlarged; and the hepatic dulness extended nearly to a level with the umbilicus. The surface over the liver was quite smooth, and not noticeably tender. The urine was high-coloured with bile, and was of specific gravity 1019. There was a slight rise of evening temperature, which subsided in a few days. With the exception of a little improvement in the urine and skin, he remained much the same till December 16th, when somewhat severe pain came in the abdomen, and his temperature rose to 101.6° F. During the night, he had a rigor lasting an hour and a half, and the temperature reached 104° F., and he complained of much pain and tenderness in the epigastric region. The skin was dry; the tongue coated as if with white paint; there were loss of appetite and great thirst; and he vomited a large quantity of coffeegrounds-like fluid. The motions were loose and very light. The pain and vomiting increased, and the pulse and temperature remained high. Opium in large and frequent doses was given; but the patient gradually sank from the combined effects of peritonitis and hæmatemesis.

The *post mortem* examination revealed an extraordinary state of affairs. The gall-bladder contained about two drachms of thick bile; the cystic and common ducts were quite patulous and unoccupied by any calculus, although I could not squeeze the bile out of the bladder with even considerable force. The liver was very large, congested, and bile-stained, showed no alteration in its minute structure; but in the centre of it was a large cyst, containing half-a-pint of clear bilious fluid, and a large number of small dark gall-stones. The floor of this cavity was between the lobus quadratus and lobus Spigelii, and about an inch from the outer and lower surface of the lobes of the liver. It was very much thickened; and there was a layer of tough lymph, like chamois-leather, about two inches long and an inch wide, adherent to it. This lymph was encrusted by a mass of biliary concretions, as big as a small Brazil nut, and was torn off with great difficulty. The hepatic duct was normal as far as the hilus, and a probe could be passed along several of its main branches, entering, in several instances, into the cyst at various parts of its walls. Most of these were very hypertrophied, as if they had had great difficulty in expelling their contents, and consequently had to be strengthened by physiological growth of their muscular coats. They also travelled a long way over the cyst-walls. Some of the branches could be traced to the beginning of a hard mass of greyish fibroid tissue, which occupied the space between the floor of the cyst and the hilus itself, and the probe would go no further. I could not make out any branch in particular blocked by a calculus; but there can be no doubt that some were occluded, and those which we could trace into the cyst were much pressed upon by the fibroid thickening and the large mass of biliary concretions. The stomach contained blood; and the hilus and the adjoining peritoneal surfaces of the duodenum, etc., were in a state of acute inflammation. The spleen was large. I should say that the wall of the cyst was considerably thickened, and to all appearance very muscular or fibrous from the peculiar rugose state it assumed. The thickened mass was evidently an indurated piece of liver-tissue, and probably the result of a chronic inflammatory process.

I shall be glad of the wider experience of the meeting to help me to explain this remarkable state of things. The patient's history seemed to favour the existence of a stone, perhaps in a large hepatic duct. This may have been impacted, and caused a dilatation of the duct behind it; the result being an enormously distended cyst. Calculi were then formed, and naturally took up a position on the floor of the cyst, and by continued irritation caused inflammatory changes, with deposit of lymph, and induration of the neighbouring portion of liver-tissue. Or the reverse may have happened, and fibrosis of the piece near the hilus may have blocked some of the main branches of the hepatic duct; secondary dilatation may have ensued, and the gall-stones may have been quite a tertiary phenomenon. The Yorkshire proverb, "When in doubt, do neawt", ought, perhaps, to have suggested to me a discreet silence as to the cause of the patient's illness; but I am anxious to obtain information, and to do that do not object to display my ignorance. The coincidence of peritonitis and hæmatemesis is interesting; no doubt, however, the portal vein was pressed upon somewhat, and this explains the splenic enlargement and the hæmatemesis; and probably the peritonitis was due to vasomotor changes in the vessels at the hilus from pressure or irritation.

My year's experience has naturally suggested to me many other points beyond those I have ventured to bring before you to-night. I would have spoken a few words about treatment, which is, after all, the great aim and object of all our professional labours. The causes of these painful maladies, too, are very obscure; and I would especially call attention to an idea—as to whether locality has not some share in their production—which certainly has forced itself upon my consideration. I must ask your pardon for the hurried, imperfect, and disjointed remarks I have put before you. My only desire has been to call attention to a series of cases, far more formidable than gall-stones usually produce, yet reminding us, very strikingly, that what is generally but a trivial, though very painful, disorder, may from time to time unexpectedly alter its comparatively benign character as a freer from a lurking enemy, and become, itself, one of the most cruel and deadly of the foes by which fallen human nature can be attacked and destroyed.

SURGICAL MEMORANDA.

DRESSING OF WOUNDS IN MILITARY SURGERY.

MR. MAC CORMAC's address on Antiseptic Surgery, and the discussion which followed, seem to put it beyond doubt that Listerism, or as near an approach to it as possible, should be followed in the dressing of wounds which may be subjected to bad hygienic conditions. In such circumstances, the brilliant results obtained by Mr. Savory, who worked under the best hygienic conditions, cannot be expected with ordinary dressing. On the other hand, the experience of Professor Nussbaum shows that, with Listerism, good results may be obtained under bad sanitary conditions. In military surgery, even with the greatest care, the laws of hygiene cannot always be acted up to, and Listerism in its integrity cannot be carried out, at all events in the first line of surgical aid. When exact antiseptic dressing cannot be used, what is the best substitute? In none of the contributions to the JOURNAL from correspondents recently on active service, so far as I am aware, has any mention been made of the subject. I write, therefore, to propose what I consider a practical and useful dressing, and so elicit information from those who have had an opportunity of treating wounds on active service. Mr. Barker's lecture, published in the JOURNAL of January 3rd, gives useful information on the subject; and the materials used by him can always be procured. Latterly, any wounds coming under my observation, as I have no materials for Listerism, have been washed with a five per cent. solution of carbolic acid, covered over with a piece of lint dipped in the same solution. A sufficient thickness of cotton-wool is then laid on, and the whole bandaged. The stretcher-bearers—who, thanks to recent reforms in our method of removing the wounded from the battle-field, render immediate assistance—could easily apply such a dressing. The wound would then have a fair chance of coming under the hands of the surgeon in a satisfactory condition. The carbolic solution would probably destroy any germs in the wound or on the under surface of the cotton-wool, and the wool would prevent the entrance of others.

W. H. McNamara, M.D., Surgeon-Major A.M.D., Famagousta.

THE USE OF THE AUDIPHONE IN DEAFNESS.

The following is an easy mode of distinguishing those cases of deafness for which the audiphone is suitable. Place a loudly ticking watch on the upper middle incisor teeth, or on an upper eye-tooth, or between the edges of the upper and lower incisors. If its ticking be heard louder in either of these situations than when it is laid upon the temples or on the auricle, then the case is likely to benefit a good deal by the use of the audiphone. If the ticking of the watch be heard clearly and distinctly, and only through the teeth, then the case will get very great benefit by the use of that instrument. In cases in which the watch-tick is not heard in either of the above-named situations, no benefit results; not any, indeed, need be expected.

The statement by the inventor, that the use of the audiphone improves the natural hearing, must be a mistake; it does not improve it.

James Patterson Cassells, M.D., Glasgow.

OPHTHALMIC MEMORANDA.

RECURRENT SCLERO-PALPEBRAL SARCOMA.

There is in the present case, perhaps, nothing about the mode of origin, sequence of growth, or period of recurrence, generally, that is not sufficiently known; but, in reference to the particular structures concerned, a similar chain of events appears not to have been often recorded.

Mrs. C. H. of Bury, then fifty-three years of age, and the wife, now widow, of a teacher long invalided through paralysis and in straitened circumstances, came under treatment in May 1874. A spark of coal from the fire-grate had struck her right eye about a year before. A papillose luxuriance of moderate extent in the scleral conjunctiva, at the temporal side of the cornea, was the seat of pain, from which she came to seek relief. The growth was removed; and a small particle of coal was found at the bottom of it, rather firmly fixed in the sclerotic. It was taken out, and the patient went home the same day. Eight months afterwards—on February 11th, 1875—the size and painfulness of the recurrent growth called for fresh excision. This time, a stay of three weeks became necessary before the patient was able to return home. The interval between the next and third removal of the considerably enlarged but still practically episcleral neoplasm was only half of the previous one; it took place on July 19th, 1875. The patient required to be attended for four weeks before she could be discharged; and it was now foreseen that, in case of return, the eye would have to be removed. This came to pass six months afterwards, in January 1876. The eye, as an organ of sight, was as perfect as its fellow; simply presbyopic, in accordance with the patient's age of life. There was no protrusion; no interference with the movements of the eye; hence no diplopia. But there was much pain, and no longer a chance of detaching the growth from the shell of the eye without fatal injury to the latter. Owing to the patient's cardiac affection, which was of long standing, the attempt that was made to induce anæsthesia had to be desisted from. Dr. Dreschfeld, who was going to be at the trouble of examining the eye, was present at the operation. The opportunity for obtaining from the living body an eyeball in itself, or at least optically, so thoroughly sound, being exceedingly rare, it is matter for regret that the discovery of the visual purple was not made or published until some time later on. Dr. Dreschfeld found the growth to be a round-celled sarcoma entirely confined within the sclera. Five weeks after the operation, the patient returned home. For upwards of two years thereafter, whilst I saw her, on an average, every six months, no trace of recurrence could be noticed. It is true that a painful sensation was said to be occasionally felt; which was, however, referred to the front part of the orbital roof. It was not before November 1878 that the mere vestige of a nodular swelling within the margin of the lower lid near the inner angle, being also the seat of pain, began to arouse my fears. Nine months afterwards, a swelling of the size of a small walnut, slightly tuberculated, had come to occupy the lower lid beneath its margin, the latter being now entirely free. It has since grown rather rapidly. Some patches of xanthelasma upon the surface of the swelling now appear, of a pearly white, from the expansion of the integument. The latter, for some little time past, has threatened to give way at a spot more highly reddened than the rest. Removal of the new and painful tumour appears urgent. The right eye remains perfectly sound.

The case, as here related, was presented at the last November meeting of the Manchester Medical Society. In the reappearance of the disease, originally developed in the sclerotic, after a lapse of two years, in structures so dissimilar as the palpebral, there is, perhaps, nothing extraordinary but the proximity of the latter.

A. Samelson, M.D., Manchester.

REPORTS OF MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

NORTHERN HOSPITAL, LIVERPOOL.

GLANDULAR CARCINOMA OF THE NASAL MUCOUS MEMBRANE: EXCISION OF THE UPPER JAW: RECOVERY.

(Under the care of Dr. Macfie Campbell.)

David J., aged 54, sailor, was admitted into hospital on October 8th, 1878. Three years before, he fell a considerable distance on his face, severely injuring his right eye, of which vision was entirely lost. Since then, there had been a gradually increasing swelling of the right side of the nose, with a constant, sometimes profuse, sero-sanious fœtid discharge from the right nostril. The swelling of the nose had been increasing rapidly lately. On admission, there was much enlargement of the right side of the nose and cheek. Over the malar bone, suppuration had commenced. The skin was thin and gave way, discharging thick pus. There was no affection of the glands; but he was in a low state of health and in constant pain. The right nostril was completely blocked by the growth, and the septum was pushed to the left. In the mouth, the tumour slightly encroached on the middle line, and extended back to the soft palate.

Operation, October 17th.—He was put under the influence of ether, given by Ormsby's inhaler; but, when the operation was commenced, chloroform was used. Fergusson's incision was followed from the centre of the lips to the outer margin of the orbit, and the flap turned downwards and outwards. The superior maxillary bone was removed, with the orbital plate, the palate-bone, and part of the malar bone. The tumour had no adhesions to the septum nasi, nor to the soft palate. The ulcerated portion of skin under the orbit was excised, and the thermo-cautery used when there was oozing or any suspicious tissue was seen. The whole line of incision was sutured. The operation lasted one hour.

His history subsequent to operation was entirely favourable, the only trouble being a small sinus under the orbit, which had to be freely incised. His power of swallowing liquids was always good; but even two months afterwards he had difficulty with solids, which were retained in the nasal vault. His speech also was very indistinct.

Six months after the operation, there was no appearance of any return of the disease; but there was considerable retraction of the skin of the cheek. His speech and swallowing powers had been perfectly restored by a false palate and upper jaw, kindly prepared for him by Mr. Phillips of Rodney Street.

The tumour was examined by Mr. Rushton Parker, and was found to be a form of growth of great interest and rarity. It is described by Billroth* as glandular carcinoma of the nasal mucous membrane, and is, fortunately for the patient, said by him not to be likely to recur.

Mr. Phillips has written the following note on the mechanical difficulties which he had to overcome, and a description of the way in which the plates were made and fixed.

Having examined the mouth and taken impressions of the jaws with plaster-of-Paris, I found that in the left upper jaw (the right having been removed from the median line) there were the roots of the central and lateral incisors and canine teeth, the second bicuspid and first molar being absent, thus leaving only the first bicuspid and last two molar teeth. In the palate there existed an opening of a pear-shape, the broad extremity being towards the throat, the anterior extremity being situated just behind and rather to the right side of the median line, at the junction of the alveolar and palatine processes of the superior maxillary bone; the greatest width of the opening was seven-eighths of an inch, and its length one and a half inches. In the lower jaw, the patient had all his own teeth, with the exception of the second molar and wisdom on the left and the first molar on the right side. There being no means of support for an upper frame alone, it was necessary to construct a lower also, by doing which I was enabled to connect the upper to the lower by means of springs, and thus ensure its being kept in position. The lower frame was constructed of vulcanised India-rubber, carrying one artificial tooth to replace the lost second molar on the left side, and being strengthened by means of a strong gold wire embedded in it, and having also broad metal bands passing round the two remaining molars on the right side, and round the first molar on the left. The last came from behind, passing as far forwards as the second bicuspid and having soldered on its extremity a swivel for attachment of the spring on that side, the swivel on the other side being fixed in the piece of the India-rubber that occupied the space of the absent first molar. The upper frame was made chiefly of vulcanised rubber, strengthened or rather replaced over part of the alveolus, where thinness was required, by a piece of plate (palladium). There were also broad metal bands round the two remaining molars, to give steadiness. The swivels for attachment of the springs were fixed in the rubber, on the right side a little above and towards the posterior border of the second (artificial) bicuspid, and on the left in the portion of rubber which occupied the space left by the loss of the second bicuspid and first molar. This frame carried the full complement of teeth necessary to antagonise all the lower ones; it was necessarily of somewhat bulky appearance when out of the mouth, owing to the loss it had to replace. The effect was satisfactory, the patient being able to speak distinctly as soon as the frames were inserted; and when I saw him a short time afterwards, he told me he could masticate very well and take fluids with comfort, though a little fluid would find its way into the nasal cavity by passing between the cheek and buccal surface of the upper frame, the tissues of the cheek being continuous with the external border of the opening in the palate. I saw the patient again nearly three months afterwards, to replace the springs which had been bent, and he was then apparently quite comfortable.

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* "Mucous Glands, with Cylinder Epithelium" (Billroth's *Surgical Pathology*, Sydenham Society's Translation, vol. ii, class 9).

BIRMINGHAM GENERAL HOSPITAL.

SYPHILIS: EPILEPTIC FITS AND LEFT HEMIPLEGIA: DOUBLE OPTIC NEURITIS: RECOVERY UNDER IODIDE OF POTASSIUM.

(Under the care of Dr. RUSSELL.)

J. C., AGED 34, had a chancre five years ago, with swelling in the groin. The sore was open for a fortnight. He only applied something obtained from a druggist. He said he had had painful lumps on the head; but, when admitted, no node was to be seen on any bone. He had a sore throat last winter, lasting three or four weeks; but the doctor only ordered goose-oil to it. There had not been any other secondary symptoms. He had his first epileptic fit five weeks before admission, in which he was unconscious. It was followed by temporary hemiplegia on the left side. About half a dozen fits followed in the course of the five weeks, the last of which occasioned his entering the hospital. He had had a sick-headache now and then for the last two or three years, and lately some vertigo; but these ailments had attracted a very small share of his attention. At his admission, he presented ordinary incomplete left hemiplegia, with some albumen in his urine. His case did not attract attention for the first few days; but the return of another fit suggested the necessity of more careful inquiry, when the foregoing history was obtained. In the fit, he was unconscious, and had bilateral rigidity; it left a renewal of the paralysis, which had been subsiding. On March 1st, Dr. Russell found double optic neuritis in an advanced stage. The patient had never learned to read; but he distinguished the direction of the strokes in different E's drawn to the size of Jäger's No. 2. The sounds of his heart were normal. On March 1st, iodide of potassium was commenced in ten-grain doses four times in the day. By gradual increase, the dose had reached forty grains by the 24th; and it was maintained at that amount through the remainder of the case, with cod-liver oil. By March 24th, he had nearly recovered the use of his paralysed limbs, when another fit (his last) took place, but did not cause return of the paralysis. From this date, his amendment was steady. He was a wretched-looking, squalid, small-made being; but his mental activity returned, and he regained the aspect of health. The small remains of the paralysis rapidly disappeared. On April 11th, there was marked improvement in the condition of the discs; the arteries, however, remaining small. On the 23rd, Mr. Priestley Smith reported that the margins of the disc had reappeared; but the discs were still hazy. The arteries and veins, especially the former, were very small. On June 3rd, he was again examined. The acuity of vision was about one-half: "an excellent result, considering the severity of the former neuritis". Both arteries and veins were still below their normal size. The surface of the disc was somewhat cupped, and the stroma was morbidly distinct. The prognosis was unfavourable. On June 4th, hypodermic injection of strychnine (one-sixtieth of a grain) was commenced morning and evening; on the 14th, the dose was increased to one-fortieth of a grain; and, two days afterwards, the dose of iodide of potassium was reduced to ten grains. On June 20th, Mr. Priestley Smith reported acuity of vision normal in each eye; perception of colours good; arteries of the disc somewhat below normal size; surface pale, and considerably retracted centrally. On June 28th, the man was leaving the hospital, being directed to take three minims of liquor strychniæ thrice in the day.

ACUTE RHEUMATISM: EXCESSIVE NERVOUS SYMPTOMS: HYPERPYREXIA: DEATH.

(Under the care of Dr. RUSSELL.)

A. C., aged 26, was admitted with acute rheumatism on March 22nd, 1879. He had had two preceding attacks. The first, six years ago, kept him in hospital twenty-eight weeks, and necessitated a protracted attendance as out-patient; the second, two years ago, lasted eleven weeks. He presented the same nervous excitability and intolerance of pain as at present. His recovery was stated to have been quite sudden.

His state on admission deviated from that usual in acute rheumatism. He complained greatly of shooting pains about his body, especially between the shoulders and the sacral region. He was generally hyperæsthetic, but had great tenderness in the hips and knees, though in the latter joints no heat nor swelling existed. He complained loudly that his nights had been much disturbed, notwithstanding a hypodermic injection of morphia. His tongue was creamy, pulse 90, and respirations 26. The urine was high-coloured, but free from albumen. Evening temperature 101.6° Fahr. He was at once placed on salicylate of soda, ten grains every second hour; and in twenty-four hours the temperature had fallen to 100°. Two days after admission, under fifteen-grain doses of the salicylate, his condition was little altered. The hyperæsthesia and local tenderness continued, without any other local phenomena. He was ordered to take twenty grains of the salicylate.

March 25th. Considerable effusion had taken place in the right knee; the perspiration was very profuse; and he had a noise as of bells in his ears. Temperature steady at 100°. On the 26th, both knees were tense with effusion; but the pain was much eased. The swelling continued, and he was a little deaf. Twenty-five grains of the salt were given through the day; but at 9 P.M. the dose was reduced to eight grains, as he had vomited and the tinnitus had increased. On the morning of the 27th, the right knee was free from effusion. The urine had lost its deep colour; it was of specific gravity 1028, but presented a decided cloud of albumen (not unusual with administration of the salt). He was perfectly deaf, had been faint in the night, and was "seeing all kinds of things" (carts, etc.) on his bed. He appeared quite rational. These symptoms became more marked through the day. He was rather delirious, and was constantly starting up to remove the objects from his bed, and to stop them from hammering in his ears. His temperature was taken at 8 P.M.; it recorded 99.6°. At 9 P.M., he had a morphia injection to relieve the restlessness; and at that time Dr. Malet, the Resident Medical Officer, did not observe anything about him to attract attention. The restlessness was partially relieved; but he again got out of bed at 2.30 A.M.; and the night-nurse, in replacing him, noticed that he seemed helpless, and did not appear to understand her. He was bathed in sweat. He asked for some water, and appeared to settle comfortably; but about half an hour afterwards he was observed to be breathing very rapidly. A few minutes' delay occurred in summoning the head nurse; and Dr. Malet, being called, found him lying on his back in an easy attitude, very pallid, pulseless, and breathless—in fact, dead. Placing his hand on the chest, he instinctively withdrew it, from the intense heat of the skin. The thermometer in the axilla registered 111.5°; in the rectum, two decimals lower. Rigor mortis set in a few minutes after death.

His family history is imperfect. His mother was unaware of any instance of nervous disease in the family. The patient had had good health, except what has been above stated, but three weeks ago had been brought home, having fallen in a faint. His habits were regular.

The *post mortem* examination was made with great care. The surface of the body was very pallid. There were punctated ecchymoses on the right ventricle of the heart, in the line of the septum, at the right edge and along the base, also on the apex of the left ventricle, and posteriorly in a broad band along the base of the ventricle. The same ecchymoses existed sparingly under the pleura at the posterior part of the base of each lung, and rather abundantly in the peritoneal folds of the abdomen. The right ventricle and auricle were full of tarry blood, but were not distended; the left ventricle contained a small quantity only, and was contracted. The larger coronary veins were very full of blood. The left lung was universally adherent by lymph of old date. There was moderate œdema of both lungs. With these exceptions, the only morbid appearance which could be discovered consisted in unusual pallor of the whole grey matter both of the brain and spinal cord. The urine in the bladder was of specific gravity 1021, and contained a very moderate quantity of albumen; it also contained spermatozoa.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 24TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

CONTRIBUTIONS TO THE EXPERIMENTAL PATHOLOGY OF SPIRILLUM FEVER: ITS COMMUNICABILITY BY INOCULATION TO THE MONKEY.

BY H. VANDYKE CARTER, M.D. (BOMBAY).

THE experiments were made by injecting the blood of fever-patients beneath the skin of the common Indian monkey (*macacus radiatus*). Forty-four trials were made upon fifty-one of these animals. Of thirty-one inoculations made with spirillar blood, twenty-two were successful and nine failed; nine inoculations of non-spirillar blood and seven of desiccated blood (mostly infective when fresh) all gave negative results; four injections made with saliva of fever-patients and of a healthy man produced serious but not specific results. These experiments were described in the first part of the communication, and in the second they were analysed and discussed. Inoculation with infected blood failed at a period prior to the onset of fever, at the beginning of high fever, at the acme of attack with high temperature, and at the end also, when other blood-poisons coexisted with the spirillar. The balance of evidence was against the likelihood of infection during the non-febrile incubation-period; and the disturbing influence of contagion was never proved during the experiments, though its possibility was admissible. Regarding the positive series, it was pointed out that the normal temperature of the monkey was about 3° Fahr. higher than that of man. The minor perturbations of body-heat after apparent failure of inoculation were alluded to as possibly indicating quasi-abortive infection. Experiment was made from man to the animal, and from one animal to another, without any selection of cases. The pyrexia artificially induced corresponded with the first or invasion attack in man, and differed only in its more varied form and briefer duration. Relapses were so rare and irregular in the monkey as to be plainly more accidental than in the human subject. It was especially pointed out that the sole febrile event might consist of a short and comparatively trivial rise of temperature, such as might be overlooked; this occurred only in the secondary attacks of man. In the pyrexia, the maximum temperature attained (about 107° Fahr.) was the same in both man and animal, whether the form assumed were continued, remittent, or paroxysmal. The abrupt onset and prompt termination of the attack were also alike; only the fall was not quite so marked in the lower creature. Rebounds of temperature or secondary fever were observed here, as sometimes in man; and death might occur during this sequelar phenomenon. Of the *post mortem* appearances noted in the bodies of animals at different stages of the fever, the chief was inflammation of the stomach and small intestines throughout, with petechial extravasation beneath the serous and mucous surfaces. The usual delineation of the spirillum as a rigid spiral filament did not represent the aspect of the active organism, but rather its quiescent state; for, immediately on withdrawal, the parasite was usually seen to be highly flexible, and to assume the forms of curved, knotted, or twisted filaments, or even of rings, such as neither the spirilla proper nor the spirochæte (of Ehrenberg) were ever seen to imitate. The abundant swarming and clustering of the filaments were here at least as striking as in the relapsing fever of man; and the organism was apparently the same. Multiplication by fission and the growth from small round particles were clearly indicated. It would seem that the parasite most abounded in splenic venous blood, being probably developed within the epithelial cells and white blood-cells. The blood-spirillum was constantly present during the later part of the incubation-period of fever. This had been established for man as well (for the first relapse); and hence the proposed division of all prefebrile periods (or apyretic intervals) into a non-spirillar and a preliminary infective stage. Symptoms (premonitory of febrile exacerbation) might or might not be detected at the later stage. The severity of the comparative attacks was not indicated by the length of the incubation-period. Intensity of infection increased by repetition. Even in man, the blood in invasion-attacks was not so active as that in relapses; and the monkey's blood at the second remove from man produced a fatal result in the two instances in which it was used. A note was appended on the connection between the results of inoculation and of artificial culture of the blood. The infective quality of the blood, at represented by the parasite, corresponded in some degree to the readiness of this organism to grow and multiply outside the body. The spirillum might be readily induced to develop into a mycelioid form of great luxuriance and beauty. The main conclusions arrived at were these. 1. The spirillum-fever (relapsing fever) of man is directly transmissible to a quadrumanous animal. 2. There occurs a non-febrile infection of the blood prior to "fever". 3. Though the blood-spirillum was never seen in the monkey without fever ensuing sooner or later, yet the pyrexia is secondary in time, and is susceptible of highly varied manifestations; and the spirillum-disease might be defined as essentially a *mycosis sanguinis cum febre*. Charts and specimens of blood accompanied this paper; and it was mentioned that the inoculation-experiments had been repeated in Germany with success (*vide Deutsche Medicinische Wochenschrift*, June 21st, 1879).

Sir JOSEPH FAYRER said that Dr. Vandyke Carter was well known in India as a careful observer and accurate pathologist. During the famine-fever in Bombay in 1878 and 1879, the subject was investigated by Dr. Lewis (also an accurate observer), who came to the conclusion that the spirilla were a mere epiphenomenon of the fever. There was nothing in the experiments related to show that the inoculation of the spirillum itself was the cause of the fever; but he had too much faith in Dr. Carter to believe that he would desire to arrive at a premature conclusion.—Dr. ANDREW said that the paper tended to show the identity of the relapsing fever in India with that in Europe.—Dr. JOHN HARLEY had examined the microscopic specimens of blood sent by Dr. Carter, and found in them two forms of fungus, showing in some instances spores with a radiating mycelium closely resembling the objects described as spirilla. He doubted whether the spirillum described was really a spirillum at all, as botanists understood the term.—Dr. ANDREW did not think it was possible to criticise Dr. Carter's observations of fresh blood from an examination of dried specimens.—Sir J. FAYRER said that Dr. Carter was not likely to have omitted any precautions in the examination.

CONTRIBUTION TO THE NON-GLANDULAR THEORY OF MOLLUSCUM CONTAGIOSUM. BY ALFRED SANGSTER, M.B.

The author said that molluscum contagiosum was still looked upon in this country as a disease of the sebaceous glands. The disease was a well-marked one, and from description it was clear that authors who had treated of its pathology had been perfectly familiar with its appearances; hence an additional difficulty in accounting for discrepancies in opinion, as error in diagnosis was almost impossible. In 1865, Virchow stated his belief that the disease had nothing to do with the sebaceous glands; that it was due to hyperplasia of the cells of the rete Malpighii at the mouths of hair-follicles. He called it "epithelioma molluscum". C. Boeck, in 1875, showed the molluscum-bodies to be due to degenerative changes (affecting the nucleus first) in cells identical with the cells of the rete, the change being neither fatty nor amyloid. Lubowski (1875) showed the epidermal nature of the disease, and believed the molluscum-bodies to result from degenerative changes in wandering cells in the rete. An attempt was made by the author to support the theory advanced by continental observers, and to show that the peculiar degenerative change (molluscum-bodies) affected the superficial layers (granular and corneous) of the epidermis. On making vertical section through a small early molluscum-tumour, traversing the umbilication or central depression, the rete was seen in direct continuity with the longitudinally divided lobular expansion of the new growths; that part which had undergone molluscous change was clearly demonstrable by its different behaviour to logwood. Lobular masses of new growths, having a deceptive gland-like character, appeared isolated, being in fact outlying expansions from the main body of the growth transversely divided. In a vertical section through a minute molluscum, made at a distance from the umbilication, no communication of the new growth with the surface was seen. Three distinct regions of the growth were recognisable: 1. Peripheral cells like those of the rete, those marginally placed being elongated and vertical; 2. Nearer the surface, translucent vitreous-looking molluscum-bodies, lying in the meshes of a granular reticulum, which in places became continuous with groups of diamond-shaped granular cells, exactly similar to those of the granular layer seen in the normal epidermis; 3. More superficially placed, were transparent structureless molluscum-bodies lying in apposition. The conclusion drawn was, that molluscum contagiosum was a disease of the epidermis in which three layers took part. The cells of the rete went to form the peripheral portion of a molluscum-growth; the changes affecting them were probably simply hyperplastic, and consequent upon the peculiar molluscous change (molluscum-bodies). The cells of the granular layer degenerated and formed the deep molluscum-bodies, those more superficially placed being associated with the corneous layer. If the peculiar changes of molluscum contagiosum took place in the granular and corneous layers, it was argued that the disease could have nothing to do with the sebaceous glands, in which these layers were not represented. The presence of molluscum-bodies amongst prickle-cells was another proof of their epidermal origin.

Mr. Jonathan Hutchinson thanked Dr. Sangster for the clear way in which he had put forth his view that molluscum contagiosum was not a sebaceous disease. A year ago, a paper was read before another Society in London, in which the opposite view was advocated. He asked Dr. Sangster how he accounted for the almost universal presence of the umbilical orifice. This appeared to be perfectly natural, and not to have arisen from the bursting of a cyst or abscess; and through it sebum, or something like it, could be pressed out. Was it due to irritation of the epidermis, or to rupture of a cyst in the deeper layers? The contents of molluscum, if not fat, were very like it. These molluscous tumours were never found on the palms of the hands or soles of the feet, where there were no sebaceous glands.—Dr. Thin had examined the specimens shown at the Pathological Society by the late Dr. Tilbury Fox, and thought that they agreed with those described by Dr. Sangster, the difference being produced by the direction in which the sections were made. He was convinced that the molluscum-bodies did not arise in the sebaceous glands, but in the rete Malpighii. They appeared to him to be an exaggeration of papillary growth—an abortive attempt at the formation of glands in the skin. All cutaneous glands had their origin in growths of the epidermis downwards.—Dr. Dyce Duckworth had hitherto held the view that molluscum contagiosum originated in the sebaceous glands, although he was aware that an opposite opinion had been put forward. He thought that the contents were fatty or allied to fat. The preparations shown deserved careful study.—Dr. Sangster said that Virchow had pointed out the connection of the growths with the hair-follicles; and this was sufficient to account for the depression. He had not yet analysed the contents; but, from microscopic examination, he did not think them fatty. He had never seen the sebaceous glands in any apparent connection with the new growths.

CAMBRIDGE MEDICAL SOCIETY.

Friday, February 6th, 1880.

G. E. Paget, M.D., F.R.S., President, in the Chair.

Introductory Remarks.—The President, disclaiming the intention of making a formal address, observed that the Society had been founded with the object of providing for the exhibition of specimens of morbid anatomy, and for receiving communications relating to the various branches of practice, medical, surgical, obstetrical, and other. The work of the Society might be expected to fall chiefly to the junior members; and the seniors among them would bear in mind the aphorism of Harvey, that they are the best philosophers who are never too old to learn new things. They would have to contend against the disadvantages of a comparatively small town, and of drawing their material from a limited area; but they would not be without some compensating advantages. Observations in medical practice, in such matters, for example, as the etiology of typhoid fever, could often be made more satisfactorily in the less crowded than in the denser centres of population. In like manner, among their patients, they could follow more closely elements of heredity in disease. They would have the further advantage of meeting in an university town; and, in the work of the Society, they might reasonably look for something of the spirit which had pervaded the University since the time of Newton and before it—the mathematical spirit, or the spirit of accuracy.

Leucocytosis of Pregnancy.—Dr. Ingle read notes of a case with severe anæmic symptoms, which, from the absence of any obvious cause for the anæmia, might have been set down as an example of the idiopathic form of the disease. The patient, aged 33, and near her confinement, showed extreme pallor and weakness. After a natural labour, with very small loss of blood, the symptoms continued, with the addition of fainting fits. The patient had been in a similar condition before her previous confinement, and had been well in the interval. She recovered under treatment with iron.—Dr. Bradbury, who had been called in to see the case, had examined the blood, and had found that it did not contain any of the abnormally large or abnormally small or otherwise malformed red corpuscles that were characteristic of pernicious anæmia. On the other hand, the colourless corpuscles were in great excess, being in the proportion of about fifty to one thousand red. The patient had probably been suffering to an excessive degree from the leucocytosis of pregnancy.

Blood in the Lymph-Sinuses of Lymphatic Glands in Pernicious Anæmia.—Dr. Creighton showed a microscopic section of lymphatic gland from a woman aged 60, who had died of pernicious anæmia. The organs after death were remarkably bloodless; and the chain of lymphatic glands on the left side of the aorta near its bifurcation were mottled with a brownish red colour, as if they had contained pigment. The brownish-red colour was due to the presence of dense columns of red blood-corpuscles in the lymph-sinuses of the glands. The blood lay exactly within the limits of the sinuses, and was not extravasated into the follicular or trabecular tissue. The blood had evidently been taken up by the rootlets of lymphatic vessels, and had so passed into the lymphatic circulation. The source of it might, perhaps, have been ecchymoses, such as are apt to occur in various situations in cases of pernicious anæmia; or it might have been derived from what was admitted to be in this disease an active seat of blood-formation, the marrow of bones. He exhibited also a drawing from a section of lymphatic gland situated behind a sero-sanguineous cyst of the neck, the sinuses of which, as in the former case, were crowded with red blood-corpuscles.

Blood-Cyst growing in a Diverticulum of the Ileum.—Dr. Humphry exhibited and gave an account of a blood-cyst depending from the ileum at a point about two feet above the ileo-cæcal valve. At the same point, there were three string-like fibrous bands forming loops over the bowel, and having their attached ends on the mesentery. The bowel was much narrowed for the space of about half an inch on the proximal side of the dependent cyst; the constriction was probably congenital. The cyst was suspended by a short transverse piece of gut, which appeared to be the congenital diverticulum sometimes found at that part of the ileum. Fibrous bands, such as occurred in this case, are generally admitted to be remnants of the omphalo-mesenteric vessels; and the diverticulum is taken to be a survival from the umbilical vesicle and duct. The cavity of the cyst was about four inches in diameter, and was filled with fluid blood. On the side next the intestine, and at the bottom of the short tube of diverticulum, the wall of the cyst formed a soft discoid mass of considerable thickness at its centre, the structure of which was that of a cavernous blood-tumour. The short transverse piece of gut suspending the cyst showed no unusual vascularity. The patient, middle-aged, died from obstruction of the bowels, having been admitted into the hospital with stercoraceous vomiting. There was a swelling in the right iliac region, and after death the cystic tumour was found filling the pelvis.

So-called Senile Changes.—Dr. Humphry showed a specimen of fractured neck of the femur, taken six weeks after the injury from a woman aged 76. A longitudinal section showed the bone to be well and firmly united: a result owing partly to impaction. He doubted whether the reparative process was enfeebled by old age apart from other causes. He showed also the other femur, which did not bear out the prevalent view that the angle of the neck becomes less in old age. No doubt the angle of the jaw altered as the teeth disappeared; and the curve of the back yielded as the back-muscles became weaker. But he knew of no evidence that the long bones altered. He had lately, with the help of Dr. Anningson, made a number of measurements of the angle at the neck of the femur at different ages; and he found that, in a series of bones from middle-aged subjects, the angle varied from 125° to 133°; and, in a series from aged subjects, it varied within the same degrees. In the femur of a woman aged 103, the neck had as wide an angle as that of a young person. Dr. Humphry showed also, from the same case, the cartilages of the ribs, which were soft to the knife and uncalcified. He considered calcification of the rib-cartilages to be a morbid phenomenon, and not incidental to old age as such. In the case of Old Parr, who died at the age of 153, Harvey observed that the costal cartilages were quite soft to the knife; and even in very old persons they probably remained soft. The significance of calcified costal cartilages was rather that the individual would *not* live to a very advanced age. In very old people, there were not many appearances of disease of any kind; very few, in fact, of what were called "senile changes". The heart and aorta from the same case showed only slight traces of atheroma; and he would include atheroma of arteries as another so-called senile change which was not proper to old age as such.

VACCINATION.—Mr. Lewis Jones, of Burry Port, Carmarthenshire, has received a government grant of £25 15s. for successful vaccination in his district.—Mr. William Arrowsmith has received a grant of £63 : 7 for efficient vaccination in the Darlington district for the past two years. This is the fourth time the same gentleman has received a first-class grant.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 28TH, 1880.

SOME ELEMENTARY CONSIDERATIONS CONCERNING MEDICAL REFORM.

THE Medical Acts Amendment Bills have once more been referred to a Committee of the House of Commons, and the inquiry concerning the principles on which those Bills are to be remodelled is likely to be recommended under auspices of which the import is capable of somewhat various interpretation. On the one hand, one hears in the House of Commons of a great deal of indifference and impatience in all quarters. Ministerial persons, likely to have a great deal to say in the ultimate shaping of the question, are alleged to have expressed themselves as already weary of the subject, and to be of opinion that it is already very nearly exhausted; and that, if the inquiry be resumed, it will not be necessary to call many, if any, more witnesses, but mainly to consider the evidence already given. On the other hand, many leading members of the Medical Council are not unnaturally far from being satisfied with the perusal of the volume which has been issued, or with the parliamentary aspect of the question; and, although there has already been a considerable predominance of witnesses from the Council, they do not think that their case against reform has been adequately stated, and we are told that probably half a dozen other members of the Council will urge their claims to be separately examined, and it is not improbable that an attempt will be made to involve the Committee in a great number of wearisome details. It is not our opinion that any objection should be interposed to the fullest possible inquiry into any of the subjects likely to be brought to the notice of the Committee, and which they may think it worth while to investigate; but it will probably not be useless to attempt to clear the air a little by a preliminary note which will serve to remind those concerned of what appear to be really the vital points at issue, and what are the principles involved and the main grounds on which, so far as the argument has thus been developed, they seem capable of profitable debate.

There are three main issues to be tried in connection with the proposed legislation. The first is, is the Council well constituted for its work? The second is, are all the examinations by which entrance is obtained into the profession such as to afford adequate proof that the person whom they entitle to a place on the *Register*, is sufficiently well educated for public safety in all the departments of medicine which a place on the *Register* enables him (not entitles him) to practise? and, thirdly, are the clauses protecting the titles recognised as the special designation of registered practitioners sufficient for that purpose, and sufficient to protect the public from imposition? Each of these general heads involves, of course, some considerations of detail; it may be convenient to review each of them in the light in which they have thus far been presented to the Committee, and as broadly as possible.

First, then, as to the argument thus far presented concerning the constitution of the Council, it is the deeply rooted conviction of the profession (and at various times large bodies of the profession have expressed it by petition), that the Council is not well suited for the purposes for which it is intended; and it is proposed to improve it by infusing into it an element which will make it more truly and directly representative of the body of the profession, by introducing changes into the existing mode of election. Those who oppose this change have alleged, first of all, that it has been proposed under a misapprehension of the existing functions and powers of the Council. Mr. Simon has stated quite accurately that the three chief duties of the Council, when appointed, were to form a *Register*, to improve medical education, and to produce an uniform *Pharmacopœia*. The *Register* is, however, a mainly clerical duty; and the *Pharmacopœia* is made by paid committees, who could as easily be appointed by the Colleges. And Sir James Paget wisely subsequently explained that, in his opinion, the valuable work of the Council is now chiefly limited to the question of examination and the indirect supervision of medical education; and, on this head, Professor Turner added the complaint that the present powers of the Council are little more than permissive and recommendatory; on the other hand, it has been alleged that every medical corporation almost without exception has at some time or other defied the Council, and declined to accede to its recommendations, of which instances are to be found in the Minutes, and were quoted in the Blue-book questions (3782 and 3791). Further, Dr. Waters and Mr. Simon have complained that nothing has been done in the way of consolidating the several licensing bodies, for the reason that the powers of the Medical Council are not mandatory; and they expressed their belief that if their powers were mandatory there would be no difficulty in dealing with the question. Dr. Waters has added a strong repetition to his formal expressed opinion, that there is no likelihood of a thorough reform to the Act of 1858, and, that the powers of the Council on this score are insufficient. He has put very clearly what, in his view, are the real functions of the Council, in respect to education, in the summary statement that their primary duty is to promote the education of the general medical practitioner. Although some cloudiness on this point appears to exist in the minds of the members of the Council generally, and although many seem at times curiously averse to recognise their special relation to the general practitioner, nevertheless it is clear, on examining their parliamentary powers, that their only direct and primary relation to education and examination is to the establishment of a minimum qualification, and that the only class with whom they have any special vocation to concern themselves is the class of general practitioners. They have directly nothing to do with "higher degrees", "higher diplomas", or "higher education"; they are there, so far as they are concerned with education, mainly to see that the minimum standard is not below that which the safety of the State requires from the persons who receive a legalised medical diploma. This is a very important conclusion, because it points still more strongly the anomaly that this main function is carried out by a body which hardly contains a single general practitioner. It contains, indeed, some eminent physicians who, while holding a high place as presidents and past presidents in their respective corporations, who send them to the Council, are not what is called absolutely "pure" in their practice; but while every department of consulting practice, except obstetrics, and every interest of corporations, is amply represented in the General Medical Council, it must be admitted that their main function is with the education of the general practitioner, and that the general practitioner is practically not provided for in the scheme of representation in the Council, or only so remotely that no small ingenuity is required to discover the connection. The objections which have been urged to the amendment of the constitution of the Council by the introduction of direct representatives have been repeated by some of the members of the Council examined, but the objections are really few in number and fragile in texture. In the first place, it has been urged that it would be difficult, and it would be costly to provide a scheme for election. This objection has, however, been shattered by the production, by Dr. Waters, of a scheme which is at once easy and cheap, one of which the expense in fact is less than that of an ordinary sitting of the Council. Then it has been urged that the profession are sufficiently represented through the corporations. This argument involves a palpable fallacy, which has been so thoroughly exposed that it is hardly likely to be relied upon. In the first place, it has been shown that the members sent by the corporations are not always elected in such a way as to be representative in any large or accurate sense of their own corporations. Thus, the member who represents the Royal College of Surgeons of England is elected out of the Council, a body which is only changed by a slow process of several annual instalments; which holds private sittings, at which the discussions are not reported; so that, if any Member of the College disapprove of the action of the representative of the College in the General Medical Council, he would have no voice at all; and, if any Fellow of the College should disapprove of the action of the representative of the College in the General Medical Council, he would have no information as to any explanations given by that representative in the Council of the College, or whether the College Council itself approved or disapproved of what the representative had done. He would have no opportunity, at any meeting of the College, of expressing an opinion on the subject, for the Fellows never meet; and he would have, as his only remedy, the extremely radical but slow and absurd process of voting year after year against all candidates for the Council of the College who should in successive years present themselves for re-election, on the sole ground that he disapproved of something which the representative of the College had done in the General Medical Council. But, beyond this objection, it is further evident that to talk of the general practitioner being represented through his College is very much as though one talked of a dweller in London being represented adequately on any question in which he had a right to be represented in Parliament by a representative elected by the Corporation of London. Londoners generally are at least as much represented by the Aldermen of London as is the medical profession at large represented by the Councils of the respective Colleges. In fact, the objection that there is already a representation by the system now adopted is one which strikes at the root of all representation whatever; and it would simplify the question very much, if this argument were abandoned, and if those who oppose a modification of the Council were simply to say that they think the whole question should rest with the corporations and the Crown, and that the profession have no interest in education except through the corporations. That proposition is startling enough, when it is considered how these corporations have arisen, how each has struggled for its separate charter, and how each is intent especially upon the preservation of its own prosperity, in the maintenance of its own privileges; each holding that, whatever else may be necessary in the way of medical reform, it is especially necessary that that particular corporation should survive and flourish. It is, however, intelligible.

Another well-known objection is that these quinquennial elections would agitate the profession too much, and would cause "turmoil". The "turmoil argument" must be left to speak for itself; medical men are not exactly children, neither are they persons incapable of resisting the shock of this feeble form of excitement, or unable to take care of their own mental equilibrium. If successive bodies of several thousand medical men, and subsequently five thousand members out of our limited Association, have taken the trouble especially to sign memorials asking that this order of things should be established, it is not likely that, in doing so, they have been unmindful of their own mental welfare, or that they are asking for an agitation which is likely to be either distressing or hurtful to them. No doubt the quinquennial election would introduce a certain activity of thought among the profession generally, on subjects which come under discussion in the General Medical Council; but we are inclined to think that this would be especially healthful, and that which the General Medical Council, and, above all, those who complain that it is now misrepresented, ought especially to desire. The interest which the profession take in the proceedings of the Council, except in the way of mild censure and gentle satire, is of the most languid kind; and it is quite useless to attempt to conceal the fact that it is not only languid, but occasionally wanting in respect. The long years of squabbling among representatives of corporations, and the wearisome discussion of special individual corporated interests, have wearied and disgusted the profession at large; and nothing would tend more to restore the healthy tone, both of the proceedings of the Council and of the general opinion of the profession on the subject, than that the general policy of the Council on questions of education should come under a sort of quinquennial revision, in which the profession at large should be consulted, and should have a voice apart from corporations.

It has further been objected that, in any system of direct representation, a class of persons, who are described as agitators, would find their way into the Council; but we are very well content to refer to the fact that the constituency who are to elect are a highly educated class, precisely able to judge of the qualification of all those who may seek election—not at all more likely to be imposed upon than, say, the electors of the University of Oxford, or the electors of any other university or professional body which can be named. They are all of them professional men who, it is proposed, should fulfil the function of electing to an office in their own professional circle. It would be difficult to think of a constituency less likely, therefore, to be imposed upon by any class of persons whatever in respect of the exercise of this function; and we may well believe that Dr. Waters was well founded in the strong opinion which he expressed (Questions 1660 and 1661) that, under a system of direct representation, professional agitators would not have the remotest chance of election to the Council; but that, on the contrary, the most eminent and fittest men in the profession would have the best chance of being elected. A final argument has been brought before the Committee against direct representation, based on the allegation that the profession generally, in asking for it, have acted under the belief that the General Medical Council has much more extended powers than are actually given to it by the Act of Parliament which constitutes it, and that it has the power of discussing and ought to discuss a variety of questions affecting interests such as medical fees, medical welfare of the public services, and so on. Now, it is undoubtedly the fact that the Government have on more than one occasion shown a tendency to consult the General Medical Council on collateral subjects; and that the General Medical Council has occasionally been disposed to stray out of its path, and to discuss such questions as the training of nurses, the regulation of dentists, and other collateral questions; but what is quite certain is that, at all the annual meetings of the British Medical Association at which this question has been discussed, no question has ever been raised which would give colour to the suggestion that it is desired that the General Medical Council should take upon itself other business than that which lies within the limits of the Medical Act. Dr. Acland stated that there had been a difficulty on the part of the Council in getting clear of the pecuniary interests of the profession; but we can remember nothing in the whole history of the Council which gives countenance to the view that there is any tendency to throw upon the Council the duty of considering such questions (Answer 101); and nothing surprised us more than to read the statements of the President of the Council, that there is a tendency to press subjects on the time of the Council that really have nothing to do with the Act, and that they have received deputations or memorials, and are obliged to attend to them, but they are not in the Act. We can find no record of anything of the sort in the history of the Council or in its minutes. All this appears to us to be a vague kind of statement, for which it would, so far as we know, be extremely difficult to find the faintest justification. The coy refusal of the Council for which it takes credit is warranted, but what are the facts concerning it? The profession desire the General Medical Council to keep close to its business, and to take charge of no pecuniary interest, or of any other interest which does not lie within its strict commission. The claim for amendment rests on the belief that, when the constitution is amended, the Council will be able to deal with its difficulties, which are mainly those of education and examination, much more effectually, and with a much more direct and powerful regard to the simple interests of the profession and the public, apart from those of the individual corporations which now possess so predominant an influence within that body.

We must refer on another opportunity to the discussion of the present state of the questions of conjoint examination.

THE FORTHCOMING ANNUAL MEETING.

THE scientific arrangements for the next annual meeting of the British Medical Association, which will take place at Cambridge, are beginning to assume a state of forwardness which will be felt to be very satisfactory; and already it will have been seen, in the programme which was published last week in the official part of the JOURNAL, that the number of sections which will meet this year is once more increased—an increase corresponding to the continual growing value of scientific proceedings at these annual meetings, and to the character of the university in which the Association will this year hold its annual meeting. Eight Sections will this year be constituted. There will be a Section of Medicine, of which Dr. Paget of Cambridge will be the President, Dr. George Johnson of London and Dr. Latham of Cambridge the Vice-Presidents, and Dr. Cheadle and Dr. Lees the Secretaries. Of the Section of Surgery, Mr. Savory of London will be the President, Mr. Cadge of Norwich and Mr. John Wood of London Vice-Presidents, and Mr. John Chiene of Edinburgh and Mr. George Wherry of Cambridge Secretaries. A Section of Obstetric Medicine will be presided over by Dr. Playfair of London, with Dr. Macnaughton Jones of Cork and Dr. Gervis of London as Vice-Presidents, and Dr. Ingle of Cambridge and Dr. Underhill of Edinburgh as Secretaries. The Section of Public Medicine will have as its President Dr. Acland of Oxford, who has this year rejoined the Association, and will once more take his place among its officers, and Dr. Ransome of Manchester and Mr. T. P. Teale of Leeds as Vice-Presidents; while Dr. Armistead of Cambridge and Dr. Walker of Peterborough will act as Secretaries. A Section of Psychology will be presided over by Dr. Crichton Browne, with Dr. Blandford of London and Dr. Deas of Macclesfield as Vice-Presidents, Dr. Bacon of the Fulbourn Asylum and Dr. Sutherland of London acting as Secretaries. In the Section of Physiology, the President will be Professor Rutherford of Edinburgh, and the Vice-Presidents Dr. Gamgee of Manchester and Dr. McDonnell of Dublin; and the Secretaries Mr. Gaskell of Cambridge and Professor Stirling of Aberdeen. A new Section appears this time, the Section of Pathology. This addition will, we believe, be heartily welcomed for its own sake; for there can be no question that this fundamental subject affords ample material for the proceedings of a separate Section. The new Section will be brilliantly inaugurated at Cambridge, having for its President Sir James Paget, who has already served the Association in other capacities as surgical orator and as President of the Surgical Section, and who will take a place which no one can hold with more authority than he, as the President of the new Pathological Section. His Vice-Presidents are Dr. Wilks and Dr. Dickinson; and he will have able Secretaries in Dr. Greenfield, the new Professor of the Brown Institute, and Dr. Creighton, formerly of St. Thomas's Hospital, and now teacher at Cambridge.

The Subsection of Ophthalmology, formed for the first time last year at the meeting at Cork, proved thoroughly successful; and this year it will meet as an independent Section, under a President, whose name alone is enough to ensure success—the veteran William Bowman. Its Vice-Presidents will be Mr. Henry Power of London and Mr. Swanzy of Dublin, and the Secretaries will be Dr. Brailey of London and Dr. David Little of Manchester.

A Subsection of Otology will again be formed, of which Mr. Dalby of London will be Chairman, and Dr. Cassells of Glasgow, who largely contributed to the success of the like Subsection last year, will act as the Honorary Secretary.

The system of programmes for each day's work, which we have warmly advocated, and which last year contributed in no inconsiderable degree to the success of the meeting, will, at the Cambridge Meeting, be still further developed. Great care is being taken in the selection of subjects which have the merits of offering points of interest and stil unsettled matters for debate. The programmes of the Sections are not yet completed; but when they are ready for issue, we shall take an early opportunity of publishing them; and it will be seen that they afford the assurance that the meeting at Cambridge will be strong, not only in the departments and in names, but in elements of instruction and scientific progress. It is intended to invite the presence of continental authorities who have contributed to the elucidation of the subjects proposed for discussion; and in some cases, the debates may probably be opened by foreign colleagues, who are eminently entitled to hearing in laying down the results of recent investigations, and explaining the deductions which suggest themselves as arising out of such research. The meeting is under the scientific direction of men who will know how to impart to it a fruitful termination; and we look forward to this gathering as affording a brilliant opportunity of reunion. Not only will it serve all the general purposes of the Association, such as we are now annually accustomed to expect, but it will also be of special interest for the demonstration which it will afford of the great attractions which an university such as Cambridge possesses for the scientific elements of the medical profession, and for the opportunity which it will give of showing how rapidly Cambridge has gathered together its material, and developed a medical school which is in many respects hardly to be rivalled in Great Britain, and which possesses for the whole profession a present and prospective interest which cannot be surpassed by any centre of present instruction in the kingdom. Such demonstration will, of course, be practically most instructive, as bearing upon the different state of things which once existed in this University, but it will also be most welcome for its own sake, and will, we hope, tend to knit closer the ties which already unite the medical profession to this great university.

It is not necessary to say anything now of the other arrangements of a merely social character. The university is not likely to fall short in this respect, although it may well afford to dispense in a measure with some of the elements of attraction which occasionally prove so very enjoyable at these meetings.

CHEAP SCIENCE IN CYPRUS.

WE invite the attention of the Secretary for War and the Director-General of the Medical Department of the Army to the following facts, which, unless attended to, may cause some not ill-founded discontent in the ranks of a department which seems never destined to be left without a grievance.

The Island of Cyprus has, it appears, been divided into districts. To each district a commissioner, an assistant-commissioner, an officer of police, and a doctor, have been appointed. The commissioner is paid a pound a day, the assistant and the officer of police have 10s. 6d., and the doctor 6s. 6d. *per diem*. As the above posts seem to be all filled by officers, we presume the emoluments are given as staff pay for the duties exacted. With the duties and remuneration of the three first named officials, we have nothing to do.

It appears that the handsome pay of six shillings and sixpence a day did not tempt any army medical officers to offer their services; so his Excellency the Governor, or Lord High Commissioner, ordered several army medical officers—how many we are not informed, nor is this material—to enter on the civil duties of medical officers of districts, which, we submit, he had no right to do. If the authorities of England confirm this high-handed proceeding, they are bound in common fairness to intimate to intending candidates for commissions in the Medical Department of the Army that, at the discretion of a governor of any colony or possession of the British Crown in which they may be serving, they are liable to be taken from their proper duties as army medical officers and put to purely civil duties, on any rate of pay the said governor may be pleased to give. How far such an intimation is likely to counteract the attractions of the Warrant lately promulgated it is not for us to say; intending competitors for such appointments must judge of the matter for themselves. But this we do say, that without such an intimation, the conduct of the Cyprus authorities is a piece of high-handed injustice, we believe, without a parallel in Her Majesty's service.

We have now to ask our readers to take note of the compulsory duties exacted from medical officers so appointed on the magnificent pay of six shillings and sixpence *per diem*, and to say if the statement do not justify the heading we have put to these remarks, that science is cheap in Cyprus. The "Memorandum on the Nature of the Duties of Medical Officers of Districts", which is now before us, is dated the 11th of November 1879, and bears the signature "By Command" of G. R. Greames, Colonel, Chief Secretary. After intimating that medical officers are to be subordinate to and to take their orders from the civil commissioners of their respective districts, they are informed that these appointments will at first be temporary and probationary, and that their duties will be more fully detailed hereafter, and "may from time to time be increased or varied". The memorandum goes on to state what in the meantime is required of them. 1. They will give medical attendance to the police force. 2. They will have medical charge of the district jails; 3. and of the dispensaries for the poor, giving medical and surgical aid to all who resort to them. 4. They are to perform all the surgical operations which demand the skill and experience of a well trained surgeon. 5. They are especially charged with attendance on women, and to pay particular attention to ophthalmic diseases in people of both sexes. 6. They are to act as medical jurists in government cases. 7. They are to be the public vaccinators in their respective districts. Special instructions are promised on this head. 8. They are to be the sanitary advisers of the civil commissioners on all questions of public health; to take the initiative in bringing to the notice of the commissioner "glaring instances of sanitary neglect"; in other words, they are to be inspectors of nuisances. 9. They are to watch the outbreak and progress of epidemics, and to study and report on their relations to the natural features of the district, its meteorology (*sic*), and other causative agencies of disease (*sic*). 10. They are to send in to the chief secretary to government such returns of sickness as may be required, and to accompany them (*sic*) "with short and perspicuous reports elucidating the statistics of the returns". 11. They will report annually, at length, on the medical history of the district during the preceding year. In this report an appropriate place will be found for the geology, botany, topography, and meteorology of the district, "as well as for the purely medical and sanitary details concerning which it treats". The above "memorandum", comprising what in this country would be thought abundance of work for at least three experts, is, our readers will agree with us, pretty well for 6s. 6d. a day. But as if this were not enough, we have before us a copy of another "memorandum", issued from the chief secretary's office, and bearing the signature of that functionary, which surpasses anything that has ever came under our notice. If those who enter the Medical Department of the British Army expect to be treated as "officers and gentlemen" when they go to Cyprus, this memorandum will undeceive them. In it the commissioner of each district is ordered to exercise the strictest supervision over the expenditure of drugs and instruments by the doctors of districts, and to insist on every one of them entering in a book every prescription; and the commissioner is directed to inspect this record frequently, to see that medical officers do not use public stores "in pursuance of their private practice".

In all seriousness, we ask, what is the use of issuing warrants to induce the members of an honourable profession to enter the public service, when red-tape officials, like those in Cyprus, are permitted without rebuke to deal with them in this insolent and high-handed fashion? The force of folly can no further go; and if we had not had authenticated copies of the documents from which we have taken the above details, we could not have believed that officers charged with the responsible duties of government could put their names to such orders.

THE BASSET LUNACY INQUIRY.

An inquiry, that seems to have excited keen interest in the West of England, was held at Brislington, near Bristol, on the 3rd and 4th of February, before Mr. Norris Nicholson, one of the Masters in Lunacy. It had reference to the mental condition of the Rev. Walter St. Aubyn Basset of Treharrock, a member of an influential Cornish family, in which unhappily insanity has been not unknown, as the father of the alleged lunatic died by his own hand, and his elder brother was for many years an inmate of a private asylum in Sussex. Mr. Basset, who was at one time rector of West Buckland, in Devon, but who since 1873 has resided on an estate which he had acquired in North Cornwall, has been eccentric, it was stated, ever since he was a grown man. For several years past, he has laboured under a variety of delusions. This point was undisputed, and was indeed established by the defendant himself, who, when skilfully examined by the Master in the presence of the jury, gave utterance to a number of beliefs which were unmistakably the offspring of a diseased mind. He stated that a conspiracy existed against the Basset family; that a large number of persons in the kingdom were emasculated, and sought to reduce others to their own condition; and that he was followed by spies, whom he called "runners", who went about in towns with hoods over their heads. His letters for years past have teemed with insane statements; and his friends and neighbours, and the medical men who have examined him, were able to show that certain delusions have a permanent hold on his mind. Thus he has said repeatedly that Lord Falmouth and other distinguished persons had entered into a plot with Arch, the agricultural delegate, to make an idiot of his elder brother, and to lock him up in an asylum; and that the nobleman already named had been concerned in the death of several persons. The medical witnesses called on behalf of the defendant—Drs. Beddoe and Brittan of Bristol—testified to his delusions, and gave their opinion that he was of unsound mind. The question at issue was, not really whether Mr. Basset was of unsound mind and has delusions, but whether his mental unsoundness and delusions were of such a character as to render him dangerous and incapable of managing his own affairs.

The law, as well as scientific medicine, recognises delusions of two kinds: harmless delusions or passive beliefs, which may be very extravagant, but do not tend to pass over into actions that are inimical to any one; and dangerous delusions, or aggressive convictions, which influence conduct and compromise the safety of their victim or of others. The first are, as it were, encapsulated in the mind, and may remain stationary for years, exercising little or no prejudicial influence on surrounding mental territory; but the second are mere foci of malignant action, and tend to spread in various directions, and produce general mental failure or perversion, which is more or less ostensible. Are Mr. Basset's delusions of the former or of the latter class? That was practically the question which had to be determined by the jury in the inquiry to which we are referring.

Mr. Bucknill, who appeared for Mr. Basset, laboured, with much ingenuity and zeal, to convince the jury that his client was a gentleman with some odd notions of his own, but of a peaceful disposition, and with abundant capacity to control himself and to look after his property. We are not surprised, however, that he did not succeed in doing so. Delusions of suspicion are rarely, if ever, of an innocuous kind. It may be doubted whether the worm turns upon the trampler; but it can scarcely be gainsaid that even the tenderest human being will ultimately resent persistent and cruel persecution, and seek to retaliate upon the persecutors. And lunatics, who imagine themselves persecuted, feel their supposed wrongs as acutely as sane persons do their genuine grievances. Then, when delusions of suspicion are linked with thoughts of vengeance or self-defence, or find expression in threatening or ambiguous language, their truly dangerous character must be apparent to all who have had any experience of the insane. But Mr. Basset's delusions were clearly united with vindictive feelings towards his supposed enemies, and expressed in very significant phrases. He intimated that he wanted the conspirators "killed respectively", and that he thought Mr. Arch might be disposed of at a cost of £20, and he made use of words which conveyed the idea that he meditated mischief to his nephew. And not only so, but his actions as well as words betrayed the dominance of his delusions over him, and their readiness to explode into violence. He carried a stout stick, which awakened apprehensions in the mind of a solicitor. He went on his hands and knees in his own kitchen, with an open pruning-knife in his hand. Armed with a knife and pistol, he searched the cliffs in the neighbourhood of his residence for the ubiquitous "runners", who watched his premises and hid in clefts of the wall. True, an effort was made to explain and refine away the compromising language which Mr. Basset had used, and his damaging actions. It was shown that Treharrock is a lonely place and was sometimes visited by objectionable persons, against whom it might be proper to take precautions; and it was alleged that the words used by the defendant with reference to his nephew were simply, "This property will come to me when that brat is dead", and involved no menace. Mr. Basset's own counsel, however, admitted that he had negotiated for the purchase of a pistol; and it is surely a suspicious circumstance that a clergyman, harbouring numerous morbid ideas, should be desirous of possessing himself of such a weapon. Altogether, we think a perusal of the published reports of the trial will induce most persons to agree with the Rev. Mr. Somerset, rector of St. Mabyn, who, in October last, arrived at the conclusion that Mr. Basset was a dangerous and wandering lunatic, and gave notice to the relieving officer accordingly. Dr. Basham put the case very clearly. "I think", he said, "that persons, actuated by the belief that others are intending to do them bodily harm, would seek to protect themselves. A man, seeing another man behind a hedge, might take a shot at him on the supposition that he was one of his enemies." Dr. Savage of Bethlem Hospital, who had examined Mr. Basset, pronounced him dangerous to any one he fancied to be injuring him, and recorded his belief that he is suffering from chronic incurable insanity. It was proved that Mr. Basset had been becoming gradually worse before his removal to an asylum—a fact which negatives the theory that his delusions are merely innocent fancies, with no tendency to grow and invade his powers of self-regulation.

But, apart altogether from overt acts or comminatory language, it may, we think, be fairly argued that Mr. Basset was a dangerous lunatic and required restraint. He was scattering broad-cast accusations of an atrocious kind, and insinuations against a number of persons, some of exalted and some of lowly rank. He was denouncing them to the police, to the Home Secretary, and the Bishop of London. Such proceedings are well calculated to lead to a breach of the peace, and are certainly most annoying to those who are affected by them. Certain parts of the most insane statements sound sane enough, and are apt to be believed, and thus actual injury may accrue; and even when that is not the case, much chagrin is occasioned. It is not to be tolerated that a lunatic is to traduce his friends and neighbours, right and left, and to go on doing so, as long as he does not commit a murderous assault. Lord Falmouth and Mr. Arch, and the other persons implicated by Mr. Basset, would surely have been justified in demanding that he should be put to silence, or that sufficient coercion should be employed to prevent the publication of his scandalous statements.

Mr. Bucknill's defence of Mr. Basset was most able and spirited; but we venture to think he must have himself experienced a feeling of relief when the verdict of the jury was announced, to the effect that Mr. Basset is a person of unsound mind and incapable of managing his own affairs. Had an impulsive or speech-swayed jury restored him to liberty, a grave responsibility would have rested with all those who had been instrumental in securing that result. Mr. Bucknill drew for the jury an appalling picture of the "doom" which awaited Mr. Basset in the event of their finding him insane, and which must have recalled rather a chapter in *Valentine Vox* than the recent Report of the Select Committee of the House of Commons. An asylum is, he says, "ten thousand times worse than a gaol"; if that be so, we can only conclude that a gaol is a moderately comfortable place. Supposing, however, that asylums are all that Mr. Bucknill's fancy paints them, we should still question the propriety of holding them up *in terrorem* before a jury, whose duty it is to find a true verdict according to the evidence, leaving the consequences of their verdict to the law of the land. In defending a burglar, it is not customary to demoralise the jury by vigorous sketches of penal servitude; and even in the case of a capital charge, where the utmost licence is allowed, a careful study of a private execution would be considered out of place. But Mr. Bucknill's hyperboles were beside the mark; for, as Master Nicholson pointed out, it did not follow that any verdict that the jury could deliver would consign the defendant to the dismal doom delineated. In the event of his being found of unsound mind, he said, there was no necessity for his being placed in an asylum. The Court would appoint a committee, who would exercise full discretion, subject to the approval of the Visitors in Lunacy, who are in immediate communication with the Lord Chancellor. No doubt the full measure of liberty which Mr. Basset is capable of enjoying, and not abusing, would be accorded to him.

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IN Paris, small-pox last week caused 70, and typhoid fever 73, deaths.

YELLOW FEVER is reported to have increased considerably at Rio de Janeiro, the deaths numbering from eight to ten daily in that city.

PROFESSOR FLOWER, F.R.S., will commence his course of nine lectures on the Comparative Anatomy of Man in the Theatre of the Royal College of Surgeons of England, on Monday next, March 1st.

DR. FOWLER, Pathologist and Curator of the Museum at the Westminster Hospital, has been appointed an Assistant-Physician to the Middlesex Hospital.

IN the list of the officers and council of the Anthropological Society for 1880 we note the names of Professor W. H. Flower, F.R.S., Dr. Allen Thomson, F.R.S., Mr. George Busk, F.R.S., Professor Huxley, F.R.S., and Professor Rolleston, F.R.S.

DR. JOHN C. DALTON has an article upon Magendie in the February number of the *American International Review*. He defends the character of that much abused physiologist, and also makes a defence of vivisection.

THE annual death-rate in London, which in the two previous weeks had been equal to 48.1 and 35.5 per 1,000 persons living, further declined last week to 28.7; but the 2,016 deaths registered in the week were still 224 above the average. This excessive mortality was almost entirely due to the prevalence of diseases of the respiratory organs.

WE regret to have to announce the death of Dr. Edward Copeman of Norwich, which took place on Wednesday last, the 25th instant, at the age of 70. Dr. Copeman was for many years one of the physicians to the Norfolk and Norwich Hospital, and at the time of his death was Consulting Physician to the Institution. He presided over the annual meeting of the Association at Norwich in 1874, and at the meeting in 1875 was made a Vice-President.

THE STUDY OF HYGROMETRY.

THE report of the Meteorological Society states that the great local differences in temperature and humidity require to be more accurately ascertained than they are at present, not only in sea-side places but in inland districts in their relation to hills and valleys. With this object the Council have instituted a new class of stations, to be termed "Climatological", at which observations of temperature, humidity, cloud, and rainfall, are made daily at 9 A.M. only, with certified instruments, the thermometers being in Stevenson screens, so that the observations of temperature at the different stations may be strictly comparable. The President advocated in his annual address, a more attentive inquiry by the students of meteorology into the subject of hygrometry. The appearance and disappearance of moisture, its diffusion, its origin in and withdrawal from the vaporous form, were matters which could now be readily defined through the increased supply of good observations, especially those so widely circulated by the Meteorological Office and those recorded by the observers of the Meteorological Society. In furtherance of this object, he produced a digest of all the observations published by the Meteorological Office for the year 1879—a year of abundant moisture, and one which could hardly fail to afford traces of the constancy or inconstancy of beds of moisture, if they were permanent anywhere, or of their coming and going viewed substantially as to their own existence rather than as borne by the force of the wind, or acted on by the power of the air in its baric relations. The preparation of this digest from the hygrometric elements for 1879 proved such a laborious work that, being still incomplete and wanting the customary corrections for the various observations, he refrained from comments and deductions, and gave the digest itself for the use of any students who might desire to work at the subject. The tables contained the calculated dew-point, vapour-tension, relative humidity, and thermometric dryness throughout. These various and full data exhausted all the aspects of humidity in its vaporous state, and would supply means for a thorough study of the British climate in a year of maximum humidity.

EPSOM COLLEGE.

THE two Science Junior Studentships at Christ Church, Oxford, have just been obtained by two pupils of this College, T. H. Walker and H. J. Mackinder. The successful students are sons of two of our Lincolnshire associates, Dr. J. West Walker of Spilsby, and Dr. Draper Mackinder of Gainsborough. Such a double success speaks well for the quality of the science-teaching in a school, the progress of which must be specially interesting to the profession.

WHOOPING-COUGH IN LONDON.

THE fatal cases of whooping-cough in London, which had been 248 and 197 in the two preceding weeks, further declined to 171 last week, but exceeded the corrected average weekly number by 91; 22 occurred in Pancras, 23 in Islington, 9 in Shoreditch, 12 in Southwark, 7 in Newington, 13 in Lambeth, and 14 in Camberwell.

SMALL-POX IN LONDON.

THE deaths from small-pox, which had been 13 and 12 in the two preceding weeks, were again 13 last week, of which 10 occurred in the Metropolitan Asylum Hospitals at Fulham, Homerton, and Deptford, and 3 in private dwelling-houses. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 80, 91, and 126 at the end of the three preceding weeks, further rose to 139 on Saturday last; and no fewer than 58 new cases were admitted to these hospitals during last week, against 22, 36, and 57 in the three previous weeks. Judged by the admissions to these hospitals, small-pox is now more prevalent in London than it has been since March last.

WATER-MONOPOLIES.

OUR attention has again been directed to the water-supply of Yeadon, and to the unwholesome method of its collection and distribution (see JOURNAL, vol. ii, 1879, p. 701). It appears, according to reliable evidence, that the state of affairs is even worse now than it was when Mr. Spear made his inquiry on behalf of the Local Government Board; and, in addition to the wholesale pollution of the water that is going on unchecked, the unfortunate inhabitants have lately had to endure a water-famine. The company that supplies Yeadon with water possesses an Act which appears to be almost absolute in its terms; and, as we have already indicated, there seems to be no help for the inhabitants except by an alteration of the statute-law in this respect. It is stated that the Company's Act exempts them from constantly having the water at a proper level in their service-reservoir, whilst they have power to compel all the people who take their water to pay for it, whether they have a supply or not. It is stated as a well-known fact that many have been without water for long periods, even three months at a time, and yet the water-rent has had to be paid in full. Of the actual method of collection, we gave a description last November; and it would seem that this equally applies at the present moment, except that matters have gone from bad to worse. Notwithstanding an energetic protest of the ratepayers, the local authorities have taken no satisfactory steps to ensure an improvement in the quality of the Company's water. A few days ago, the supply of water entirely failed; and even now the quantity is grossly insufficient. Meanwhile, the death-rate of the place is at the high figure of 30.61 per 1,000.

MEDICAL SOCIETY OF LONDON.

THE general meeting for the election of officers and council will be held on Monday, March 1st. The following is the list proposed by the council. *President:* F. J. Gant, F.R.C.S. *Vice-Presidents:* C. Theodore Williams, M.D.; W. F. Teevan, F.R.C.S.; A. Wiltshire, M.D.; J. W. Barnes, F.R.C.S. *Treasurer:* Francis Mason, F.R.C.S. *Librarian:* H. Royes Bell, F.R.C.S. *Secretaries in Ordinary:* D. H. Goodsall, F.R.C.S.; T. Gilbart Smith, M.D. *Secretary for Foreign Correspondence:* J. I. B. Berkart, M.D. *Council:* J. Astley Bloxam, F.R.C.S.; Percy Boulton, M.D.; Thomas Bryant, F.R.C.S.; R. Brudenell Carter, F.R.C.S.; John Cockle, M.D.; Walter Coulson, F.R.C.S.; A. E. Cumberbatch, F.R.C.S.; W. H. Day, M.D.; T. S. Dowse, M.D.; Sir Joseph Fayrer, M.D.; Clement Godson, M.D.; F. de Havilland Hall, M.D.; Thomas H. Hill; C. Holman, M.D.; Malcolm Morris; Edmund Owen, F.R.C.S.; H. E. Sewill; Heywood Smith, M.D.; J. C. Thorowgood, L. S. Forbes Winslow, M.D. The annual dinner of the Society will take place at the Langham Hotel, on Monday, March 8th, at 7 P.M.

THE RECENT PREVALENCE OF MEASLES.

THE mortality from measles last quarter was so serious as to deserve special mention, the more especially as there are indications that, in several parts of the country, this excessive fatality is still proceeding. In the fourth quarter of 1879, there were no fewer than 3,607 deaths from measles in England and Wales, showing the enormous increase of 2,118 upon the number in the corresponding period of 1878. The annual death-rate from this disease was equal to 0.57 per 1,000, against an average rate of 0.38 in the nine preceding corresponding quarters; in the fourth quarter of 1871, the death-rate from measles was equal to 0.66 per 1,000, since which there has been no approach to so high a rate in the last three months of any year until last quarter. The disease was much specialised, some counties suffering severely, whilst others comparatively escaped. In the twenty large towns, the death-rate from measles averaged 0.83 per 1,000, and exceeded by nearly 50 per cent. the general English rate; the highest rates in these towns were 1.95 in Leeds, 2.26 in Plymouth, and 2.38 in Liverpool. On the other hand, not a single fatal case of measles was recorded in Sunderland during the last six months of 1879. In the fifty smaller towns, the rate of mortality from measles averaged 0.73 per 1,000, and was slightly lower than in the larger towns; the highest rates in the fifty towns were 2.33 in Bath, 4.63 in Bolton, and no less than 7.14 in Devonport, which appears to suffer severely from measles at short intervals. Measles also showed exceptional fatality in Newhaven, Staines, Great Marlow, Banbury, Rassington (Northampton), St. Ives, Poole, Bridport, Tamworth, Hucknall Torkard, Farnworth, Ecclesfield, Maryport, and Tredegar. The most serious outbreaks of these were at Hucknall Torkard and Maryport. Measles prevailed epidemically at Hucknall Torkard last quarter, chiefly in the month of November. In a little over a month, no fewer than 29 deaths from this disease occurred in a population of 8,000 souls, 3,000 of which are children under ten years of age. It is believed that the number of cases has not fallen far short of a thousand. The larger number of the fatal cases were complicated with pneumonia, and a less number with bronchitis. The medical officer of health is of opinion that the mortality is due (1) to the severe type of the disease, (2) to the severity of the weather, rendering the subjects of the disease unusually liable to serious complications, more especially at the commencement of convalescence and during the desquamation of the cuticle. Sufficient care has not been taken in many cases to prevent premature exposure to cold. With a view to prevent the spread of the disease, disinfectants for house and personal disinfection were freely supplied by the authority, and instructions were given to the school-attendance officers to inform parents that, in case measles appeared in the family, they must not send any of their children to school. At Maryport, a small town in Cumberland of about seven thousand inhabitants, there were thirty deaths from measles during the quarter. The disease seems to have been imported from Lancashire, and to have been prevalent in some of the villages adjoining Maryport before it became so widespread at that place. Its fatality is attributed to the neglect to call in medical advice until some complication, such as pneumonia or bronchitis, had arisen. Eighteen of the fatal cases were complicated with bronchitis and pneumonia, one with whooping-cough, one with diarrhœa, and the large number of seven occurred from measles alone. Since the quarter ended, there have been serious epidemics of measles at some of the Cornish fishing villages. At the little town of Looe, with a population of less than 1,400 persons, there have been, since the beginning of the present year, more than 200 cases. In the short space of three weeks, 28 deaths from the disease and its complications have been registered, and fresh deaths seem to be occurring almost daily.

HIGH DEATH-RATE AT INCE-IN-WAKEFIELD.

DR. FRANKLIN PARSONS has recently presented to the Local Government Board a report (the first that we have seen since his appointment) giving a very complete account of the sanitary circumstances of Ince-in-Wakefield, a dirty colliery town in Lancashire, not far from Wigan. It appears, from Dr. Parsons' report, that both the birth- and death-rates of Ince are high, the former excessively so. The births during the past four years and three-quarters are equal to an annual rate of 54.6 upon a population of 14,000, or 50.9 upon one of 15,000. It is evident, therefore, that the population must be, on the average, a young one, consisting mainly of children and of young adults, and those at the child-producing ages. The average death-rate for Ince during the past four years and three-quarters has been 27.0, taking the population as 14,000, or 25.2 if as 15,000, the average death-rate for England and Wales during the same period having been 21.3, 95 deaths from injuries having occurred during the four years and three quarters. The death-rate in Ince from the seven principal zymotic diseases has been, on an average during the past four years and three-quarters, 5.0 per 1,000 *per annum* on a population of 14,000, the average rate for England and Wales having been 2.9. The mortality among infants and children is also an unfavourable feature in the vital statistics of Ince. Out of every 100 children born, 18.1 die before attaining the age of twelve months. Again, of the deaths during the period of four years and three-quarters, more than 60 per cent. have been those of persons under five years of age. Of 1,080 deaths of children under five years old, which took place during this period, 283, or 26.2 per cent., were from bronchitis and other inflammatory diseases of the chest; 264, or 24.4 per cent., from the principal zymotic diseases; 156, or 14.4 per cent., from the wasting disorders of childhood, called on certificates "marasmus", "tabes mesenterica", etc., but which in many instances might most correctly be designated "improper feeding"; and 145, or 13.4 per cent., from "convulsions". The probable causes of this high mortality may be grouped under two headings: (1) local unsanitary conditions which the sanitary authority can remedy; and (2) social and domestic conditions and habits unfavourable to health, for the remedying of which we must look to education and the gradual adoption of a higher standard of life. Among the former class must be especially noted the very unsatisfactory method of excrement disposal now existing; large wet open middens used in common by several houses, giving off their effluvia within five to seven yards of the back doors of the houses; unpaved back yards fouled by excreta and refuse, which can never be properly cleansed, and dirty unmade streets with pools of stagnant water, and fouled with refuse and filth of all kinds. Among the latter, so far as can be learnt from medical men and others, the principal is the prevalent neglect and mismanagement of children. Early marriages are frequent; and those who become mothers, having been brought up as factory-workers, have but little knowledge or experience of the management of a home. Many of the women go out to work, leaving their infants to be taken care of at home by old women or by elder children. During the last four years and three-quarters, thirteen children were found dead in bed with their parents, probably overlaid, and eight were burnt or scalded to death while left in charge of other children. No instances of baby-farming, such as would come within the scope of the Infant Life Protection Act, could be heard of, nor was drugging particularly prevalent. The latter was stated to have diminished since the passing of the Pharmacy Act; the principal form in which it exists being the use of various patented "soothing syrups", "teething powders", and "infants' preservatives". Great carelessness appears to prevail among the population at large with reference to the spread of infectious diseases. If a family happened to be attacked with scarlet fever, the neighbours all come to see the sick person, and often bring their children. Add to this a perfectly futile process of disinfection of houses, the absence of a disinfecting apparatus and of a hospital, and it can hardly be wondered that, with the sanitary conditions observed by Dr. Parsons, nearly a fifth of the deaths during the last five years or so have been occasioned by zymotic diseases.

SANITATION IN PARIS.

AT a recent meeting of the Paris Municipal Council, one of the members called the attention of the Council to the danger of infection arising from accumulations of detritus in streets not classed, and consequently not under the control of the Direction of Works. He pointed out that small-pox was abnormally prevalent; 533 cases, of which 100 were fatal, were treated in January; 291 others, of which 51 terminated in death, were registered in the first fortnight of February. Medical men asserted that the cause was the filthy condition of private roads and streets, and it was absolutely necessary that the Prefecture should undertake the sanitary work, or compel the proprietors to do it.

WORKHOUSE MEDICAL OFFICERS AND THE CONTAGIOUS DISEASES ACTS.

WE are informed that the opponents of the Contagious Diseases Acts have recently circulated among medical officers of Union Workhouses and Infirmaries, a series of questions concerning the diseases against the spread of which these Acts are directed. As the object of this application is, doubtless, to obtain information which will, if possible, be employed for the purpose of bringing these most useful Acts into discredit, it may be worth while to warn those gentlemen who intend replying to the questions, to be careful to give their answers in such a form that they cannot be misinterpreted.

ELECTIONS AT THE ROYAL MEDICAL BENEVOLENT COLLEGE.

ON another page are published the report of the Committee of Governors, charged with the duty of endeavouring to obtain an improvement in the mode of election to the Royal Medical Benevolent College, and the resolutions which have been adopted by the Council, in consequence of the decisive vote passed at the annual meeting last year. The Council have loyally accepted the expression of the wish of the majority, and, adopting the vote of the meeting with the exception of some minor details, have supplemented it by a scheme for the appointment of the Committee of Selection. This is to consist of six members, of whom three are to go out of office in rotation. The first Committee will be appointed forthwith; and the election of candidates in May next will take place under the new *régime*. The report which we publish refers to the fact that already there is a diminution in the amount of canvassing; and it is to be trusted that this satisfactory result will become still more manifest. Henceforth, we may expect that those candidates whose circumstances render them the most deserving objects of the benefits of the College, will be put well in the front rank; and many will be relieved from the destructive strain which the necessity of following out a system of extensive canvassing inflicts on the resources of those whose means are already too limited. The Committee deserve congratulation on the successful result of their labours; and they will be thought of with gratitude by many a widow and orphan whose path they have aided in smoothing. We trust that the College will now receive a great increase of support, so that it may be enabled to carry out still more fully than has hitherto been possible the purposes for which it was founded.

NEPHROTOMY.

THIS operation was performed, at Guy's Hospital, by Mr. Clement Lucas, on February 17th, upon a man aged 36, who was suffering from a suppurating kidney, that had discharged through the loin for six years. The lumbar incision was adopted, and antiseptic precautions were employed. A week after the operation, the patient was doing well and considered almost free from danger.

OWENS COLLEGE.

ON Friday, 20th instant, the Owens College Medical Debating Society held their annual *soirée* and concert in the College. There were nearly five hundred visitors, who visited the various museums and class-rooms in the College, which were all thrown open. An interesting feature in the entertainment was an oration, in verse, on "Things in general", by Mr. S. M. Bradley. Altogether, a most pleasant evening was passed, and much appreciated by the numerous guests.

THE NEW YORK ACADEMY OF MEDICINE.

AT the stated meeting of the Academy, January 15th, 1880, the President (Dr. Fordyce Barker) handed to the members a handsome and valuable "loving cup", the gift of Mrs. Jacob Astor to the Academy. The cup is ornamented by the acacia, symbol of friendship and love. On the front are the seal of the Academy, its motto, and the head of Hippocrates. Above is the name of the President, and the date of his election, with spaces left for the names of his successors. An unanimous vote of thanks was given to Mrs. Astor for her generous gift.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual general meeting of this Society, for the election of officers and other members of the Council for the ensuing year, and to receive the auditor's report and the report of the Council, will be held at the Society's House, 53, Berners Street, on Monday next, March 1st, at eight o'clock in the evening precisely. The following is a list of the names proposed for the several offices. *President:* John Eric Erichsen, F.R.S. *Vice-Presidents:* C. B. Radcliffe, M.D.; *A. B. Garrod, M.D., F.R.S.; B. W. Holt; J. Birkett. *Treasurers:* W. Wegg, M.D.; J. Cooper Forster. *Secretaries:* *Reginald E. Thompson, M.D.; Timothy Holmes. *Librarians:* G. Johnson, M.D., F.R.S.; J. W. Hulke, F.R.S. *Other Members of Council:* *J. Langdon H. Down, M.D.; *C. Hilton Fagge, M.D.; *Samuel Fenwick, M.D.; John Harley, M.D.; George Roper, M.D.; *Frederick J. Gant; *Christopher Heath; *Francis Mason; *John Morgan; *Alfred Willett. Those gentlemen to whose name an asterisk is prefixed, were not on the Council, or did not fill the same office last year. It is notified that, in consequence of doubts having arisen regarding the legality of the vote of fifty guineas to the Harvey Tercentenary Fund, passed at the last annual general meeting, the President and Council have been advised to defer its payment; and the question will be resubmitted to this annual general meeting for final decision.

CHANGES IN THE ENGLISH RATES OF MORTALITY.

AT a meeting of the Statistical Society, held on the 17th instant, a paper on "Certain Changes in the English Rates of Mortality" was read by Mr. Thomas A. Welton. He remarked that while the leading fact in relation to the statistics of mortality is the regularity underlying every variation of death-rate, it is well, on the other hand, to examine from time to time the data for long periods, and to consider the stability or changefulness of the phenomena. Tendencies may thus be discovered, which in a protracted series of years would bring about unmistakable results. Deeming the population-tables classifying the inhabitants of this country according to their ages to be very far from reliable before 1851, Mr. Welton restricted his comparisons to the six quinquennial periods extending from 1846 to 1875. On this basis he found that, according to the death-rates given by the Registrar-General, the mortality of both sexes at ages 5 to 25 had certainly been reduced. On the whole, however, the tables proved that the striking abatement in the death-rates at ages between 5 and 25 had been attended by an aggravation of the mortality at higher ages, putting aside epidemic years, and that such aggravation had been far more considerable among males than among females. With a view to measuring the extent of this deterioration in the vitality of males, Mr. Welton presented an approximately true national table of mortality for 1856-60, at which epoch the growth in the death-rate seemed not to have commenced; with which he compared a similar table representing the movement during the quinquennial period 1871-5, when the tendency had attained a considerable, if not alarming, development. The two tables were then further contrasted with Dr. Farr's English Life-Table No. 3. The period of years before the persons who are born are reduced to half their original number was, according to these tables, as under: By Dr. Farr's table, males, 44.4; females, 46.4; female expectation greater by 2; by experience of 1856-60, males, 46.5; females, 48.9; female expectation greater by 2.4; by experience of 1871-75, males, 45.8; females, 50.9; female expectation greater by 5.1. The paper discussed, in the last place, the causes of the increased mortality among males aged 35 to 65, the result arrived at being that this increase had not been largely due to epidemics, to consumption, or to diseases of the stomach and liver, but to disorders of the lungs, heart, brain, kidneys, and to cancer.

HARD TIMES AND HEART-DISEASE.

DR. BRITTON, in his annual report on the sanitary condition of the combined Halifax districts, states that he has been struck by the number of deaths from heart-disease in his districts this year. He attributes this fact to the severe trade-depression which has been so heavily felt, and to the consequent anxiety of people to, in homely phraseology, make both ends meet.

THE PEABODY FUND AND ITS IMPROVED DWELLINGS.

THE trustees of the Peabody Donation Fund have just issued their fifteenth annual report, which presents a satisfactory account of what has already been done with the princely gift of Mr. Peabody, and encourages the brightest hopes of its future beneficial influence on the homes of the London poor. At the end of 1879, 9,905 persons were housed in the 5,170 rooms of the various blocks of Peabody dwellings. Thus the residents did not average quite two to each room, affording the strongest contrast to the overcrowding that existed on most of the sites which were cleared for the erection of the new blocks of buildings. During 1879, the trustees did not erect any new buildings, but they report that they have managed to acquire six new building-sites, covering an aggregate area of more than nine acres, at a total cost, including all expenses, of about £100,000. The localities of these six new building-sites are as follows: Glasshouse Street, near the Mint; Whitecross Street, St. Luke's; Bedfordbury; Great Wild Street, Drury Lane; Pear Street Court, Clerkenwell; and Old Pye Street, Westminster. To cover these sites with buildings, will necessitate an expenditure of about £360,000, which is partly to be met by a Government £3½ per cent. loan, which is to be repaid within fifteen years. The completion of the contemplated buildings will afford accommodation for 10,000 more residents, and will raise the number of persons housed through the agency of the Fund to 20,000. The most important feature of the Fund is its increasing power for usefulness. Mr. Peabody gave, in 1866, 1868, and in 1873, a total of £500,000; since the initiation of the Fund, nearly £224,000 have been added thereto on account of net profit and interest on invested capital. On December 31st last, the amount of the Fund was nearly £724,000, showing an increase of almost 50 per cent. upon the original donation. During 1879, more than £24,000 was added to the capital, being the net profit rental, and equal to more than £3 per cent. upon the entire fund. This result reflects the greatest credit upon the management of the Fund, especially as the rents are exceedingly moderate, and average rather less than two shillings a-week per room, including the "free use of water, laundries, sculleries, and bath-rooms". As evidence that the tenants consist mainly of the working class, for whose benefit the Fund was instituted, it is stated that the average weekly earnings of the head of each family in residence at the end of last year was under twenty-four shillings. We are told that the death-rate among the residents of the Peabody Buildings in 1879 was 20.1 per 1,000, against 23.3, the average rate in all London. It is evident that this death-rate, which only includes the deaths actually occurring in the buildings, is not the actual rate of mortality belonging to the resident population. It is impossible to doubt that this population contributed its quota to the deaths recorded during the year in the metropolitan workhouses, hospitals, and lunatic asylums. If these deaths could be brought into account, the true death-rate in the Peabody Buildings would no longer be below the average rate in London; and it would not be reasonable to expect that the mortality statistics of a population consisting exclusively of the poorer working classes, would compare favourably with those for the whole of London. If we could compare them, however, with the rates that prevail in the crowded and dilapidated tenemented property still existing in this great metropolis, there would be ample grounds for revering the memory of the late Mr. Peabody, and for gratitude towards the efficient trustees of the Fund. Seeing that the trustees are careful to provide themselves with trustworthy mortality statistics of the population residing in their buildings, we cannot repress a regret that they do not furnish further details on this subject, which would constitute a valuable contribution to public health literature of urban populations. Particulars of infant mortality and zymotic fatality in these buildings would be especially valuable.

PREVENTABLE DEATHS IN AMERICA.

MAKING all allowance for the tendency to optimism, Dr. Billings asserts that "the total annual loss of life in America, from causes well known to be preventable, is certainly over 100,000 annually..........In addition to these unnecessary deaths, there are probably one hundred and fifty thousand persons constantly sick in the United States from causes which, we have good reason to think, are preventable; and we may accept, as a basis of calculation, that the productive efficiency of the average life in this country falls short of the normal amount by at least thirty per cent." This is rather startling in a new country, where soil, air, and water should be less liable to pollution than in the crowded countries of Europe, where material prosperity is much greater, and the wants of the poor more easily satisfied by labour.

SUICIDES IN BOHEMIA.

THE Prague correspondent of the *Berliner Klinische Wochenschrift* gives some interesting facts from the official statistical returns of suicides in Bohemia. Within eight years, the number has more than doubled; having been 551 in 1871, and 1,157 in 1878. Of the suicides, 81 per cent. were males, and 19 per cent. females. The chief means adopted were hanging in 599 cases (518 males and 81 females), drowning in 266 (165 males and 101 females), and shooting in 203 (201 males and 2 females). Poisoning was used for the purpose of suicide in 81 cases (44 males and 37 females); incised wounds in 2 males; and 6 persons (4 males and 2 females) allowed railway trains to pass over them.

GYMNASTICS FOR SICK CHILDREN.

AMONG the many therapeutical agents available for the treatment of scrofulous or tubercular diseases, there is one that in this country at least is scarcely sufficiently regarded—*i.e.*, regular and systematic exercise. Such diseases are probably in most cases hereditary, and always due to a bad habit of body; and to correct this, physical training is quite as requisite as appropriate medicine and food. The functions of the lungs, or of the joints, or of the glands are disturbed; and the manifest indications are first to improve the nutrition of the subject, and then to restore the impaired functions by gentle well-directed exercise. The Committee of the Children's Hospital, Birkenhead, recognising this, have recently opened classes for the careful physical training of such of the in-patients and out-patients as appeared to be most in need of it. We have pleasure in drawing attention to this as constituting an interesting departure from the routine work at a hospital, and as affording an useful suggestion to the officers of similar institutions. A correspondent who was present at a sort of field-day, recently held in this hospital, writes to us that the management have provided quite a handsome gymnasium for the children, containing horizontal bar, ladder, inclined plane, rowing-board, etc.; but that the prettiest part of the performance was to see the little patients go through the dumb-bell practice, which was done excellently well; the weight of the bells being graduated to the capacity of the patients. Mr. Leslie Butt has charge of the class, and from the commencement has given his time and services to the children quite gratuitously. The only matter our correspondent notices as requiring some slight modification is the dress of the children. If their ordinary clothes could, just before the practice began, be changed for something on the pattern of a *costume de bain*, the exercises would be gone through with more comfort to themselves, and would actually be more beneficial.

THE PORTSMOUTH HOSPITAL.

WE understand that there is a proposal to begin an extensive series of alterations in the Royal Portsmouth, Portsea, and Gosport Hospital, as its present state is deemed far from satisfactory. Before, however, any alterations which would involve a considerable outlay of money are determined upon, we think it would be well for the committee of management of the hospital to consider whether it would not be better to seek a new site and construct an entirely new building. The site of the present hospital is, from various points of view, in our opinion, very unsuitable. Besides, it is next to impossible to reconstruct an old hospital according to the most recent and approved principles of sanitary science.

CONGRESS OF PUBLIC HYGIENE AND MEDICINE.

THE Belgian Royal Society of Public Medicine is organising a General Congress of Public Hygiene and Medicine, to be held in Brussels at the Palace of the Academies in August. Seven questions will be submitted to the Congress. The most important of them relates to the adulterations of food, and the practical means of discovering and repressing them. The other questions relate to the part which the public authorities should take with regard to contagious diseases and the causes of insalubrity, and also to a typical plan for primary schools which is to satisfy all hygienic desiderata.

TRICHINÆ IN SWINE.

DR. EULENBERG has lately published, in the *Vierteljahrsschrift für gerichtliche Medicin*, Band xxxii, a report of the examination of pigs for trichinæ and hydatids in Prussia during 1878. Of 2,524,105 pigs examined, 1,222, or about 1 in 2,000, were found to contain trichinæ; in many districts, however, the examination is carried out partially or not at all, and thus the numbers given above cannot be regarded as quite accurate. Of American sides of bacon and preparations of pork (the total number is not given), 865 were found to contain trichinæ, but in none were the parasites alive. In Berlin, where the inspection of meat is obligatory, fifteen outbreaks of trichinosis came under the notice of the police. The most extensive epidemic was one which prevailed in the Rosenthal suburb in August and September, in which 36 persons were affected. The total number of cases of trichinosis was 102, of whom 8 died. In the Merseburg district, 30 persons were taken ill in consequence of a careless use of the microscope in examining the meat, and 15, including the vendor of the meat, died. As the meat was also bought by some travellers, the real number of cases and deaths was probably greater. In the Minden district, a case occurred, in which a master-butcher, while in a state of intoxication, ate more than three ounces of raw pork thickly beset with living trichinæ. Immediately afterwards, and for several successive days, he took large quantities of alcohol. Symptoms of trichinosis appeared at the end of a fortnight; they were, however, so slight and transient, that he was not confined to his bed. A similar case, in which recovery took place, occurred in

1877 in the person of a notorious drunkard. Hydatids were found in 6,165 pigs. During 1878, the number of official examiners of meat in Prussia was 16,251.

SCOTLAND.

Dr. Theodore Byrne of Elshiershiels, Lochnaben, has addressed a meeting in Dumfries, and announced himself as one of the Conservative candidates and a supporter of the foreign policy of the Government. He pledges himself to vote for the extension of the franchise in counties and the abolition of the laws of hypothec and entail, and to oppose the Permissive Bill.

Dr. William Ramsay, of the Chemical Laboratory of the University of Glasgow, has been appointed to the Chair of Chemistry in University College, Bristol, in room of Dr. Letts, who has succeeded Dr. Andrews in Queen's College, Belfast. Dr. Ramsay's removal from Glasgow will be a great loss to the Committee of the Association on Anæsthetics, in which he represented the Chemical Department. The Committee have now associated with them Dr. David Newman, who is devoting his energies chiefly to physiological chemistry.

At a meeting of the Council of the St. Andrew's Graduates' Association on February 20th, it was resolved that it was not the duty of the Association to take an official part in the forthcoming Parliamentary election of a member for the Universities of Edinburgh and St. Andrew's.

SICK-ROOM COOKERY: DEMONSTRATION TO STUDENTS.

On Saturday, February 14th, a practical demonstration in sick-room cookery was given, as in former years, in connection with Mr. Chiene's class of systematic surgery, at Minto House, when Miss Drummond, of the Edinburgh School of Cookery, demonstrated the preparation of beef-tea, bread-crumb pudding, arrowroot, gruel, custard, lemonade, and other articles of diet. The ingredients and their proportions having been dictated, were mixed, cooked, and dished-up before the audience, while each step in the various processes was explained with great clearness. A large number of students were present, and showed much interest in the proceedings. The demonstration was repeated in the afternoon before the members of Dr. Angus Macdonald's, Dr. Wyllie's, and Dr. Croom's classes. It is hoped that a short course to medical students of half a dozen or more such demonstrations may be annually arranged, which may prove a valuable supplement to more strictly professional knowledge.

UNIVERSITIES ELECTION.

Mr. Bickersteth having formally accepted the candidature for the membership of Parliament for the Edinburgh and St. Andrew's Universities in the Conservative interest, the supporters of the Right Hon. Lyon Playfair, F.R.S., have taken steps to promote his re-election.

CHAIR OF MATERIA MEDICA IN GLASGOW UNIVERSITY.

At the meeting of the Glasgow University Court held on the 23rd instant, it was agreed to report to Her Majesty in Council in favour of the application of Professor J. B. Cowan to retire from the Chair of Materia Medica in consequence of the state of his health. We understand that Dr. Finlayson is a candidate for the vacant Chair.

REGISTRAR-GENERAL'S RETURNS.

From the weekly returns of the Registrar-General for the week ending Saturday, February 14th, it appears that the death-rate in the eight principal towns during the week was 23.2 per thousand of estimated population. This rate is 0.6 under that for the previous week of the present year. The lowest mortality was recorded in Edinburgh—viz., 19.0—and the highest in Perth—viz., 42.9. The mortality from the seven most familiar zymotic diseases was at the rate of 3.1 per thousand, being 0.8 less than during the previous week. Whooping-cough still continues the most prominent of these diseases, although there is a decrease of 15 on the number of deaths from that disease recorded last week. The number of deaths from inflammatory affections of the respiratory organs was 33 less than that registered during last week. The mean temperature was 39.3°, being 5.8° below that of the week immediately preceding.

THE PATHOLOGY OF HYDROPHOBIA.

At the meeting of the Glasgow Medico-Chirurgical Society, on the evening of the 20th instant, there was a good attendance of members to hear an account by Dr. Charteris of a case of hydrophobia that had recently been under his care in the Royal Infirmary of Glasgow, and which proved fatal. After Dr. Charteris had read his case, another one was related by Dr. Morton, and then followed a discussion as to the nature of the disease and the best line of treatment. The chief interest of the evening attached to microscopic preparations shown by Dr. David Foulis and Dr. Joseph Coats, illustrative of the pathology of hydrophobia. The sections of the chief nerve-centres showed the presence of numerous leucocytes in the perivascular spaces, as had been previously pointed out by Dr. Coats and other observers; but, in addition, an examination of other organs of the body, as the liver and salivary glands, revealed the presence of these leucocytes to the same large extent in their connective tissue. Although these changes have been demonstrated to exist in dogs suffering from this disease, we believe that it is one of the first occasions in which they have been shown in the human body.

GLASGOW SCIENCE LECTURES.

One of the last of this season's course of lectures was given on the 19th instant by Mr. Dallinger, the subject being the latest researches into the origin and development of the least and lowest forms of animal life. Dr. Fergus presided, and there was a large attendance. The lecture was one of great interest, and was very beautifully illustrated. Part of it was occupied with an account of the life-history of two monads, as observed by Mr. Dallinger himself and Dr. Drysdale of Liverpool, who assisted him in conducting his researches. As the result of his investigations, the lecturer concluded that it had been fully established that the least of organic forms multiplied by fission and self-division, and ultimately by means of germs or eggs. He also discussed very fully the important question as to whether minute germs—germs so small that they were, except in the mass, invisible under the most powerful instruments—have a power of heat-resistance greater than was possessed even by adult forms. Mr. Dallinger thinks they have. By a series of investigations, he has found that, while the adults can be killed at a heat of 140° Fahr., the spores or eggs of one of the forms can bring forth young at 180°. Further, he ascertained that two of the forms required a temperature of 250° to destroy them, other two a heat of 260°, and another a heat of 300°. And this latter form, he showed, was the very one on which Dr. Bastian's latest experiments were made, and which he had put forward as proving the theory of spontaneous generation. Dr. Bastian found that life reappeared after the organism had been subjected to a heat of 270° Fahr., and therefore he argued it must have arisen *de novo*; whereas Mr. Dallinger's experiments proved that the germs could only be killed at a temperature of 300°, or 30° higher than that to which Dr. Bastian exposed his infusion.

THE GLASGOW ROYAL ASYLUM.

In the sixty-sixth annual report of the Glasgow Royal Lunatic Asylum which has just been issued, Dr. Yellowlees, the medical superintendent, calls attention to the predominance of physical over moral causes in the production of insanity. Only two cases have been received into the Asylum, in which the mental disease was directly attributable to the misery and suffering springing out of the failure of the City of Glasgow Bank. The Asylum contained at the close of last year 529 patients, of whom 303 belonged to the pauper, and 226 to the private, class. The latter receive excellent accommodation and medical treatment at rates of board varying from fifteen shillings to six guineas a week; and the Commissioners in Lunacy speak in terms of high praise of the work done by the institution in making suitable provision for insane persons of the lower middle class, for whom only low rates of board can be paid.

IRELAND.

We regret to hear that Dr. Daniel Donovan of Skibbereen is seriously ill from an attack of typhus fever.

Dr. John T. Banks has been appointed Governor of the House of Industry Hospitals, Dublin, in the room of the late Sir D. Corrigan, Bart., M.D.

In the week ending February 14th, there were seven cases of small-pox under treatment in the Belfast Union Workhouse. During the same week, there were eleven deaths from whooping-cough in Belfast—a number higher than any recorded in the weekly returns since last June.

The lately appointed Junior Surgeon of the Meath Hospital, Mr. Hepburn, as is customary, assumes the Honorary Secretaryship of the Medical Board, in succession to Mr. Ormsby.

THE SPREAD OF INFECTIOUS DISEASE.

A Dublin cabdriver was very properly fined £5 by one of the police magistrates last week, for not having taken immediate steps to disinfect his cab after having driven a small-pox patient to an hospital in it. The driver was informed at the hospital of the nature of the disease with which the patient was affected, and directed to get the cab disinfected. This he neglected to do. Fortunately, however, intimation was at once sent from the hospital to the police; and in about an hour afterwards, the cab was found on a stand. We congratulate both the police and hospital authorities on their action in this matter.

FAMINE AND FEVER.

Attention has recently been directed to the probability that a considerable increase of fever cases might necessarily be expected in Ireland, consequent on the destitution and distress which have prevailed there for some months. That insufficient food and clothing may lead to increased sickness and liability to disease cannot be denied; but the returns from the various registrars throughout the country for the fourth quarter of the past year do not bear out the supposition, at all events up to that period, that fever has been on the increase. For example, in the first quarter of 1879, the deaths from fever amounted to 732; in the second quarter to 774; in the third to 651; and in the past quarter to 526. Of these 526 deaths, only 31 took place in the North-Western division, 80 in the Western division, and 100 in the South-Western; the others being sporadic cases scattered generally.

CORK FEVER HOSPITAL.

The annual meeting of the trustees of this institution was held on the 19th February, presided over by Mr. Murphy, M.P. From the annual report it appears that the total number of cases treated in 1879 was 500, the deaths 43; the average percentage of deaths from all causes being 8.5 per cent. The largest number of admissions was in October and November, consequent on the epidemic of measles and scarlatina which prevailed. In 1878, six cases of scarlatina and six of measles were treated in the hospital, but last year 84 cases of the former disease and 20 of measles were admitted. As regards typhus and enteric fever, we find that 165 cases of typhus and 54 of enteric fever were treated; being a marked contrast to the numbers of 1878, when there were 89 cases of typhus and 120 of typhoid fever. The mortality in typhus was 11.5 per cent.; in typhoid, 15 per cent.; but as several of the patients suffering from typhus were admitted in a hopeless condition, and deducting these from the total number of deaths from typhus, the mortality is reduced to 6 per cent. The epidemic of scarlatina and measles, which had been prevalent in Cork during the past year, was not of a severe or fatal type, except in places where, owing to overcrowding and defective hygienic surroundings, the disease was fatal. Attention is directed to the fact that, in many instances, scarlatina is spread either through gross carelessness on the part of friends neglecting the necessary precaution of isolation and disinfection, or by concealing the nature of the affection, thereby giving to friends and other children a sense of security, which is, perchance, purchased at the cost of a subsequent loss of life. During the past year, a considerable sum has been expended on the hospital; the entire building has been renovated, and the wards will contrast favourably with those of similar institutions in their cleanliness, cheerfulness, ventilation, and purity of atmosphere. The annual subscriptions amounted to £310; donations and bequests, £113; while the Corporation gave a grant of £1200. The report having been adopted, and the medical officers re-elected, the meeting shortly afterwards terminated.

THE LATE MR. O'LEARY, M.P.

We understand that a number of the Parliamentary and professional friends of the late Mr. W. H. O'Leary are collecting a fund for the widow and orphans. Dr. F. J. B. Quinlan of Dublin is acting as one of the secretaries of the "O'Leary Committee". Mr. O'Leary was a member of the British Medical Association. We may add that, at a meeting held after the funeral of Mr. O'Leary, it was stated that his widow and family (nine children) were left without any provision. A subscription list was opened, and a considerable sum subscribed, including £50 from Dr. Mapother, President of the College of Surgeons of Ireland.

DEATH OF MR. RAINSFORD.

Within the brief space of not quite four years, death has three times removed the Senior Surgeon of St. Mark's Ophthalmic Hospital. Its founder, Sir William Wilde, was first taken, full of years and honours; after him, in June 1877, poor Henry Wilson succumbed after a few days' illness; and now we have to regret the loss of an able successor to the eminent ophthalmologists who immediately preceded him, by the death of Mr. Richard Rainsford. Mr. Rainsford—never, we believe, a very strong man—was in a delicate state of health for the last two years; but he bravely battled against his long and painful illness, and exerted himself manfully, if not prudently, in his endeavours to shake it off. For the last seven months, he was a confirmed invalid; and his death on Tuesday week must be looked upon as a merciful release to his sufferings. Born in the year 1848, Mr. Rainsford graduated in Arts and Medicine in the University of Dublin in 1869. He subsequently studied in Vienna, and in 1874 became a Fellow of the Irish College of Surgeons. Besides his surgeoncy at St. Mark's, he was Ophthalmic Surgeon to the Adelaide Hospital and to the Molyneux Blind Asylum, and was also Lecturer on Ophthalmic Surgery in the Ledwich School of Medicine.

HEALTH OF IRELAND: QUARTERLY REPORT.

The births registered in Ireland during the quarter ended 31st December last amounted to 30,668, being equal to an annual ratio of 1 in every 43.7, or 22.9 per 1000 of the population; the average number for the corresponding quarter of the previous five years being equivalent to 23.9 per 1000. There were 24,497 deaths registered, affording an annual ratio of 1 in every 54.7, or 18.3 per 1000, against an average rate of 16.7 per 1000 for the fourth quarter of the five years 1874-78. The number of deaths from the eight principal zymotic diseases was 2,479, or 10.1 per cent. of the total deaths registered, and equal to 46.2 per 100,000 of the population. Small-pox caused 90 deaths, of which number 79 took place in the Dublin district. To measles 319 deaths were ascribed, being an increase of 215 as compared with the previous quarter; and of the number, 144 took place in the county of Cork, where the disease was very prevalent. Scarlet fever caused 589 deaths, a number beyond the average, the affection having prevailed principally in Dublin and Cork. Diphtheria caused 85 deaths; diarrhœa, 407; and simple cholera, 4. There were registered during the quarter 459 deaths from whooping-cough, being an increase of 84 over the third quarter of the year, the increased mortality being due principally to a severe epidemic which prevailed in the North-East of Ireland.

REGISTRATION OF INFECTIOUS DISEASES.

On Monday, February 6th, a deputation of the Parliamentary Bills Committee of the Association, with whom was Dr. Ransome, Chairman of the Committee of the Association on the Registration of Disease, had an interview with the Right Hon. G. Sclater-Booth, President of the Local Government Board. The deputation consisted of the same gentlemen as those who formed the deputation on Animal Vaccination (see page 297 of last week's JOURNAL).

Dr. RANSOME, having handed to Mr. Sclater-Booth a copy of the Report of the Chairman of the Parliamentary Bills Committee on the Local Acts making compulsory the Registration of Infectious Diseases, said that the subject of the registration of infectious diseases had been brought before the Department in other times. A considerable amount of attention had been paid to it, and the British Medical Association had drawn up reports upon the subject. The registration had been carried on in various parts for the last twenty years; it had been carried on in Marylebone, in Preston, in Newcastle-on-Tyne, and in Birmingham. It was not until the passing of the Public Health Act of 1875, that public attention was closely attracted to this matter. It was then discovered that all efforts directed to the abatement of infectious disease would be useless, unless powers were obtained to acquire the information as to the places where the disease existed. A Royal Commission sat upon it, of the proceedings of which the President was, of course, fully informed. The subject had been found to be of so much importance, that various towns in different parts of England had, in local Acts, obtained powers to cause information of cases of infectious diseases to be given to the authorities. Notwithstanding that some of the local Acts were open to objection on the part of the profession, still a great amount of good had been done. The towns where some such system was carried out under local Acts were, Huddersfield, Bolton, Greenock, Burton-on-Trent, Nottingham, Jarrow, Llandudno, Warrington, Blackpool, Norwich, Edinburgh, Rotherham, Leicester, and Derby. The deputation wished to call attention to the importance of carrying out a national scheme of registration of infectious disease approved of by this Association. In many towns, the medical attendants on the sick had been made responsible for giving this information. This was causing very great dissatisfaction in the towns, and it was found impossible to carry the schemes out in their entirety. The Association considered that it was undesirable that the medical attendants on the sick should be made responsible for reporting such cases. The Committee on Registration had expressed the following opinions.

"1. Whatever may be said as to the abstract right of the State to require this service, it is most undesirable that the confidential relation of the medical attendant and patient should be disturbed, or that the former should be placed in the position of an 'informer' in reference to the affairs of the latter. 2. It is not well that, in addition to the heavy responsibilities and risk to life attaching to attendance upon cases of infectious disease, medical men should be liable to vexatious actions at law, and to heavy penalties for alleged non-performance of a duty that lies outside of their ordinary practice, and that would be more justly and better performed by persons in charge of the cases. 3. Such an enactment would also often tend to defeat its own ends, seeing that it would in many cases prevent resort to medical assistance, or lead to the employment of unqualified practitioners, and to more frequent application to druggists. Patients suffering from these complaints would thus not only run much greater danger to life, but the community would be more frequently exposed to danger of infection. 4. Any injury to trade, or to the means of gaining a livelihood, in consequence of this notification, would probably be ascribed to the action of the medical attendant, and, in case of a disputed diagnosis, might lead to further evils than mere loss of practice. 5. It is not desirable that the extent of a medical man's practice in these cases should be made known to, and commented upon by, members of the various local sanitary authorities."

Mr. Ernest Hart had prepared a model clause, which the Parliamentary Bills Committee recommended for adoption, and which Dr. Ransome endorsed. It was as follows.

"In order to secure that due notice be given to the sanitary authority of any inmate of any building used for human habitation in the district who is suffering from small-pox, cholera, typhus, typhoid, scarlet, puerperal, or relapsing fever, diphtheria, measles, or erysipelas, the following provision shall have effect; that is to say: 1. If any such inmate be suffering from any such disease, and no medical practitioner be attending on, or have been called in to visit, such inmate, the occupier or other person having the management or control of such building, or, if such occupier or other person be prevented by disease or otherwise, the person in charge of such inmate shall, so soon as he shall become aware of the existence in any such inmate of any such disease, forthwith cause notice thereof to be given to the sanitary authority at their office. 2. If the person suffering from the disease be not a member of the family of such occupier or person, the head of the family (resident in such building) to which such inmate belongs, or, if there be no such head, then such inmate (unless prevented by reason of such disease or of youth) shall, on becoming aware of the existence in such inmate or in his own person, as the case may be, of such disease, forthwith give notice thereof to such occupier or person. 3. Every medical practitioner attending on or called in to visit such inmate shall, on becoming aware that such inmate is suffering from any such disease as aforesaid, forthwith fill up, sign, and deliver to the occupier or person having the management or control of the building, or, in case such person is suffering from such disease, to the person in charge of such inmate, a certificate stating, according to the forms prescribed and supplied to him by the Corporation, the name of such inmate, the situation of such building, and the name of such occupier or person, and the nature of the disease from which such inmate is suffering. 4. The person to whom such certificate shall be given by the medical practitioner shall forthwith deliver the same, or cause the same to be delivered, at the office of the sanitary authority, to a clerk or servant of the authority in attendance there. 5. The sanitary authority shall supply gratuitously to every registered medical practitioner resident or practising in the district forms for the certificate by such medical practitioner of the particulars hereinbefore mentioned of cases of infectious disease attended by him; and the authority shall pay to every medical practitioner who shall, in pursuance of this section, duly give any such certificate, a fee of two shillings and sixpence in respect of the same; provided that more than one fee shall not become payable under this section within an interval of thirty days to the same medical practitioner, for certificates given by him in respect of the same disease occurring in the same building. 6. The sanitary authority may from time to time, by resolution, order that, subject to the approval of the Local Government Board, any acute infectious disease, other than those above mentioned, shall be deemed to be within and subject to the provisions of this section. 7. Any such order of the sanitary authority may be permanent or temporary only; and, if temporary, the period during which it is to continue in force shall be specified therein; and when the Local Government Board have approved of any such order, the sanitary authority shall give public notice of the order by causing a copy thereof to be affixed to the principal door of every church and chapel in the district to which notices are usually affixed, and by publishing the same by advertisement in some one or more of the local newspapers circulated in the district; and, after such public notice has been given, the provisions of this section shall, so long as the order continues in force, apply to the acute infectious diseases specified therein, in like manner in all respects as if the disease were mentioned in this section."

He thought he was speaking for the Association, when he said it was desirable that any information given by the medical attendant should be a confidential communication between himself and the medical officer of health for the town.

Mr. SCLATER-BOOTH thought that just now it was urged that the medical man should be forbidden to give any information at all.

Dr. RANSOME replied that any information the medical attendant gave should be to the medical officer of health, but that it should be the duty of the householder to report the disease. If the householder himself were taken ill, then the onus of reporting should be thrown upon the person waiting upon him.

Mr. HART referred the President to the details of the model clause, which dealt with this difficulty.

Mr. SCLATER-BOOTH, in reply, said that the Local Government Board was giving attention to the subject of the Public Health Act, and he would take care that this question was ventilated. They should wait until the question had been ventilated by the public mind, and until they had gained more experience, before Parliament would consider that the question was ready to be dealt with by legislation. The Department thought that if the Public Health Act came under review, this would be a proper subject to be considered; and the longer it was on trial in the localities which had been mentioned, the greater would be the experience gained.

The deputation thanked the Right Honourable the President for the attention which he had given to the points laid before him, and retired.

THE INFANT LIFE PROTECTION ACT.

ON the 10th instant, a deputation of the Parliamentary Bills Committee, consisting of Mr. Ernest Hart (Chairman), Dr. Wiltshire, Dr. Norman Kerr, Mr. J. B. Curgenven, and Dr. Fancourt Barnes, with Mr. Fowke, General Secretary of the Association, waited upon the Home Office Department, with a view of pressing upon the attention of the Government the necessity for amendments in this Act, in order to prevent unlawful baby-farming and the continued practice of infanticide. As Mr. Cross had to attend a Cabinet Council, the deputation was received by Mr. Godfrey Lushington, the Under Secretary of State.

Mr. ERNEST HART brought to Mr. Lushington's attention special points in the Act requiring amendment. He referred to the general results of the inquiry concerning baby-farming which he had instituted in this Journal, and which had in part led to the measure; and to the evidence on the subject given in 1871 by himself and the other members of the deputation before the Select Committee of the House of Commons. He urged now, as he had urged before the Select Committee, the necessity of extending the provisions for the registration of the persons who, not being the relatives of children, took children for gain. He also insisted upon the necessity of a more efficient inspection than now existed of houses where baby-farms existed, or where children were taken in. It was urged that the Poor-law medical officers and the medical officers of health might be made instrumental in effecting this required inspection. He insisted upon the necessity of more stringent regulations for carrying out the provisions of the Act in boroughs throughout England. The recent cases of infanticide at Liverpool and Exeter were referred to as indicating the fact that an extensive system of baby-farming was still carried on, in spite of the Act of Parliament, and that the police laboured under that disadvantage—which was an insuperable bar to the effective carrying out of the law—in regard to visitation, and thus infanticide still largely continued.

Mr. CURGENVEN and Dr. WILTSHIRE gave further testimony as to the importance of extending and strengthening the Act.

Dr. KERR testified that the Act had been very useful, and recommended that the Poor-Law Medical Officers should be the paid inspectors under it.

Mr. LUSHINGTON said that he was unable to give any pledges on the points urged by the deputation; but he fully recognised the great importance of the matters brought to the notice of the Department. The subject had been before the Home Secretary, and indeed steps had been taken with a view of asking Parliament to remedy the shortcomings of the measure now in operation, and it was not impossible that a Bill might be brought into Parliament for the purpose; but that was a subject upon which he could not speak at length, and he could only assure the deputation that the matter would be earnestly considered, and that what was put before him would be reported to the Home Secretary.

THE QUALIFICATIONS OF CORONERS.

On the 13th instant, a deputation of the Parliamentary Bills Committee had an interview with the Right Hon. R. A. Cross, at the Home Office, to confer with him respecting certain clauses of the Coroners' Bill. There were present Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee, Dr. A. S. Taylor, F.R.S., Mr. Sibley, and Mr. Francis Fowke, the General Secretary of the Association. Dr. Cameron, M.P., introduced the deputation.

Our readers will remember that the first Bill on coroners was introduced in February 1879, and in it there was a clause (Clause 19) by which a legally qualified medical practitioner of not less than five years' standing was, in common with barristers and solicitors of similar professional standing, considered to be qualified for the office of coroner. In the Bill as amended by the Select Committee, this clause was struck out. Medical men were disqualified from holding the office. None but members of the legal profession could hereafter become coroners.

Dr. A. S. TAYLOR, in addressing the Home Secretary on the part of the British Medical Association, said that the amended Coroners' Bill contained many excellent provisions, and would have the effect of removing certain defects attending the holding of coroners' inquests. This, he believed, was fully admitted by the profession; but, at the same time, there were certain clauses which had been introduced into it which required modification before the Bill became law. In the first Bill, qualified medical men had been admitted as candidates for the office, while, in the second Bill, they had, without apparent reason, been entirely excluded. In the opinion of the members of the deputation, some amount of medical knowledge was indispensable to the proper performance of the duties of a coroner. He had primarily to determine in what cases an inquest was really required; and, secondly, his most important duty was to discover the cause of death. "Sudden deaths" formed a large branch of inquiry before coroners. If a coroner had medical knowledge, he could, as a rule, easily discern cases in which natural disease was the cause, and thus pronounce an inquest to be unnecessary; but, without this knowledge, a legal coroner would not be able to form an opinion. For this reason, a large number of inquests were held by legal coroners, the verdicts in which showed that the death was natural, and that no action on the part of the coroner was really required.

Mr. CROSS suggested that the coroner might be aided by a medical assessor, or by obtaining information from a medical man.

Dr. TAYLOR said that, as inquests were conducted at present, a large number were really not required, owing to the want of proper medical knowledge among coroners; and, under the clause as it stood in the amended Bill, it was probable that they would be greatly increased.

Mr. CROSS admitted that this would be attended with an increase of expense to the public; but he thought that there would be no objection, in a financial point of view, provided these inquiries placed a check on crime. It would be better to hold too many than too few inquests.

Dr. TAYLOR said that, even if inquests were properly held and limited to cases really requiring investigation for the benefit of the public, a legal coroner would not be competent to question the medical witnesses, and to extract from their evidence those matters which were really essential to the inquiry. He would overlook symptoms which a medical coroner would at once know to be indicative of poisoning; and if, as it frequently happened, the inquest was held in the absence of a medical witness or of medical evidence, a case of murder might be easily concealed. Dr. Taylor witnessed a case which was the subject of a trial for murder some years since, and fixed upon his mind the ease with which secret death from poison might escape the observation of legal coroners. A child, shortly after its dinner, was seized with vomiting, purging, pain, and other symptoms resembling irritant poisoning, and died convulsed after some hours. An inquest was held. No medical man was called either to make an inspection or to give an opinion; and the jury, under the direction of the coroner, returned a verdict of death from "convulsions". A month afterwards, from suspicions which had arisen, the body was exhumed, and a quantity of arsenic was found in the stomach, with a portion of bread which the child had eaten on the day of its death. It was clear that the child had died from the effects of arsenic, and that the convulsions were only part of the symptoms produced by the poison. The father of the child was convicted of the crime, and executed. A coroner with medical knowledge would have seen that, in these symptoms, there was enough to give serious warning of the action of poison. A legal coroner and his jury could see nothing in them inconsistent with death from natural causes, and a verdict temporarily concealing an act of murder was given accordingly. The coroner was misled by the fact that several other children partook of the same dinner at the same time, as well as the father; and evidence was given that they had all partaken of the same food as the deceased child, and none had suffered excepting this child. It subsequently transpired that the father, instead of putting salt over the edge of the child's plate, had put a pinch of white powder taken from a bottle, which was subsequently proved to contain arsenic. Since the occurrence of that case, Dr. Taylor had had for examination sixteen cases of exhumation of the dead, some of them at long periods after death, in about one-half of which inquests had been held and erroneous verdicts returned, assigning death to natural causes, when poison was proved to be the real cause. These mistakes were obviously due to the want of medical knowledge on the part of the coroner, or to his being easily satisfied on holding an inquest without calling for any medical opinion.

Mr. ERNEST HART said that a strong objection to legal coroners was that, with medical evidence before them, they were often unable to make use of it or put it in proper form before a jury. They, in fact, misunderstood it, and often made a wrong application of medical terms, of which he quoted an instance.

Mr. CROSS asked whether it was suggested that lawyers were unfit to hold the office. He thought a knowledge of law, especially of the law of evidence, quite necessary to a coroner. He also thought that medical knowledge was necessary for his guidance.

Mr. SIBLEY said that the proper duty of a coroner was really to inquire into the cause of death, and that he should confine himself to this. The difficulties presented to a medical man in holding the office in reference to the law of evidence and legal questions generally were really created for him. If the inquiry were strictly confined, as it ought to be, to determining the cause of death, there would be no difficulty, and a medical man would be better qualified for the office than a lawyer. The legal duties now performed by coroners would be in all cases better performed by magistrates; and, as a rule, these duties were strictly performed by magistrates, the depositions taken before a legal coroner being seldom or ever used in the prosecution of a criminal. The cause of death was a purely medical question, and to determine this the coroner must have medical knowledge. He should not be required to trace out crime or the criminal. This should be placed entirely in the hands of a magistrate skilled in the law of evidence and in the mode of drawing up depositions. Even if the present system remained unaltered, legal attainments could more easily be dispensed with than medical. It happened only rarely that a coroner was called upon for more than a very elementary knowledge of the law; whilst, on the other hand, an acquaintance with medical science allowed him to perform his duties with readiness, and enabled him to arrive at sound and safe conclusions.

Mr. Cross said they would limit the qualification for the office of coroner to members of the medical profession. He then asked whether the deputation had any further objection to place before him.

Dr. Taylor said that the deputation, and he might say the whole profession, very strongly objected to the non-payment of medical fees to resident medical officers in inquests held in public hospitals, infirmaries, etc. The medical officers of these institutions were compelled by the Bill to give special evidence, including probably a *post mortem* examination and analysis without fee; and, by another clause, if they refused to obey the order of the coroner, they were liable to a heavy fine. The profession regarded this as most unfair.

Mr. Cross asked whether this clause was not of old standing, and in the original Medical Witnesses' Bill.

Mr. Ernest Hart and Dr. Taylor admitted that this was so, but its unfairness had always been a grievance to the profession and a matter of complaint. There was reason to believe that the late Mr. Wakley had admitted it into his Bill as a matter of concession by the profession to the public, and to favour the passing of the Medical Witnesses' Bill. Its unfairness in claiming skilled evidence without compensation had long been made manifest. The services of medical officers to these institutions were generally given to charity; but this privilege should not be extended to giving expert or skilled evidence at a coroner's inquest.

Dr. Taylor further said that the voice of the profession throughout the country had been always raised against this provision; and he handed to Mr. Cross a memorial drawn up by one hundred and eighty-four medical men of Liverpool and its neighbourhood requesting the parliamentary members for the borough to lend their aid in obtaining a repeal of this most obnoxious clause.

Mr. Cross asked the deputation what he was to consider as a summary of their objections.

Dr. Taylor said that they were these: 1. Medical men should not be excluded from holding the office of coroner, for which their professional knowledge especially fits them—an office which they have hitherto held with as much credit as their legal brethren. 2. When special services are required of an infirmary or hospital surgeon in reference to giving evidence at coroners' inquests, the customary fees for such services should be paid as in other cases.

Mr. Ernest Hart stated that there were other points in which, in their report, the Medical Committee had made suggestions for improving the Bill, such as viewing the body, etc., but these were passed over.

Mr. Cross said that he could not at present pledge himself to any course respecting the Bill; but, before deciding on the matters placed before him by the deputation, he would inquire into the grounds upon which the Select Committee had made amendments in it as first prepared. He was desirous of giving effect to the wishes of the medical profession in respect to a measure of this kind.

PRIVATE LUNATIC ASYLUMS.

At an adjourned meeting of the South London District of the Metropolitan Counties Branch on Wednesday, February 4th, the discussion on this subject was resumed by Mr. W. G. Balfour, who read a paper which is published at page 319.

Dr. William Wood had moved the adjournment of the discussion because he thought that Dr. Bucknill had not been sufficiently understood. His paper had been read, not as a voluntary communication, but in response to a request from the secretary of the district. The paper must then be looked on as the production of a literary athlete rather than of an eminent physician attacking his professional brethren. With regard to the proposed abolition of private asylums, he would ask, Who are those who wish that private asylums should be abolished? It would scarcely be said that the patients themselves would wish it as a rule. No doubt there would be exceptions; but these would abolish asylums altogether. It certainly would not be the friends of patients, because they were under no kind of compulsion to make use of the asylums; and, as regarded the public generally, it could not be pretended that any case had been made out to rouse them to action. It must, then, be the generally philanthropic desire of the literary profession to protect the oppressed, which in fact personated public opinion and asked for the abolition of private asylums, not because they had disregarded the claims of the public, but lest they might be tempted to take unfair advantage of the powers entrusted to them. He contended that private asylums, far from being deserving of obloquy, were entitled to the gratitude of the public, for they had rendered an important service in providing the means of treating the insane of the upper and middle classes. Dr. Bucknill had expressed the opinion that "the deprivation of the liberty of any of the Queen's subjects was an affair of the State alone"; this observation, however, applied with precisely the same force to public asylums, whose authority to receive patients was identical with that of private asylums. He admitted that the deprivation of the liberty of any of the Queen's subjects was an affair of the State alone. The State had availed itself of the services of private individuals, and by legislative enactment had directly authorised them to take care of insane persons, for whose safety and treatment there was no other provision. It had also the aid of private individuals in such part of the duty of maintaining the safety and integrity of the empire, as the Government thought could be better carried out by such means. All governments had availed themselves of private assistance, even in the most important of their functions; and so in the case of insanity they had availed themselves of the assistance of private asylums, and in fact directly so until recently, in the charge of what were called criminal lunatics in Dr. Lush's asylum at Salisbury, and up to the present time in the charge of insane soldiers in Dr. Stocker's asylum at Bow. The proprietors of private asylums were not so foolish as to expect that they would be maintained for their own personal benefit if the Government had reason to believe that the work would be better done under some different system; but they would ask that, if any such good reason could be shown why in the best interests of the public they should be abolished, their past services should be fairly considered.

Dr. Hack Tuke said the most salient feature in Dr. Bucknill's paper was, that the time had come for abolishing private asylums. He supposed that, in the abstract, the State had the right to interfere to abolish them, and therefore it became a question of expediency; and this would depend on whether there was a very great abuse or any strong public feeling against them; and on the feeling of private proprietors themselves. He thought the time had come for some radical change, such as transfer to the State; but it should not be on the ground of proved abuse. It must be on that which really lay at the bottom of public feeling on the subject—the undesirableness of helpless persons being confined against their will by those who derived profit for keeping them. However little this could be proved to end in abuse, it had become expedient to contemplate a change; and this was greatly facilitated by the readiness of the proprietors themselves to yield to public opinion, provided proper compensation were made. He thought Mr. Dillwyn's Bill, if modified, might possibly prove satisfactory both to them and to the public.

Dr. Rayner said Dr. Bucknill had spoken of lunatics being "herded together", but this happened more in public than in private asylums, and was due to want of a sufficient number of medical officers.

Dr. Bodington advocated the abolition of private asylums on the ground that it would be beneficial both to the public and the proprietors, who, of course, must be fairly treated.

Dr. L. Forbes Winslow said that he approached the consideration of the subject in no unfriendly spirit towards Dr. Bucknill, for whose opinion he had always entertained great respect and esteem. He found himself, however, on this occasion, diametrically opposed to his views. The question of the abolition of private asylums had from time to time cropped up, generally, as a rule, after some sensational case of lunacy which had occupied the attention of the law-courts. It was an extraordinary fact, however, that in all the recent great lunacy trials private asylums had come out of the attack without a single impeachment against them, whilst their proprietors remained unspotted and unscathed. Notwithstanding this, the cry was still for their abolition. For many years since 1816, Committees of the Houses of Parliament had sat at various intervals to discuss private asylums and their management. The late Committee, which sat two years ago, after various allegations and accusations had been brought against proprietors of private asylums and the evidence had been heard on both sides, arrived at the conclusion that no *mala fides* had been proved against the medical proprietors of private asylums. In 1859, Lord Shaftesbury gave evidence before the then sitting Lunacy Committee, which was condemnatory of private asylums; but, at the recent investigation by the Lunacy Committee, he said, in reply to a question as to the present state of private asylums, "At present, from a variety of causes, the licensed houses are in a far better condition in every sense of the word. More is expended on them by the proprietors, and I must do them the justice to say that the change is very great; and, so far as the evidence I gave in 1859 is correct, I should not give it now. I can speak in high terms of many licensed houses and their proprietors; but I will add, that if you relax your vigilance ever so little, whether it be of licensed houses or of hospitals, or of county asylums, the whole thing will speedily go back to its former level." His (Dr. Winslow's) object was not to defend the Act of Parliament, but to endeavour to show that the asylum proprietors performed their duties in a right spirit. He therefore protested against their being held up to public opprobrium. There was no justification for the aspersions which had been freely vented against a large body of the medical profession. If it could be proved that they had detained patients in their asylums longer than was absolutely necessary for their welfare and cure, or had received them when they ought not to have done so, then let them be repudiated by the medical profession. Any one who so insulted medical proprietors of private asylums insulted the whole of the medical profession. They were all members of a noble profession, which was not likely to disgrace itself as was alleged. To legislate in lunacy was doubtless a most difficult and intricate subject. He had no wish or desire to attempt to suggest legislative measures for private asylums; but he would hail with pleasure any clause in the new Act which should be of itself sufficient to protect proprietors from a possibility of accusation.

Dr. **Bucknill**, in reply, read extracts from the evidence of Mr. Balfour before the Select Committee of 1877, before he became the proprietor of a private asylum. Mr. Balfour said: "Private asylums are the property of individuals who derive large incomes from keeping them; it is the interest of the proprietor to have as many good paying patients as possible in his house; it is not his interest to get rid of patients who pay well; and, as the law is, it is as nearly as possible impossible for any person to get out of a private asylum without the sanction of the person who signed the application, should the person who signed the application be unwilling to apply for the discharge. There are thus two things against the persons getting out; the one is the desire of the medical officer so to keep them in the house, the other is the unwillingness of the relative or the person who applied for the admission to take him out." Mr. Balfour's account of that element of asylum-life upon which the good or ill treatment of the patients most depended was even more instructive. After telling the Committee that "the language of attendants is often coarse and rough, and the patients get pushed about in a rough way", Mr. Balfour replied to a question as to whether the proprietors of asylums are generally willing to give such pay as will secure them good attendants, "They take men as cheaply as they can get them; the cheaper they can get attendants into the asylum the better for them, because it is so much more gain." Much had been said of the advantage which the superior secresy of private asylums offered to the upper classes. There was no more privacy in private asylums than in hospitals for the insane, if so much. On the other hand, there was such a thing as improper secresy. And if private asylums had no advantages over hospitals in respect of secresy, they were under every disadvantage in respect of the temptations to detain patients unduly, to neglect corrective treatment, and to exact the uttermost farthing which the patients or their friends could pay. He was extremely sorry for those professional men who, having sensitive feelings as to professional honour, were engaged in keeping private asylums; and he heartily wished them success in any attempts they might make to escape from their embarrassing position. He had made no attack upon professional honour or professional duties, but simply upon the business of keeping lunatics for profit; and that it was a business was proved by the disreputable discount business which existed until it was stopped by law, and by the still existing system of letting out attendants on job, and taking half their wages, and also by the system of requiring long notice before a patient could be removed from an asylum. He knew of a patient at the present time in a private asylum, the proprietor of which had demanded six months' notice before the patient could be removed, although such removal had been recommended by the authorities. It was quite a mistake to say that Lord Shaftesbury had changed his opinion about private asylums. What he had said was, that the present generation of asylum-keepers was better than the last. It was also an inaccuracy to state that the verdict of the Select Committee of 1877 had been in favour of the private asylums. The Committee, in their report, recommended that legislative facilities should be afforded by enlargement of the powers of magistrates or otherwise for the extension of the system of public institutions for all classes of the insane, by which means they considered that the demand for licensed houses for the upper and middle classes would cease. The meaning of the Committee was clearly that, in their opinion, it was not desirable to abolish private lunatic asylums immediately; but that public asylums for the upper and middle classes should be established, by the operation of which, through the spontaneous selection of the public, private lunatic asylums would be starved out of existence. Dr. Bucknill, in conclusion, thanked the members for the patience with which they had listened to opinions which he would willingly have made more agreeable to them had it been possible to do so. Someone had said in the meeting that there was really no public opinion on the matter; but, in May last, Mr. Cross, the Home Secretary, said to a deputation on the Drunkards' Bill that "there was a great feeling at the present moment throughout the country against private lunatic asylums altogether".

ROYAL MEDICAL BENEVOLENT COLLEGE: THE MODE OF ELECTION.

The following report has been drawn up by the Committee of Governors of the Royal Medical Benevolent College, for improving the mode of election of beneficiaries.

It will be remembered that, at the last general meeting of the Royal Medical Benevolent College, resolutions were carried, in accordance with the wish of a large majority of the governors and subscribers, suggesting a plan whereby the evils of canvassing inherent to the voting system might be much diminished, if not entirely remedied. The committee formed to promote this desirable object, wish to make it known as widely as possible that the College Council, fully accepting the verdict of the meeting, have proceeded to carry it out in its best sense; and the ensuing election will be conducted on the altered system.

A knowledge of the proposed alteration in the mode of election has already had its effect in sensibly diminishing the applications for votes which formerly took place, and it is confidently believed that canvassing, with all its attendant evils, will, under the new regulations, almost entirely cease.

The chief reason which led some warm friends of the College to disapprove of the then proposed alteration, was a fear that it would undermine the interest of many in the elections, and diminish the number of subscribers.

Our excellent College, however, like other charities, is, we fear, feeling the effects of the present hard times. The moment, therefore, appears very opportune for those who can afford to do so, to rally round the Institution, and to evince, in a practical way, their belief that the Royal Medical Benevolent College is now more than ever worthy of support.

It is extremely gratifying to hear that additional contributions have been already made to the College funds, on the broad ground that the evils of the old system have been practically done away with*, and that the poorer members of the profession, their widows and children, will henceforth be relieved without incurring an unnecessary expenditure of time, money, and harassing labour, heretofore the only means of securing success at the elections.

On behalf of the Election Reform Committee—
Charles J. Hare, M.D., *Chairman of Committee.*
Jabez Hogg, *Honorary Secretary of Committee.*
February 1880.

The Committee appointed by the Council of the Royal Medical Benevolent College recommended the following resolutions, which have been adopted, and will be acted upon at the next election in May.

"That the resolution of the annual general meeting be adopted as a resolution of the Council, omitting the proposal to alter the by-laws, and substituting the word 'March' for the word 'April' in the first paragraph.

"That the Committee of Examination consist of seven members of the Council, inclusive of the Treasurer, who is *ex officio* a member of all Committees, and that four be a quorum.

"That, at the Council meeting in March 1880, the six ordinary members of the Committee of Examination be elected by ballot, each member of the Council present at the meeting voting for not more than six members.

"That, at the Council meeting in March 1881, the three ordinary members of the Committee of Examination who are to remain members of the Committee during the second year be determined by ballot in the Council, and that, at the same meeting, three new members of the Committee be elected by ballot.

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* A few days since, Colonel T. of Glamorgan wrote us:—"I have read with much interest the report of the last annual meeting of the Royal Medical Benevolent College, and to show my approval of the change about to be made, I am willing to become an annual subscriber of two guineas."

"That, after the year 1881, it be the rule that the three ordinary members of the Committee who have served for two years shall retire, and shall be for one year ineligible for re-election, and that, at the Council meeting in each March, three new members of the Committee shall be elected by ballot."

The resolution of the last annual general meeting, referred to in the first of the foregoing resolutions, was as follows.

"That the by-laws be altered to the following effect. 1. That a Committee of Examination be appointed by the Council, whose duty it shall be, in the month of [April] of each year, (*a*) to carefully investigate the relative claims of those who have been admitted by the Council as candidates, severally for pensionerships and foundation scholarships; (*b*) to select of each class a number of names exactly equal to the number of vacancies in each class, the names selected being those of the respective candidates who, in the opinion of the Committee, best deserve election; (*c*) to send to the Council the names of the candidates so selected. 2. That the Council, with each balloting-paper made out as at present—and, of course, leaving to every governor the absolute right of voting for any candidate he or she may please—do inclose a slip of paper on which shall be printed the following words, or words to the following effect: 'The Committee of Examination recommend the following cases, as being, in their opinion, the most urgent'; after which shall be printed the names of the candidates for pensionerships and foundation scholarships selected as above by the Committee of Examination."

DR. WILLIAM FARR, F.R.S.

THE Government have at last announced the decision at which they have arrived with regard to the retiring allowance to be granted to Dr. Farr; and the result of their deliberations will, we fear, cause some disappointment. Dr. Farr has for a long time been receiving a salary of £1,100 a year for his services as Superintendent of Statistics at the General Register Office. It is true, that the salary of the four superintendents at this office—of whom Dr. Farr was one—is fixed at the rate of £800 a year; but it is absurd to suppose that Dr. Farr could be put on the same level as regards salary as officials who do purely clerical work; and hence the extra allowance of £300 is easily explainable. The feeling that when Dr. Farr resigned some recognition of his conspicuous services to the State should be made by the Government allowing him to retire on full pay has received very general expression; and hence the answer to be given in the House of Commons to the question as to the amount of Dr. Farr's pension was awaited with much interest. Sir Stafford Northcote announced that the Treasury had decided to grant Dr. Farr his full pay of £800 as a retiring allowance, adding that the allowance personal to himself was, of course, excluded. It may be well to point out the exact arithmetic of the matter. Dr. Farr's pay was £1,100 a year. Were he the most perfunctory official in the whole service, he could have demanded, on the completion of forty years' work, two-thirds of his salary at the date of his retirement, and the least pension that could have been granted him would have been £733 : 6 : 8. But the Lords of the Treasury, "admitting and amply recognising" Dr. Farr's labours, appraise their exceptional value at the exact amount of £66 : 13 : 4 *per annum*, this being the precise difference between his minimum pension and that which the Treasury has awarded him. Even if strict routine demanded that Dr. Farr's original salary alone should be taken into account, the very exceptional merit and value of his services would have more than justified the Treasury in straining a point, and awarding to him the full amount of £1,100 as a retiring pension.

THE *Glasgow Medical Journal* of this month gives a summary of Dr. Farr's career and labours, which ends as follows.

"We might have been contented with this general testimony to the merits of Dr. Farr, but we have also endeavoured to give a more solid conception of their unique substantiality—and why? Not to justify some equally unique acknowledgment of those merits; not to point to his promotion in the service of his country; not even to explain some very special re-arrangement of the public service which would admit of the retention of a servant whose experience and attainments could not be spared; but to emphasise our solemn protest against the scandalous abuse of patronage which has driven him from office. The voice, both of general and professional organs of opinion, has made our readers aware of the appointment to the office of Registrar-General of the brother-in-law of a Cabinet minister, and the enforced retirement of Dr. Farr. We are aware that we are 'crying over spilt milk'. The thing is done, and cannot be undone; but we should fail in our duty, as representing the profession of Glasgow and the West of Scotland, if we passed by the conduct of the Government on the present occasion in silent and soured disgust. We do not believe that even the object of this 'spurn of patient merit' would contend that the whole future of vital statistics in this country will be blasted by his withdrawal from their service. The modesty which has marked his distinguished career would assert itself in his acknowledgment that no man ever attains to such importance in any department of life-work that his place cannot in some measure be filled; but why precipitate the test of our individual importance, which, in any case, death and natural decay will all too soon apply? There is no justification for it whatever in the present instance. Only the power is there, and it has been exercised in defiance of common propriety as well as of public opinion. Nothing remains for us to do but thus, in very inadequate terms, to show that we resent the slight, and to express our earnest hope that this and other like expressions of professional sympathy may afford some solace to Dr. Farr in this miserable conclusion to a long, laborious, and singularly useful public life."

AT a meeting of the Council of the Statistical Society, Sir Rawson W. Rawson, C.B., Vice-President, in the chair, it was resolved unanimously: "That the Council of the Statistical Society of London, being informed of the retirement of Dr. William Farr, F.R.S., from the position of Chief of the Statistical Department in the General Register Office, desire to express, on behalf of the Society, their high appreciation of the eminent services which he has rendered during more than forty years past to the progress of statistical science. A rare combination of mathematical, medical, and general scientific powers has been brought to bear with unflagging energy upon the advancement of inquiries essential to the happiness and progress of mankind. They may point, moreover, to the important part which he took in the conduct of the census inquiries of 1851, 1861, and 1871, as alone sufficient to entitle him to the lasting gratitude of his countrymen. Of this gratitude the council feel that Dr. Farr may rest assured, and they also hope that the services of so eminent a public servant will not pass unhonoured by the State."

THE CONTAGIOUS DISEASES ACTS.

A SELECT Committee of the House of Commons has lately been appointed to continue the inquiry into the working of these Acts, which was begun last session, and "to report whether the said Contagious Diseases Acts should be maintained, extended, amended, or repealed". The present Committee consists of the same members as that of last session, with the exception of Mr. Hanbury, who takes the place of Sir Henry Holland. The following are the names of the ten members appointed by the Government: Colonel Alexander, Mr. Cavendish Bentinck, Mr. Bulwer, Mr. Burt, Viscount Crichton, Sir Harcourt Johnstone, Mr. Shaw Lefevre, Mr. O'Shaughnessy, and Mr. Stansfeld. The five members added by the committee of selection are Mr. Hanbury, Mr. Kavanagh, Mr. Massey, Mr. Ernest Noel, and Mr. John Tremayne.

The Select Committee appointed towards the end of last session held seven public sittings during the month of July, and an account of the proceedings was published in the BRITISH MEDICAL JOURNAL at that time. Six witnesses were under examination, viz.: Sir William Muir, Director-General of the Army Medical Department; Inspector-General Lawson; Mr. Barr, Medical Officer of the Lock Hospital at Aldershot; Dr. Frederick Robinson, Surgeon-Major Scots Guards; Mr. A. B. R. Myers, Surgeon Coldstream Guards; and Mr. Thomas Bond, Surgeon to the A Division of the Metropolitan Police.

The evidence given by Sir William Muir and Inspector-General Lawson of course related to the influence of the Acts upon the whole army, while that of Dr. Robinson and Mr. Myers dealt especially with the effect that had been produced in their respective regiments since the Acts had come into operation. The evidence given by these witnesses was most valuable, and showed conclusively that the Acts have already brought about an immense improvement in the health and efficiency of soldiers in the protected districts. Mr. Barr's evidence referred chiefly to the operation of the Acts as they affect the camp at Aldershot and other places in the vicinity. Mr. Barr proved beyond doubt that immense improvement had occurred both physically and morally in the condition of the prostitutes in the districts about Aldershot. Mr. Bond stated the results of his experience as Surgeon to the Petty France Pauper Lock Hospital, and to the A Division of Police. He was of opinion that the Acts should be extended to all professional prostitutes throughout the country.

As the whole question will shortly be fully investigated, we may briefly mention what has been already done in the way of legislation to prevent the spread of contagious diseases. About 1864, the attention of the military and naval authorities was drawn to the prevalence of venereal disease in many garrison towns, and in the same year a Bill was passed "For the Prevention of Contagious Diseases at certain Naval and Military Stations". This Act was speedily found to be practically useless, and in October 1864 a Commission composed entirely of medical men was appointed to inquire into the whole subject. Mr. Skey was Chairman of this Commission, which, after examining a large number of witnesses, reported in favour of an extension of the Act. The result of this was the passing of another Act in 1866, by which the previous one was superseded. The Act of 1864 provided for the appointment of a medical inspector to certify any hospital in certain districts mentioned in the Act for the reception of patients and their treatment. It also empowered the police to take into custody any prostitute whom a policeman had reason to believe to be suffering from a contagious disease. The woman was then to be taken before a magistrate, who had the power of ordering her to be examined in a certified hospital. If the woman were found to be diseased, she was detained until cured, or for a period not exceeding three months. By the Act of 1866, it was no longer necessary to prove that the woman had a contagious disease. If the policeman could satisfy the magistrate that a woman was a common prostitute, the magistrate had power to send her to a certified hospital for examination, and the hospital authorities were empowered to require this woman, so long as she remained a common prostitute in the district under the Act, to attend for examination as often as they should think fit. There was also a provision in this Act for the moral and religious instruction of the women whilst under treatment; and power was likewise given to detain every woman who entered the hospital with a contagious disease until she was cured. The detention, however, was limited to six months. In 1868, the House of Lords appointed a Committee to inquire into the subject, and they came to the conclusion that a still further extension of the Acts was desirable. In the following year, the House of Commons appointed a Select Committee to inquire into the working of the Act of 1866. In accordance with the recommendation of this Committee, an Act was passed in 1869 enlarging some of the provisions of the Act of 1866, and extending its operations. Under the original Act of 1864, eight places in England and three in Ireland were included. The Act of 1866 included nine places in England and three in Ireland. By the Act passed in 1869 (which is the one now in force), fifteen places in England and three in Ireland became subject to the operation of the Contagious Diseases Acts. The names of these places are as follows: Aldershot, Canterbury, Chatham, Colchester, Dover, Gravesend, Maidstone, Plymouth and Devonport, Portsmouth, Sheerness, Shorncliffe, Southampton, Windsor, Winchester, Woolwich, the Curragh, Cork, and Queenstown.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT a meeting of the Fellows on the 16th instant, the chief subject of discussion was certain alterations in the laws relating to the Licentiateship. It was agreed that candidates should be required to undergo *three* examinations; the first of which should be open to any registered medical student. The subjects of this examination are to be Osteology, Chemistry, Chemical Physics, Materia Medica, Medical Botany, and Pharmacy. And it was resolved that candidates should be required to produce evidence of "having received instruction" instead of "having attended lectures" on these subjects. It was also agreed to extend the simple requirements of attendance on lectures in the case of Medicine, Surgery, and Midwifery, with the diseases peculiar to women, to a further proof of education; and the following law was added. Candidates should give proof of having undergone systematic practical instruction in the departments of Medicine, Surgery, and Obstetric Medicine; under which clause the candidates would be required to show that they had been personally exercised in practical details, such as: 1. The application of anatomical fact to the investigation of disease; 2. The methods of examining various organs in order to detect the evidence of disease or the effects of accidents; 3. The employment of instruments used in diagnosis and treatment; 4. The examination of normal and diseased structures, whether recent or in a museum; 5. The chemical examination of morbid products; 6. Operations on dead bodies; 7. *Post mortem* examinations.

SAMARITAN FREE HOSPITAL.—On Wednesday last, February 25th, a dinner was given at Willis's Rooms, in aid of the funds of this hospital, His Royal Highness the Duke of Connaught in the chair. Over two hundred guests, including ladies, were present. After the usual loyal toasts, the chairman, in proposing the toast of the evening, referred to the rise and progress of the institution, and earnestly appealed to the liberality of the guests for fresh funds to enable it to carry on its good work. The Secretary, in the course of the evening, announced a list of subscriptions amounting to £1,682.

ASSOCIATION INTELLIGENCE.

NORTH OF IRELAND BRANCH.

A MEETING of this Branch will be held on Friday, the 5th March next, at 12 o'clock, in the Belfast Royal Hospital.

Members intending to make any communication or read any papers are requested to inform

JOHN MOORE, M.D., *Honorary Secretary.*

2, Carlisle Terrace, Belfast, February 9th, 1880.

BATH AND BRISTOL BRANCH.

THE fourth ordinary meeting of this Branch will be held at the Bristol Museum and Library, on Wednesday, March 10th, at half-past Seven o'clock; J. BEDDOE, M.D., President.

A communication will be made to the meeting with reference to the election of a Secretary to the Bristol Branch.

E. C. BOARD, *Honorary Secretary.*

Clifton, February 25th, 1880.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 11th, at 4 P.M.; WM. GANDY, Esq., in the Chair. Dinner at 6 P.M. Charge, 6s., exclusive of wine.

Business.—1. Election of Secretary.
2. Mr. Durham will exhibit a specimen of Wound of the Heart.
3. Dr. Coles: On Aids to Lingering Labour.
4. Dr. Hood: On some Points in connection with the Pathology and Treatment of Dyspepsia.
5. Dr. H. G. Thompson: On Acute Albuminuria.

JOHN H. GALTON, M.D.Lond., *Honorary Secretary.*

Woodside, Anerley Road, S.E., February 23rd, 1880.

WEST SOMERSET BRANCH.

THE spring meeting of this Branch will he held at the Railway Hotel, Taunton, on Thursday, March 18th, at Five o'clock.

The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner:—"What are your views on the Resolutions with regard to Medical Education passed by the Metropolitan Counties Branch, as published in the JOURNAL of January 24th, 1880, p. 146?"

Members who have any communication for the meeting are requested to send early notice of its title to the Honorary Secretary.

Dinner 5s. a head, exclusive of wine.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, February 20th, 1880.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.

THE next meeting of this district will be held at Farnham, on Thursday, March 25th, 1880.

Gentlemen wishing to read papers or make any communication are requested to apply at once to the Secretary.

A. ARTHUR NAPPER, *Honorary Secretary.*

Cranleigh, Surrey, February 25th, 1880.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE next meeting of this district will be held at the Ship Hotel, Faversham, on Thursday, March 25th, at 3 o'clock: Dr. GANGE in the Chair.

Members intending to read papers are requested to communicate at once with the Secretary.

WM. KNIGHT TREVES, F.R.C.S., *Honorary Secretary.*

Margate, February 24th, 1880.

STAFFORDSHIRE BRANCH: ORDINARY MEETING.

THE first ordinary meeting of this session was held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 27th, 1879; present, Dr. J. H. TYLECOTE, President, in the Chair, and thirty-one members.

New Members.—The following members of the Association were elected members of the Branch: C. G. Armson, Esq., Yoxall; G.

Greenslade, Esq., Rocester; C. Garnett, Esq., Walsall; C. H. Phillips, Esq., Hanley; J. W. Greenwood, Esq., Hanley.

Specimens and Cases.—The following were exhibited.

1. Dr. J. H. TYLECOTE exhibited the Kidneys, Suprarenal Capsules, and portions of Skin, removed *post mortem* from a case of bronzed skin. The patient was a woman aged 33.

2. Mr. LAWSON TAIT exhibited two Ovarian Tumours, which he had removed within a few days of each other on account of gangrene arising from twisting of the pedicle. He also gave a demonstration of his method of applying the "Staffordshire knot".

3. Mr. SPANTON showed a collier aged 46, who three years ago had his left leg crushed, causing Fracture of the Tibia and Fibula, for which he was treated for nine months in a cottage hospital. Owing to various causes, the man recovered with a leg so deformed as to be unable to walk. The case was the subject of a trial for malapraxis. The patient, having been quite unable to work since the accident, came under Mr. Spanton's care in the North Staffordshire Infirmary, desiring amputation. Instead, osteotomy of the tibia was performed above the fracture, a wedge-shaped piece being taken out, and the fibula forcibly refractured. The operation was performed six months ago, and the man has now a straight useful limb, and is able to walk without support.

4. Mr. SPANTON shewed a boy aged 5, on whom his operation for immediate cure of Hernia had been performed fourteen months since. The hernia had been a very large congenital inguinal one, and could in no way be kept up. The result of the operation was perfect, the inguinal canal being completely occluded.

5. Mr. SPANTON also shewed a man aged 35, who had undergone an operation for Excision of the Tongue for Epithelioma two months ago. The case was exhibited to show how good a result may be obtained by the method of operating through the mouth with the *écraseur*, combined with a cheek-incision.

6. Mr. ALLCOCK showed a man aged 49, who had undergone Pirogoff's operation on the right foot. The result was satisfactory, the length of both limbs being the same.

Communication.—Mr. SPANTON read a paper on some cases of Excision of the Tongue.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of this District was held at the Myddelton Hall, Islington, on February 19th; Dr. CREE in the Chair.

Papers.—Three papers were read.

1. Dr. AUGUSTUS BROWN read a paper on the Treatment of Tumours of the Breast, the Result of Injury. He gave the history of several cases upon which he had operated. He held that tumours of the breast due to injury should be removed at an early date; and that if this were not done there would be a great chance of the growth becoming malignant and returning after it had been removed. He said that his experience, which had been extensive, fully justified him in supporting this doctrine.

2. Mr. FRENCH read a paper on the Treatment of Carbuncle. He first drew attention to the nature of carbuncle, and referred to the treatment of carbuncle as laid down by Sir James Paget and Mr. Timothy Holmes. He then described his own mode of treating carbuncle, and gave several interesting cases in proof of the advantages to be gained by his method of treatment over that of others. The plan adopted by him was as follows. He took a long sharp-pointed bistoury and passed it freely into the swelling at its base. He then freely worked the bistoury about in the body of the tumour, cutting freely through the vessels and hyperplastic tissue in all directions. The bistoury was withdrawn, and the surface of the carbuncle was then covered with collodion. In very large carbuncular swellings, it would be necessary to introduce the knife from several points, each point being made at a right angle to the other points. He expressed his entire confidence in the success which invariably followed this mode of procedure. After the operation, all pain vanished, resolution and absorption rapidly went on, and the patient could follow his occupation without any risk of blood-poisoning.

3. The SECRETARY read a paper on Lupus, for Mr. J. MANN. The chief object of the paper was to show how, in his (the author's) own case, an attack of lupus of the face had completely passed off without any especial form of treatment, although it had been in existence for nearly twenty years. Sir James Paget saw the case many years ago, and advised Mr. Mann to leave it alone, and to call upon him in nine or ten years' time.

MR. T. WHITEHEAD REID was admitted a member of the Royal College of Physicians of Edinburgh on February 3rd.

CORRESPONDENCE.

ANIMAL VACCINATION.

SIR,—A letter, signed "Frithiof", which appeared in a recent number of your JOURNAL, gave me a clue to an important paper published by Mr. Ceely, in the tenth volume of the *Transactions of the Provincial Medical and Surgical Association*, of which paper I had no previous knowledge. A careful study of it has convinced me that I have been in error respecting the mutual relations of small-pox and cow-pox.

I hasten, as in duty and honour bound, to acknowledge my mistake, and to apologise to the gentlemen upon whose measures on this subject I may have commented.

Henceforward, I promise not to burden your pages with any further contributions personal to myself.—I am, sir, your obedient servant,

THOMAS WATSON.

16, Henrietta Street, Cavendish Square, W., Feb. 23rd, 1880.

LOCAL LEGISLATION AS TO INFECTIOUS DISEASE.

SIR,—There is one point in Mr. Ernest Hart's interesting and valuable report on the above subject, which is open to very serious consideration. It is the proposal made, with the sanction, as I understand, of the Parliamentary Bills Committee, and already practically adopted by several local authorities, to pay a fee to the medical attendant on every case of infectious disease, with certain limitations in some cases, for certifying the fact that the disease in question is infectious. Now what is the justification of this proposal? It cannot be as a fair remuneration for the labour of writing the certificate, since no one can assert that the act of taking a book of printed forms out of one's pocket, filling up one or two blanks, tearing off the slip and handing it to the responsible person, is worth even a shilling, much less half-a-crown. If the act be done as a matter of private business, for the personal benefit of the patient, the patient should be called upon to pay for it. But the act is not required for the benefit of the patient, but of the public; and, therefore, if anyone is to be called upon to pay, it must be the public.

This raises the grave question whether it is right and fair that a medical man should claim remuneration for doing an act which it is his bounden duty to do in his personal relations to his patient, viz., to inform him that he is suffering from a dangerous disease; which involves such trifling trouble that he could not, with any reason, claim to be compensated for it on that ground; and which he is called upon to do for the benefit of the whole community, his own family and friends included.

If the Parliamentary Bills Committee had suggested that the certificate should be required to be sent direct by the medical attendant to the local authority, there might be some small show of reason in the proposal for remuneration; but, if I understand rightly what they propose, they insist, and, as it appears to me, very properly, on the responsibility of transmission being placed on the householder.

I can only conclude, therefore, that the proposal is made simply as a *placebo* to the profession, for the purpose of mollifying any opposition which it may be supposed that they are likely to offer to being compelled to discharge a duty which it can be shown beyond doubt they owe alike to their patients, to the public, and to themselves.

What is no less to the point is this, that this proposal is one of a class which will all tend to increase very materially the cost of working the Public Health Act, and, as such, will intensify local opposition to it, and help to bring about a reaction against it. Already, this cost is greatly larger than it need be, in consequence of the clumsy and disjointed machinery by which the work is done. If the authorities are now to be called on to pay gratuities to doctors, which, if they are to be worth receiving at all, will in the aggregate very materially increase the rates, it needs no large amount of foresight to see what they will say.

Although the report contains other questions of importance, I will not refer to them here, but will content myself with expressing my satisfaction that it recognises fully the principle for which I have always contended, viz., that no sanitary authority has any right to claim powers which may be used so as to seriously prejudice the interests of individuals, and, indeed, in the majority of cases, can scarcely be used at all without so doing, until it has shown that it has first discharged its own duties in this respect, by doing all that lies in its power to obviate such a result.—Yours faithfully,

FRANCIS T. BOND, M.D.

Gloucester, February 17th, 1879.

_ When the legislature see fit to impose, as a general obligation throughout the kingdom, that every case of infectious disease shall be made known to sanitary authorities, the question raised by Dr. Bond may properly come up for discussion. The relations of the medical attendant to patients suffering from infectious disease will then be completely changed, and by the operation of a general law, which it will be understood must be universally obeyed. At present, the authorities of the few towns in which compulsory notification is now required, cannot possibly claim to have the right of demanding a medical certificate without some acknowledgment; and it is new to us to learn that the small fee proposed to be paid to medical practitioners for this service is objected to.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

APPOINTMENT OF NON-RESIDENT MEDICAL OFFICER.

Mr. J. V. C. Denning.—The Board of Guardians may, if they think fit, reappoint our correspondent; but if the other candidate or any of his friends should inform the Local Government Board that a duly qualified medical man had applied for the appointment, and that it had been given to an outsider, the Local Government Board would call on the Guardians to give the reason why they had made such appointment; and, in the event that the answer was not held to be satisfactory, would forthwith proceed to annul the election. We do not agree with the clerk's ruling, that "the fact of a resident with two qualifications offering himself for the appointment should be held to bar our correspondent's application". There might be very good grounds for the Board of Guardians refusing to entertain the local candidate's application: we therefore advise our correspondent to persist in his candidature.

Beta.—The analysis of water is not one of the duties imposed upon medical officers of health by the order of the Local Government Board of the 11th November, 1872. If an authority require a quantitative analysis of water, it ought to procure it from an analytical chemist. The official order, however, provides that a medical officer of health shall inform himself, as far as practicable, respecting all influences affecting, or threatening to affect, injuriously the public health of his district; and the medical officer can hardly fulfil this requirement satisfactorily unless he makes himself acquainted with the general character of the water-supplies of the district. To do this, he must not only observe the physical conditions and surroundings of the wells or other sources of supply, but also be prepared to use, where necessary, the ordinary chemical tests of the purity or otherwise of the water; but he cannot be expected to make a complete qualitative analysis, much less a quantitative one.

"Hospitaller" is quite in error in supposing that the Sittingbourne Hospital is the "first rural hospital to be erected under the 131st Section of the Public Health Act". There are many such in different parts of the country. If, as appears to be the case, a loan will be applied for in order to build the hospital, the facts stated by our correspondent may properly be brought under the notice of the Local Government Board inspector, who will be sent down to inquire into the propriety of granting the loan; otherwise, we fear there is no redress.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

Gairdner, James, M.D., appointed Medical Officer of Health for Crieff, N.B.

Kempe, Arthur, L.K.Q.C.P., appointed Medical Officer of Health for Exmouth District, *vice* T. M. Ward, M.R.C.S., resigned.

POOR-LAW MEDICAL APPOINTMENTS.

Delahoyde, O'Connell John, L.K.Q.C.P., appointed Medical Officer to No. 2 North City Dispensary District, Dublin, *vice* J. E. Kenny, L.R.C.P.Ed., appointed to the Workhouse.

Knight, John A., M.R.C.S., appointed Medical Officer to the Carlton District of the Basford Union, *vice* Sandford T. Davison, M.R.C.S.Eng., resigned.

Paterson, Walter Hugh, M.D., appointed Medical Officer to the Spittlegate District and Workhouse of the Grantham Union, *vice* C. H. D. Robbs, M.D., deceased.

Sparrow, T. F., M.D., appointed Medical Officer to the Kells Dispensary District, *vice* R. J. Halton, L.K.Q.C.P., deceased.

Spencer, H. E., L.R.C.P.Ed., appointed Medical Officer to the No. 2 District of the York Union, *vice* W. Hood, M.R.C.S.Eng., resigned.

The East Grinstead Guardians have increased the salary of Dr. John Magrath, as Medical Officer of the No. 6 District, from £42 to £50 *per annum.*

The Loddon and Clavering Guardians and Rural Sanitary Authority, Norfolk, have appointed Mr. Edward Manby Rodwell Medical Officer of Health for the district, at £80 for one year, instead of the four Poor-law district medical officers, as hitherto.

The Sanitary Committee of the Belfast Town Council, who have had the question of establishing a disinfecting institution for that town under consideration, have agreed to recommend its adoption to the Corporation.

Dr. Thomas Whistler, Medical Officer of Bray and Rathmichael Dispensary District, has resigned after a service of thirty years. The Board of Guardians of the Rathdown Union will next month consider a proposal to allow Dr. Whistler the maximum retiring allowance.

MILITARY AND NAVAL MEDICAL SERVICES.

Army Medical Service.—The following candidates were successful for appointments as Surgeons in Her Majesty's British Medical Service, at the competitive examination held in London, on February 9th, 1880.

		Marks.			Marks.
1.	Sylvester, G. H.	1925	19.	Langdon, J. S.	1350
2.	Macnamara, W. J.	1900	20.	Heffernan, W. F.	1345
3.	O'Sullivan, D.	1725	21.	Nicholson, R. W. E. H.	1345
4.	Milward, E. O.	1710	22.	Crofts, J. G. U.	1330
5.	Conolly, P. B.	1660	23.	Dugdale, U.	1325
6.	Woods, C. R.	1600	24.	Irvine, D. L.	1325
7.	Babington, H. F.	1585	25.	Ronayne, J.	1320
8.	Milward, W. C.	1575	26.	Clabburn, C. H.	1290
9.	Bracken, W. H.	1565	27.	Cree, E. R.	1275
10.	Macnamara, M. F.	1490	28.	Drury, M. O. C.	1260
11.	Sandiford, J. O.	1480	29.	Deane-Freeman, W.	1245
12.	Love, R. L.	1455	30.	Nicholas, J. H.	1200
13.	Murray, H. W.	1455	31.	Franklin, D. F.	1175
14.	Kerin, M. W.	1420	32.	Curtin, J. L.	1160
15.	Peterkin, A.	1420	33.	Saunders, H.	1155
16.	Harran, J.	1405	34.	Battersby, J.	1150
17.	Leckey, W. S.	1395	35.	Lane, A. V.	1135
18.	Maunsell, E. L.	1375			

Indian Medical Service.—The following is the list of successful candidates at the Competitive Examination at Burlington House, on February 9th, 1880, and following days. There were fifty-two candidates for twenty appointments. Forty-eight of the candidates were reported as qualified.

		Marks.			Marks.
1.	Simpson, J.	2470	13.	Mulroney, T. K.	1950
2.	Whitwell, R. R. H.	2395	14.	Browning, W. B.	1945
3.	Lukis, C. P.	2385	15.	Divecha, F. R.	1920
4.	Waddell, L. A.	2250	16.	Canna, R. H.	1907
5.	Dimmock, H. P.	2172	17.	Henderson, C.	1905
6.	Shewan, G.	2060	18.	Dymott, D. F.	1900
7.	Maitland, C. B.	2040	19.	Thompson, C. M.	1870
8.	Vaid, C. C.	2040	20.	Adams, A. P.	1865
9.	Macdonald, T. R.	1981	21.	Evans, J. W.	1845
10.	Clarke, J.	1980	22.	Leonard, J.	1810
11.	Spencer, D. B.	1975	23.	Rundle, C. S.	1785
12.	Pank, P. D.	1965			

Brigade-Surgeons.—The *London Gazette* of Tuesday last announces the promotion of forty-nine surgeons-major to the new rank of Brigade-Surgeon, under the provision of the Royal Warrant of November 27th, 1879: viz., Herbert T. Reade, V.C.; John L. Jameson; J. P. Cunningham, M.D.; John O'Nial; Thomas W. Fox, M.B.; J. C. Hornsby Wright, M.D.; Johnston Ferguson; John Ogilvy, M.D.; W. Stewart, M.D.; James A. Hanbury, M.B.; O. A. C. Fraser, M.D.; Fredk. W. Moore; William M. Webb; John B. C. Reade; Edward M. Sinclair, M.D.; William Cattell; James Ekin, M.B.; James Hannan; Edward L. Lundy; Thomas J. Murphy, M.D.; Alex. Guthrie, M.D.; Edward Y. Kellett; Robert A. Chapple; Adam G. Young; Robert W. Meadows; Richard Hungerford; Leonard Kidd, M.B.; John Tulloch, M.D.; Wallace Haward; T. Tarrant, M.D.; E. L. Hiffernan; Alex. D. Gulland, M.D.; T. Teevan; John Sparrow; R. C. Lofthouse, M.D.; Joseph J. Thompson; R. W. Carter; R. Wolseley, M.D.; W. R. Steuart; J. L. Erskine, M.D.; W. Macnamara, M.D.; A. P. M. Corbett, M.D.; Thomas S. Hollingsworth; Jeffrey A. Marston, M.D.; Andrew Semple, M.D.; William C. Roe; George M. Slaughter; John W. Hulseberg; Sampson Roch.

Naval Medical Service.—The following appointments have been made. Deputy Inspectors-General—George B. Hill, to Malta Hospital; S. S. D. Wells, to Haslar Hospital: Fleet-Surgeon—W. Telfer, to the *Royal Adelaide:* Staff-Surgeon—W. Galloway, to the *Dasher:* Surgeon—C. Drake, to the *Indus.*

OBITUARY.

EDWARD ROBERT OWEN, F.R.C.S.

Mr. Owen, whose death occurred at Oxford on January 28th, was born at Stowmarket in 1809, and was the son of the Reverend Dr. Owen, for many years Rector of Beccles, Suffolk. He commenced his professional studies at Beccles, under the guidance of the late Mr. Crowfoot, and continued them at St. Bartholomew's Hospital. He settled in practice at Mattishill, in Norfolk; but in 1841, removed to Oxford; and from that time almost up to his death, he continued in active practice there.

Mr. Owen will be long remembered by his brother practitioners for his kindness of heart and manner, as well as for his uprightness and the high sense of honour he displayed in all professional relations. He took much interest in public matters, and for some years was an active member of the Local Board of Health. His loss will be deeply felt by his professional brethren at Oxford, and by a numerous circle of well esteemed friends.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, February 19th.

Trichinosis.—Lord Thurlow asked whether it was true that an outbreak of trichinosis occurred in January last on board the reformatory school ship *Cornwall* lying off Purfleet on the Thames; and, if so, how many cases occurred, and what number had terminated fatally; further, whether the outbreak had been traced to the use of American or other foreign pork; and, in that case, what precautions, if any, had been taken by Her Majesty's Government to guard against the very serious dangers to which the public are exposed by the importation from abroad of pork infected with this disease.—Earl Beauchamp replied that all the information he could at present give was that the Local Government Board were requested by the Home Secretary to inquire into the circumstances referred to. A report had been asked for, but it had not yet been presented; therefore it was not in his power to say more than that the attention of the Government had been called to the matter. If the noble lord would repeat his question on some other occasion, he might be able to give him a more satisfactory reply.

HOUSE OF COMMONS.—Monday, February 23rd.

The Case of Dr. Farr.—Dr. Playfair asked whether the eminent and long-continued services of Dr. Farr, who, since 1838, had added so much to our knowledge of vital statistics and public health by his work in the Registrar-General's Office, had received, since his resignation, any public recognition from Her Majesty's Government, either in the form of increased pension or otherwise.—The Chancellor of the Exchequer said: The formal steps after Dr. Farr's resignation, and the consideration of his superannuation, have not taken place very long. It is always necessary, in cases where application for superannuation is made, that the case should be carefully examined by the superannuation committee at the Treasury, especially if any question arises as to special pension. The question of a special pension, such as can be granted by the Lords of the Treasury under a clause in the Superannuation Act, is very difficult indeed to deal with, and requires exceeding care. There has, therefore, been some delay in considering this case; but after carefully examining the circumstances, this is the decision at which the Treasury have arrived: "My Lords, in order to mark their appreciation of Dr. Farr's long and able services in the Registrar-General's Department, have awarded him a special pension of £800 a-year"; which is the full salary of his office, less the addition thereto which was personal to himself.

Water-Supply.—Mr. Monk, in the absence of Mr. R. Hill, asked whether, in view of applications from various districts to take water for their own purposes from watersheds with which they have no natural connection, the Government were prepared, in anticipation of legislation upon the subject, to initiate an inquiry into the whole question of water-supply.—Mr. Sclater-Booth said the question whether there should be a preliminary inquiry had been several times under the attention of the Government. At the present time, he thought there was no occasion to institute any special inquiry upon the subject, seeing that ample information was at their disposal should they think fit to deal with it.

Irish Gaol Surgeons.—Mr. Lowther informed Mr. Errington that a scheme dealing with the salaries, duties, and position of gaol surgeons in Ireland had been prepared, and would shortly be laid on the table.

The Census.—Mr. Sclater-Booth obtained leave to bring in a Bill for taking the census of England; and the Lord-Advocate a similar Bill for Scotland. Both Bills were subsequently brought in and read a first time.

Wednesday, February 25th.

Vivisection.—Mr. Holt obtained leave to bring in a Bill to amend the Law relating to Cruelty to Animals. The Bill was subsequently read a first time, and the second reading was fixed for Tuesday, March 16th.

Thursday, February 26th.

The Indian Medical Service.—Dr. Lyon Playfair asked the Under Secretary of State for India whether it was true, as stated in Indian papers, that the Government of India contemplated reducing the present fixed number of the higher grades (Deputy Surgeon-General) of the Indian Medical Service, and of reserving the higher grade (Surgeon-General) in each Presidency for members of the British Medical Service only; and, if so, whether it was the intention to offer increased pensions to the senior officers as a compensation for the serious change which would thus be made in their prospects.

Mr. Stanhope, in reply, was understood to say that it had been decided to abolish the double medical and military staff hitherto maintained in India, and from March 31st the British Army Medical Department and the Indian Medical Department would form one Department.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations, were admitted Licentiates in Dental Surgery, at a meeting of the Board of Examiners, on February 23rd.

Cooksey, Edward Thomas, Southampton (Middlesex Hospital)
Cooksey, George, Southampton (Middlesex Hospital)
Davis, Marcus, Maida Hill, West (Middlesex Hospital)
Gould, Frederick Walter, Kingston-on-Thames (Middlesex Hospital)
Howarth, Ambrose, Bradford (Middlesex Hospital)

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 12th, 1880.

Battiss, William Sullivan, London Hospital
Ensor, Theodore Francis, Milborne Port, Somerset
Finch, Alfred, Blackheath, S.E.
Jones, Robert, Easteddefa, North Wales
Knight, George Henry, Wimbledon
Rygate, David John, 126, Cannon Street Road, E.
Walker, William Frederick, Saltoun Road, Brixton
Wall, George Braithwaite, Bockerstaffe, Ormskirk

The following gentleman also on the same day passed his primary professional examination.

York, Thomas Hutton, Queen's Hospital, Birmingham

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 19th, 1880.

Beevor, Charles Edward, 129, Harley Street, W.
Biden, Edward James, The Terrace, Kilburn
Sequeira, Henry James, Jewry Street, Aldgate, E.C.
Stephen, John Alexander Lewis, 71, Church Road, W.

The following gentleman also on the same day passed his primary professional examination.

Holton, Francis William Parke, St. George's Hospital

University of Cambridge.—At a Congregation on February 12th, the following degrees were conferred.

Doctor of Medicine.—Richard Grainger Hebb, St. John's.
Bachelor of Medicine.—Frederic Dale, Caius.

King and Queen's College of Physicians in Ireland.—Since December 12th, 1879, the following Licentiates have been approved as Members of the College, in accordance with the provisions of the Supplemental Charter of December 12th, 1878.

*Thomas Darby, 1860, Bray, co. Wicklow; *Edward O'Grady, 1861, Dublin; *Jas. Pollock, 1862, Blackrock, co. Dublin; *Joseph G. Burne, 1864, Dublin; *William J. Wheeler, 1866, Dublin; *William J. Martin, 1866, Dublin; *John A. Spencer, 1867, Dublin; *Charles A. Cameron, 1868, Dublin; *Alexander N. Montgomery, 1870, Dublin; *James E. Kelly, 1876, Dublin; *Alexander Long, 1860, Army Medical Department; *William R. Kynsey, 1862, Army Medical Department; *Charles H. Battersby, 1863, Cannes; *William R. Thomas, 1864, Sheffield; *Edward Adam, 1863, Liverpool; *William H. Blenkinsop, 1867, Bournemouth; *William Akerman, 1868, London; *James Bruce, 1868, London; *James Bruce, 1868, London; *William J. Charlton, 1869, Army Medical Department; *Daniel Henry Cullimore, 1870, Madras Army; *Thomas Atkinson Elias, 1871, Southport; *Frederick A. Nixon, 1871, Dublin; *Richard H. Sparrow, 1872, Oldham; Joseph Mansergh Palmer, 1873, Armagh; Daniel F. Buckly, 1872, Granard, co. Longford; *Alfred H. McClintock, 1851, Dublin; *Gerald Tyrrell, 1859, Sacramento; *Francis Davis, 1859, Fleet-Surgeon, Royal Navy; *Austin Meldon, 1865, Dublin; *George Worthington, 1868, Sidcup; *James Vance, 1868, Rathdrum, co. Wicklow; *Charles Sibthorpe, 1869, Madras Army; *John Neeson Stone, 1869, Staff-Surgeon, Royal Navy; *Harry Crookshank, 1871, London; Agmon Vesey, 1874, Magherafelt; *Alexander Duke, 1874, Dublin; *Eugene O'Mullane, 1876, Nottingham; *John H. Courtenay, 1873, Jamaica; *Frederick H. Grosholz, 1874, Aberdovey, Wales; *Isaac B. Emerson, 1874, Army Medical Department.

The Licentiates in the foregoing list who have an asterisk placed before their names have taken the prescribed declaration, and have been duly enrolled as Members of the College. The figures placed after the names indicate the year in which the Licence of the College was obtained.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BALROTHERY UNION—Medical Officer for Kilsallaghan Dispensary District, at a salary of £100 per annum, and £15 per annum as Medical Officer of Health, with Registration and Vaccination Fees. Election on March 5th.

BELFORD UNION—Medical Officer for the Workhouse and West District.

BUCKINGHAMSHIRE GENERAL INFIRMARY—Resident Surgeon and Apothecary. Salary, £80 per annum, with board, lodging, coal, and furnished apartments. Applications to the Secretary on or before the 28th instant.

BURY ST. EDMUND'S FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Resident Medical Officer. Salary, £180 per annum, with house, coal, gas, and additional fees for Midwifery. Applications, stating age, testimonials, etc., on or before February 28th.

*CARMARTHEN INFIRMARY—House-Surgeon. Salary, £125 per annum, with lodging, fire, and washing. Applications to the Secretary on or before March 31st.

DRAYTON UNION—Medical Officer for the Fifth District.

*GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications, with testimonials, to the Secretary on or before March 8th.

GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary, on or before March 18th.

*HOSPITAL FOR EPILEPSY AND PARALYSIS—Physician. Applications, with testimonials, on or before March 1st.

*LEAVESDEN ASYLUM FOR IMBECILES, near Watford—Two Assistant Medical Officers. First Assistant, £150 per annum; second Assistant, £120 per annum, rising £10 annually to £150, with board, furnished apartments, and washing. Applications, with copies of testimonials, on or before February 28th.

LINCOLN UNION—Medical Officer for the Second and Eleventh Districts.

*LONDON LOCK HOSPITAL—Assistant House-Surgeon to the Female Department. Applications, with copies of testimonials, on or before March 17th.

MANORHAMILTON UNION—Medical Officer for Drumkeeran Dispensary District, at an annual salary of £100, with Sanitary, Registration, and Vaccination Fees. Election on March 5th.

*NEWPORT (Monmouthshire) ODD FELLOWS MEDICAL AID ASSOCIATION—Assistant Medical Officer. Applications to the Secretary, with testimonials, before March 20th.

RATHDOWN UNION—Medical Officer for the Bray portion of the Bray and Rathmichael Dispensary District. Salary, £110 per annum, with £27:10 as Medical Officer of Health, and the usual Registration and Vaccination Fees. Election on March 8th.

*ST. BARTHOLOMEW'S HOSPITAL, Chatham—Assistant House-Surgeon. Salary, £80 per annum, with board, washing, etc. Applications on or before March 22nd.

*SEAMEN'S HOSPITAL, Greenwich—House-Physician. Salary, £75 per annum, with board, furnished apartments, and attendance. Applications to the Secretary on or before March 8th.

*SUNDERLAND HOSPITAL FOR SICK CHILDREN—Three Honorary Medical Officers. Applications to the Honorary Secretary on or before March 2nd.

*WARWICK COUNTY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Application, with testimonials, to the Medical Superintendent.

*WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY AND DISPENSARY—Honorary Physician and Honorary Surgeon. Applications on or before March 1st.

*YORK DISPENSARY—Resident Medical Officer—Salary, £130 per annum, with furnished apartments, coals, and gas. Applications, with testimonials, on or before March 9th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Ballance, C. A., L.R.C.P., appointed Resident Accoucheur to St. Thomas's Hospital.

*Cobbold, Charles S. W., M.D., appointed an Assistant Medical Officer at the Middlesex County Lunatic Asylum at Colney Hatch (Female Department).

*Coupland, Sidney, M.D., appointed Physician to the Middlesex Hospital.

*Ferrier, David, M.D., F.R.S., appointed Physician for Out-Patients to the National Hospital for the Paralysed and Epileptic.

*Fowler, J. K., B.A., M.B., appointed Assistant Physician to the Middlesex Hospital, *vice* Sidney Coupland, M.D., promoted.

George, W. H., L.R.C.P.Ed., appointed an Assistant Medical Officer to the Middlesex County Lunatic Asylum, Colney Hatch (Female Department), *vice* W. J. Seward, M.B., transferred to the Male Department.

*Gowers, W. R., M.D., appointed Physician for Out-Patients to the National Hospital for the Paralysed and Epileptic.

Hatton, G. S., M.R.C.S., appointed Assistant House-Physician to St. Thomas's Hospital.

Horrocks, John, M.D., appointed Assistant-Physician to the National Hospital for the Paralysed and Epileptic, *vice* W. R. Gowers, M.D., promoted.

Lunn, J. R., L.R.C.P., appointed Assistant House-Surgeon to St. Thomas's Hospital.

Newsholme, A., M.R.C.S. appointed House-Physician to St. Thomas's Hospital.

Ormerod, J. A., M.A., M.B., appointed Assistant-Physician to the National Hospital for the Paralysed and Epileptic, *vice* D. M. Macleod, M.B., deceased.

Shaw, J., M.R.C.S., appointed House-Physician to St. Thomas's Hospital.

Sheppard, C. E., M.B., appointed House-Surgeon to St. Thomas's Hospital.

Smith, R. P., M.B., appointed House-Surgeon to St. Thomas's Hospital.

Watson, Charles S., M.B., appointed House-Physician to the Bristol Royal Infirmary, *vice* James Scott, M.B., resigned.

Williamson, R. J., M.A., M.B., appointed Assistant House-Physician to St. Thomas's Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

West.—On February 22nd, at 12, Hammet Street, Taunton, the wife of R. H. West, M.A., M.R.C.S.E., L.S.A., of a daughter.

DEATHS.

Brown, Alexander, M.R.C.S., at Steeple Bumpstead, Essex, aged 85, on Feb. 17th.

Conolly.—On the 17th instant, at 3, Church Hill Villas, Wood Green, N., Emma, the wife of C. T. Conolly.

*Copeman, Edward, M.D., F.R.C.P., Consulting Physician to the Norfolk and Norwich Hospital, Vice-President of the British Medical Association, at Norwich, aged 70, on February 25th.

Craig, James, F.R.C.S.Ed., in Lennox Street, Edinburgh, on February 21st.

*Eddie.—On February 21st, at Barton-on-Humber, William Hesleden Eddie, M.R.C.S., L.S.A., J.P. co. Lincoln, aged 68 years.

*De Mierre, Albert, M.D., at Torquay, aged 75, on February 19th.

Fleming, William, M.D., at Rowton Grange, near Chester, aged 80, on Feb. 19th.

*Hall, Augustus R., M.R.C.S.Eng., Surgeon-Major Army Medical Department, of dysentery contracted in Afghanistan, at Malta, on February 4th.

Jones, Llewelyn, M.D., at Beaumaris, aged 78, on February 14th.

*Mansfield, Pierce B., M.D., Fleet-Surgeon R.N., at Penge, aged 45, on Feb. 10th.

Tribe, Benjamin, M.R.C.S.Eng., at Strood Hill, near Rochester, aged 95, on February 16th.

Sopwith, Henry L., F.R.C.S., at Tunbridge Wells, aged 71, on February 17th.

Presentation to Mr. Ormsby.—On Saturday last, in the theatre of the Meath Hospital, and in the presence of the staff and a large number of students, an illuminated address and a gold ring were presented by the students, past and present, to Mr. Lambert H. Ormsby, one of the surgeons of the hospital, on the occasion of his resigning the honorary secretaryship of the hospital medical board. The address testified to the warm interest Mr. Ormsby had taken in the progress and welfare of those who presented it, by which the recipient, it stated, had, in the fullest sense of the term, proved himself to be the "Students' Friend".

Public Health.—During last week, being the seventh week of the year, 4,357 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 26 deaths annually in every 1,000 persons living. The annual death-rate was 22 in Edinburgh, 26 in Glasgow, and 38 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Brighton 12, Portsmouth 18, Leicester 20, Oldham 20, Wolverhampton 20, Newcastle-upon-Tyne 21, Sunderland 21, Leeds 21, Bradford 21, Sheffield 22, Birmingham 22, Salford 24, Liverpool 24, Bristol 25, Manchester 26, Hull 28, London 29, Nottingham 31, Norwich 35, and the highest rate was 38 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.9 per 1,000 in the twenty towns, and ranged from 0.8 and 1.4 in Portsmouth and Oldham to 5.9 and 9.7 in Hull and Plymouth. Eleven deaths (including 7 in the workhouse) were referred to enteric fever in Sheffield, against 4 and 10 in the two previous weeks. In London, 2,016 deaths were registered, which exceeded the average by so many as 224, and gave an annual death-rate of 28.7. The 2,016 deaths included 13 from small-pox, 18 from measles, 57 from scarlet fever, 11 from diphtheria, 171 from whooping-cough, 23 from different forms of fever, and 14 from diarrhœa—altogether 307 zymotic deaths, against 401 and 339 in the two preceding weeks. These 307 deaths were 64 above the average, and were equal to an annual rate of 4.4 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 1,557 and 1,020 in the two preceding weeks, further declined last week to 693, which, however, exceeded the corrected weekly average by 213. Different forms of violence caused 61 deaths; 49 were the result of negligence or accident, including 18 from fractures and contusions, 8 from burns and scalds, 4 from drowning, and 16 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 46.7°, and 7.7° above the average. The general direction of the wind was south-westerly, and the horizontal movement of the air averaged 21.0 miles per hour, which was 8.6 above the average. Rain fell on each day of the week, to the aggregate amount of 1.12 inches. The duration of registered bright sunshine in the week was equal to 23 per cent. of its possible duration. The recorded amount of ozone showed a considerable excess throughout the week, especially on Monday and Thursday.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.– Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S,. 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London. Annual Meeting. 7.30 P.M.; Ballot. 8.30 P.M.: Dr. Braxton Hicks, "On Variations of Abdominal Tension and their Clinical Significance".—Royal Medical and Chirurgical Society, 8 P.M. Annual Meeting; Report and Address of the President.

TUESDAY.—Pathological Society of London, 8.30 P.M. The President: Specimens of Syphilitic Osteitis. Mr. H. Morris: Pulsating Tumour of the Cranium. Dr. Hoggan: On Degeneration and Regeneration of the Axis Cylinder in Non-Traumatic Lesions. Dr. Thin: Fungus of Tropical Ringworm. Dr. Pye-Smith: Primary Cancer of Liver. Mr. Walsham: 1. Pedunculated Fatty Tumour; 2. Horny Growth from Eyelid. Mr. Hulke: Drawings of Cancer. Dr. Norman Moore: 1. Aneurism of Mitral Valve; 2. Disease of Pulmonary Valves. Mr. Startin: Case of True Leprosy. .

WEDNESDAY.—Epidemiological Society of London, 8 P.M. Surgeon-Major W. G. Don, M.D., Army Medical Department, "On the Endemic Continued Fevers of Subtropical Latitudes".—Obstetrical Society of London, 8 P.M. Specimens: Dissection of a Two-headed Monster, by Dr. Godson; Pelvic Viscera, showing Congenital Communications (1) between rectum and vagina, (2) between rectum and urethra, by Mr. Alban Doran; Anteflexed Uterus, by Dr. Hayes. Paper: Mr. Lawson Tait, "On Axial Rotation of Ovarian Tumours, leading to their strangulation and gangrene; three cases successfully treated by immediate Ovariotomy".

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. George C. Coles, "Cases of Cyphosis"; Dr. Percy Boulton, "Typical Development of Children".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

AN ANOMALOUS ERUPTION.

SIR,—Thanking those gentlemen who have been so good as to reply to my letter referring to the unusual eruption which has shown itself at the Southam Workhouse, I have some pleasure in being able to state that the robust proportions, rosy cheeks, and happy looks of the children there negative the idea that want in any form or degree could be a cause for it; and the hygienic arrangements, being under the supervision of Dr. George Wilson, are probably not very faulty. The disease was introduced by three children, who came direct from the Rugby Workhouse, where, I understand, there is a similar outbreak. It is evidently contagious, not requiring faulty conditions of living to account for it, any more than scarlatina or any other contagious disorder would.—I am, sir, yours faithfully, WALTER LATTEY.

Southam, February 24th, 1880.

W. asks: Can any of your readers suggest any cause or remedy for rapid alopecia of the whiskers?

A DISTRESSING CASE.

THE undermentioned sums have been forwarded to Dr. Heywood Smith for Mr. Dalton.

Mrs. G. B. Gwyn	£1	0	0
Mrs. Measom	1	0	0
C.	1	1	0
W. P. Brabazon, M.D., Lymm	2	2	0
Maurice G. Evans, M.D., Cardiff	0	10	6

AMERICAN DEGREES.

AN M.D. of New York writes to protest against the apparent selection of two unrecognised bodies in America, for the purpose of decrying foreign degrees in general and American degrees in particular. It is not, he says, the fault of the American Government if spurious diplomas are offered for sale by a person residing in Jersey. The late American Ambassador, General Schenck, publicly stated that his government did not authorise the sale of degrees from an university which did not exist. M.D. quotes also a letter which he has received from Dr. Flint, of the Bellevue Hospital Medical College in New York, stating that that institution cannot confer degrees on any candidate, whatever qualification he may already possess, unless he has attended the greater part of the regular winter session: an examination is also necessary. Our correspondent asks that, seeing that the British degrees are held in due regard and estimation by the faculty in America, the holders of respectable legalised diplomas from America may at least not be despised.

SURGICAL STATISTICS.

SIR,—I have read with much interest the article on surgical statistics in the JOURNAL of this week, and, so far as the experience of a general practitioner of twelve years' practice goes, much of that time having been spent in the neighbourhood of large works and extensive population, where surgical cases constituted by far the most important part of my work, I must say that my experience goes to bear out Professor Spence's views. I have never met with a case of ununited fracture as yet; but cases of chronic abscess, lumbar and otherwise, have been treated equally well by both Mr. Spence's and Mr. Lister's methods. With regard to carbolised catgut ligatures and their solubility, I can most heartily, like Mr. Spence, believe the evidence of my own eyes rather than any chemist. I have frequently observed the carbolised catgut ligatures stretch and soften down, and even dissolve away, in the secretions of the animal tissues; and, when they have been used as sutures in cases occurring far from home, I have frequently found this solubility a decided advantage to the patient and surgeon alike.

Statistics are queer things, and it has often been said that they can be made to prove anything; and in this case of antiseptic treatment *versus* cold water, careful method of operating, and last, though not least, important factor in the non-antiseptic mode of treatment, a judicious selection of cases suitable for operative measures, may not Mr. Spence's statistics go far in the direction of showing the value of a correct diagnosis of surgical diseases, and consequent operation on those only which would benefit by operation, rather than that these statistics prove the superiority or even equality of the non-antiseptic method over the more recent and perhaps over-lauded antiseptic mode of treating surgical diseases?—I remain, yours truly, WALTER ROBT. G. JEFFERISS, M.D., C.M.

Isle Ornsay, Skye, January 26th, 1880.

STREET MUSIC.

SIR,—Many of your readers, professional and others, will be glad to hear that a society is already formed to deal with the nuisance of street-organs, German bands, etc. The name of the society is "The Society for the Regulation of Street Music". Mr. Bass, M.P., is president; the secretary is Mr. T. K. Soady; the offices are at 32, Piccadilly Circus, where the names of any who wish to help should be sent at once, as it is hoped that a bill may be passed this session. So many complaints have been publicly made of late, that I hope this notice will be sufficient to obtain the support of the profession.—Yours faithfully, ROBERT BRIDGES M.B.

Savile Club, Savile Row, February 16th, 1880.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. **Francis Fowke**, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

The Habitual Drunkards' Act.

Sir,—I quite agree with Mr. Carsten Holthouse that the new Act respecting habitual drunkards will fall far short of effecting its object, and probably make matters worse than they were. So far as I have seen of these painful cases, any system which compels the unhappy victim of drink to undergo exposure of his weakness before justices of the peace, and enter a licensed house—soon known to all the world as such—will act as a complete deterrent. In the case of ladies, according to the long experience of Mrs. Theobald, the influence of the husband and friends, and at times the wishes of the patient herself, are, as a rule, sufficient to induce the lady-dipsomaniac to enter a temperance home such as hers, and this influence can generally be greatly helped by a little correspondence and explanation. I am quite sure that, if the complications of the Drunkards' Act be carried out, many a lady will go on drinking with more and more deception rather than have her case brought to light before justices of the peace, till it harden into complete incurability.

In the case of men of the middle classes the difficulties mainly lie in this, that the inebriate knows he cannot leave his business without grave loss, or possible failure of income, as a rule, though he is equally conscious he is ruining himself and his family by going on with his drink, and he therefore perpetually deceives himself with some fancied hope—seldom realised—of turning over a new leaf sooner or later. If such men could get away without the business difficulty, I believe many would voluntarily go into an institution for six or twelve months for probation and cure; but I also believe that appearing before justices and going to a known licensed house would act as the most powerful deterrent they could have.

No system seems to me to act better than Mrs. Theobald's has done. A large number of ladies have passed through her home during seventeen years, with the most gratifying results in many cases, though of course with failure in some, these latter being too often the result of insufficient time. Mrs. Theobald has always been anxious that her ladies should look upon her residence as what it really is—viz., a temperance house, not as an inebriate institution, where, though no alcoholic drink is allowed from the moment of admission, every one may feel she is at home, surrounded with every comfort and kindness, and where compliance with the simple regulations soon ensures ease and happiness to the most nervous. The idea of being in an inebriate institution is thus at once done away with; the inebriation becomes a thing of the past directly the threshold is crossed, and the name no longer applies to the inmates or the home. It is surprising how rapidly patients fall in with the *régime*, and how soon the total prohibition of alcoholic stimulants, once for all, conjoined with suitable diet and doctoring, in cases even of delirium tremens, produces speedy restoration to health.

What system can be better, I would ask, for ladies? and how easy of application. There is no publicity; all the secrecy the lady longs for, to spare her from the world pointing at her, is gained: and, indeed, many have come and gone, and few or none of the friends have known why and wherefore the lady has been away. With such experience, is it likely that Mrs. Theobald would take out a licence?

I must say that surrounding the treatment of alcoholic drinking with the objections alluded to, seems to be the very way to thwart what is one of the chief elements of cure—viz., the appeal to the better nature of the patient through what remains unscathed of the moral character of the individual.—I am, sir, yours faithfully,

J. St. Thos. Clarke, M.B.Lond., F.R.C.S.Eng. by Exam.,
Medical Attendant at Mrs. Theobald's Home.

Norwood House, Leicester, February 10th, 1880.

Sale of Poisons.

Sir,—Mr. Comfield seems to censure the Council of the Pharmaceutical Society, because they do not in some way or other prevent the sale of poisons, which he seems to think they have the power to do under Section 17 of the Pharmacy Act of 1868. If he will read Section 16, he will find that the Council cannot interfere with "the making or dealing in patent medicines", under which form most poisons, whether scheduled or not, reach the general public. It cannot be too clearly understood that any person whatever has at the present moment the right to sell any and every poison in any quantity, provided he pay to Government an annual licence of five shillings, and stamps the bottle or box containing the poison with a medicine-stamp.

Pharmacists are justly aggrieved at the present state of the law as affecting them. The legislature, on the one hand, requires, under the Act of 1852, that they shall be duly examined before they can legally keep open shop for compounding certain drugs and medicines; but, on the other hand, under the Act of 1868, allows Dick, Tom, or Harry to compound anything he sees fit, simply under cover of a patent medicine-stamp. The thing is so palpably unjust, that thoughtful pharmacists hope the legislature will, in its wisdom, ultimately do justice, by restricting the sale of all medicines to examined men, whether graduates in medicine or in pharmacy.

If, as the Act of 1868 affirms, it is expedient for the safety of the public that persons retailing or compounding poisons, etc., should possess adequate knowledge of such medicaments, and be examined as to their possession of such knowledge, then surely, in common fairness, as well as for the safety of the public, the retailing of any medicine should be restricted to such competent men. In short, the sale of all medicines, whether poisons or not, should be restricted to medical men and pharmacists; the Government stamp and patent medicine licence being entirely done away with. The word "medicine" should be interpreted as meaning the drugs and chemicals of the *British Pharmacopœia*, excepting twenty or thirty substances, which might be embodied in a schedule of exceptions.—I am, etc.,

Torquay, February 17th, 1880. E. S.

An Ethical Question.

Sir,—I am instructed by the Great Yarmouth Medical Society to ask for an opinion upon the following question. Is it unprofessional conduct to publish a circular, with testimonials, seeking for the honorary surgeoncy of a hospital when no vacancy has been declared, and when none of the existing medical officers have expressed any intention of resigning? Such a case has occurred in this town, and hence the above question.—I am, sir, faithfully yours,

D. Meadows, Hon. Secretary Great Yarmouth Medical Society.

141, King Street, Great Yarmouth, Feb. 1880.

⁂ Such a proceeding cannot be approved of.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. **Fowke**, not later than *Thursday*, Twelve o'clock.

Colonial Appointments.

X. Y. Z. writes:—The following considerations might be useful to "West Indian" in forming a decision as to the desirableness of a colonial appointment in the West Indies for a man with a wife and family. The salary ranges from £200 to £300 a year, or thereabout, and is, I believe, stationary. Private practice is sometimes, but not invariably, allowed. Movement from place to place is not unfrequent. Absence from home for days together on tours of inspection is often requisite in large districts. House-rent is high, and accommodation often very inferior. Servants require high wages, and are very independent. Houses are dear and inferior as a rule, except at Jamaica, and one or more houses are usually requisite for the work of the appointment. Carriages are dear and inferior, and one is almost a necessity where there is a lady. The cost of passage out is very heavy.

Sir,—The query by "West Indian" in the Journal of February 7th is too general. Could he mention any given colony, I should be happy to give him all necessary information in my power either directly or through you. On the whole, I should not advise a married man with a family to go out to a West Indian colony, unless for some definite reason.—Yours, etc., W. Munro, M.D., late of St. Kitts, W.I.

102, Earl Street, Lower Broughton, Manchester.

Picrotoxin and its Pharmaceutical Preparations.

Sir,—In one of a series of articles on the treatment of night-sweating of phthisis, by Dr. Murrell in the *Practitioner* (October 1879, vol. xxiii, p. 241), it is stated that I made a solution "1 in 240—a grain in half-an-ounce—and this keeps well, and is convenient to work with". And in your article on "Picrotoxin and its Properties" last week (p. 96), reference is made to Dr. Murrell's article, saying he uses "a 1 in 240 solution in water, and of this he gives from one to four minims three times a day, the last dose being taken at bedtime, or immediately before the time at which the perspiration usually commences. The aqueous solution is apt to deposit crystals in water, but it soon clears upon warming". To the last statement I wish to draw attention. According to various authorities, picrotoxin is said to be soluble in from 1 in 150 to 180 parts of cold water. I first tried it in 180 parts. It is with difficulty soluble in water in any proportion; requires long continued boiling; from 180 parts it crystallises out. In 240 parts of water, in the summer, it remained in solution; but when the temperature fell below 40 deg. Fahr., nearly half of it crystallised out. I further found that when this was diluted with an equal quantity of water, making a 1 in 480 solution, this could be cooled down to 33 deg. F. without crystallising. As an aqueous solution, it keeps well, does not become fungoid; still there is, as before stated, a difficulty in making the solution, which I have endeavoured to overcome. Picrotoxin is readily soluble in liquor potassæ and liquor sodæ, less so in liquor ammoniæ; but these solutions, even when diluted, are not very palatable, and would probably not keep well. It is very readily soluble in glacial acetic acid; and this solution will bear dilution with water, and remains stable. Eight grains, powdered in a glass mortar, will dissolve readily in four fluid drachms of glacial acetic acid, and bear dilution with water to any extent. I would suggest the following formula for a solution for internal administration, adhering to Dr. Murrell's original strength, on account of the dose. ℞ Picrotoxin, 8 grains; glacial acetic acid, fl. ʒiv; and add distilled water to fl. ℥iv. Mix and filter. Unless filtered, a little flocculent sediment forms in the solution, which, I think, is impurity in the picrotoxin. This solution remained clear and liquid, exposed on a window-sill on the night of the 29th November last, when the thermometer near registered 26 deg. F. Dr. Murrell finds this solution is quite as active as the simple aqueous solution in checking night-sweating, and it is palatable. Eight grains of picrotoxin will dissolve in four fluid drachms of rectified spirit not quite so readily as in glacial acetic acid; and this solution has the disadvantage of precipitating the picrotoxin on the addition of a little water. Pills containing one-sixtieth of a grain may readily be made of picrotoxin by first triturating it well with a little sugar of milk, and adding a minute quantity of glycerine or tragacanth.

For external use, the ointment of cocculus of the *Edinburgh Pharmacopœia*, according to Christison, was very serviceable in ringworm of the scalp; and an ointment of picrotoxin, ten grains to an ounce of lard, is recommended by him for porrigo. Although the active principle is soluble in fixed oils, it is so only to a slight extent—about one grain in the ounce of olive oil or lard, even when heated for a considerable time; so that, in making an ointment of it of the above strength, much of the picrotoxin must remain undissolved, and probably unabsorbed by the skin, but rubbed off by the clothing or dressing.

I have succeeded in making an application, which I think might prove useful in ringworm of the scalp, in which disease unguentum cocculi was found beneficial. It is as follows. ℞ Picrotoxin, 8 grains; glacial acetic acid, fl. ʒiv; dissolve and add castor-oil, fl. ʒiv; oil of eucalyptus, 16 minims. Mix.—This makes, at ordinary temperatures, a clear, slightly oily, solution. Probably it would bear dilution with more castor-oil, if found to be too irritating—a point to be decided by dermatologists. Picrotoxin is only slightly soluble in glycerine, about 1 in 60, at 212 deg. Fahr., and most of it crystallises out on cooling. It is not more souble in vaseline than in fixed oils—that is, about a grain in an ounce.

Thinking these facts may interest your readers in a somewhat neglected medicine, I remain, sir, your obedient servant, Wm. Martindale.

10, New Cavendish Street, January 17th, 1880.

The Solid India-Rubber Bandage.

Sir,—At the present time, I have a patient with an ulcer on each leg. She is a married woman, aged 66. Martin's elastic bandages have been worn during the last fortnight with very considerable benefit as far as the ulcers are concerned; but she complains of a frequent giddy feeling and of dimness of sight, and one day last week she was considerably surprised to find that she was "unwell", the discharge lasting for the whole day. She ceased menstruating at forty. Are these symptoms to be referred to the use of the bandages? I shall be glad to hear whether anything similar has been observed by others.—I am, yours obediently,

Flaxton, York, February 16th, 1880. Alfred Kebbell, M.R.C.S.Eng.

Tea.

F. S. S. writes that Mr. D'Oyly Grange will find in the *Journal of the Statistical Society* for March last, p. 358, the import of tea into the United Kingdom during five years (1874-78) stated so as to give an average of declared value of a little less than £13,000,000. The quantity would probably be about 130,000,000 lbs. This approximates to one ounce per head per week.

Mr. Cox (Winchcombe) refers Mr. Grange to Johnston's *Chemistry of Common Life*, and to a little pamphlet called *Tea and Coffee*, by Dr. William Alcott.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Provident (?) Dispensaries.

The following handbill has been sent to us:—"Provident Dispensary, 55, Newtown Row (opposite Hatchett Street). Dr. Marrian, Consulting Physician, for several years Resident Medical Officer to the Prince's Ward Dispensary, Lambeth, London. Advice, with medicine, one shilling per week. Hours of consultation: Morning, 10 to 12; evening, 6 to 8. Patients visited at home; every other day, 3s. per week; every day, 5s. per week, when paid in advance and notice given before twelve o'clock. All visits not during the usual visiting hours are charged extra. Midwifery, 10s. 6d. Vaccination every Tuesday morning. Private patients may consult Dr. Marrian at any hour. On Sunday, urgent cases only attended to. Patients must provide their own bottles."

⁂ Mr. Marrian's is one of those so-called provident dispensaries in which there is no provident element at all, but which profit by the attention which has of late been turned to this class of institutions. It is, in fact, a "shilling dispensary", and we have before pointed out that these establishments are of very doubtful advantage. They merely supply cheap medical attendance and medicine, but they do not carry with them those benefits either for the labouring classes or for the profession which are associated with the regular provident dispensaries. The Council of the Metropolitan Counties Branch last year expressed its disapproval of these so-called "provident" dispensaries (see British Medical Journal, August 2nd, 1879, p. 196).

Dr. Williams.—Professor Owen, late conservator of the Hunterian Museum, was formerly a midshipman in the Royal Navy. The present conservator, Professor Flower, was a surgeon in the army, and went through the Crimean campaign.

Magpie-Dust.

Sir,—In the *Pharmacopœia Londinensis* of 1682, the following appears, page 231; "Pica, κιττα, κισσα, raban, the mag-pye. 1. The flesh eaten (or burnt to ashes and applyed to the eyes) helps redness and pain of the eyes, and dimness of sight, vertigo, epilepsis, melancholy, and madness. Aldrovand saith they are of a very hot temper, as may appear by their salacity. 2. The eggs in powder help white spots in the eyes. 3. The heart with ivy helps the disury. 4. The whole bird beaten in a mortar and applyed strengthens weak joynts and takes away cankers in the yard." From this it would seem that doctors in 1682 were as credulous as princesses in 1880.—Yours truly,
V. Poulain.

Provident Clubs.

"A Country G. P." asks for information relating to provident clubs, as he is desirous of starting one in his district. Information as to rates of payment according to wages, etc., would be valuable, or the title of some book on the subject, if there be one published. His practice lies in a town of about 4000 inhabitants, but there is a large surrounding district, chiefly agricultural.

Jurisdiction of Coroners and Mistakes of Juries.

Sir,—The evil or blessing of allowing two distinct inquiries for the same offence—one before a full bench of magistrates and the other before a coroner—received a practical illustration by a case tried at the assizes at Gloucester in the autumn of 1875. A youth was charged with the manslaughter of his brother on the coroner's inquisition, and in accordance with the verdict of a coroner's jury. The case had at the same time been laid before the magistrates, and the depositions taken in proper legal form. The magistrates came to the conclusion (using the words of the chairman, "that it was perfectly absurd of the coroner to commit the accused for trial") to dismiss the case. This case duly went for trial; the jury found the prisoner guilty of manslaughter, and the judge sentenced him to nine months' hard labour. I inform you of this on account of your article in the Journal of January 31st. As the law at present stands, the coroner must meddle with legal definitions.—I am, your obedient servant,
Edward Mills Grace,
Coroner for the Lower Division of Gloucester.

Park House, Thornbury, February 2nd, 1880.

⁂ The case here referred to by our correspondent as having occurred five years ago, must be surely exceptional, and may have depended upon some additional evidence supplied at the inquest. We do not understand the writer to infer from such a case as this that the law is better understood and administered by twelve countrymen selected as jurors for an inquest by the parish beadle, than by a bench of educated gentlemen selected as magistrates by the Lord Chancellor. Such a proposition refutes itself. Our correspondent is correct in stating that, as the law at present stands, a coroner and his jury must meddle with legal definitions; but this is one of the evils to be corrected, we hope, by the new Bill. It is certainly a disgrace to our legal procedure, that the same offence should be dealt with by two tribunals at the same time and upon the same evidence, leading so frequently to conflicting decisions, as in the following recent case at the Bodmin assizes. John Harvey was charged on the coroner's inquisition with the manslaughter of Robert Johns at Penzance. It appeared that the charge had been dismissed when the prisoner was before the magistrates, and under these circumstances no evidence was offered on the part of the prosecution, with his lordship's sanction; and, a verdict of "Not guilty" having been returned, the prisoner was discharged.

Medical Titles under the Proposed New Medical Act.

Sir,—Mr. H. J. Hardwicke stated in his letter in the Journal of February 14th, that after the passing of the new Medical Act, the diplomas of the London College of Physicians will become unrecognised as qualifications to practise in this country. I have been already asked by several medical men whether this statement is true, and, if so, whether the qualifications of the other British licensing bodies will also be unrecognised. It appears to be necessary to mention to a large portion of the profession, who are not aware of the nature of the Bills now before Parliament, that the Bills of the Alliance, of the Reform Committee of the British Medical Association, and of the Government, all propose the recognition and registration of all the diplomas now granted, and to be hereafter granted, by the present medical corporations. All the Bills provide for the registration of *good* foreign degrees in a separate register.—I am, sir, your obedient servant,
R. H. S. Carpenter.

Postnasal Catarrh.

Sir,—A very obstinate case, for which nearly everything was tried, at last was cured by the following plan. During the day, drink three teaspoonfuls of glycerine (without water, if possible), letting it go slowly down. Soften also the inside of the nose, as far up as possible, with a little glycerine once a day. Then at night, before going to bed, place a large piece of cotton-wool over the whole of the forehead, letting it come well over the nose. The eyes may be out. A piece of oiled silk over this is a good plan. Fix it tightly on, and only take it off in the morning, when washing with hot water and drying will prevent taking cold. At the end of a few nights, a sort of pink mucus will come away into the throat, and all uncomfortable feeling will go. For a time, a fresh chill will bring it on; but in the case I mention, each time the cure was quicker, till now it seldom comes. The Americans have some remedy they find to cure such cases. I believe it is some way of taking turpentine.—Yours,
J. J. D.

Sir,—A plan which I find effective for the above, and ozæna, etc., is to take a piece of quill about two inches in length and place it on an end on the finger, fill it with sufficient tannic acid, iodoform, or other drug; then pass the loaded end into the anterior nares, and to the other apply the nozzle of Politzer's air-bag and blow the contents into the nasal cavity; repeat on the other side.—I am, etc.,
Arthur Kempe.
Exeter, February 1880.

Tinnitus Aurium.

Sir,—Two cases of this most distressing noise were supposed to have been cured by keeping the ear moist with glycerine. In one case, after a few days a thin piece of skin (quite dry) fell out of the inside of the ear, and the noise ceased. In the other case, a long piece of hair came away, as if off the carpet, or woollen material. The moisture of the glycerine seemed to have dislodged it. A clean pin was used by the patient to take it out.—Yours,
J. J. D.

Staff-Surgeon (Portsmouth).—Sir Gilbert Blane, the founder of the medal bearing his name, was the first baronet. He was physician to George III. The present holder of the title is Sir Seymour Blane, a distinguished officer in the 52nd Foot. He was wounded at the battle of Inkerman.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Sir Thomas Watson, Bart., London; Sir James Paget, Bart., London; Mr. T. Spencer Wells, London; Dr. G. M. Humphry, Cambridge; Dr. Hare, London; Dr. T. Clifford Allbutt, Leeds; Mr. Jabez Hogg, London; Mr. E. R. Muspratt, London; Dr. Kelly, Taunton; Dr. McKendrick, Glasgow; Dr. F. J. B. Quinlan, Dublin; Mr. J. W. Taylor, Scarborough; Dr. Farr, London; Mr. Sibley, London; Dr. Ransome, Manchester; Mr. George Budd, Edinburgh; Dr. Swayne, Clifton; Mr. Alban Doran, London; Mr. Charles White, Rochester; Dr. James Young, Edinburgh; Mr. W. P. Thornton, London; Dr. Walker, Spilsby; Mr. T. W. Reid, Canterbury; A Parish Doctor; Club Doctor; L.R.C.P.; Dr. Fowler, London; The Secretary of the Medical Society of London; Mr. T. M. Stone, London; A Member of the British Medical Association; Mr. James L. Edwards, Rochester; Dr. Thin, London; Mr. Lennox Browne, London; The Secretary of Apothecaries' Hall; Mr. Annandale, Edinburgh; Mr. F. Y. Livy, Hook Norton; Mr. A. A. Napper, Cranleigh; The Secretary of the Epidemiological Society of London; Mr. Berkeley Hill, London; The Secretary of the Harveian Society of London; Dr. Garson, London; Dr. Tilt, London; Dr. A. Waller, London; Dr. Laidlaw Purves, London; Dr. Leech, Manchester; Dr. Semple, London; Dr. S. Wilks, London; Dr. McGown, Millport, Cumbrae; Our Dublin Correspondent; Mr. H. Ellis, Crowle; Mr. J. Banks, London; Mr. Herbert Page, Redditch; Dr. J. V. C. Denning, Halifax; Mr. A. Kempe, Exeter; Dr. J. Batty Tuke, Edinburgh; Our Glasgow Correspondent; Mr. Reginald Harrison, Liverpool; Dr. H. Kane, New York; Dr. Cobbold, Leavesden; Dr. F. J. B. Quinlan, Dublin; Mr. W. O. Markham, London; Dr. Sedgwick, London; Mr. C. Puzey, Liverpool; Mr. G. Eastes, London; Our Edinburgh Correspondent; Dr. R. Saundby, Birmingham; Mr. F. Lees, Wetherby; Dr. J. Rogers, London; Dr. Hoggan, London; Mrs. Theobald, Leicester; Mr. H. C. Hopkins, Bath; Dr. Tomkins, Manchester; Mr. D. E. D. Donovan, Cork; Dr. J. H. Galton, Anerley; Dr. Tripe, London; Dr. Folerton, Chippenham; Mr. R. C. Lucas, London; Dr. A. Godwin, London; Mr. P. J. Lenihan, Manchester; A Surgeon's Wife; Mr. N. Stevenson, London; Mr. G. Homan, Lichfield; Dr. Hart Vinen, London; Country Doctor; Dr. Cullinan, Ennis; M.B.; A Puzzled Member; Mr. W. K. Treves, Margate; Dr. Casley, Ipswich; Mr. Edwin Fenn, Dover; Mr. A. Cheves, Millbrook; Dr. Brabazon, Bath; Dr. A. S. Taylor, London; Dr. Crichton Browne, London; Dr. R. McDonnell, Dublin; Mr. J. I. Lace, Frizington; Rev. A. C. Copeman, Norwich; and Dr. F. Churchill, London.

BOOKS, ETC., RECEIVED.

The Student's Guide to Surgical Anatomy. By E. Bellamy, F.R.C.S. London: J. and A. Churchill.

The Student's Primer on the Urine. By J. T. Whittaker, M.D. London: J. and A. Churchill.

Post Mortem Examinations. By Professor Virchow. Second Edition. London: J. and A. Churchill.

THE GULSTONIAN LECTURES
ON EPILEPSY.

Delivered before the Royal College of Physicians of London.

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Lecture I.

Mr. President and Gentlemen,—The founder of the lectures, the delivery of which for the present year I have the honour of commencing to-day, left certain directions regarding their method and scope, doubtless well known to you. The progress of medical science has, however, rendered strict adherence to those directions scarcely practicable. Two or more diseases were to be discusssd, and a body if possible dissected in illustration of them. But the time is long past since the demonstration of a chance "subject" could afford instruction to the Fellows and Members of this College; while our study of disease has become so elaborate that, in the space of three hours, it is impossible to consider more than a few points regarding any one disease. May we not read "between the lines" of the founder's direction the anticipation that the progress of pathological anatomy would speedily reveal the organic basis of all diseases? Such an anticipation may, when the words were written, have been not unreasonable. Yet, vast as is the progress of pathology—aided as the scalpel is by sciences which, two and a half-centuries ago, were undreamed of—the changes which underlie the so-called functional diseases seem almost as far as ever from discovery. The anatomist may search in vain for any evidence of their existence. Even the microscope reveals but traces of their effects, and can detect no indication of their nature. Our knowledge of them has still to be gained chiefly by inductions based on clinical study. In this, as in anatomy, modern science has given us the assistance of fresh methods, for which, if far feebler than those supplied by the microscope or the retort, we may still be grateful. More precise methods of observation and of record, more exact modes of reasoning, have added much to the power and scope of clinical observation. Foremost among these methods is to be placed that of numerical analysis.

These remarks are strictly true of the functional diseases of the nervous system, and of none more so than of those characterised by convulsion, to epilepsy and its congeners. Pathological anatomy and experiment have taught us something of the coarser pathology of convulsion, but for most of our knowledge we are still dependent almost wholly upon clinical observation. How successfully numerical analysis may be applied to the study of convulsive diseases we have learned from Dr. Reynolds, Dr. Sieveking, and others; and we have all learned, and are glad to be still learning, from Dr. Hughlings Jackson, how much a minute analysis of individual cases may teach. I trust, then, that I shall not be departing from the spirit of the founder's directions in taking this class of diseases as the subject of these lectures, and applying to them the methods of numerical analysis on a somewhat larger scale than has been hitherto attempted, and under conditions which may be considered as, at least approximately, those essential for the successful use of this method. I propose to ask your attention to some of the facts presented by a series of cases which have been under my care during the last ten years, mainly at the National Hospital for the Paralysed and Epileptic. The cases have been taken consecutively, without selection; the facts compared have, with few exceptions, been ascertained on an uniform system, and they are, I hope, sufficiently numerous to yield trustworthy results. On some points, the conclusions to be mentioned are the same as have been reached by previous investigators from small numbers of cases; on other points, they are somewhat different. It is scarcely possible for me to refer, except in a few instances, to the results obtained by other workers in the same field. My excuse for the omission of such reference must be the brief time at my disposal, and the fact that the conclusions I have now to offer are the result of an entirely independent investigation.

The cases, then, which constitute the subject of these lectures are those of which the symptoms consisted in chronic convulsive attacks, not due to organic brain-disease. All cases have been excluded from analysis in which there was any reason to suspect tumour, chronic meningitis, coarse syphilitic or other organic disease, and all cases of convulsions succeeding hemiplegia. All cases of simple hysterical attacks, unattended by distinct loss of consciousness, have also been excluded. The series includes, then, epilepsy proper, epileptiform seizures in which there is no evidence of organic brain-disease, and cases such as it has been of late the custom to designate hystero-epilepsy, which present, with loss of consciousness, convulsive movements consisting of more or less co-ordinated spasm—spasmodic movements of quasi-purposive character, opisthotonos, emprosthotonos, etc. These latter cases form a series from simple hysteria to true epilepsy. The co-ordinated spasm may exist alone, or may be combined with epileptoid phenomena, or with true epileptic symptoms. Hence it is neither practicable nor wise to attempt to separate these cases entirely from pure epilepsy; and I am satisfied that, in almost all published statistics of epilepsy, many of them have been included. But I shall endeavour to ascertain how far each conclusion, with regard to the whole series, applies also to each of the two classes taken separately—the epileptic, and those presenting hystero-epileptic or co-ordinated phenomena, and subsequently to consider what is the relation between the two. We may at the outset ask, What is the proportion between the cases presenting these two classes of symptoms? Of 1,000 cases, in which an opinion reasonably exact could be formed of the nature of the attacks, they were purely epileptic in 815, while hystero-epileptic symptoms were present in 185, or 18½ per cent.

In the present lecture, I propose to deal solely with the subject of the causation of these diseases: the influences to which they can be ascribed, and the proportions of cases in which the action of those causes can be traced.

What, in the first place, is the influence of *sex?* In the total number of cases analysed—1,450—females preponderate over males, nearly in the proportion of 6 to 5. More exactly, the percentage of females is 53.4; of males, 46.6; that is, to every 100 males, there were 114 females. This is not due to accidental circumstances; for at the hospital in which most of these observations were made, in the cases which do not present convulsion, males preponderate. It may be thought that this excess of females is due to the inclusion of cases of hystero-epilepsy. But this is true only to a small extent. In the cases of pure epilepsy, the females are still in excess, amounting to 52 per cent., the males constituting 48 per cent. In the cases presenting hystero-epileptic symptoms, females preponderate to a much larger extent, and are to the males as 2 to 1, 66 per cent. being females, 33 per cent. males. In most statistics of epilepsy hitherto collected in this country, males have preponderated. This is probably due to the inclusion of cases of syphilitic brain-disease, which we have only lately learned to separate.

There are few diseases in which *heredity* is a more important etiological condition. The difficulties of the investigation of heredity among the poor are well known. Of all diseases, it is probably true that the results obtained fall short of the actual facts, but the discrepancy is probably less in these affections than in almost any others. The occurrence of fits or insanity in any member of a family is generally well known, and there is not the same tendency to conceal the existence of these diseases among the poor as among the rich. The facts ascertained in this inquiry relate to the occurrence, in ancestors or collaterals, of epilepsy, insanity, hysteria, chorea, and certain forms of paralysis—viz., paraplegia and infantile paralysis. Ordinary hemiplegia was not included, because primarily due to disease of vessels, etc., and not of the nerve-tissues. Habitual drunkenness, however distinctly allied in some cases to neuroses, is too frequent among the poor to make it possible to attribute any significance to its occurrence as an antecedent of epilepsy. The proportion of cases in which evidence of inheritance is to be traced was found by Echeverria in 300 cases to be 28 per cent.; by Dr. Reynolds, from a smaller number, to be 31 per cent. In my own cases, the proportion is rather higher. Of 1,250, in which the point was carefully investigated, 452, or 36 per cent., presented evidence of neurotic inheritance. There is no difference in the frequency of inheritance in the two varieties; in each it is nearly 36 per cent.—that is, roughly speaking, of every eight cases of epilepsy, or of hystero-epilepsy, on an average, three will present evidence of neurotic heredity, and five will not. Inheritance does not affect the two sexes equally. In the cases in which there was no inheritance, the males amounted to 48, and the females to 52, per cent.; but, among those in which the disease was inherited, the females constituted 57, and the males only 43, per cent. It seems, therefore, that when there is an inherited taint, the females of a family are more likely to suffer than the males. The same fact has been noted by other observers. In examining the mode of inheritance, we obtain some light on the origin of this excess. Of the 450 cases with inheritance, the disease came from the mother's side rather more frequently than from the father's, the difference amounting to 4 per cent.—from the father's side in 35 per cent. (146 cases), and from the mother's side in 39 per cent. (175 cases), while it was from both sides in about 5 per cent. (25 cases). The side from which the disease is inherited is not unimportant, for it has a distinct influence on the occurrence of the affection in the two sexes. In the cases in which the disease was inherited from the father's side, males were in excess of the females by about 8 per cent. (76 males to 70 females), which is an excess of 14 per. cent. above the average for the whole number (46 per cent. males). Whereas, in the cases in which the disease is inherited from the mother's side, females were in excess by about 14 per cent. (107 to 82). Thus the percentage of the males affected is 22 per cent. greater when the disease is inherited from the father's than when from the mother's side. The affection of brothers or sisters must be regarded as an indication of an inherited taint, although we may be unable to trace antecedent instances. In these cases, 89 in number, the females are in very large excess—53 females to 36 males; but the total number is probably too small to permit safe generalisation. We may now see, in part at least, why females preponderate so much more in the cases of inherited disease than when there is no inheritance. First, the inheritance is more frequently from the mother's side than from the father's; and, secondly, when the inheritance is from the mother's side, girls suffer in a much larger proportion than boys. Of the relatives who suffer, the mother is herself diseased in a much smaller proportion of cases than the father. The father himself was the subject of neurotic disease in 45 per cent. of the cases in which the inheritance was paternal; the mother, in only 35 per cent. of the cases in which the inheritance was maternal.

Of the neurotic diseases which can be traced in the antecedents of epileptics, epilepsy is incomparably the most frequent. A history of epilepsy was obtained in nearly three-quarters of the inherited cases. In rather more than half (240 it existed alone; in 54 it was combined with insanity; in 5 cases with chorea; and in 3 with both insanity and chorea). Insanity occurred in the relatives of about one-third (157) of the inherited cases, and of these it existed alone in two-thirds. Chorea occurred in other relatives in 35 cases, in 24 of which it existed alone; in 5 it was associated with epilepsy; and in 3 with insanity. The forms of paralysis, paraplegia, and infantile palsy, included in the investigation, were not more frequent in the families with other evidence of neurotic tendency than in those who presented no such history. The cases in which an antecedent family history of hysteria was obtained were very few. Although the mother was herself less frequently affected than the father, the two suffered from epilepsy with equal frequency, and the difference in the frequency of their affection depended upon the fact that the mother suffered from insanity much less frequently than the father. Of 394 cases of inherited epilepsy, the father was epileptic in 45, and the mother in 46 cases; the father was insane in 21 cases, the mother in only 11. In some cases, the family tendency, as evidenced by the number affected, was very strong. In one case, no less than fourteen members of the family suffered from epilepsy—the patient's mother and maternal grandmother; her mother's sister and mother's brother's son; four of her own sisters, and five of her sisters' children.

Is epilepsy predisposed to by any other morbid heredity than that indicated by the occurrence of its own allies? Rheumatism and phthisis have both been supposed to favour the occurrence of epilepsy. Regarding rheumatism, apart from the heart-disease which it may cause, I have been able to obtain no evidence in support of the view. The effect of phthisis is very difficult to ascertain. It is certain that the family history of epileptics presents a large proportion of cases of phthisis; but in the opinion of some writers, as Nothnagel, the frequent coincidence is accounted for by the commonness of lung-disease. Others, as Echeverria, believe that the frequent association supports the view that there is a causal relation between the two diseases, and Dr. Savage has expressed a similar opinion with regard to insanity. That there is a relationship between the two is suggested strongly by individual cases, as, for instance, one of my patients, who, presenting no evidence of neurotic inheritance, had lost father, mother, and six brothers and sisters from phthisis, she herself, the sole survivor, being epileptic. The statistics which I can offer on this point are unfortunately not very extensive; as far as they go, they do not give support to the opinion that there is a relationship between the two diseases. Phthisis was inquired for in 300 cases, and a history of it in parents, grandparents, brothers or sisters, uncles or aunts, was obtained in 108, or 39 per cent. Considering the commonness of phthisis, this does not seem a larger proportion than might have been expected, although I am not aware that there are any statistics which can be taken as the standard of comparison. Moreover, if phthisis have any influence in causing epilepsy, we should expect to find it traceable more frequently in the cases without than in those with neurotic inheritance; but it is not so. Of 214 cases without, and 86 cases with, neurotic inheritance, the proportion of phthisis is just the same—39 per cent. Further, if phthisis exerted any causal influence, we should expect to find the proportion in which a neurotic heredity is traceable smaller when there was a tendency to phthisis than when there was not. This also is not the case. The proportion of inherited cases was rather less in these 300 cases than in the whole 1,250, being 28 per cent. The proportion was about the same in the cases with and those without a family history of phthisis, 28 per cent. in the former and 29 per cent. in the latter. These facts suggest that the association of phthisis and epilepsy is wholly accidental. In 8 cases, the patients were the subjects of well marked inherited syphilis. In all of these cases, the attacks had the aspect of idiopathic epilepsy, cases in which there were symptoms suggestive of local brain-disease being excluded. In only two of these cases did the attacks begin in infancy. In all the others they commenced towards the end of or after childhood. Inquiries were made in a considerable number of cases for consanguinity of parents, but in no instance was it met with.

We may consider next the influence of age on the occurrence of epilepsy as evidenced by the date at which the first fit occurred in the series of 1,450 cases. If we take, first, decennial periods, we find that, under ten years of age, more than one quarter of the cases commenced, 29 per cent. Between ten and twenty, nearly one-half of the total number, 46 per cent., began. In the next decennial period, twenty to thirty, the number falls to a seventh, 15.7 per cent. Between thirty and forty, only 6 per cent. began; between forty and fifty, only 2 per cent.; between fifty and sixty, only 1 per cent.; and over sixty, only one-third per cent. of the total number. Thus, just three quarters (75 per cent.) of the cases commenced under twenty years.

The relation of the cases to age is shown in greater detail in the following table, which presents the annual number of cases commencing in each year:

Age.	Cases.	Age.	Cases.
Under 1	78	15	84
1	66	16	84
2	36	17	67
3	36	18	53
4	28	19	44
5	25	20	40
6	31	21	31
7	43	22—29	14—26
8	34	30—39	3—15
9	48	40—49	1— 6
10	54	50—59	1— 3
11	52	62	2
12	71	64	2
13	74	71	1
14	82		

A large number of cases, no less than 12½ per cent. of the whole, commenced during the first three years of life. In this group, no cases of simple infantile convulsions are included, only such as, beginning in infancy, continued as chronic epilepsy. There is a difficulty in ascertaining the exact date of commencement in all cases. Of about one-third, all that could be learned was, that they began in infancy. In the table, these have been distributed through the first three years of life in the same proportion as presented by the two-thirds in which the exact date of commencement could be ascertained. The number of cases is largest in the first year (5½ per cent. of the whole), and falls rapidly to three years of age, and then more slowly until five, when the minimum for the early period of life occurs, only 1.7 per cent. commencing. From this there is a considerable rise at seven, the commencement of the second dentition, then a fall at eight, and from this the numbers increase slowly at nine and ten, rapidly at twelve, until the maximum is reached at fifteen and sixteen, at each of which 84 cases commenced, 5¾ per cent. of the total number. From this period, we have a rapid fall to twenty-one, when only 2 per cent. of the whole commenced. During the next eight years, the number of cases commencing in each year varied from 26 to 14. Between thirty and forty years, the annual number varied between 15 and 3, and between forty and fifty it varied from 1 to 6. Between fifty and sixty, the annual number of cases was from 1 to 3. Over sixty, the cases were—2 at sixty-two, 2 at sixty-four, and 1 at seventy-one.

The proportion in which the two sexes suffer varies considerably in the different periods of life. We may compare, first, their affection in the several decennial periods. In the cases commencing under ten years, the females exceed the males by 6 per cent. In the second decennium, between ten and twenty, the excess of females amounts to 18 per cent. In the third, between twenty and thirty, there is a great fall; but the excess of females amounts to 12 per cent. Between thirty and forty, the numbers being still smaller, the relation is reversed; the males exceed the females by 16 per cent. Between forty and fifty, with a continued fall of numbers, the excess of males is still greater, amounting to 36 per cent. Between fifty and sixty it reaches 40 per cent., and over sixty males only suffer.

If we examine the several periods of life more minutely, we find that in the cases which commence in the first year of life the females are almost twice as numerous as the males (51 and 27). In the second year, the number of females falls considerably, while that of males rises slightly, so that the difference between them is less. During the two following years the numbers fall, until a minimum of each is reached at five years, the females being still in slight excess. At six and seven years a rise occurs, and the number of cases in each sex is, in the latter, nearly the same. From seven to thirteen, the earlier relation is reversed; the males are in excess of or equal to the females, with the perhaps accidental exception of the cases commencing at eleven. At twelve—that is, in the thirteenth year of life—the maximum for males is reached, and from this until sixteen there is a slight fall. The maximum for females occurs later than for males. The numbers increase at twelve and thirteen, and then more slowly, until at sixteen the maximum for any year is attained (fifty cases), and they are in that year one-third more numerous than the males. During the next five years, the numbers in each sex fall rapidly, the females being still in excess, but the two are nearly equal at twenty-one. The females continue, however, in slight excess until twenty-nine, when the two sexes are affected equally. After this, the relation between them is reversed—in almost every year the males are more numerous. The females present no increase at the climacteric period, and they cease much sooner than do the males. The latest age at which epilepsy commenced in a woman was fifty-five, whereas in men cases commenced at fifty-eight, fifty-nine, sixty-two, sixty-four, and seventy-one. Thus at each of the maximum periods, at infancy and puberty, the excess of females is very great. During the later period of childhood, the numbers are nearly equal. The excess of females lessens after puberty, and ceases by middle life.

How far does an inherited tendency influence the age at which the disease commences? It is often stated that when there is heredity, the disease begins before twenty. We shall, however, see that, so far from this being true, the influence of heredity continues until a late period of life, and, although absolutely greatest in youth, it is relatively only a little less during adult than during early life. Particulars as to heredity and age at commencement were noted in 1,120 cases, of which heredity existed in 408. The distribution of these through life was nearly the same as that of the non-hereditary cases. About 5 per cent. began in the first year of life, and the annual number fell to a minimum in late childhood to rise to a maximum at puberty. This maximum, however, occurred at fourteen years of age—a year earlier than the maximum for non-hereditary cases, which was at fifteen and sixteen. The cases with heredity lessen gradually during life, but continue to occur to the last. The latest case of the entire series was a man who suffered from what was apparently idiopathic epilepsy commencing at the age of seventy-one years, and in him the disease was inherited, his father having suffered from fits, clearly epileptic, for many years.

The relative frequency of heredity is shown by the proportion which the heredity cases bear to the total number commencing at each period of life. The relative frequency, in periods of twenty years, is shown in the following table.

Age.	Total Cases.	Heredity.
Under 20	844	319, or 38 per cent.
20 to 39	235	80, or 34 „
40 and over	34	9, or 27 „

The average for the whole of life is 36 per cent. This is exceeded by 2 per cent. in the first twenty years; in the second twenty years, the percentage is only 2 below the average; while in the cases commencing over forty, it is only 7 per cent. below the average. During the first three years of life, the disease is inherited by a larger proportion of females than of males (females 41, males 33 per cent.). During the next three years, the proportion of heredity in females is nearly the same, that in males rises. The third triennial period, six to eight, presents a lower percentage of hereditary cases than any similar period under twenty, but the minimum proportion in males occurs in the next triennial period, nine to eleven. In females, however, there is in this period a rise, and the maximum proportion for this sex is attained in the period twelve to fourteen; it falls slightly in the next two periods. The proportion in males rises after the minimum in the period nine to eleven, but never quite attains the proportion presented by the second triennial period of life. In the first twenty years as a whole, the excess of heredity in females over males amounts to 7 per cent. (males 34, females 41 per cent.). Between twenty and forty, the proportion is reversed, the percentage heredity is greater in males than in females (males 36, females 31 per cent.). Over forty, of twenty-four males, there was heredity in six; of seven females, there was heredity in three.

The next point which demands consideration is, how far age and sex influence the occurrence of the hystero-epileptic or co-ordinated forms of convulsion. We have seen that, of 1,000 cases in which the form of convulsion could be ascertained, it was co-ordinated in 185, or 18½ per cent. At every age the proportion of females is greater than of males. Under ten, these cases constitute 15 per cent. of the male and 18 per cent. of the female cases. Between ten and twenty the difference is, as might be expected, much greater. They constitute 14 per cent. of the male, and no less than 26 per cent. of the female cases. Between twenty and thirty, the percentage of the males remains the same (14), and that of the females falls slightly (to 21). Between thirty and forty the male cases with hystero-epileptic symptoms fall to 12 per cent. while the females present a slight rise, and constitute 24 per cent. In the male cases commencing over forty, none of this character occurred; and in women, although 29 cases of the series commenced over forty, only 1 presented these symptoms. Thus cases with hystero-epileptic symptoms commence almost exclusively under forty. In males, they bear at each age nearly the same proportion to the cases of pure epilepsy, decreasing very slightly from a maximum in childhood to a minimum in middle life. In women, their minimum is in the first decade; their maximum is in the second; and the proportion after adolescence remains nearly double that of males during the period in which they occur. I think, however, that some surprise will be felt at the fact shown by these figures—which my actual observation of attack fully confirms—that, even up to the fourth decade of life, one-third of the cases presenting hystero-epileptic phenomena occur in males.

I pass next to consider the information which this series of cases affords as to the exciting causes of epilepsy. The first point which demands attention is the causation of the large number of cases which begin in the first three years of life. Of these, 180 in number, no information was forthcoming in about one-third. In 24 cases, although information was obtained, no cause could be ascertained. In 97 cases, however, a cause for the first fit was assigned. In 2, it was exposure to the sun; in 1, ascarides; in 7, an acute disease; in 8, a fall; and in 8, the first fit occurred soon after birth, the labour in several of these cases having been difficult, and in some the forceps employed. In the remaining 72 cases, 33 males and 39 females, the first fits occurred during dentition, and were attributed to teething. The percentage of neurotic heredity in these cases was nearly the same as for the whole of life—34 per cent.

Thus nearly two-thirds of the cases beginning in infancy, the conditions of origin of which could be ascertained, arose from the so-called dentition convulsions. It seems legitimate to ascribe to the same cause a similar proportion of the cases respecting which no information was forthcoming. If so, we have a total number of cases due to this cause which constitutes 7 per cent. of all the cases investigated. Few persons who have attended closely to the diseases of children can fail to be convinced of the truth of the opinion long ago urged by Sir William Jenner, and now widely accepted, that almost all convulsions associated with dentition are really due to the constitutional condition of retarded development, which we call rickets, to the irritability of the nervous system which accompanies this condition. The further details of the cases I am considering fully confirm this, for in a large number there was a history of late teething, late walking, and in many of crooked limbs. Even these facts probably do not represent fully the influence of rickets in the production of epilepsy. In many of the cases just described, the course of the attacks was continuous from infancy to adult life. In others, however, there were intermissions, especially during the period of childhood. In several, for instance, the fits ceased at seven, to recommence at ten or eleven years. Now, in 27 other cases which commenced after the period of childhood was over, repeated convulsions had occurred during the first dentition, accompanied in many with other signs of rickets. It seems reasonable to ascribe to these convulsions of infancy a share in predisposing to the convulsions of later life, and the addition of these cases raises the number, in which a causal influence may with probability be ascribed to rickets, to nearly 10 per cent. of the whole. Whether rickets is or is not entirely preventable, there can be little doubt that in the degree in which it leads to convulsions it is always preventable by proper attention to the diet and hygiene of infancy. These facts, therefore, suggest that a considerable proportion of the cases of epilepsy are really within the range of preventable diseases. They suggest, also, that inherited taint exerts the same influence here as at other periods of life predisposing to the occurrence of convulsions in backward children, and to the persistence of the fits, and that the management of children with such inherited taint should be a subject of extreme care.

The statements made by patients as to the causes of their fits have of necessity to be received with caution, and the facts carefully investigated. An occurrence so striking as a fit is naturally assumed to be due to some cause at least discoverable, and so is often attributed to a remote and improbable antecedent. Of 1,150 cases in which this point was noted, a reasonable cause for the first fit was given in 428, or 37 per cent., and, in the remainder, no probable cause could be ascertained. From this series, the cases distinctly originating in dentition convulsions are excluded. An exciting cause is met with in males much more frequently than in females: in 44 per cent. of men (235 out of 537 cases), and in only 31 per cent. of women (193 out of 616 cases)—a difference between the sexes of 13 per cent. This can scarcely be accounted for by greater exposure to exciting causes, since some of these act more on the female sex; it seems to indicate a greater predisposition on the part of women. If we examine the proportion of cases in which an exciting cause can be traced in the different periods of life, we find that, under ten, it is nearly the same for both sexes (males 41, females 40, per cent.). From ten to twenty, there is a great difference between the sexes, excitants being traceable in 19 per cent. more males than females (males 47, females 32, per cent.). In the next two decades, 20 to 40, the percentage in men continues the same (at 42 per cent.); but in women, it rises (to 35) in the first, and falls (to 32) in the second. In the cases which occur over forty years of age, the percentage in each sex is about equal (40); but in the male cases commencing over fifty, an exciting cause could be traced in as high a proportion as two-thirds. Thus the most striking peculiarity is the large proportion of cases which commence in women between ten and forty years of age without any discoverable exciting cause to which they can be ascribed.

Of all the immediate causes of epilepsy, the most potent are psychical fright, excitement, anxiety. To these were ascribed 157 cases, more than one-third of those in which a cause was given, and one-seventh of the whole series. Of the three forms of emotion, fright takes the first place with 119 cases, 10 per cent. of the whole. The relation of this cause to age is, however, very distinct. It is effective chiefly in early life, when emotion is the most ready, and is most powerful at the transition from childhood to adult life, while after middle life it is almost inactive. Of the 119 cases, only 3 commenced after thirty years of age, and 100 commenced under twenty. Of these, the majority, 70, commenced between ten and twenty, only 30 cases under ten. The female sex is notoriously the more emotional; and accordingly the disease, as Dr. Sieveking and others have pointed out, resulted from fright in a larger proportion of females than of males, although the difference is, perhaps, less than might be expected—71 females and 48 males, 60 and 40 per cent. respectively. It is notorious, also, that the difference between the sexes in emotionality increases as life advances. In childhood, one sex is as emotional as the other; but, with puberty, men become far less emotional than women. The influence of fright as a cause of epilepsy is in strict harmony with this fact. Under ten years of age, the sexes suffer equally. Between ten and twenty, the males are to the females as 3 to 4; between twenty and thirty, as 3 to 13; and over thirty, the only cases due to this cause occurred in women. After seventeen, only 3 cases occurred in men, while 20 occurred in women.

The influence of this cause is accurately recognised in popular phraseology, and is easily comprehensible when we consider how powerfully fright affects the nerve-centres. The stimulation of the motor centres shows itself in the sudden muscular actions, such as the start of alarm, which, no doubt, originates in the neck for immediate action, which danger often entails. The tremor, which often persists, indicates the enduring disturbance of the nerve-centres. In the organic nerves, the vaso-motor centre is first stimulated and then inhibited, the sphincter centres are released from control, the sweat-nerves are excited, and the heart's action is accelerated, perhaps, by inhibition of the vagus, and the last effect is the most constant, the most ready. The exact form of fright varied, of course, in different cases, but the list teaches many lessons. In no less than 8 cases, the cause was some stupid practical joke—as a pretended ghost. In 2 cases, children were shut up in dark cupboards. In 5 cases, the fright was from an alarm of fire; in 6, from burglars. In 6 cases, the patient had watched other persons in fits. Three resulted from alarm during severe thunderstorms. One case was that of a soldier who had his first fit a few hours after being terrified, while on sentry duty, by the unexpected appearance of some goats. Of 76 cases in which the interval between the fright and the fit was noted, the fit occurred immediately in 28, or one-third; within a few hours, in 16. The interval was between a day and a week in 19, and it was more than a week in 13. As might be anticipated, in a considerable number of cases the fits were of the hystero-epileptic type. Of 90 cases, in 61, or two-thirds, they were purely epileptic; in 29, or about one-third, they were hystero-epileptic. The difference between the two sexes in the frequency with which hystero-epilepsy succeeds fright is not great. Of 51 cases in females, 18, or 35 per cent., were hystero-epileptic. Of 39 cases in males, 11, or 28 per cent., were of this type. A relation can be traced between the interval that elapses before the fit and the character of the attack. The longer the interval, the smaller is the proportion of hystero-epileptics. In the cases in which the interval was more than a week, only 18 per cent. were of this character; in the cases in which the interval was less than a week, but more than a day, the percentage of this form was 21. In the cases in which the interval was only a few hours, the percentage was 25; while in those in which the fit occurred immediately, no less than 57 per cent. were hystero-epileptic.

Other forms of sudden emotional excitement caused the first fit in 19 cases—9 males and 10 females; and these cases also occurred during the emotional period of life, under thirty years of age. Anxiety was the only traceable cause in 29 cases, and in these males preponderated, 16 males to 13 females; and 7 occurred over thirty years, 6 of these being men. Next, in numerical importance, among the exciting causes of epilepsy, are traumatic influences, blows and falls on the head. To these, after the elimination of doubtful instances, 65 cases were due. A third (21 cases) occurred under ten years; rather more than a third (25 cases) between ten and twenty. Males are affected by this cause more than females, the numbers being 39 to 26. This is clearly due to the risks of occupation; for, in the cases commencing before ten years, the females were in excess. Between ten and forty, the male cases in each decennium were rather more than twice the number of the females. Over forty, the only cases were in men. Hystero-epilepsy resulted from a traumatic cause in only a small number of cases—6 out of 44; and, in estimating the significance of these, it must be remembered that traumatic causes often involve intense emotional disturbance. In two-thirds of the cases, the injury was a fall on the head; in one-third, it was a blow on the head. In most of the cases, the patient was stunned for a time; but in only a fifth (8 cases) did the first fit occur immediately; in the rest, an interval elapsed. In one-third of the cases, the interval between the injury and the fit was more than a day and less than a week; in another fifth, the interval was between a week and a month; and in about the same proportion the interval was more than a month.

Exposure to the sun was given as the cause of the first fit in a considerable number of instances, and in 27 it seemed probable that the statement was correct. From this cause, as may be expected, males, from their greater exposure, suffer most; 20 were males, and only 7 females. The cases were pretty equally distributed through life; but the cases in females were relatively most numerous in childhood, and decreased in adult life, to cease at thirty. The form of convulsion was almost always pure epilepsy; only one case presented hystero-epileptic symptoms. In 10 of the cases, there was a distinct attack of sunstroke, occurring in 6 in the tropics. In 10, the fit occurred immediately; in several others, in which an interval elapsed, this was marked by some form of nerve-disturbance, such as tremor. An acute disease was the apparent cause of the first fit in 37 cases (14 males and 13 females), and in more than half (19 cases) the disease was scarlet fever; in a quarter of the cases (9), it was measles; in 5 cases, it was continued fever, called typhus, typhoid, or low fever; in one case, it was rheumatic fever; and in one a severe attack of diarrhœa. The remarkable influence of scarlet fever in the causation of epilepsy demands further consideration. The cases due to this all commenced during early life, under seventeen. It may be thought that the first fits in these cases were due to uræmic poisoning; but this is not supported by the particulars ascertained regarding 14 cases. It is true that, in 3 of these, all that could be learned was that the first fit occurred during scarlet fever accompanied with dropsy; and in 2 others, that the fits occurred after an attack of scarlatinal dropsy was over. But in two other cases, in which the scarlet fever was succeeded by dropsy, the first fit occurred after the fever, before the dropsy. In 6 cases, there was no dropsy; in 2 of these, the first fit occurred after the fever was over; in 1, during convalescence; and in 1 a month later. In 3 cases, the first fit occurred during the height of the fever; and in 1, convulsions ushered in the disease, persisted throughout the attack, and continued afterwards as permanent epilepsy. In only 1 case did ear-disease also result from the fever. The urine was examined in most cases, but no albumen was found. These facts suggest that the first fits were due to some peculiar effect of the scarlet-fever poison upon the nervous system. It may be remembered that the scarlet-fever poison has a very wide-spread action in the system; and that, after scarlet fever, optic neuritis, leading to subsequent atrophy, may occur, without renal or coarse cerebral disease. Intestinal worms rank low as a cause of persistent epilepsy, but were noted in 6 cases, the convulsions continuing long after the worms had been expelled. In 5 cases, the first attack was attributed to digestive derangement. In 1 case asphyxia, and in 9 immersion in water, caused the first fit. Certain toxæmic influ ences were the apparent cause of the disease in several cases. Of these, chronic alcoholism was the cause in a comparatively small number—13 cases only. In some, the first fit occurred during intoxication; and in a few the attacks recurred after each alcoholic excess.

Six patients were the subjects of chronic lead-poisoning. In two of these there was also chronic renal disease. In one of the others, the epilepsy had existed from infancy, but became much more severe when the plumbism was developed. In the remaining three, the lead-poisoning was the apparent cause of the attacks, which resembled, in character and course, those of idiopathic epilepsy. It is well known that acute lead-poisoning may be accompanied by convulsions; that chronic poisoning may cause chronic convulsions precisely like those of ordinary epilepsy, has been pointed out by others, but is not, I think, generally known. The list of nervous disturbances which may result from lead is a long one, and includes, as cases I have seen testify, acute and chronic mental derangement, neuralgia, brachial spasm, as well as palsy, and muscular wasting and optic neuritis. It is known that lead is to be found after death in the brain in considerable quantity. I have mentioned that in two of the cases of lead-poisoning there was also consecutive renal disease. In two other cases of chronic renal disease, convulsive attacks, resembling perfectly idiopathic epilepsy, brought the patients under treatment. In one, the absence of any coarse changes in the brain was proved *post mortem*. It appears, therefore, that such convulsive attacks may occur and recur for months without other sign of uræmic mischief. Several cases in which chronic mental derangement resulted from Bright's disease have also come under my notice. I have met with no case which suggests that tobacco-smoking exerts any influence in the production of epilepsy; but in one case the fits were apparently due to the patient, a lad, having shortly before commenced working in a tobacco-factory, where his occupation caused frequent nausea. In one case, the first fit occurred after the administration of chloroform; and, in one, attacks, which had ceased for many years, recurred after the inhalation of nitrous oxide.

Of sexual processes, retarded or absent menstruation coincided with the first fits in a large number of the cases which commenced in girls between fourteen and seventeen; but the difficulty in determining the exact causal relationship between the two conditions is very great. Epilepsy once set up in such cases, the subsequent establishment of regular menstruation appears to exercise very little influence upon the fits. In boys who are epileptic, masturbation is unquestionably common; but here again it is most difficult to decide to what degree it can be regarded as a cause of the disease, and it was distinctly the cause in only a small number of cases. The first fit occurred in seven cases during pregnancy, without other obvious cause, and in five cases the disease commenced after parturition. No facts which have come under my notice suggest that acquired syphilis is a cause of idiopathic epilepsy. There remain for consideration two conditions, occasionally associated with epilepsy, in some cases causally, in others probably only by coincidence, or as the effects of a common cause—these are heart-disease and chorea. An abnormal condition of the heart was noted in 93 cases; but this does not represent the proportion of the whole in which abnormality existed, since in many its condition was not noted. I have, however, rarely failed to examine the heart in epileptics, and I think that the proportion of cases of valvular disease is not far below the mark. In 8 cases, there was extreme frequency of action; in 9, there was irregularity; in 13, all young persons, there was reduplication of the first sound. In 30 cases there was valvular disease; mitral regurgitation in 20; mitral constriction in 7; aortic regurgitation in 3; and aortic constriction in 1. There was obvious dilatation without valve-disease in 20, and considerable hypertrophy without renal disease in 2. The cases of irregularity and reduplication were all observed within a comparatively short space of time, and I am sure that, had my attention been earlier directed to their frequency, I should have found them in a larger number of cases. In a few cases, it seemed that the heart-disease and epilepsy were in accidental association. In some cases, the cardiac condition, especially simple dilatation and reduplication of the first sound, may have been a consequence of the repeated strain to which the heart had been subjected during the attacks. But in other cases, especially of valvular disease, there was reason to believe that the heart-disease existed before the epilepsy, and in many there was no other etiological condition to which it could be ascribed.

In 20 cases of epilepsy, the patients had also suffered from chorea. The relation between the two diseases was as follows. In 8 cases, epilepsy existed before the chorea. In 12, the chorea occurred first; in 4 of these, the fits began at the time of the chorea, and persisted afterwards. In only 2 of these was there heart-disease. In 5 cases the fits occurred long after the chorea, the interval being four, six, twenty-seven, thirty, and forty years respectively. In one case, peculiar choreic convulsions occurred at the height of the chorea, but passed away as the disease lessened, and did not recur. It seems probable, in the cases in which the fits immediately succeeded the chorea, and possible, in the cases in which an interval elapsed, that the impaired nutrition of the motor centres during the chorea may have left a predisposition to further disturbance under the action of some other exciting cause.

In the next lecture, I propose to consider the illustrations presented by the cases of some of the symptoms of the attacks.

ABSTRACT OF LECTURES
ON
CERTAIN PRACTICAL POINTS IN CONNECTION WITH THE SURGERY OF CHILDHOOD.

Delivered before the Harveian Society of London.

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LECTURE III.

Eczema at Umbilicus.—Having already spoken of umbilical hernia in connection with the subject of the development of the abdominal cavity, I will now allude to a strange condition of the umbilicus of which I have seen a good many examples. Close around the cicatrix is a red and irritated or eczematous patch of skin, whilst from the depths of the umbilical fossa oozes a thin purulent fluid. For the cure of this affection, lotions and all other kinds of dressings avail nothing; for, at the bottom of the depression, and hidden by overhanging folds of skin, there is a small fleshy polypus which has sprung up from the scar of the fallen umbilical cord. By the ligature of one of these growths, I have seen a boy at once cured of a condition which had troubled him and his mother from the first month of his existence.

Imperforate Rectum.—In the ordinary course of development, the blind end of the intestinal canal descends into the pelvis, but remains separated by a considerable thickness of tissue from the surface of the perinæum; subsequently a depression, which appears at the site of the future anus, traverses the horizontal partition, and so the intestinal outlet is completed; but, if the involution fail to perforate the partition, a perfectly formed anus will exist with complete intestinal obstruction. Such a case came under notice last year: no wonder that full and repeated doses of castor-oil had failed to relieve the constipation. (Digital examination should invariably be made when an infant passes nothing *per anum.*) After a slight operation, the child did well; but such cases are prone to relapse, on account of contraction of the remaining annular constriction.

The rectum may end high up in the pelvis, being represented in the lower strata by a fibrous cord which is connected with the top of the anal *cul-de-sac*. What should be the treatment adopted when no trace of the descending rectum or of an anal *cul-de-sac* can be detected? Exploratory puncture into anatomical darkness will probably accelerate the fatal peritonitis. First, the infant having been placed in the lithotomy position, and being under the influence of an anæsthetic, a careful dissection should be made in the middle line of the pelvic outlet, the finger working with the scalpel step by step, close up in front of the coccyx and sacrum, and a sound should be held in the vagina or empty bladder; and, if the search prove futile, the colon must at once be opened. Many parents would prefer to have their child sacrificed decently—that is, under the operative interference of a surgeon—rather than spared by his skill, if in the latter case the subject were to submit to the lifelong infliction of an artificial anus; but no sentiment must be allowed to come between the surgeon and his duty to his patient. The extraperitoneal (Amussat's) operation for artificial anus is not adapted for the newly born, for in these subjects the sigmoid flexure is so thoroughly invested in a meso-colon, that it is enabled to wander in bold flourishes across the aorta and even into the right flank. He who aims at the performance of the extraperitoneal operation in an infant, may consider himself fortunate if he even succeed in finding a piece of large intestine at all, and I doubt if the gut have been as often opened without damaging the peritoneum as the operation and search for the intestine have been abandoned; but Littré's operation is simple enough. After the ineffectual search has been made in the perinæum, the patient is laid supine, and an incision is made in the left iliac region, as if the external iliac artery were to be ligatured; but the peritoneum is to be freely opened, and then a coil of distended sigmoid flexure, strangely free of mesenteric fetters, will escape through the aperture. The intestine is then to be opened, and the edges of the incision are to be carefully stitched to the skin-wound.

I have had under my care five subjects of imperforate rectum on whom I have had to perform Littré's operation. The first was a male child, three days old, which had no anal piece of rectum; it did perfectly well after the operation, but when it was three months old I again attempted to establish an anus in the proper position, using as a guide a bougie passed from the flank-anus down the pelvic piece of the rectum. This operation set up a fatal peritonitis. The second case was a male two days old; the sickness ceased after the operation, and the infant took milk, but it died after three days. The third patient was, like all the others, greatly relieved by the operation, but it died on the fourth day. The fourth infant was a female; and, showing how freely the large intestine was surrounded by peritoneum, the cæcum and vermiform appendix escaped from the abdomen as soon as the left groin was opened: it died on the third day. The fifth subject had a perfect anal *cul-de-sac;* the abdomen was greatly distended. On opening the left iliac fossa, coils of colon, of the calibre of an ordinary vaginal speculum, and stalked on a mesentery two inches wide, escaped. The patient flourished; but, at the end of three months, another attempt was made to establish the continuity of the two pieces of the rectum, as they seemed to be separated by but a thin layer of tissue, through which a director was easily passed, and the wound so made dilated. Unfortunately, the upper rectal *cul-de-sac* was completely ensheathed in peritoneum; the baby died next morning of peritonitis. Probably in no other way than in a lecture on the practical surgery of childhood dare one have published so unfortunate a series of cases; for medical readers are so accustomed to the perusal of the accounts of the sunshine of our art, that histories such as these might have appeared as a dark cloud, from beneath which one might never have again escaped. Nevertheless, they are of considerable clinical value; the full reports show that great relief followed in each case when the free alvine discharge had been obtained; a relief of which the aspect and subsequent condition of the patients were sufficient assurance.

The groin-operation of colotomy in the newly born is as simple as that by the loin is difficult, and has much to commend it: the loin-operation, no doubt, may be performed in the newly born without wounding the peritoneum (Mr. Curling had one such case); but, though it be inadvertently damaged in two places during the performance of the operation, the result may still be satisfactory. In Mr. Curling's well-known tables, nine cases of recovery from the inguinal operation find a place, and only two after the loin-operation.

Granted, then, that an artificial anus is to be performed for a developmental imperfection of the rectum, let the groin be opened, and let no sharp instruments be blindly thrust upwards into the interior of the pelvis through the carefully-performed dissection in the perinæum. Let there be no delay; no waiting for symptoms which, in tender babes, are but the beginning of the end. No expectation of a manifest bulging of the upper piece of the bowel; for, as in one of my cases, the meconium may grow firm and scanty from absorption of the watery part.

Scarlet Fever following Operations.—One of the most interesting questions in connection with the surgery of childhood is that concerning the nature of the "erythema" which is apt to appear within a few days after the infliction of a wound. Is it a mere erythema? is it septicæmic? or is it scarlet fever? Two instances of the affection have occurred in my own practice during the last six months. The first was in a boy three years and a half old, who was operated on in the Children's Hospital, for a cleft which implicated the hard and soft palate, on Wednesday, July 23rd. The operation did not promise well, on account of the width of the gap and a comparative scantiness of tissue by which to fill it, and the closure was only effected after a somewhat free use of knife and chisel. Next day (Thursday, 24th), the temperature had gone up from normal to 100° Fahr.; and on the evening of Friday it stood at 102°; and the Registrar, Dr. Abercrombie, guardedly remarked, under that date, that there was an "erythematous eruption on the trunk". The patient was then transferred to the fever-block; the rash lasted through three days, after which the temperature came down to 100°, beyond which it never again ascended. The patient was not alone in his quarantine, for a boy had been transferred thither just before him, and other children followed from various parts of the building; in other words, whether my patient were attacked with scarlet fever or not, an epidemic of that disease was raging at that time in the building. The boy, who, on his admission to the hospital, was reported by his parents as having had none of the infectious diseases, contracted no fresh complaint after being shut up for a month or more in a small ward with these several cases of indisputable scarlet fever. On the eighth day after the operation, I ventured to look into the boy's mouth, not to see if his throat were sore or his tongue red or typical—for those were, I must own, matters of minor interest to me—but to see if any good effects of my handiwork remained. I was prepared to find that with this condition, which is, I apprehend, occasionally called septicæmic erythema, the newly-made palate-arch had gone to pieces. But not a stitch had given way: the plastic operation was, as it has ever since remained, sound and thoroughly complete. Desquamation took place in due course, and on one occasion only, towards the middle of August, there was some albuminuria; the patient was at that time pale and sickly-looking. Ten days afterwards, he was discharged cured.

The other case was that of a girl seventeen months old, who was being fed by a careless nurse on a piece of whiting, when a sudden attack of dyspnœa and choking gave rise to suspicions that a bone which had been taken into the mouth had gone "the wrong way". At the end of a week, the laryngeal troubles were worse; the child was therefore brought up to town, where an able specialist examined her throat, but with a negative result. Two days afterwards, the jugular and epigastric regions were drawn deeply in as each breath was taken, and the tidal air entered and left the larynx with a prolonged whistle. I saw her then for the first time, and performed tracheotomy at once. The operation afforded the greatest relief; on the second day, a red rash appeared upon the face and neck, in which, next morning, the patient was completely covered, but it cleared off in about three days. Three days after the operation, the professional nurse who had charge of the case complained of sore-throat; her temperature was over 100° Fahr.; and she was covered with a rash. She was removed to the Fever Hospital, where, I am informed, she went through an ordinary attack of scarlet fever.

During the week, the child's temperature ranged from 101° to 104°, and no further search was made for the bone. There were painful swellings about the arm, wrist, and ankle; but there were no convulsions—the rigors of childhood—and the aspect was cheerful. At the beginning of the second week, the end of a bristle pipe-cleaner was twice drawn up from the tracheal wound and through the mouth; but, in its passage between the vocal cords, it met with no obstruction and dislodged no bone, nor did a laryngeal and a digital examination discover any foreign body. There was some albuminuria, but no desquamation; the child died exhausted on the fifteenth day after the operation. The preparation which I pass round shows the fish-bone hooked into the mucous covering at the back of the anterior part of the cricoid cartilage.

I am satisfied that both these were cases of scarlet fever, and that the course of the disease in the second child was greatly modified by the presence of the bone in the larynx. Each child had probably been exposed to a source of infection some short time before the operation, and it (adopting a view of Sir James Paget) might not have manifested its effects so soon, if at all, unless the health had been exhausted or disturbed—an explanation which is extremely useful in accounting for that early appearance of the eruption so often noticed after the infliction of open wounds upon children. In his Clinical Lectures, Sir James Paget says that he cannot doubt that there is something in the consequences of surgical operations which renders the little patients peculiarly liable to the influence of the scarlet fever poison; and he submits a highly interesting speculation, viz., that children who have died with obscure symptoms a day or two after an operation, succumbed to the influence of a scarlet fever poison which had been hindered in some way from making its usual progress. In a note, added by Mr. Howard Marsh, it is stated that out of forty-three children whom Mr. Thomas Smith had cut for stone, no fewer than seven were at once attacked with scarlet fever. Mr. Marsh also quotes Dr. Gee: That the disease is really scarlet fever seems to be proved by the following observations. First, it occurs in epidemics; secondly, that in a given epidemic, a severe case occasionally relieves the monotonous occurrence of very mild forms; thirdly, that a precisely similar scarlatinella attacks, in the same epidemic, patients who have not been subjected to operation, and who have no open sore; and, lastly, that however freely these patients are exposed to ordinary scarlet fever afterwards, they do not contract that disease. Now the two cases which I have been enabled to report illustrate all these remarks; and more than that, the second shows that the modified exanthem may infect a seasoned hospital nurse whilst the first shows that a plastic operation may not in any way be harmed by the occurrence of the disease. This latter fact puts out of the question, I think, all idea of the rash being septicæmic in its nature, and points to a constitutional condition of a sthenic nature, such, for instance, as that of scarlet fever.

In the JOURNAL of 1878, Mr. George May, junior, of Reading, gave some interesting clinical remarks upon septicæmia simulating scarlet fever, and also offered suggestions for their differential diagnosis. He alluded especially to the case of a boy in whom the rash appeared after an operation upon the tibia, when, at his advice, the child was not completely isolated. But a fortnight afterwards, Mr. May wrote a candid avowal of his inability to distinguish the condition from scarlet fever. He said that the patient was put back from a general ward into that set apart for children on December 3rd; and that, next day, a child was operated on for the radical cure of hernia; and that, the same afternoon, it began to vomit, that a rash appeared on the chest and arms forty-eight hours after the operation, and that the patient died next morning. On the 15th, two cases occurred in the general ward; and on the 17th, three in the children's ward. Mr. May then remarked upon the importance of treating all such cases with the greatest precaution against infection. Although results such as these, and many others of equal interest for which I cannot afford space, do not prove that all rashes following operations in childhood are scarlatinal; still, it is often impossible to discriminate between them, and he will be the judicious sentinel who will challenge the rash on its very first appearance, and treat it as a deadly foe. Dr. Broadbent has remarked to me that an interesting analogy exists between the short course run in the incubation and manifestation of the scarlet fever poison when received through an open wound, and that of incubated small-pox; that when the germs of the latter disease are taken into the system in the ordinary way the period of incubation is twelve days, but that when they enter through the inoculation-wound the rigor and fever show themselves as early as the seventh or eighth day. In Dr. Broadbent's experience, twenty-four hours more than suffice for the reception in the ordinary way, and for the incubation of the infection of scarlet fever, and also for its manifestation; and that apparently a few hours are sufficient when the poison is received through an open wound.

Botanists tell us that when forest trees—the growth, perhaps, of centuries—have been cut down, immediately there may spring up from that same soil a race of plants such as have not been before observed within that wooded area. The seeds must have been there for an indefinite time quiescent, until the saw and the axe of the woodcutters so disturbed the existing condition of affairs that they were enabled to assert their existence. And may it not be thus that the frequent occurrence of scarlet fever after operations or other wounds in childhood may be explained? The germs of the disease had been quietly awaiting their chance of development for no one can say how many days; then comes the surgeon, who, by the use of his knife, effects such a change in the arrangement of the nutritive forces—a change which with our present methods of clinical investigation is to us quite inappreciable—that germination proceeds with such activity that within a few hours the patient is covered more or less entirely in a more or less typical rash. What wonder if the exanthem which manifests itself in such circumstances runs an anomalous, and at times imperfect, course? Thankful should we be when its premature and hurried birth has rendered it vitiated and occasionally inactive.

Attention may also be directed to points of resemblance existing between the scarlet fever following upon open wounds in childhood and the fever of the parturient woman. Should a lying-in woman be exposed to the poison of scarlatina, she may have the disease in its usual form, when, though it may be severe, it is not attended with any great danger. But in other cases, after exposure to the infection, the scarlatina runs an anomalous course, and is then apt to take the form of a fatal puerperal fever, often without rash.

St. Giles.—There is not much in this report that needs comment, since but few facts are given in it besides the figures of the year. From these it would appear that the birth-rate was 27 per 1,000, and the death-rate 21.8 per 1,000, which, considering the density of the population in a great part of the district, must be considered very satisfactory. It is, in fact, Mr. Lovell tells us, the lowest death-rate in St. Giles of which there is any authentic record. The rate from zymotic diseases was 3.44 per 1,000, whooping-cough alone being responsible for a third of this mortality. No deaths from small-pox occurred in the district; but thirteen parishioners died from it in the hospitals of the Metropolitan Asylums Board. Proceedings are at length being taken for dealing with the unhealthy areas of Great Wild Street and Little Coram Street under the Artisans' Dwellings Act.

Tamworth Rural District.—In this district, there were 558 births and 243 deaths in 1878, being at the rates of 46.5 and 19.25 per 1,000 respectively. The mortality amongst children was again very great, 96 infants dying under one year of age, and 96 under five years. The diseases most fatal were whooping-cough, diarrhœa, bronchitis, and tuberculous diseases. The district has for a long time been in urgent need of a pure water-supply, and this is now about to be accomplished for certain of the villages. The pollution of the river Tame is also receiving attention.

ABSTRACT OF LECTURES
ON
THE STRUCTURE AND FUNCTIONS OF THE VERTEBRATE SKELETON.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, M.R.C.S.Eng., F.R.S.,
Hunterian Professor of Anatomy in the College.

Lecture IV.

The bony parts of the skeleton are classified according to their relation to the axial or extra-axial cartilaginous skeletons. All bony scales, scutes, or subcutaneous bony plates or tracts, are classified as exoskeletal; ossifications of the exoskeletal cartilage or its perichondrium are, of course, exoskeletal. Unfortunately for science, the extinct lower forms of the vertebrata had their endoskeletons but slightly ossified, and thus only the outworks of their structure are left to us, as is the case with many of the Ganoids of the old red sandstone. The lowest of these, however, were halfway up the vertebrate scale, if we compare them with the lancelet. The foundations of the internal skeleton are laid in cartilage, and of the external in bone which is formed by the ossification of fibrous tracts. The cartilage, as a rule, also ossifies, and this inner or cartilaginous bone has, so to speak, an organic affinity for the outer or membrane bone. But there are several structures in the vertebrate exoskeleton that are formed of cartilage; and in the exoskeleton the cartilage is often suppressed in certain parts, bony substance formed in fibrous tissue replacing it. Indeed, unossified tracts often take the place of cartilage. The welding together of parts originally distinct makes the matter much more complicated. When the perichondrium ossifies, it becomes the "ectosteal layer", and is directly related to the cartilage as its ossifying investment; this is a true endoskeletal lamina. Ossification of the dermis gives rise to dermoskeletal bony plates, such as the scales and scutes of fishes, and the scutes of reptiles and armadilloes. The intermediate fibrous tissue, especially in the region of the head, ossifies to form the splints, investing bones, or parostoses. Lastly, the cartilage itself undergoes an osseous change, either by central, superficial, or subcentral endostosis.

In the suctorial fishes, which are the lowest forms, we find at first nothing but cartilage forming both the exo- and endoskeleton. The main peculiarities seen in the skeletons of these fishes are the peculiar cartilaginous labials forming the sucking apparatus, and the basket-work of the extra-branchials, which embrace the large multiperforate pharynx. The Selachians, although retaining much that is low and embryonic in their structure, are in many respects the highest and most reptilian fishes. Their skeletal growths are uncombined, and in their skin are numerous placoid grains or spines; while in the endoskeleton the superficial cells of the cartilage become calcified. A more perfect mouth takes the place of the sucking apparatus, and strengthening bars are formed in the mouths of the gill-pouches; limb-girdles with their paired fins are also present. The slightly ossified cartilaginous skeleton is supplemented in the Chourostei by outer bony plates. A bulbus arteriosus with four branches, and a conus arteriosus, are present in all the cartilaginous Ganoid fishes, and the latter have a large colo-rectum.

Lecture V.

The vertebral column of fishes may end in one of three ways. It may be prolonged into the upper lobe of the tail, so that the tail becomes unequally lobed, as in the sturgeon. This is called a heterocercal tail. Or it may stop short at the base of the tail, which most commonly occurs in our modern fishes, which are characterised by the two lobes of the tail being equal. This is called a homocercal tail. Finally, it may stop before reaching the base, forming a rounded tail, from the union of the neural and hæmal spines which project from it. To this form the name of diphycercal tail is given.

The osseous fishes are the highest as fishes; but they are least of all related to those types which rise above them in the scale. Their metamorphosis is very great; but the elements are still uncombined. They have a copious growth of subcutaneous bones, as the selachians have of subcutaneous cartilages, and a well-ossified skeleton. They have no piers in the hyoid arches, and the hypobranchial part of the seventh arch ossifies its gills. The anterior arches are always provided with gills; but the fourth, fifth, and sixth form a rasp with teeth. The spiral valve in the intestine is absent, which is present in the ganoids. The conus arteriosus is lost; but the bulbus arteriosus is retained. The heart consists of an auricle and ventricle, and bulbus arteriosus, which corresponds to our pulmonary artery. There is no left auricle, ventricle, or aorta, developed in these fishes. For the first time, we find in them an essentially respiratory circulation. The pulmonary artery breaks up into several branches. The air-bladder, which in the ganoids has less of the character of a lung, is in the osseous fishes with ctenoid scales a closed air-sac. The blow-hole is also no longer retained. The mouth becomes considerably modified and perfect; a lower mandible is developed, so that the animal is better able to seize its prey. This is compensatory for the feebly developed pectoral fins which this family possess. The lower jaw is swung to the upper by the two postoral arches; but the lower jaw itself is developed from the first arch. From the manner in which the lower jaws are swung, these fishes are able to open their mouths to a great extent; in them, this hyostylic form of mouth is better developed than in any of the other fishes. They possess a row of scales running down along the back, which are connected with the secretion of slime. In these the slime-glands are placed, which are under the control of a nerve which runs down the back immediately under them. The osseous fishes are the newest formation in point of time, and acquire the greatest perfection in development.

ADDRESS

ON

THE RELATION OF DENTISTRY TO SURGERY.

Being the Presidential Address at the Association of Surgeons practising Dental Surgery.

By W. A. N. CATTLIN, F.R.C.S.

GENTLEMEN,—Allow me to express the gratification it affords me to know that, by the good-will of the Fellows of this Association, I have been elected to preside over the only society of dentists, composed entirely of educated surgeons, which has been formed in this country. I thank you for this honour, which is greatly increased by the fact that it has not been the custom for learned societies holding their meetings in London to select a President who resides, as I do, in the provinces. I congratulate the Association on the success of its first dinner. The cordial manner in which our views have been supported by the heads of the medical profession is, to say the least, encouraging. Another point of congratulation is, that a Fellow of this Society, and one practising our special branch of surgery (Mr. Imlach), now holds the office of President of the Royal College of Surgeons of Edinburgh. Mr. Hamilton Cartwright, in an interesting speech delivered by him at our late dinner, drew an analogy between the barber-surgeons and the dentists of an early period, and spoke of them as distinct callings; but I shall endeavour to show that even then surgery and dentistry were one science, and that they were practised together in the time of the poet Gay. In the fable of "The Goat without a Beard", he says, speaking of the goat:

> "Resolv'd to smooth his shaggy face,
> He sought the barber of the place.
> A flippant monkey, spruce and smart,
> Hard by, professt the dapper art.
> His pole with pewter basons hung,
> Black rotten teeth in order strung,
> Rang'd cups, that in the window stood,
> Lin'd with red rags, to look like blood,
> Did well his threefold trade explain,
> Who shav'd, drew teeth, and breath'd a vein."

Having traced the surgical branch of our noble profession to a poor relation, I will leave Darwin to determine whether the artificial teeth worn by the ancients might not have been carved by some of our great-great-grandfathers!

"Man is born to trouble as the sparks fly upwards." Some of you will sympathise with me when I tell you that, having very little leisure, I had worked hard to prepare an address embracing the modern history of Dental Reform, and had just completed it, when the postman delivered a copy of the *Transactions of the Odontological Society*, with its President's address in bold print upon the selfsame subject. I was consequently obliged hastily to prepare another, and must ask you to forgive its many faults. Without attributing "malice aforethought", I will refer you to his speech for much which is entertaining both in facts and figures, although I shall venture to differ from him in some of his most cogent arguments. Keeping the same subject in view, and comparing our own branch with the parent tree, I shall endeavour to show you, as we proceed, that both medical and dental science have had their days of darkness, error, and delay; and, indeed, if we may judge from recent discoveries, science in its general sense is only just expanding to the light of modern times. The learned President of the Odontological Society is perfectly satisfied that the "coping-stone" has been put upon dental reform; and that education, examination, and legislation, as applied to dentistry, are now "thorough". He also considers that, by the Dentists' Act, dentistry as a profession is for the first time "affiliated to the Royal College of Surgeons and its noble profession". I am naturally tempted to ask how it happens that this promising child, if legitimate, is kept in a home of its own, the *Dentists' Register*, and not admitted into its father's mansion, the medical one. The other night, I had a dream (forgive me if I speak figuratively), when more than five thousand dentists thronged around my bed in different costumes. The large majority were busy with their aprons on screwing down little iron frames, just as the undertaker does his wooden box; others were cooking in new-fashioned style by gas and steam; others, again, were stamping gold and setting teeth upon it, ever and anon puffing and blowing like an engine-pipe; a few were dressed as gentlemen, with a small mirror or a forceps in their hands, the latter with a spot of blood upon it; some were polite, and some were not; but *all by law were equal.* Some complained about the dirt and noise the others made, their want of scholarship; and altercation followed altercation, until a fight arose; and, just as happened in the upper heavens, the wiser won, and drove the others out of their community.

> "Is this a dream? then waking would be pain:
> Oh, do not wake me; let me dream again."

As medical politics still force themselves upon us, it may be amusing as well as instructive to confine our thoughts for a short time to the consideration of the early struggles which hindered the development of some of the Medical Colleges. Should we be driven to found an institution of our own, let us be forewarned that changes of great importance cannot suddenly be made; and, although we live in days of rapid progress, great undertakings will require the fostering hand of time to perfect them. The College of Physicians was at one time a very exclusive body; it is now a hall of courteous gentlemen. From being stiff and unyielding, it has bent as readily to the spirit of the times as any other institution.

One of the greatest obstructions with which the College of Surgeons had to contend, in its early educational department, was the repugnance of the public to be anatomised. So difficult was it even to obtain small portions of the human frame for dissection, that thin bodies with thick heads would probably at that time have been worth most in a moribund condition. It is a little humiliating to be reminded of the time of a body-snatcher named Burke, who, with accomplices, actually suffocated people in the streets, and carried them, when scarcely cold, into the dissecting-rooms. Parts of the human body were, moreover, hawked in various private surgeries; and the dead were raised from their graves, but not in the living state. So complete has been the success of the Anatomy Act, that every difficulty in this respect has been removed; the public now live and die in peace, and have derived incalculable benefits from the better education of medical students. Indeed, so great has been the change, that the best subjects are now of little value, and perhaps before long a cremation company may be a profitable investment. There was a time, not many years ago, when the first surgeons of the day boasted of their ignorance of medicine; when the most difficult operations were performed with the utmost skill, yet the risk of life was great during the after-treatment. Thanks to the knowledge of medicine possessed by such men as the late Sir Benjamin Brodie and that model of British surgeons Sir James Paget, this blot upon common sense has been removed. From the same cause, it has fallen to my lot to witness much unnecessary suffering, wasted health, and even death, from ignorance in the practice of Dental Surgery. If we go back to the year 1815, when the Apothecaries of England and Wales obtained their Act of Parliament and began to remove the main obstruction to their progress, we shall perhaps find an example in them which we may imitate. At that time, the majority kept open shops, and sold pink saucers, smelling-bottles, brushes, drugs, and chemicals, and were really more vendors of medicines than medical practitioners. According to Shakespeare, they were far from being a wealthy class. Feeling their degraded position (for the physician of that day scarcely condescended to consult with an apothecary), they set to work in right good earnest to improve themselves. The law not being retrospective, the more educated were allowed to continue in practice upon very slender evidence of their skill, until they were extinguished by effluxion of time. The better men, whilst using the powers of their new Act to prevent empirical practice, instituted most creditable examinations, the severity of which was gradually increased until the Apothecaries' licence became one of the best, if not the best, test of medical knowledge. The public as well as the medical mind by slow degrees became convinced that medicine in its broad sense included surgery, and hence arose the superior class of general practitioners who now hold the double qualification. As education increased, the custom of charging exclusively for medicines became distasteful; and, to meet a rising want in this respect, the druggists improved themselves, and have become the chief dispensers of medicines. It is, indeed, curious to note how gradually every improvement in the medical profession has taken place, and how certainly every requirement has been supplied. Let us hope that the same good fortune may happen to ourselves. For some time past, the great principle advocated by the London University, of conducting one thorough examination as a test for medicine and surgery, within one portal, has been growing into popularity; and the signs of the times plainly indicate that such a system is about to become the law. Thus far, since the year 1815, the object of the legislature has been, and now is, to consolidate the different classes of medical practitioners and equalise medical education; and it is much to be lamented that the Dentists' Act should have passed just at this crisis, as it is a strange contradiction of the whole scheme.

With these examples before us, let us deliberately consider whether our own history differs materially from them. Like the apothecaries, we cannot boast of a high pedigree; and, like them, our advancement has been slow and gradual; but we have not yet progressed so far. The first grand effort in the shape of progression was made about twenty-four years ago by the formation of the Odontological Society, and it is almost impossible to estimate the amount of good, by example and precept, which that one Society has done. Its last proceedings have, however, I fear, not been in harmony with its former acts. The Dental Hospital, the late College of Dentists, the Dental Licence, and our own Association, have all, in their particular way, contributed to the improvement which is evident and noticeable in our ranks. Show-cases, like the apothecaries' shops, will gradually disappear; advertisements are both less frequent and less vulgar; and I believe the amount of scientific knowledge which dental surgeons have contributed to the general stock of literature will bear favourable comparison with any other specialty. All was proceeding well with dentistry, until the Dentists' Act in 1878 fell like a withering storm and cut it from the parent tree. Looking earnestly at the present position of medical politics and the wide difference of opinion which prevails among different grades of dental practitioners, I am led to think that the hour of danger has arrived, and that this Association will have an anxious duty to perform during the present session of Parliament. Hasty legislation has led to difficulties of a serious character. The *Dentists' Register* practically separates dentistry from surgery, and in my opinion is an error of the highest magnitude. Its blighting influence will be more apparent as time rolls on. It will scarcely be believed that, if a surgeon (who may or may not be a dental licentiate) decline upon principle to register his name in the *Dental Register*, he is, by Sections XIX and XXVIII of the Dentists' Act, deprived of the privilege of serving as an examiner upon the Dental Board of his own College, unless he sits, which is highly improbable, as one of its surgical members. Probably this flaw is an oversight, and will be altered as soon as the mistake is pointed out. Our subcommittee, appointed some time ago, will watch the progress of the Medical Acts Amendment Bill, and, if possible, prevent the abuse of medical titles. They will again urge the legislature to forbid unqualified persons to use the title of "surgeon", either alone or in conjunction with any other word or words.

Still the question meets us at every turn, What further action ought this Society to take under existing circumstances? Unless some effectual step be quickly taken, dentists as a body will be isolated, and, I fear, compelled to found a College of their own. In that case, by the constitution of Fellows and Members, some scheme might be arranged for the gradual separation of the surgical from the mechanical branch, thus imitating the old apothecaries by casting off the detrimental "shop". It is to be regretted that, out of 5,289 names which appear in the *Dentists' Register*, only 533 have given positive evidence of either a medical or a dental education. If the Dentists' Act be allowed to remain unrepealed, what security is there that practitioners of other branches of surgery will not apply for and obtain a similar statute? If the Dentists' Act be repealed—and I heartily trust it may be—to prevent a repetition of the evil, it has been suggested that, when the proposed conjoint examining board is formed, a candidate should notify that, in addition to the ordinary examination of a medical practitioner, he desires to be examined particularly as to his proficiency in dental, aural, orthopædic, or any other branch of surgery; and, if he shall show a thorough knowledge of any such branch of surgery, a certificate to that effect should be appended to his diploma, and he should be allowed to appear in the *Medical Register* as practising that specialty. This certificate would in no way interfere with his practising generally, as, being a fully qualified surgeon, he would be entitled to practise one or every branch. In any and every case, the dental licentiates should be encouraged to complete their surgical education, and for that purpose great facilities should be given to them during the next three years. They are the cream of the rising generation of dentists—their guiding stars of future hope. If a little learning be a dangerous thing, and if it be true of all professions that he who is only half-educated can only be half-trusted, then the dental licentiates will be most unwise if they remain in their present anomalous position. Finally, I should like to see established in this great metropolis consulting practitioners, who, ripe with experience and not dim with age, would throw a halo of respectability around the whole profession. If they would arrange to meet their brethren in the surgeries, I believe they would frequently be consulted by them, as well as by members of the medical profession.

During the progress of the Dental Practitioners' Bill, I had an interview with its chief promoter, Mr. Tomes—a name worthily honoured as a scientific dentist. I hope, like myself, he was afflicted with mental colour-blindness, and did not see at that time the mischievous tendencies of this Bill. If otherwise, not even the glory of having received two public testimonials can save his high reputation from the blame of having inflicted a great injury upon some of the best men in his own profession. My amiable rival, the President of the Odontological Society, pointing his remarks straight at this Association, has thrown down the gauntlet of defiance by asserting that "they who had the power to carry the Dentists' Act have also the power to maintain it". On behalf of this Association, I reply:

> "Thrice is he armed who has his quarrel just,
> And he but naked, though locked up in steel,
> Whose conscience by injustice is corrupted."

It does not quite accord with my ideas of brotherly fairness to indulge in terms of general complaint without delivering a bill of indictment, and, if possible, suggesting some remedy which might help to heal any one of the sores from which the Fellows of this Association are at present smarting. I will, therefore, in my individual capacity, say candidly what course I think it would be right to take to repel the serious charges which may now be brought against dentists of being the first to sow the seed of discord, and of unnecessarily tearing an useful branch from the glorious old tree of medical science, and that too after its roots had been formed, and just when its branches were about to be trimmed and gathered into harmonious unity by the proposed new scheme of conjoint examination. Those who have done and assisted to do this can best make amends by retracing their steps. I would suggest, as a remedy, that the worst clauses of the Dentists' Act should be repealed, and that only enough of it should remain to authorise the registration of dentists who were in practice prior to August 1st, 1879, and such others as are not yet ripe for medical registration. All qualified practitioners now on the *Dentists' Register* I would carry as fast as I could to the *Medical Register*, and for the future adopt the scheme suggested by my son (Mr. W. Cattlin) for the benefit of all specialists, such as aurists, oculists, dentists, etc. Should any of the "qualified" still desire to remain on the *Dental Register* to die out by effluxion of time with the "unqualified", I would leave them alone in their glory, and keep them warm under the very "coping-stone of reform", of which my friendly rival is so proud, until the dream I mentioned to you has been fully realised. It will, I am sure, be the pride of our Association to help to promote any good object, whether originated by ourselves or not, and especially to hold out the right hand of fellowship to those who, though differing with us in opinion in minor matters, may show a readiness to work with us for the general good.

I thank you for the attentive manner in which you have listened to my remarks, which, on account of urgency, have been confined almost entirely to the politics of our profession. Even should the civil war which has begun last the whole of the term of my presidency, rest assured that the scientific department of the Society shall not be neglected.

THE name of W. J. Eames, Fleet-Surgeon, was accidentally omitted last week in the list of new members of the King and Queen's College of Physicians of Ireland.

THERAPEUTIC MEMORANDA.

THE USE OF IODOFORM IN ULCERS.

I HAVE just dismissed from under my care, cured, a case of varicose ulcer that had defied the patent ointments that are so much advertised, and had also been under the care of several medical men. Iodoform dusted over the sore twice a week, and a daily dressing of boracic acid ointment, soon made a change in its appearance; and in about fourteen days it healed, and the patient describes the limb as being quite free from pain—a thing quite new to her. A year ago, I had an old soldier under my care with an ulcer of the size of half-a-crown upon the outer aspect of the right leg, four or five inches above the ankle-joint. It first formed in the Crimea, during the first bombardment of Sebastopol, and followed a blow from a splinter. For some years, he took little notice of it, merely keeping it clean. Latterly, he had dressed it with all the patent ointments he saw advertised. It was an ugly, unhealthy-looking ulcer, discharging freely, and was very painful both during the night and when walking. Its depth varied; in the centre, it was quite an inch and a half. Its edges were irregular. The leg was free from varicose veins, and the man was temperate. His occupation entailed much climbing, and he had the ulcer often struck by pieces of timber. I first dusted it with iodoform daily; in a week, every other day; and then twice a week. The effect was marvellous; for in six weeks the ulcer healed, and to this day continues well; the cicatrix is firm; and the man can follow his occupation and take long walks without any pain or inconvenience. I am certain that no other treatment would have healed this ulcer. I have found boracic acid ointment alone to do wonders with ulcers; but, with the addition of iodoform sprinkled on the sore, much more can be done.

W. EASBY, M.D.

DANGER OF ARSENIC IN DENTISTRY.

HAVING within a short time met with several cases of the bad effects produced by the injudicious application of arsenic to diseased teeth, I think I ought to bring the subject to the notice of the profession; the more so because I believe that the mischief produced by its agency is rarely traced to its proper cause; also because, from the frequency with which in my own practice I have lately seen it, I think that it is an increasing evil, and one that is far more common than is usually supposed.

A lady applied to me a short while ago under the following circumstances. She had consulted a dentist about filling a second upper molar tooth, decayed low down between it and the third molar. The dentist drilled away the decay; but, finding the tooth sensitive, he dressed it with something to allay the pain, directing her to return in two days. She suffered intensely for twelve hours. On her return, the second molar was filled; and subsequently the two bicuspid teeth (being similarly diseased) were in like manner treated and filled. Day after day, the pain continued with increasing intensity, and chloral had to be given to procure rest. After three weeks of this, when she came to me, she presented the appearance of a patient much exhausted by acute neuralgia. The third molar, which was otherwise sound, was so painful and inflamed that I had to extract it at once. The face was much swollen, the alveolus acutely inflamed, and an offensive discharge escaped from the wound. When, on probing the cavity, I felt dead bone, I at once made up my mind that arsenic was the cause of all this mischief. The dentist who applied the solution had bought it (without knowing its ingredients) to destroy the nerves of teeth, and always used it for that purpose. On analysis, it was found to contain almost nothing but arsenious acid. The result of this case was the loss of the three stopped and of one sound tooth, together with the whole of the alveolar wall surrounding them; two months' intense suffering; and all the necessary medical expenses, in addition to my fees and the cost of replacing the lost structures.

In a second case, an officer in India applied a mixture containing arsenic (given to him for the purpose by the army surgeon) between two upper molars, to relieve toothache. He suffered so acutely that he had to come home on sick-leave. He lost all the upper molar teeth and a large part of the maxillary bone.

In a third case, a week after I had taken out a lower tooth which was decayed below the alveolar margin, my patient returned with the usual symptoms of necrosis. Before consulting me, he had used a tooth-tincture, procured from a chemist, to relieve the pain. The result in his case remains uncertain. At present, there is considerable constitutional disturbance.

So many cases occurring within the limited area of one man's practice in so short a space of time is suggestive of an enormous amount of preventable misery. Arsenious acid should never be used without the greatest care to avoid its contact with the periosteal lining of the teeth; and patients should take care how they employ all so-called pain-killing tooth-tinctures, etc. It is a valuable agent when skilfully handled, but, if ignorantly or carelessly employed, arsenic may be a "destroying angel".

N. STEVENSON.

CLINICAL MEMORANDA.

HYSTERICAL TOOTHACHE.

MISS J., a young lady aged 19, came complaining of toothache in the second lower molar on the right side. On examination, it was found to be very much decayed; and, as it was very sensitive to pressure, showing some inflammation of the periodontal membrane, and as there was not room for the dens sapientiæ, it was extracted under nitrous oxide gas; and the patient was told to come again to have some teeth filled that were decayed. When she came, pain was complained of in the first molar next to the one extracted. This was excavated ready for filling, and some carbolic dressing put into the cavity. The pain continued, and the tooth was sensitive in the same way as the other; she could not eat on it, and the slightest touch of an instrument even on the healthy surface of the tooth was felt. The pain was constant day and night, and of a dull heavy character. The patient wished very much that the tooth might be removed. The gums were ordered to be painted with a solution of tincture of iodine and tincture of aconite. A calomel and opium pill was given at night, and a general tonic was prescribed. The pain, however, continued; nothing gave relief. At this time, my suspicion was aroused; and, pretending to tap with an instrument a tooth in the upper jaw, I really did so to the bottom one, But no pain was felt in either tooth. This I repeated several times, always with the same result. I felt convinced that the pain was entirely hysterical; and, on inquiry, found from her relations that she was a very hysterical subject, and had been under treatment for hysteria about a year ago. Miss J. is a full-grown well-developed woman, and of a peculiar lethargic unenergetic disposition, and rather anæmic, but, on the whole, enjoying good health. She is regular in all her habits, and the catamenial periods are regular. This is the second case of the kind that has occurred in my practice; the other is much like this.

MORTON SMALE, M.R.C.S., L.D.S.Eng.,
Dentist to the West London Hospital.

SURGICAL MEMORANDA.

A CAUTION IN THE USE OF THE INDIA-RUBBER BANDAGE.

AT the close of a lecture by Mr. Edmund Owen, reported in the BRITISH MEDICAL JOURNAL for February 21st, 1880, there is a remark that severe cellulitis has been found to follow the use of the India-rubber bandage in certain cases. A case has just occurred in my practice, the facts of which it will be profitable to relate, without wishing to press the logic of events too closely.

A lady aged 75, of fair health and good constitution, had been under my care for a few weeks on account of two or three chronic ulcers on the left leg just above the ankle. As my ordinary treatment was rather tardy in showing its usually good results, I applied an India-rubber bandage, underneath which the sores were covered with a light dressing of benzoated zinc ointment. The bandage was never worn during the night. Matters slowly mended for about three weeks, and everything about the leg was always said to be very comfortable. One day, without apparent cause, the whole limb below the knee became red, hot, and tender; the ulcers looked sloughy; and the calf of the leg swelled in a remarkably sudden manner. In this part, two large carbuncular abscesses quickly developed, and discharged profusely. Gangrene of the foot began to threaten; but, before any mischief ripened itself here, bronchopneumonia set in, and low muttering coma soon closed the scene. I did not know that anything was left undone in the way of rational treatment; but the tragic course was steadily downwards, as might be almost expected in a person whose years were more than three score and ten. And a lesson may be drawn from this brief history, which may be useful for any age.

JOHN K. SPENDER, M.D.Lond., Bath.

MEDICAL MAGISTRATE.—On the nomination of the Lord Lieutenant of the County, Dr. Archibald Hamilton of Windermere has been placed upon the Commission of the Peace for Westmorland.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 27TH, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Calculus impacted in the Membranous Urethra.—Mr. TEEVAN related a case of retention of urine from a calculus impacted in the membranous urethra, relieved by pushing back the stone into the bladder with a wax bougie, and crushing it. He said that the attempt, recommended in English books, to push back the calculus with a silver catheter generally failed, as the opposed surfaces of the stone and catheter were usually convex; hence the catheter, instead of pressing against the calculus, attempted to pass by it, thus driving the stone into the wall of the urethra. A wax bougie, however, fulfilled all indications. If it were slightly warmed before using it, and one end curved, it would, when arrested by the stone, become accurately moulded and fitted to the surface of the calculus, so that the two bodies virtually became one, and the surgeon could exercise gentle, firm, and efficient pressure.

Paraplegia from Pott's Disease, treated by Sayre's Splint: Intestinal Obstruction: Death.—Dr. BUZZARD read a paper on this case. The patient was a labourer aged 22, employed in carrying heavy sacks, who, after suffering from pain in the back, lost the use of his legs in December 1878, and was admitted into the National Hospital for the Paralysed and Epileptic in April 1879. There was an angular curvature, of which the sixth dorsal spine formed the apex, the curve extending from the fourth to the tenth dorsal vertebra. There was absolute paraplegia, with anæsthesia, of all parts below a line encircling the body two inches beneath the nipples, and incontinence of dejecta. On April 24th, Sayre's plaster-jacket was applied. On April 30th, after indulging freely in dough-pudding, the patient was seized with discomfort and vomiting. As an ordinary enema failed to produce relief, the plaster casing was removed. There was abdominal distension with tenderness, especially in the epigastric region, and the stomach was apparently distended. Morphia and atropine were employed hypodermically; but the symptoms of obstruction continued, and death took place after they had lasted sixty-eight hours. The vomiting was never fæcal. The spinal dura mater was thickened and adherent to the anterior wall of the canal in the region of the curvature, where the bodies of two vertebræ were disintegrated, and abscesses corresponding to them were found about the column when the chest was opened. The cord was bent upon itself at an angle of 125°, and at this part had lost its natural firmness. Microscopically, evidence of diffuse myelitis was discovered, with secondary degeneration, extending to each extremity. The stomach and duodenum were enormously dilated, and the last part of the duodenum folded down upon itself, the whole intestinal canal below this point being contracted and containing scybala. Dr. Buzzard remarked that the disease arose from the carrying of heavy sacks. This accorded with Dr. Sayre's experience as to the etiology of Pott's disease. The point of special interest was the question, whether the casing had conduced to the kink in the bowel. The innervation of the intestines was probably to some extent troubled; and, when the ribs were fixed and the stomach distended, the jejunum might easily, during the descent of the diaphragm in inspiration, be forced downwards, and thereby bent upon the duodenum, which was not free to move on account of its attachments. Dr. Buzzard referred to a case published by Mr. Willett in the fourteenth volume of *St. Bartholomew's Hospital Reports*, in which fatal vomiting followed the application of the plaster-of-Paris bandage in a case of spinal curvature. The stomach in that case was found enormously dilated; but it was thought also to show evidence of old disease, and it did not appear that any obstruction in the intestinal canal had been discovered.—The PRESIDENT thought it difficult to imagine that so considerable an amount of spinal curvature could be produced by a cause so simple as that described in the paper.—Dr. DUCKWORTH asked if the intestines had been opened *post mortem*. He had more than once been compelled to remove the plaster-of-Paris bandages soon after application.—Mr. HEATH was of opinion that the injury was not in the duodenum, but in the jejunum. It was well-known that this part of the intestine, close to the mesenteric artery, was excessively liable to injury by tearing, etc. For this there was a mechanical reason; the duodenum being firmly attached, while from it depended the freely movable intestines. He could not agree that the pressure on the body produced by the jacket would suffice of itself.—Mr. MARSH did not think that the scrofulous diathesis should be entirely omitted from the list of causes predisposing to spinal disease. He thought that, in dealing with cases of intestinal obstruction, time ought never to be lost; the safety with which an operation could be performed, as well as the danger incurred by delay, serving to indicate its early performance. He believed morphia only masked the symptoms of disease. Concerning the tightness with which the bandage fitted, much misconception existed. In the majority of cases, as much as a fourth of an inch of space separated it from the body; and the introduction of the dinner-pad was another security against compression of the body-walls.—Dr. DUFFIN mentioned the case of a Post-office official who presented an angular curvature involving the ninth, tenth, and eleventh dorsal vertebræ. The angle was very marked. Sayre's jacket was applied, and the patient kept in bed. When the bandage was removed, he cut a hole successively over different points, and applied thereto the actual cautery, repeating the treatment with much success.—Mr. BARKER said that, by pressing on the dura mater, the abscess could produce an influence on the cord. He thought that, during the fitting on of the plaster casing, the body being straightened, the thorax was disturbed, and pressure on the abdomen was relieved. The thorax subsequently shrank, and left room for the respiratory movements. He did not think the functions of the bowel were in any way interfered with by the casing.—Dr. S. COUPLAND thought it desirable to operate early in cases of acute intestinal obstruction.—Dr. WALSHAM had recently made some experiments to determine whether the hand could trace the direction in which it was exploring when proceeding along the intestine. He came to the conclusion that it could not be mistaken when going towards the duodenum. He believed the disease originated in the joints, and not in the substance of the bone.—Mr. HOWARD MARSH thought that the thorax was drawn down during suspension of the patient. Hence, being released from the apparatus of support, the bandage would be perceptibly tighter.—Mr. BARKER assumed the patient to be suspended not by the head alone, but with the support afforded by arm-slings.—Dr. DE HAVILLAND HALL mentioned a case in which a patient died through rupture of the ileum, which was preceded by the descent into it of a large gallstone.—A VISITOR had recently seen a case which tended to prove that spinal disease might originate traumatically. The patient dated the affection from the time of receiving an injury, angular curvature following recovery.—Dr. BUZZARD said microscopic sections of the cord had been made, and shewed marked sclerosis. There was much hypertrophy of connective tissue, and general overgrowth. At the point where the cord was softened, the axis-cylinders were few; but there were numerous vacuous and medullary fibres, and the appearance of transverse interstitial myelitis involving the lateral and posterior columns. There was no history of traumatism, of scrofula, or of phthisis. At the same time as he was treating this case, he had another patient under observation. He, likewise, was a healthy labourer, accustomed to lifting heavy sacks. In the case reported to the Society, the point at which the gut was folded presented no ulcer or other pathological change, except a hyperæmic condition. He thought the delayed operation for intestinal obstruction justified by the conditions. It was not unreasonable to suppose that the obstruction arose from the food taken in such quantity. In making the *post mortem* examination, the spinal canal was first opened, and the pus found was excessively inspissated. The patient was treated on account of paraplegia, which preceded the application of the jacket.

Molluscum Fibrosum.—Dr. SANGSTER read notes on a case. The patient, J. S., aged 50, was small in stature, but not stunted or ill-developed. One of his children was said to have been born with a tumour on the penis similar to those on the patient's body. The first tumour appeared on the patient when he was about twenty-three years old. The face had been attacked more recently. The trunk was most affected, hundreds of molluscum tumours being seen in front and behind. They presented the usual diversity as to size, shape, mode of attachment, etc.; some were so closely packed that their opposed surfaces were flattened. They appeared to congregate especially round the nipples and in the grooves between the erector spinæ muscles. The extremities were less affected. The scalp presented many tumours; and there were tumours on the right sole and palm. One tumour was pendulous and flaccid, as large as a small orange; it felt like a varicocele. The skin everywhere was dusky and muddy-looking; there was clearly much disturbance of pigment, brown vascular patches of all sizes being scattered over the surface. A small tumour was noticed on the hard palate behind the central incisors. Variously sized tumours were excised for examination, together with some minute papular elevations with comedo-like orifices, which appeared to be the earliest lesions.

Intrapelvic Tumour.—Mr. GEORGE BROWN exhibited a fresh specimen, consisting of an intrapelvic tumour of about fourteen months' duration, removed from a boy (during *post mortem* examination) aged fourteen. The tumour presented encephaloid characters.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

WEDNESDAY, JANUARY 14TH, 1880.

ALEXANDER ROBERTSON, M.D., President, in the Chair.

Transplantation of Bone.—Dr. MCEWEN showed a boy on whom he had operated for necrosis of the humerus. The whole shaft had died, and was removed subperitoneally. New bone was produced at the upper and lower ends, but a gap of about two inches and a quarter was left in the middle, in which no bone formed. About a year after the operation, it was resolved to transplant a wedge of human bone into the gap. The bone to be transplanted was taken from the tibia in a case of osteotomy, and it was cut into small pieces before being introduced into the arm between the parts of the humerus. This was done antiseptically eight weeks ago, and the wound healed without pus. There was still a gap, but it is much less than formerly, and the result was so favourable as to lead Dr. McEwen to the resolution to repeat the operation.

Molluscum Fibrosum.—Dr. GEORGE BUCHANAN showed the foot of a girl, aged 20, amputated for this disease. The disease began on the great toe-nail, and gradually spread. The patient had had tumours of the same kind on her leg, which sloughed off.—Dr. MCCALL ANDERSON did not think this a pure case of molluscum fibrosum, as the disease involved all the structures of the skin, and not the sebaceous follicles alone.

Tinea Imbricata.—Dr. MCCALL ANDERSON showed drawings and microscopic specimens of the parasite. Dr. Turner, in the first annual report of the Samoan Medical Mission in 1868-69, referred to a disease under the name of herpes desquamans, occurring in both sexes, and very contagious. Dr. Turner described it as a scaly disease, much more like ichthyosis in its general appearance than any other skin-disease. The scales, however, ran in concentric circles, and might be well represented by taking a sheet of stout card-board, and shaving the upper layers of it in such a way as to make it curl up in circles. The rings of desquamating cuticle were about a quarter of an inch apart. It was associated with heat and intense irritation. The same disease was apparently described, under the name of tinea imbricata, in a pamphlet by Dr. Patrick Manson, who said it was principally met with in the Straits of Malacca and islands of the Malay Archipelago. He had also demonstrated its parasitic nature, which Dr. Turner supposed. The specimens presented were forwarded by Dr. Manson. He had succeeded in inoculating the disease, after an incubative period of about nine days The fungus was seen as a brown mass under the epidermis, which was slightly elevated. This mass, growing larger, burst through the epidermis, leaving a brown rim, very slightly raised, and about one-sixteenth of an inch in breadth. When the entire ring thus formed had attained a diameter of about half an inch, a brown patch again formed in its centre; this in its turn again cracked the young epidermis over it, and a second ring was formed inside the first, and so on. Unlike ordinary ringworm, it did not usually attack the hairy parts of the body; and if it did, the hair-follicles were not invaded by the fungus, and the hair continued firm, glossy, and natural. In tinea circinata, the fungus was scanty, the spores few in proportion to the mycelium, and they were globular, with the mycelial threads short, and having numerous irregularities of outline. In tinea imbricata, the fungus was very abundant, and the chains of spores much more numerous than the mycelial threads; the spores also were oval, rectangular, or irregular, very rarely globular, and the mycelial threads were generally long, straight, or gently curved.—Dr. CLARKE referred to a paper by Dr. Macgregor of Fiji (*Glasgow Medical Journal*, July 1876), in which a detailed account and figures of the parasite were given of "a new form of parasitic skin-disease prevalent in Fiji". The description in this paper corresponded exactly with the account now given by Dr. Anderson.

Spectra of Hæmoglobin and of Vomited Matters.—Dr. NEWMAN showed, by means of the spectroscope, the absorption-bands of oxyhæmoglobin in various degrees of concentration, of reduced hæmoglobin, and also of a substance found in some vomited matter, which gave an absorption-band situated between Fraunhofer's B and F lines, close to F. In measuring the position of the various absorption bands, the D and F lines of Fraunhofer were fixed as fifty and ninety respectively, and the interspace was divided into forty parts, while the portions of the spectrum to the left of D and to the right of F were partitioned into degrees equal to those divisions. In a 0.4 per cent. solution of oxyhæmoglobin, the first band extended from 50° to 54.5°, and the second from 63.5° to 72.5°, whilst the single band of reduced hæmoglobin occupied a position between 48° and 68°. The characters of the spectra differed according to the concentration of the solution of oxyhæmoglobin, and, as the experiments of Preyer had shown, when the concentration was increased to 0.7 per cent., the two bands approached one another, and finally formed a single band, at the same time the more refrangible rays becoming absorbed. The single band given by the vomited matter extended from 79.5° to 90°, and therefore corresponded very closely in position with the bands given by urobilin and some forms of lutein. It was further shown that, when a 0.4 per cent. solution of oxyhæmoglobin was added to the vomited matter, three bands—the oxyhæmoglobin bands, and the band peculiar to the vomited matter—were visible; but after some time, the oxyhæmoglobin bands disappeared, and the third band became intensified and increased in breadth. When, however, a 7 per cent. solution of oxyhæmoglobin was employed, the bands peculiar to hæmatoin (the *eisenfrei hämatoporphyrin* of Hoppe-Seyler) became apparent during the transition stage. The disappearance of the two oxyhæmoglobin bands took from twenty to thirty minutes when kept at about 60° Fahr., but when a temperature of 90° Fahr. was maintained, or an induced current passed through the mixture, the change was much accelerated. The spectroscopic characters of the vomited matter, or of the mixture of it with oxyhæmoglobin solution, remained unchanged by the addition of strong or weak acetic acid, hydrochloric acid, or peroxide of hydrogen; but on boiling the solution, or adding solution of ammonia or of soda, the band disappeared completely; when ammonium sulphide was added, the solution became of a bright emerald-green colour. Dr. Newman reserved the explanation of the changes described.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 14TH, 1880.

E. H. BENNETT, M.D., President, in the Chair.

Cirrhosis of Liver: Paracentesis: Fatal Peritonitis.—Dr. C. J. NIXON presented specimens from the body of a man aged 45, who suffered from ascites and œdema of both legs, preceded by flatulent dyspepsia. There was no vomiting, but diarrhœa persisted, and there were hæmorrhoids. The case was diagnosed as one either of hypertrophic cirrhosis, or of cirrhosis with apparent enlargement from anteversion of the liver. Paracentesis was performed, and several quarts of fluid were withdrawn from the abdominal cavity. In a few days, a diffuse erysipelatous blush appeared round the site of puncture, general peritonitis supervened, and the patient speedily sank. At the necropsy, an abscess was found lying between the peritoneum and the abdominal wall. There was considerable anteversion of the liver. Perihepatitis was present. The left lobe of the liver was very large, and the seat of cirrhosis. There were also some large-sized tubercles in both lobes, which were probably either carcinomatous or syphilitic. The spleen was cirrhosed to some extent. There were calcareous deposits in the apices of the lungs, as well as in one of the bronchial glands. The specimens were referred to the Committee of Reference for Morbid Growths.

Soft Melanotic Carcinoma of Thigh.—Mr. WHEELER exhibited a tumour, removed from the outer and back part of the left thigh of a man aged 22. It was soft to the touch, and freely movable. Three years before, the patient fell and hurt his thigh. The tumour infiltrated the muscular structures in its neighbourhood. A microscopical examination showed that the growth was a soft and probably melanotic carcinoma.

SATURDAY, FEBRUARY 21ST, 1880.

E. H. BENNETT, M.D., President, in the Chair.

Typhoid Fever without Rose-Spots or Diarrhœa: Cerebral Symptoms: Death on Nineteenth Day.—Dr. J. W. MOORE presented several of the viscera of a young man, aged 17, who died in the Meath Hospital, on the nineteenth day of typhoid fever, with all the symptoms of cerebral meningitis. There were neither rose-spots nor diarrhœa, nor other abdominal symptoms; and the diagnosis of typhoid fever was based on the history of the case, the age of the patient, and the presence of a continued fever running on into the third week. Among the final symptoms were ptosis of the right eyelid and complete dysphagia. After death, several characteristic ulcerations were found in the terminal portion of the ileum; the mesenteric glands were succulent and swollen to some extent. The spleen weighed 9 oz. The kidneys were large—the right weighing 6 oz., and the left 6¾ oz. Parenchymatous nephritis apparently existed. The brain weighed 65 oz. There was an abundant effusion of serum into the lateral ventricles, and the arachnoid at the base of the brain was slightly thickened and opaque. Some cheesy deposits were scattered throughout the lungs. The case illustrated the observation of the late Dr. Stokes, that the nervous or cerebro-spinal symptoms of continued fever are less often connected with decided organic change than those belonging to the digestive, respiratory, or circulatory systems.

Cirrhosis of Kidneys: Cor Bovinum: Cheyne-Stokes's Respiration.

—Dr. C. J. NIXON exhibited the heart, kidneys, etc., of a man aged about 60, who presented the phenomenon of Cheyne-Stokes's respiration in a marked degree. The area of præcordial dulness was increased, and there was a distinct double impulse. Ascending and descending respiration was very noticeable, and the pulse was quickened during the period of apnœa. After death, the liver was found myristicated. There was advanced cirrhosis of the kidneys. Both lungs were in the sodden condition of advanced Bright's disease. The heart afforded a good example of "cor bovinum". The cardiac valves and the aorta were healthy. The chambers of the heart were hypertrophied and dilated. The cirrhosis of the kidneys was doubtless the first link in the chain of disease. The double cardiac impulse was probably caused by a dilated and hypertrophied left ventricle without structural change. The healthy state of the aorta showed that it had nothing to say to the production of the Cheyne-Stokes's respiration, which was a symptom caused by diminished reflex excitability of the respiratory nerve-centre.

Hæmorrhagic Infarctions of Lungs and Spleen.—Dr. C. J. NIXON also showed some of the organs of a girl aged 25, who had suffered from anæmia, followed by general dropsy and the development of a loud apex cardiac murmur. The lungs presented numerous and extensive hæmorrhagic infarctions. There was "villous" endocarditis, the mitral valve being considerably affected. The spleen was the seat of old infarctions undergoing caseous degeneration. Its surface was very irregular.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

WEDNESDAY, JANUARY 7TH, 1880.

THOMAS FITZPATRICK, M.B., in the Chair.

Movable Kidney.—Dr. HAYDEN reported a case of this rare condition. The patient was a woman aged 33, the mother of four children. She began to suffer twelve months ago from pain in the stomach, flatulence, and "stitches" in the right side. After eight months, she detected a "lump", which moved freely under pressure, but gave no pain. On examination, this tumour was found to be located in the right lumbar region, but moved freely, under gentle pressure, into the right hypochondriac, the epigastric, and the umbilical regions. It could not, however, be made to pass the median line. It was smooth, not tender, of the shape of the normal kidney—hilus directed inwards—but somewhat less than the ordinary size of that organ. It "floated" under the hand, and was obviously not in immediate contact with the anterior abdominal wall, some pressure and manœuvring being necessary to detect its outline. Slight manipulation sufficed to fix this tumour in the normal position of the kidney; it then ceased to be perceptible, except in so far as increase of fulness in the posterior lumbar region—not, however, exceeding what might be due to the presence of the kidney—should be taken to represent it. A slight movement of the patient's body, such as sitting up in bed, or turning on the opposite side, again brought the tumour into relief. It gave rise to no inconvenience whatever, except mental disquietude to the patient, but this was removed by an explanation of its nature. Most of the cases recorded had been in the persons of women who had borne many children. Dr. Hayden had seen but two examples of this singular ectopia, both in middle-aged pluriparous women, and in both the tumour was on the right side. The diagnosis must be made from *(a)* scybala or other tumour in the colon, *(b)* scirrhus of the pylorus, *(c)* mesenteric tumour, and *(d)* on the left side, the spleen. He could not admit ovarian or uterine tumour, tumour of the liver, or distended gall-bladder as at all, in the hands of a well-informed man, likely to be confounded with movable kidney.—The CHAIRMAN had never seen a case of wandering kidney, but he had seen fæcal tumours which sometimes simulated wandering kidney.—Dr. WILLIAM MOORE said that, some time ago, a man was sent to his hospital who had what was supposed to be an abdominal aneurism. Afterwards, an experienced physician pronounced the tumour to be a displaced kidney, but it turned out to be a tumour of the cæcum.—Dr. HENRY KENNEDY mentioned four cases, two of which were, in his opinion, undoubtedly examples of floating kidney. An important question was, whether or not this condition could be congenital. On squeezing the tumour in one case, the patient (a man aged from twenty-five to thirty years) complained of a severe sickening pain. In another case, the patient got relief by applying her hand like a binder over the tumour, so that Dr. Kennedy suggested the use of a binder, which acted very well. —Dr. DUFFEY mentioned, as bearing on the differential diagnosis of movable kidney, the case of a lady who had a tumour on the right side of the abdomen, which some physicians who saw her believed might be a floating kidney. She was subsequently seen by the late Dr. Murchison, who gave it as his opinion that the tumour was a congenital malformation of the liver, forming a movable tumour connected with that organ, such as had been described by Frerichs. As in Dr. Kennedy's case, relief was afforded by wearing a binder.

The Want of Correlation between Pulse and Temperature in Fever. —Dr. WILLIAM MOORE made some remarks on the want of correlation between pulse and temperature in cases of fever. He adduced a case in which diarrhœa and rose spots were present, with a temperature of 103° Fahr., the range of the pulse being from 12 to 14 beats under the normal standard of health till convalescence was well nigh established, when it gradually rose to 80. In another member of the patient's family who suffered from typhoid fever, with a temperature of 102.5° Fahr., the pulse never touched 72 till the patient was convalescent. Dr. Moore cited a somewhat converse case, in which, with all the symptoms of continued fever, the temperature, with the exception of two days, was normal in the morning, and only on a few occasions presented an evening *fastigium* of a degree over that of health. For instance: on the ninth morning, the temperature was 100.6° Fahr., pulse 96; the evening temperature being 100.6° Fahr., pulse 104. On the twelfth day, morning temperature 97.6° Fahr., pulse 92; evening temperature 99° Fahr., pulse 92. On the fifteenth day, morning temperature 97.8° Fahr., pulse 88; evening temperature 99° Fahr., pulse 100. On the twentieth day, morning temperature 98° Fahr., pulse 92; evening temperature 98.4° Fahr., pulse 100. On the twenty-eighth day of fever, this patient contracted typhus fever; her temperature rose to 102° Fahr., and within three days she was maculated, with an evening temperature of 105° Fahr., and a pulse of 120. This patient made a good recovery.—Dr. GRIMSHAW said that it was quite common to find a very high temperature with a comparatively infrequent pulse. He believed that, in fever cases, the value of the temperature as an indicator altogether outweighed that of the pulse. If he were not mistaken, the infrequency of the pulse was an indication of danger rather than of safety.—Dr. H. KENNEDY, who had read a paper on "Slow Pulse accompanying Fever" some years ago before the Society, said that his experience of typhus was that, where the spots were very dark, the temperature was low.—Dr. HAYDEN said his experience was that in the worst cases of typhus, where there were low muttering delirium, contracted pupils, dry tongue, and congested features, the temperature was not extraordinarily high. It was very easy to understand how, in certain cases, a fall of temperature might not be a sign of improvement, but of the reverse. In such cases, there was obviously incipient collapse. His experience of typhoid was that, while the temperature was usually remarkably high, ranging from 100° to 105° in the evening, and lower by about two degrees in the morning, the pulse rarely exceeded 120. He would consider that a pulse above that indicated that the case was one of great gravity.—Dr. FOOT thought a rise in the pulse and a fall in the temperature in fever meant that the patient was going to die; it was the beginning of the cooling down of the temperature of the body to that of the external air. He would lay more stress, on the whole, upon the condition of the pulse than upon the temperature in the management of fever. A pulse of 120 or 130 in typhus was more formidable than the same rate in typhoid.—Dr. J. W. MOORE recalled a saying of the late Dr. Stokes, who observed that any want of accordance in the symptoms in continued fever was to be regarded with great suspicion. Any want of accordance between the pulse and the temperature should lead the physician to look more deeply into the case than perhaps he otherwise would have done. At the same time, he would not attach too much importance either to the rate of the pulse or to the degree of the temperature, as individual symptoms in any single case. There was little reason to doubt that, in many cases of typhoid fever, the daily fastigium was reached about noon, or at 1 P.M. In the later stages of fatal small-pox, at Cork Street Hospital, they had often noticed moderate pyrexia (100° to 102°), with a pulse of 160 to 180. In such cases, the rapid pulse was perhaps the result of paralysis of the pneumogastric nerve. A careful examination of the heart should always be made at the same time that the rate of the pulse was taken.—Dr. DUFFEY said that as throwing some light, possibly, upon the want of correlation in some cases between the pulse and the temperature in typhoid fever, Dr. Da Costa of Philadelphia had lately published a lecture on "Typhoid Fever complicated by Organic Heart-Disease" (*New York Medical Record*, November 29th, 1879.) Dr. Da Costa had frequently found organic heart-disease complicating typhoid fever. In these cases, the frequency of the heart's action did not increase in proportion to the height of the fever, but the pulse often remained stationary; so much so that persistence of the normal pulse throughout fever makes him always suspect disease of the heart antedating the fever, and careful examination of the case has generally proven him right in his suspicion.—After some remarks from the CHAIRMAN, Dr. MOORE replied, and the Society adjourned.

DR. AMEDÉE LATOUR, for many years chief editor of *L'Union Médicale*, has been nominated an officer of the Legion of Honour.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

THE TREATMENT OF CONSUMPTION BY "THE SALISBURY METHOD OF DIET".—Dr. E. Q. Norton of Cleveland, in the *Virginia Medical Monthly*, October 1879, having suffered from consumption, gives a report of the methods he adopted to secure relief. It would seem all methods—regular, irregular, and defective, such as the best and worst medical advice, proprietary medicines and specifics, climate and travel —were tried without benefit. At length, when in a deplorable condition, the Salisbury method of diet was tried, and resulted in cure. Quite a number of illustrative cases are given at the close of the article. The "method of cure" is as follows. The patient must be restricted to a meat-diet. One mouthful of bread or boiled rice to six of meat, and a cup of tea or coffee, without sugar or milk, may be permitted. Not less than an hour before each meal and at bed-time, the patient should drink one half-pint of hot water. This is to wash out the stomach and bowels, and remove the unhealthy ferments that may be in them. It is an excellent appetiser, and does more good than medicines. On retiring, takes a hot-water bath containing a tablespoonful of ammonia, and finishes with brisk rubbing. The meat diet may not be very pleasant at first, but in a few days the patient becomes accustomed to it and rather relishes his new mode of life. It is well to have the supervision of a competent physician to direct the amount of exercise, recreation, etc., and to strengthen weak resolutions in those who have not perseverance to continue the treatment alone.

PILOCARPIN AS AN ANTIDOTE TO ATROPIN.—Dr. Purjesz of Buda-Pest relates in the *Centralblatt für prakt. Augenheilkunde* the case of a patient aged 19, who took, for medical purpose, a watery solution of nearly two grains and a half of sulphate of atropin. When the patient was seen by him an hour afterwards, the symptoms of poisoning were very severe. He at once administered, by subcutaneous injection, muriate of pilocarpin in doses of one *centigramme* (0.4 grain) every five or ten minutes; the quantity given amounted in all to sixteen *centigrammes*. The result was remarkable; the toxic symptoms gradually receded, and at the end of three hours from the time of taking the atropia the patient had quite recovered. Even the dilatation of the pupils, which had taken place to the greatest extent, had completely passed off.

THE USE OF ATROPINE IN CATARACT.—At a recent meeting of the Société de Biologie in Paris (*L'Union Médicale*, January 17th, 1880), M. Javal said that atropine might be useful at the outset of cataract before the necessity for operation was indicated. If it were employed, note must be taken of two conditions. If the opacities be central and well limited, the dilatation of the pupil allowing the entrance of a large amount of light into the eye, will produce a marked improvement of vision. As regards the state of the refractive power of the media, atropine, besides dilating the pupil, brings on paralysis of accommodation. The patient will not benefit by the first of these effects, unless the inconveniences of the latter be compensated by the help of correcting glasses, which should be most carefully chosen. By combining the use of these two expedients—atropine and spectacles —a large proportion of the visual difficulties depending on cataract may be diminished.

SURGERY.

LOOSE CARTILAGES IN THE KNEE-JOINT IN UNUSUAL NUMBER.—The following case is related by Dr. Santesson and Axel Key in the *Hygiea* for 1879 (abstract in *Nordiskt Medicin. Arkiv*, Band xi, Häft 3). A woman aged 36, who was admitted into hospital under Dr. Santesson's care, had suffered for ten or twelve years from periodically recurring attacks of pain in the left knee; and for the last seven years there had been indications of the presence of movable bodies in the joint. The knee had gradually increased in circumference. On examination, a number of movable substances were felt within the joint. An operation was performed under antiseptic precautions, and no fewer than eighty loose cartilages were removed. Most of them were from one-fifth of an inch to an inch long, and 0.04 to 0.08 inch broad; they were mostly of the usual oval flattened form. They were whitish yellow in colour, of the consistence of cartilage, and unevenly nodulated on the surface. After their removal, the finger introduced into the joint felt a cartilage of similar hardness, of about the same size as the largest of those which had been removed, firmly attached in front of the external condyle. It was covered with synovial membrane. A similar substance was felt in the region of the inner condyle; and a third was placed so high in the middle line of the limb, that no connection between it and the articular cartilage could be traced; it appeared to proceed from the periosteum. As none of these attached cartilages could be removed without a complicated operation, they were left. The cavity of the joint having been washed out with carbolic acid, the wound was united by catgut sutures (no drainage tube being used), and antiseptic dressing was applied. Healing took place by the first intention. In the after-treatment, painting with iodine and *massage* were employed. Dr. Axel Key made a careful examination of seventy-four of the bodies that were removed. The whole weighed 75.5 *grammes* (1,165 grains); the smallest weighed 0.7 *gramme* (10.8 grains); the largest, 2.3 *grammes* (35.6 grains). They varied in size from a small bean to an almond in its shell. They were uneven on the surface, with irregular elevations and depressions, and had a glistening appearance, in which sometimes bluish white, sometimes yellow, predominated. They consisted of portions of cartilaginous and of bony hardness irregularly mixed together. The cartilaginous portions had the structure of true hyaline cartilage. In the calcified portions, there was no true osseous structure; removal of the lime-salts revealed in their interior irregular groups of cartilage-cells. Remains of pedicles were found on some of the cartilages. Key says that he has not been able to find record of any previous case in which so large a number of loose cartilages had been removed from a joint. Virchow once found sixty in a knee-joint, Morgagni twenty-six, Haller twenty, etc. He states also that it was a Swedish surgeon (Pechlin) who first operated for the removal of loose cartilages, after having made the diagnosis of their presence.

MEDICINE.

PNEUMONIA AND TYPHUS.—In a recent number of the *Archiv für Klinische Medicin*, J. Ritter describes seven cases of pneumonia, of which the etiology and symptoms were very remarkable. The cases began, after an incubation-period of greater or less duration, with high fever, enlargement of the spleen, and sometimes extremely severe nervous symptoms; and from the end of the first to the middle of the second week these were followed by the peculiar hepatisation which has already been described as occurring in typhous pneumonia. That the pleuropneumonic process was the dominating local affection was proved by the necropsy of three of the patients who died. Dr. Ritter therefore agrees with Professor Wyss and Dr. Heller, who saw some of the cases in consultation with him, that they had to deal with a little epidemic in which a form of pneumonia followed on typhus, and that the disease was what has been called pneumotyphus by Griesinger. He agreed also with Kühn that diseased conditions of this kind are to be regarded as intermediate or transitional forms. All the seven cases arose from infection in a room in which a dozen exotic birds were kept; and the infective material appears to have been imported a short time previously with six birds from Hamburg, or with one from Vienna. Dr. Kühn, in summarising the article for the *Berliner Klinische Wochenschrift*, observes that, while the evidence of the conveyance of the contagium of pneumonic typhus is of much value, the observation of the fact is not new. He has, he says, often noticed, in cases of epidemic pneumonia, that the infective material has been conveyed by healthy individuals from the original locality of the disease to distant houses, where it has affected the inmates in whom (especially recently confined women, children suffering from diarrhœa, etc.) the power of resisting its influence happened to be impaired. He refers to previous notices of the subject in volume xxi of the *Archiv für Klinische Medicin*.

NOTES ON BOOKS.

Essays in Ophthalmology. By CHARLES EDWARD WALKER. (J. and A. Churchill.)—We wish that we could speak favourably of these essays. Mr. Walker has had the courage to strike out an original line for himself, and he recommends for the cure of glaucoma what he calls hyposcleral cyclotomy. We cannot say, after reading his essays carefully through, that he appears to us to have mastered the difficulties of the subject, or to hold out a sound expectation that the operation which he recommends will prove at all valuable as a substitute for iridectomy. The essays on iridectomy appear to us still more unsatisfactory. As, however, these essays are addressed specially to ophthalmic surgeons, who will be able to form their own opinion as to their value, we confine ourselves at present to merely indicating them as well-meant attempts at clinical observation and original deduction, such as may fairly be read by all who are interested in the subject, but must certainly not be taken as a guide by any who are disposed to accept doctrines merely because they see them stated in black and white.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 6TH, 1880.

SOME ELEMENTARY CONSIDERATIONS CONCERNING MEDICAL REFORM.

THE second cardinal point on which the amendment to the Medical Act must turn is the establishment of an adequate minimum standard, below which no medical practitioner should be admitted to the *Register*. It is perhaps unfortunate that the words "uniform minimum standard", habitually employed in this relation, have been distorted or misapprehended, so as to give colour to what we conceive to be an elementary and serious misconception, which has been urged as a great objection to this necessary reform. No one denies that it is a primary necessity for the safety of the State, and for the good of the public and of the profession, that there should be established a limitary line of adequate knowledge, below which no one should be put upon the *Register*, or held out as legally qualified to practise. Nevertheless, objection has practically been urged to the establishment of any such limitary line, on the ground that it would be monotonous and uniform. We find it difficult to understand how a limitary line of adequacy can be objected to on the ground of its uniformity. It is, of course, essential to the establishment of a minimum standard, below which no one shall go, that it shall be a low-water mark; and such a mark must of necessity be also an uniform standard mark. But, to deduce from this monotony of least fitness an imaginary monotony of higher fitness is to create an unreal objection. This is what has been done, it seems to us, by those who object to the uniform minimum qualification as implying monotony in medical education. All that is asked is that there shall be one point below which no one shall go; above it, there may be as many varieties as human ingenuity, or the love of progress, or the enterprise of colleges, or the thirst for learning at universities, or the demand of the public and the profession can create. There must be a basic point, which is the uniform minimum; but above that and apart may be erected edifices of the utmost possible variety, towering high unto the loftiest empyrean of science, and displaying all the wealth of unfettered fancy, learning, and skill in their architecture.

The objection to an uniform minimum standard on the ground of its uniformity appears, therefore, to be nothing else than a play upon words. It is hardly possible to conceive of an adequate minimum of the lowest standard which shall not be uniform. No doubt it would be a fatal mistake to attempt to limit outward and upward development in every variety; but, so far as we are aware, no one has attempted any such limitation; certainly not those who, on the part of the British Medical Association, have for thirty years urged the establishment of a line of safety for the public and for the profession, which is to be called uniform minimum examination.

This assent to the establishment of the lowest limitary line of uniform character, below which none should go, seems indeed to be the necessary complement of the other principle of reciprocity of practice, also recommended by this Association, and on which the Medical Act itself was based. The Medical Act created reciprocity of practice, and extended the privileges of all the English, Scotch, and Irish Corporations, so that the diplomas which they conferred, which once were effective only on their own soil, have, ever since its passing, been valid throughout the United Kingdom. It is in return for this greatly extended privilege, this large addition to their influence and to their income, that the Colleges and Corporations of Scotland and Ireland are called upon to accept the correlative limitation obviously required in the interests and the safety of the public and the general good of the profession. The Scottish bodies have expressed themselves, in several instances, as opposed to any such conjoint minimum and uniform examination; but, if they desire, in their own interest, to retain their specialities of minimum examinations, they ought also to be prepared to accept the proposition that that which is special to their soil should have only legal currency upon their soil. Those who claim special privileges, of course cannot always expect that their issues shall have universal currency; and if it be decided that it is for the general good that an adequate minimum line should be established, it may be urged upon any corporation, in any part of the kingdom, which desires to be exempted from the operation of such line, that such exemption must carry with it the corresponding limitation of the privileges which its examination confers. In converse statement, those corporations and universities which have benefited by the reciprocity established by the Medical Act are not in a good position to oppose completion of that scheme of reform, by the establishment of a limitary line of adequacy, such as is technically known as an "uniform minimum examination".

The confusion which exists in some minds between uniformity as a necessity in establishing the limitary line, below which none can with safety be admitted on to the *Register* to practise medicine and surgery, and uniformity as a characteristic of higher examination, has been productive of unfortunate results. Not only has it given a certain plausibility to the objection to a minimum of safety, but it has also served to impede development and progress in other directions at which theoretically it aims. Thus, this argument is that which, by an adroit use of its popularity, was employed to defeat the scheme to allow the University of Manchester to confer its degrees of Doctor of Medicine on those who passed its higher examination, although the University would have willingly accepted an antecedent uniform minimum as compulsory. As a matter of fact, all who desire to see universities free must also desire to see them multiplied, provided that the limitary line is settled at the point of safety; and, although there is the greatest objection to nineteen doors through which the mere qualification to practise is given, there is, and can be, no objection to development in the direction of higher qualification behind the portal of safety, when once that has been passed. The objection urged to the establishment of university medical degrees at Manchester was the old one, in which we heartily concurred, against the multiplication of portals of admission to the *Register*; but such an objection has no relation whatever to the more free development of higher university degrees; and the fact that it was used by those who object to establish a line of safety indicates, in our opinion, either that they do not thoroughly appreciate the lines upon which this discussion must logically proceed, or that the objection really is not to anything which can injure the general interests of education, but to anything which can affect the competing interests of existing individual corporations and schools.

Regarding the interests of the Edinburgh University, or of other Scottish universities, we believe they would be entirely untouched by the establishment of an adequate line of safety preliminary to university degrees. Edinburgh University flourished before its degrees conferred a right to practise in England; it has continued to flourish by reason of its admirable academic organisation; and so long as it fulfils, in the faithful and effective way in which it does fulfil, the duties of educating and training medical students, it need not be overcareful to insist that it shall possess special privileges in the way of examining its own pupils in order that they may be placed on the *Register*. St. Bartholomew's Hospital, which has its college and its great teaching staff, and crowd of students, might also be tempted to set up a claim to examine the students whom it trains, and to offer precautions and safeguards against the abuses of that privilege. The teaching function and the examining function require to be dealt with, however, from distinct points of view;

and the interests of a school ought not to be necessarily bound up with the interests of an examining board.

In this connection, it may be hoped that the Select Committee will not altogether overlook the subject of higher degrees, and the consideration of the relative facilities existing in the three kingdoms for attaining university degrees. Some difficulty may be felt in this matter; for, oddly enough, although the General Medical Council claims to be especially concerned with all that relates to the interests of education, yet its strict legal business has little to do with any other than the minimum qualification. It is established really to create and keep pure the *Register;* and, having done that, it has little power in reference to any degree which is above the minimum line of safety; and there is a great disposition to deny the right of the Council to do anything else than prescribe that which is sufficient, leaving to the instinct of the bodies, and to the powerful influence of professional opinion, the creation and regulation of those degrees which are above the line of adequacy. Hence it is doubtful whether the Select Committee will find it within its function to inquire into the curious state of things which exists now at London and Oxford, which we have already pointed out; and of which the result is that highly educated students in London, passing a series of examinations at perhaps three licensing corporations, and possessing diplomas in medicine, surgery, and obstetrics, are yet not "doctors" in the legal sense, have no legal right to call themselves doctors, and are in a position of social inferiority (in respect of their diplomas), as compared with gentlemen educated in some of the smaller cities of the kingdom, where the licensing bodies have attained or have been newly created with an university status. We need not repeat the figures which show how small a proportion of students passing into the profession in England are able to graduate, as compared with students trained in Edinburgh, Dublin, Glasgow, or Aberdeen. These figures were truly put before the Committee by Mr. Ernest Hart, and we have since more than once referred to the subject. The teaching is probably not inferior in London, or in Manchester, or in Liverpool, to that of other places in Scotland and Ireland, or in Newcastle; but the degrees attainable upon the same amount of knowledge are distinctly inferior in social and legal status. Whether any attempt will be made to amend this grievance, lies very much within the pleasure of the Select Committee. This highly important question of relative facilities for graduation has never, so far as we can remember, during the whole twenty years of the existence of the Medical Council, been thought worthy of even half-an-hour's discussion; and when, last year, the University of Manchester applied for its Charter, and this important question of the creation of a new medical degree for England was being discussed throughout the profession, and in the press, and by Government, the General Medical Council was absolutely mute on the subject, although meeting at the time; so that, even in the matter of medical education, the Council does not seem to be very strongly alive to any other than a highly restricted view of its responsibilities.

This question of graduation is closely connected with the thirst for foreign degrees, of which some complain. Young men of talent in London schools, for whom preliminary arrangements have not been made (owing either to want of money or to other circumstances) to enable them to pass the London University, find themselves, at the end of their medical training, without a degree; and, when budding ambition and the growing consciousness of success in study and evidence of talent point them out for any position at hospital or dispensary, they find themselves at a disadvantage—not worthy of a place in a hospital, or even in a respectable class of dispensary, by reason of their diplomas, unless they have in some collateral way, by keeping joint terms in Edinburgh, Belfast, or Cork, or Newcastle, been enabled to add M.D. to their names. If they happen to be educated anywhere in Ireland or Scotland, they are pretty sure to be the possessor of that proud title; but not so if educated in England. It is in these circumstances that many really able and talented men have been induced, after entering practice, to seek foreign universities, such as that of Brussels, and there to undergo examination, which, without residence, confers upon them the title of M.D. It will, indeed, nearly always be found, when any circumstance of this sort recurs frequently, that underneath the surface there lies a palpable difficulty which requires investigation and redress; and this question of the recognition of foreign degrees involves a larger question than that which some people imply, when they assume that the desire for such degrees is merely a question of personal vanity or love of titles. It is very often a solid, practical, and well-grounded desire for a diploma, which they have only failed to possess by reason of their metropolitan place of education; but to which, in all other respects, the claimant is fairly entitled by having passed a complete and difficult examination. Of course, in this direction lies the possibility of abuses; and against such abuses, solicitous care must be taken; but the question is one which will repay careful consideration by statesmen and legislators.

PROVIDENT DISPENSARIES IN THE METROPOLIS.

THE Provisional Committee appointed last June, at the meeting held at the Cannon Street Hotel for the establishment of a Metropolitan Association for the purpose of arranging on provident principles for the ordinary medical treatment of the industrial classes, in due relation to the hospitals, have drawn up a scheme for consideration at a subsequent meeting. The members of the Committee are the Right Hon. James Stansfeld, M.P., Chairman; six members of the following Friendly Societies—the Ancient Order of Foresters, the Independent Order of Odd Fellows (Manchester Unity), the United Patriots National Benefit Society, and the Druids; three members of the governing bodies of hospitals (viz., Sir T. F. Buxton, Bart., Sir R. Alcock, and Mr. E. H. Lushington); three representatives of the medical profession in the metropolis (Mr. T. Holmes, Mr. Ernest Hart, and Dr. Joseph Rogers); three representatives of the Hospital Saturday Fund; and Sir Charles Trevelyan and two other members of the Charity Organisation Society. The scheme which the Committee recommend is a very valuable document, and marks an important advance in medical reform. When the plans here proposed have been carried out, the provident system of medical relief will be placed upon a higher and broader platform than it now occupies, from which it may extend itself over the whole country. It can hardly fail to meet with general approval, for the need of some such reform is now fully admitted.

The Committee commence by calling attention to the defects of the present system of medical relief. They point out that the club-system fails in not providing for the medical treatment of the wives and children of the members, who are thus thrown on the out-patient department of the hospitals. As regards the out-patient departments, they remark that at least one-fourth of the population of London receive gratuitous medical treatment, which is necessarily of a very imperfect kind, and is obtained only at the cost of much delay and hardship; while no provision is made for home-treatment.

The plan proposed by the Committee is the establishment, for persons of all classes intermediate between those who can pay the ordinary professional fees and the paupers, of local associations on a mutual assurance principle. It is proposed that each family shall elect from the medical staff of the district dispensary a family doctor; and that the patients shall be not only seen at the dispensaries, but visited when necessary at their homes; so that professional advice may be given regarding not only the cure but the prevention of disease. Under the arrangement proposed, the out-patient departments of the hospitals will cease to be thronged with trivial cases, while those dispensary patients who require a second opinion or clinical treatment will be referred to the hospital best suited for them; and the advantage will be gained of having all the aid derivable from the intimate knowledge of their cases possessed by the ordinary medical attendant. Qualified dentists and experienced midwives are also to be provided; as well as nurses, who are to be paid from the funds of the dispensary while employed. The Committee believe that, if the members be sufficiently numerous and the payments be regularly made, all the expenses except the midwifery fees may be defrayed from the usual low rates of payment.

A serious question, however, at the outset, is that of the preliminary expenses and outfit. The Central Committee or Council must have an office, and one or more paid officers, who will have to conduct a multifarious correspondence and to attend to numerous interviews and meetings. Dispensary buildings—including residences for dispensers—must also be provided. The Committee estimate that, of the million of the metropolitan population now obtaining medical treatment by charity, one-half will still be treated at the present hospitals and dispensaries under improved arrangements which are almost everywhere in progress; and that, for the remaining five hundred thousand, fifty provident dispensaries will be required. As, however, the need for these institutions is greater in some parts of the metropolis than in others, and as the cost of their erection must vary in different parts, the order of their erection must depend on local circumstances.

To meet the preliminary difficulty, the usual plan would be to open a public subscription, and to look forward to a time when the dispensaries will become self-supporting. The Committee, however, hold that the new system should be from the beginning free from the taint of dependence and pauperism; believing that, if the leaven of charity were once introduced, charitable assistance would become constitutional. They appear to have been much influenced in this opinion by the statement of one of their number, a member of one of the most influential Friendly Societies, that "a subsidy of any kind would be a mistake, as tending to destroy self-respect and independence"; and that "any attempt to start the scheme by anything like a public subscription would at once have the effect of deterring all Friendly Societies from taking any part in it, as anything approaching charity or patronage would be resented by them as antagonistic to the very principles on which the societies are founded". The Friendly Societies in the central and northern counties have in several instances discarded the club-doctor system, which excludes the members' families, and have founded associations in several towns for the special purpose of securing proper medical treatment for the members and their families. This has been done in Scarborough, Derby, York, and other places. The Committee, therefore, recommend that the proposed change should be based on the action of the Friendly Societies, which, it is calculated, include about half the working population of London. They believe that, if the metropolitan societies accept the arrangement, the number of members will be sufficient from the first to make the dispensaries self-supporting. Membership, however, should not be limited to members of Friendly Societies, but should be open to all persons, under equitable rules. "The dispensaries will thus be strengthened and rendered popular, and habits of thrift and independence, and the means of preserving and restoring health, will be diffused throughout the community."

The Committee suggest, as the best means of raising the fund necessary for defraying the preliminary expenses of buildings, etc., the formation of a joint stock company, with shares of £1 each. They further suggest that another resource exists in the application of the City parochial endowments, which have become dormant or misapplied, owing to the comparative depopulation of "London within the walls".

The important subject of the relation of medical practitioners to the proposed provident dispensaries is thus treated by the Committee.

"Dispensaries cannot prosper if the just claims of the medical men, on whose active professional exertions they depend, are not satisfied. There ought, therefore, to be no uncertainty as to their fair remuneration; and a fixed proportion of the sums paid by members should be transferred to them at the end of every quarter, in addition to their midwifery fees, and to a contingent interest in any net surplus there may be after the annual accounts are made up. They should also be represented on the Committee of Management, which would otherwise consist of duly elected contributing members. The advantage of provident dispensaries to medical men is that, as working-class families are seldom able to pay even the lowest scale of professional fees, the joint-stock or mutual assurance principle furnishes the only means whereby the medical profession, with its present expensive education, can be placed in effective relation with the body of the people; and large numbers of persons who are now content with the imperfect medical attendance supplied by gratuitous out-patient departments would be brought under contribution by it. There are also no bad debts, and no small bills to collect, all the payments being made, not to the doctor direct, but at the dispensary; and opportunities are afforded of acquiring valuable experience, especially in the domiciliary treatment of disease, as well as professional reputation. We are convinced that the popularity and usefulness of the medical profession will be increased, and its general position will be improved, by the proposed arrangements. In order that each family may be able to choose its own medical attendant, and that skilled professional men may be induced to exert themselves in the service of the dispensaries, the managing committees should elect a sufficient medical staff, who should be paid in proportion to the amounts received from the members registered under their respective names. We are convinced that this is better for all parties than any form of payment by fixed salary."

The Committee recommend that the Association should be registered under the Friendly Societies' Act, and that its Joint Council should consist of the present members of the Provisional Committee, with the addition of six representatives of Friendly Societies.

The above is an outline of the plan proposed for the establishment, on a general scale, of provident dispensaries in the metropolis. The Committee have evidently given most careful consideration to the subject of the improvement of the means of obtaining medical attendance by that numerous class of persons who lie between those for whom relief is provided by the Poor-law, and those who are in a position to pay ordinary doctors' charges. It is to be hoped that measures will be taken to duly protect the interests of the medical profession against any attempt, on the part of well-to-do persons, to obtain cheap medical advice under the guise of friendly co-operation. This important point being duly attended to, the scheme promises to be highly beneficial both to the profession and to the public. It will relieve the out-patient departments of the hospitals of a mass of work which they perform with difficulty and imperfectly; it will throw into the hands of the general practitioners a large number of cases which would otherwise escape them, and will ensure a certain, though it may be moderate, remuneration; and it will encourage in the public the principle of self-help, in opposition to the debasing influence of dependence on charity.

When the Association is started, would it not be well to enter into negotiations with the existing Provident Dispensaries in and around London? Many of them would probably welcome the support which such a powerful movement would give them; while the Association would thus find a starting-point for its operations without any delay and without any great expense.

THE ARMY MEDICAL DEPARTMENT AND THE ARMY ESTIMATES.

THE Secretary of State for War, Colonel Stanley, in making his statement on the Army Estimates, on Monday last, was able to congratulate himself and the House of Commons on the different position in which the medical establishment now stood, compared with that which it held in the estimates of last year. The remarks which he made on the occasion will be found in our parliamentary report. We can well understand the relief which the gallant colonel must have experienced, remembering, as he must have done, that last year he had to perform the unpleasant task of informing the House of Commons that the medical department was so unpopular that the Government had not been able to get candidates for commissions in sufficient numbers to meet the ordinary wants of the service. An additional indication was afforded of general approval at the removal of the grievances under which the officers of the Army Medical Department had long suffered, by the fact that not a single question was asked by any member on army medical matters in the discussion which followed the introduction of the estimates. No allusion was made to the power given by the articles of the new warrant of nominating applicants to medical commissions without passing through the competitive trial; for, as the power has not been put into practice, there was no necessity for introducing so disagreeable a subject to notice. So everything with regard to army medical matters passed off as smoothly as possible, and the vote of £308,400 for the "Medical Establishments and Service" was agreed to without either criticism or objection. When we look back and remember how constant and energetic a pressure was brought to bear on the authorities by the Parliamentary Bills Committee of the British Medical Association and by this JOURNAL, with a view to remedying the former condition of the Army Medical Department, we may legitimately take some credit to ourselves for the admitted improvements which have been recently effected in this direction. We cordially admit that the Government has acted wisely in placing army medical matters on the liberal footing that now exists, and we willingly testify to the desire of those in high places to promote contentment among the army medical officers; but, while we do so, we feel it a duty to utter a note of warning that it will be impossible for such content to be maintained if the representatives of the Government abroad be allowed to treat the medical officers in the arbitary and offensive manner in which some of them have been recently treated at Cyprus, in the matters to which we called attention in last week's JOURNAL. The spirit of the new warrant must not be ignored, any more than its particular articles, by those who happen to be put in authority on the foreign stations of the army.

Colonel Stanley, in his speech, paid a handsome tribute to the services and devotion to duty of the army surgeons who have been serving of late in South Africa and Afghanistan. The sympathetic language in which he alluded to the loss sustained by the army in the death of Deputy Surgeon-General Porter will greatly gratify the relatives and friends of this lamented officer, and will undoubtedly be much appreciated by every army surgeon in the service.

Colonel Stanley called attention to the success which has attended the newly organised "bearer companies" during the recent military operations in South Africa. He mentioned particularly the valuable services performed by the bearer company under the command of Surgeon-Major Hector in the attack on Secocoeni's camp. It is fortunate that the management and direction of the new bearer companies have fallen into such competent hands as those of Surgeon-Major Hector and some others, on this their first trial in actual warfare. The tendency of men to leave the fighting ranks to help their wounded comrades to the rear, has always been one of the great difficulties against which commanding officers have had to contend in actions with an enemy. It is recorded of the late Lord Clyde that, on one occasion when he was leading the Highland Brigade into action in the Crimea, he told his men, in very warm language, that if any of them fell out of the ranks, on the plea of carrying a wounded officer or comrade to the rear, they should be shot. There is reason for hoping that there will be no necessity for uttering such threats in future wars, now that special companies have been formed and equipped for the discharge of this particular work. Every one must admit that the removal of wounded and helpless men out of the reach of further injury is a most necessary duty, no less for the maintenance of good order and discipline among the troops than on the score of humanity; and, though we have been rather late as a nation in establishing regular means for performing it, we trust we may never again hear of a return to the neglect in this respect of former days.

THE CARE OF HABITUAL DRUNKARDS.

THE law, as laid down by Mr. Justice Hawkins in his charge to the jury at the trial of Paine for the murder of Miss Maclean, is well calculated to awaken anxiety in the minds of those who are in a position of responsibility with reference to habitual drunkards and dipsomaniacs. "If a person", said the judge, "is in care of another, and obligation and duty such as that is cast upon him, it seems to me that if, by gross, culpable, and wicked negligence, he omits to protect the person against what she could have protected herself against when strong; if that be done, and done with the intention, to take life, the Attorney-General, and rightly too, says, it is murder; but if there be a mere reckless inattention to wants of the individual, that would be manslaughter and not murder in the eye of the law." And in another place Mr. Justice Hawkins observed: "The criminal negligence alleged is that, on the part of the prisoner, there was an obligation towards the deceased during the time she was in an enfeebled state of body and mind to his knowledge, and that he neglected to protect her against those dangers which beset her and against which she could not protect herself." From this it appears that a husband who has a wife an habitual drunkard, a father who has a child of that class, or even a master who has a servant abandoned to intemperate habits, and who, perhaps in sheer disgust and disappointment and after many fruitless struggles, omits all further interference with vicious indulgence, and negligently permits it to eventuate in death, is liable to be convicted of manslaughter. Any one thus situated is in a position of duty and obligation, and is bound, therefore, according to the law as now laid down, under heavy penalties, to protect the dependent person who is enfeebled in mind and body, as all habitual drunkards are, against any dangers by which he or she may be beset; and in the case of habitual drunkards, the bottle is of course the chief of dangers. Whoever, having responsibility for an habitual drunkard, neglects to prevent him or her from drinking, in the event of his or her death in consequence of drinking, is guilty of manslaughter.

We are not disposed to question the exposition of the law supplied by such competent authorities as Mr. Justice Hawkins and the Attorney-General, but we think that their interpretation of it suggests two important reflections to the medical mind. The first of these is that "the eye of the law" which judges and counsel are so fond of invoking, has a remarkable power of dilating and contracting its own field of vision, and can see or not see with convenient facility. In the Maclean case, this eye discerns habitual drunkenness at once as a cause of mental disability, and as depriving the drunkard of the power of self-regulation to such an extent as to render necessary the protecting care of others in matters essentially personal; whereas in criminal charges it has been its custom to ignore habitual drunkenness when voluntarily induced, as a ground of irresponsibility or even of diminished responsibility. The same condition brought about in precisely the same way, therefore, reduces one person to total mental incapacity, and leaves another in the enjoyment of complete self-control, or makes one and the same person responsible and irresponsible, according as he is sinned against or sinning. Habitual drunkenness destroys will in relation to personal safety, but leaves it unimpaired in relation to the safety of others.

The second reflection suggested by the exposition of the law in the Maclean case is, that the grave responsibility which is now declared to attach to those who have an obligation or duty to habitual drunkards ought to be accompanied by adequate authority and power of control. If a husband, father, or master, be bound to protect an intemperate wife, child, or servant, against the dangers which intemperance begets, he must be armed with sufficient legal power for that purpose. He must be permitted to coerce the person for whom he is responsible into temperate habits and a position of safety. In order to enable him to do this, an Habitual Drunkards' Act of a stringency not hitherto contemplated will be requisite. As the law stands at present, it is impossible, without acting illegally, to withhold the habitual drunkard from injurious conduct and destructive self-indulgence. Whenever an attempt at effectual restraint is made, unwarrantable infringements of the liberty of the subject take place. Thus, in a case tried in the Divorce Court a short time ago, it transpired that the wife of the petitioner, who had given way to habits of intemperance, was, upon two occasions, and without any formality, taken by force to a home for dipsomaniacs at Leicester. Of course, her deportation thither against her will was altogether illegal; but had her husband failed to commit this illegal act, and left her to follow her own depraved tastes unchecked, he might have found himself, in the event of her death, in the terrible predicament of having to answer a charge of manslaughter. The relations and guardians of habitual drunkards are much to be pitied, and their position has certainly not been improved by the statement of the law afforded in the Maclean case.

RECEIVING LUNATICS.

MRS. RHODA HULSE BISHOP, the widow of a medical man, was prosecuted by the Commissioners in Lunacy, and tried and convicted at the assizes at Northampton, in January last, before Mr. Justice

Stephen, who reserved a case for the decision of the Court for Crown Cases Reserved. The offence charged was the receiving into her house two or more lunatics, such house not being duly licensed. It appeared that Mrs. Bishop admitted into her house, for the purpose of medical treatment, young women who were suffering from "hysteria, nervousness, and perverseness"; and the question for the jury was, whether or not one or other of these young women was lunatic, idiot, or of unsound mind; for if so, as she had an undoubted lunatic under certificates in her house, this would constitute the reception of two or more lunatics, which is an offence. One of the Commissioners in Lunacy was called as a witness for the prosecution, and another for the defence; and it appeared from their evidence, as reported, that neither of them had been able to discover the lunacy of a particular patient, Miss B., whose lunacy was especially relied upon to ensure a conviction. Mr. Justice Stephen told the jury that, "by the law of this country, people were either sane or insane, and that there was no middle class of persons in the borderland"; but, in summing up, he said that, in insanity, "there was a borderland in which there was considerable latitude for opposite opinions". The rule of law, therefore, according to this very learned and acute judge, is opposed to the truth of nature. He also told the jury that: "The best definition of a lunatic as regards this Act he could give was a person whose habitual mental state was such as to show that he was not in a fit condition to be entrusted with the control over his own actions." A lunatic is a person who needs control; and a person who needs control is a lunatic. If poor Mrs. Bishop had been aware of this definition, she would scarcely have advertised for patients suffering from "hysteria, nervousness, and perverseness"; and, for the future, every person who exercises control over any other person must beware of the law; for either he exercises control over a person who is fit to control himself, which is an offence; or he exercises control over a lunatic, which is an offence also, unless all the complicated conditions of the Lunacy Acts have been complied with. But even this was not the point which brought this criminal prosecution of Mrs. Bishop under the notice of the Court for Crown Cases Reserved. It was the dictum of the judge that "it was immaterial whether the defendant honestly believed the persons she received were not lunatics. It is one of the cases which the law says shall not be done; and, if it be done, it is done at the peril of the person who does it." Upon this ruling, the jury found that Miss B. was insane; and, as there was a second person actually under certificates in the house, they were obliged to find the prisoner guilty; but, also, "they found that she did honestly and on reasonable grounds believe that no one of her patients was a lunatic, except, of course, the admitted lunatic".

The verdict of guilty appears to have been come to on the ruling of the judge. It was proved by a nurse that she had to give Miss B., and also a Miss M., a cold bath every day at eleven; "and that they sometimes objected to take their bath, and that she had to undress them, but never had to use force to put them into the bath". This, of course, is control, and therefore lunacy; and therefore Mrs. Bishop had two or more lunatics in her unlicensed house; and although she did not know that they were lunatics, that was immaterial, and she was guilty, and she was bound over in the sum of £100 to come up for judgment when called upon.

The Court for Crown Cases Reserved held that it was a question for the jury; that is to say, whether Miss B. was a lunatic or not, whatever might be thought by the prisoner or by the Commissioners who had seen her; and therefore the conviction has been affirmed. It would be interesting to know the amount of the little bill which the public will have to pay for this prosecution of a poor woman who did not know that she was doing wrong, and whose ignorance was shared by some of her prosecutors. On the one side, the judges of the land tell us that we must not restrain any insane person who is not dangerous. On the other hand, the Commissioners in Lunacy insist upon licences and certificates for hysterical women who need a daily cold bath, and threaten criminal prosecution if one iota or tittle of this law be omitted; and sometimes they carry out their threats, and sometimes they fail, and sometimes they succeed in doing so in a manner which is worse than failure. Of the four prosecutions recorded in the last report, they got a conviction in two, and failed in two. In Slater's case, "the evidence having been taken, the judge [Lush] directed the jury that there was not sufficient proof of wilful neglect by the mother; and, under this advice, they acquitted the prisoner. The judge, however, expressed his opinion that it was right that the case should have been *investigated*." Just so; but was it right that the prisoner should have been prosecuted when there was no case? In Chase's case, "after hearing the evidence, the magistrates expressed their opinion that it was not sufficient to warrant them in sending the case for trial, and they accordingly dismissed the summons". The result in these cases was certainly unfortunate; and even in Mrs. Bishop's case it will not seem altogether satisfactory to the public, for the verdict was legal rather than righteous. But the Commissioners have a difficult task to perform; they have to manage the proprietors of these private asylums without prosecution, and they have to keep in order the irregular forces of the outside medical profession in their dealings with lunatics by the fear of prosecution. But the power of the State in prosecuting such constructive and unintentional offences as that of Mrs. Bishop ought to be very sparingly employed.

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DURING the year 1879, 10,281 horses, 529 asses, and 26 mules, giving 4,135,700 pounds of meat, were sold for consumption in Paris; and on the 1st January last, 78 butchers' shops for the sale of that article of food were in full operation.

THE Select Committee of the House of Commons on the Medical Acts Amendment Bill met on March 1st, and chose Lord George Hamilton as their chairman. They will commence taking evidence on Monday next, when it is expected that Sir William Jenner and Sir William Gull will be examined. Mr. Robert Lowe was appointed a member of the Committee in place of the late Mr. O'Leary, M.P. No doubt he will make himself acquainted with the published evidence, and prove a valuable member of the Committee.

THE Committee appointed by the House of Lords to consider the scheme for supplying the metropolis with sea-water, after hearing the statement for the promoters, and some evidence for and against the measure, have come to the conclusion that it was not desirable to proceed with the Bill.

IT has been reported in several of the daily papers that Dr. Alfred Carpenter, the President of the Council of the British Medical Association, is to be a candidate at the next election for the representation of East Surrey in Parliament. We are authorised to state that, although Dr. Carpenter has been strongly urged to come forward, he has felt obliged to decline doing so. This is much to be regretted; for there is a great want in the House of Commons of members who are identified with the daily work of the medical practitioner.

IN consequence of representations made by Mr. Mundella, M.P., the *Sheffield Independent* says the Treasury has directed the discontinuance of a series of prosecutions, conducted under an Act of 1812, against druggists who sold, without a three-halfpenny stamp, the hundred-and-one remedies for trifling ailments. It is stated that the Inland Revenue authorities made a demand of £220 against a person who had sold twenty-two penny boxes of pills, and that penalties have been inflicted for the sale of pennyworths of white liniment and cough-lozenges.

AT the annual meeting of the governors and friends of the Birmingham and Midland Counties Institution for Trained Nurses, the report showed that there were now sixty-two trained nurses, against forty-eight last year, and twenty-two probationers. During the year, the nurses had attended four hundred and twenty-five families, compared with three hundred and eighty-two. The treasurer's report showed a satisfactory balance.

We learn that Mr. Thomas Parker has been appointed Professor of Zoology and Conservator of the Museum of Comparative Anatomy in the University of Otago, New Zealand. Professor Parker is the eldest son of Mr. W. K. Parker, the distinguished Hunterian Professor of Comparative Anatomy in the Royal College of Surgeons of England, and has for some time acted as assistant to Professor Huxley at the Royal School of Mines, where he has gained considerable experience in teaching, and has well prepared himself for the post to which he has been appointed.

BUST OF THE LATE DR. MURCHISON.

Mr. E. R. Mullens of Montague Street, Russell Square, has finished the model of the marble bust of Dr. Charles Murchison, which is to be placed in St. Thomas's Hospital. The bust is life-like and striking, and the sculptor has succeeded admirably in catching in a happy manner the thoughtful and amiable expression which characterised Dr. Murchison.

THE SMALL-POX EPIDEMIC IN PARIS.

The small-pox epidemic which has prevailed in Paris for some time is decreasing. The disease has been most prevalent among the poorer classes, and the number of persons daily treated in the various hospitals of the French capital has amounted to four hundred. To receive this increase of patients, the administration of the Assistance Publique had to hastily construct temporary wooden buildings in several of these establishments. The plan succeeded perfectly, both from the economical and the practical point of view. The results obtained will serve as a valuable precedent to the administration in regard to the method to be adopted in future to meet similar eventualities.

DEATH FROM CHLOROFORM.

A man, aged 56, who had previously twice taken chloroform without evil results, was being anæsthetised with that agent by the house-surgeon at the South Infirmary, Cork, when he suddenly became livid, and it was found that the heart had ceased to beat. Artificial respiration was maintained for some time, and the usual restoratives administered, in vain. The coroner decided that an inquest was unnecessary.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Professor Flower, F.R.S., began his annual course of lectures on the comparative anatomy of man, in the theatre of the College, on Monday. The President, Mr. Luther Holden, and several members of the Council were present, besides many visitors. On commencing his lecture, Professor Flower referred to the different collections in which materials for the investigation of the subject were to be found, and gave an account of the origin and growth of that belonging to the College of Surgeons, which has been augmented by the large private collection formed by Dr. Barnard Davis. Among the most recent additions is a fine series of skulls of natives of the islands of the Western Pacific, collected by Baron A. von Hügel, and purchased by Mr. Erasmus Wilson, F.R.S. From these specimens, the cranial characters of our fellow-subjects of the Fiji Islands were fully described.

THE HYGIENIC LABORATORY AT UNIVERSITY COLLEGE.

Two of the candidates for the post of Medical Officer of Health to the Port of London have been pupils in the Hygienic Laboratory at University College; these are Dr. Browning, Medical Officer of Health for Rotherhithe, who holds the certificate of proficiency in Sanitary Science, granted by the College of Physicians of Edinburgh, and Dr. Sykes, who has gained the degree of Bachelor of Science (in Public Health) at the Edinburgh University. This Laboratory, which is under the direction of Professor Corfield, assisted by Mr. C. E. Cassal, is the only one in London which is entirely devoted to hygienic work, and, with the Parkes Museum, renders the means for sanitary education at University College unrivalled; and most of the pupils who have been taught sanitary work there have obtained important appointments, or diplomas in Public Health.

THE PENDLEBURY HOSPITAL.

At a special general meeting of the Manchester Medico-Ethical Association, on February 25th, the question of Dr. Humphreys and the Children's Hospital was introduced by Dr. Henry Simpson, the President, who moved the following resolution: "That this Association, having had its attention called to the action of the authorities of the Children's Hospital, Pendlebury, in suspending Dr. Humphreys, the senior physician; and having considered the published statements in vindication of this action; hereby records its deep sense of the cruelty and injustice of the treatment which Dr. Humphreys has received, and assures him of its sincere sympathy." In the course of his remarks, the President stated that he never recollected hearing of the medical staff, nurses, and hospital-board at Pendlebury working in harmony.

FOOT-BINDING IN CHINA.

Dr. Robert P. Harris of Philadelphia has recently been giving information on this subject to the College of Physicians of that city. He states that, among the wealthy and those who can afford to have it done, the first binding takes place at the age of from five to seven. Earlier than this it cannot be done, because the child must first learn to walk and do certain acts or kinds of work in which walking is essential. Circumstances sometimes cause the postponement of the dwarfing process until the age of twelve, fourteen, or even twenty; but the suffering then caused is extreme, and the result less satisfactory. The operation is begun by placing the end of a long narrow bandage on the inside of the instep, carrying it around over the four smaller toes and taking them under the foot. After several turns with this object, the bandage is turned so as to compress the foot longitudinally. At the end of a month the bandage is opened, when the skin is often found ulcerated, or gangrenous from pressure, and one or more toes are not unfrequently lost. The shaping of the foot by the bandage requires from two to three years, during which period there is more or less pain. This is most severe in the first year, and gradually diminishes after the bending of all the joints and articulations is completed. During this period, and in fact throughout life, the feet are unbound but once a month. The suffering at first is very severe, and is located chiefly in the toes, joints, ankle-bones, and instep: it is compared by those who have endured it to that produced by the thrusting of sharp needles into the flesh. At night, the girl lies across her bed, putting her legs over the edge of the bedstead, so as to make a pressure under the knees, and thus benumb the parts below them. In this position on her back, swinging her legs backward and forward, she passes many a weary night. Febrile disturbance is said to be an accompaniment of this torturing process. If the feet are firmly bound, and the girl young, they will cease to ache generally in about two years, the parts being then denominated "dead". By this time, the calf of the leg, for want of use, has disappeared, the skin is shrivelled, and the whole extremity below the knee presents an atrophied and shrunken appearance, being little more than skin and bone. The bones eventually become attenuated, and the ankle measurement of a dwarf-footed woman is about the same as that of her wrist. In adult life, the leg frequently becomes rounded and enlarged by adipose deposit, and the muscles regain their form in a measure; but the ankle always remains small.

THE MADRAS LUNATIC ASYLUMS.

According to the *Madras Times*, the Acting Surgeon-General's report on the three lunatic asylums in this Presidency states that the number of insane under treatment in Madras asylums in 1878-79 was 491, giving a ratio of 1.68 per 100,000 of the population under registration. In Bengal proper, the corresponding rate in 1877 was 2.42. In Scotland, on January 1st, 1878, the number of lunatics officially known to the commissioners was 247 per 100,000 of population. The corresponding figures for England are not known, but of pauper lunatics alone the ratio per 100,000 population in 1877 was 240. Nothing certain is known regarding the comparative frequency of insanity in India and Europe, but the great disparity in the rates given above indicates that only a porton of the subjects of insanity in India are under official cognisance. It will be observed that the proportion of lunatics to population in asylums in Bengal is larger than in Madras, the ratio per 100,000 of population being 2.42 in the former, and 1.68 in the latter Presidency. The recoveries last year, though less than in 1877-78, were above the average of the five preceding years, being 46.02, and the percentage of deaths to the daily average strength was 21.73. During the past three years, the percentage of deaths has been very high as compared with that of previous years, and Dr. Oswald remarks that there is reason to believe that this increase was largely due to causes which have similarly influenced the death-rate of the population generally during those years, for in many cases, the health of the lunatics, on admission, was found to have been broken down by previous hardships.

FOWL-CHOLERA.

M. Pasteur created a sensation at a recent meeting of the Paris Académie de Médecine, by a communication on fowl-cholera. This infectious malady, which sometimes decimates the poultry-yard, has its peculiar infective organism, its microbium, in the same way as charbon. This microbium, suspected by an Alsatian veterinary surgeon, M. Moritz, found and studied by a Turin brother of the craft, Signor Perroncito, and cultivated by M. Toussaint, Professor in the Faculty of Medicine at Toulouse, according to M. Pasteur's culture method, is, in the opinion of both these experts, the true cause of the disease popularly known as fowl-cholera.

A MEDICAL MARTYR.

The death of another martyr to professional humanity is recorded in *L'Union Médicale*. In December 1875, an old soldier was apparently at the point of death in the Val-de-Grâce Hospital; and it was announced that the only chance of saving his life was to perform transfusion of blood. This was done, Dr. Romain Legoff generously offering the supply of blood for the purpose. The result was disastrous to him. He was attacked with purulent pleurisy, from which, however, it was hoped he might recover with the aid of a good constitution and of the climate of Algeria; his death, however, took place in Algiers on February 12th. In spite of his sufferings, Dr. Legoff was an ardent student, and published several articles on histology in scientific periodicals.

THE ACCIDENT AT VAUXHALL.

Of the sufferers from the recent calamity at Messrs. Buckley and Son's timber and saw mills, one man died as he was being carried to St. Thomas's Hospital; he had a large scalp-wound, signs of fracture of the base of the skull, and a simple fracture of the right femur. Ten persons, chiefly women, were attended to in the surgery by Mr. Tatham, who found that most of them were suffering from slight shock. With regard to the patients admitted into the hospital, under the care of Mr. Mason, we learn from Mr. Davis, house-surgeon, that one (a man aged 21) was found to have received a lacerated wound of the right hand, and a compound comminuted fracture of the left femur; the thigh was amputated, but the patient survived the accident only two hours. A girl, aged 19, was obliged to undergo amputation of her right arm, for a lacerated wound extending into the elbow-joint. She is progressing very favourably. Another girl, aged 14, was found to have a great collection of extravasated blood under the integuments of the forehead, and the ungual phalanx of one thumb was crushed. This patient is also doing very well.

VACATION COURSES FOR PRACTITIONERS.

The rapid progress, during recent years, of medical science, and especially of therapeutics, has excited in many medical men in Germany, who have been for some time in practice, a desire that an opportunity might be afforded them of filling up the gaps in their knowledge. To meet this wish, a number of the University professors and teachers in Berlin have organised courses of lectures and demonstrations to be given twice yearly, during the vacations; and in this way many practitioners have been able to refresh their knowledge of medicine, surgery, gynæcology, ophthalmic surgery, laryngoscopy, electrotherapy, etc. Since the institution of these courses, two or three years ago, the number of practitioners attending them has steadily increased. The system was organised by Dr. Rosenberg, who is now succeeded in the office of superintendent by Professor Hirschberg. The next course will commence on March 15th, and continue till near the end of April; and the lectures, which will be in a great measure of a practical character, will be given by a number of the University professors and private teachers, including Professor Hirschberg (Ophthalmology), Professor Lucae (Diseases of the Ear), Professor Lewin (Dermatology and Syphilis), Professor Liman (Medico-Legal Necropsies), Dr. Litten (Clinical Medicine), Dr. B. Fränkel (Laryngoscopy and Rhinoscopy), Dr. Zuelzer (Chemical Analysis of the Urine, Dermatology, and Hygiene), Dr. Sander (Nervous and Mental Diseases), etc.

SCARLATINA AT BURNHAM.

A serious epidemic of scarlatina has occurred at Burnham, in the Maldon Rural Sanitary District. From the report of Dr. Arthur Downes, the newly appointed Medical Officer of Health, in the place of Dr. Cornelius Fox, it would appear that, since September last, no fewer than forty-two families, in a population of about two thousand persons, have been invaded by the disease. Since the commencement of the epidemic, twenty-three deaths have occurred in the village, all of children under twelve years of age, and the disease has spread to two or three neighbouring parishes. The origin of the epidemic seems to have been the importation of the infection into Burnham by a lad who had been on a visit to Maldon, and on whom the scarlatina rash appeared immediately after his return. This lad went back to the village school, however, within a week of his sickening, and communicated the infection to his fellow-scholars. Having obtained an entry into the schools, the disease quickly spread among the children by ordinary personal infection; and there seems no doubt that its dissemination was promoted by the gross carelessness of parents in allowing their children to return to school too soon, and to run about whilst still in a high state of infectiousness. The epidemic began during the interregnum between Dr. Fox's resignation and Dr. Downes's appointment; but immediately upon the first visit of the latter to the place, he obtained the sanction of the trustees to the closing of the large charity schools there. He was not so successful with the small dames' schools, but, by this time, the general fright at the epidemic had made the school attendance scanty. The schools remained closed from October 23rd to the 12th ultimo, when, the bulk of the infected houses having been disinfected, Dr. Downes thought they might with safety be reopened, provided the children from certain houses were kept away. So far this action appears to have been very successful, as no fresh cases are reported.

WHOOPING-COUGH.

The fatal cases of whooping-cough in London, which had been 248, 197, and 171 in the three preceding weeks, further declined last week to 135, but exceeded the corrected weekly average by 58; 8 occurred in Fulham, 21 in Pancras, 11 in Islington, 7 in Bethnal Green, 16 in Southwark, 7 in Newington, 14 in Lambeth, 10 in Camberwell, and 6 in Deptford. Whooping-cough showed the largest proportional fatality in the North and South groups of registration districts. The 46 deaths from scarlet fever also showed a decline from recent weekly numbers, but included 26 in South London, of which 10 were returned in Southwark, 4 in Battersea, and 7 in Camberwell. The deaths from measles and from diphtheria were below the corrected weekly averages. The fatal cases of fever were 13 last week, and were no fewer than 15 below the corrected average. Small-pox caused 13 deaths in London, but not one in any of the nineteen large provincial towns.

THE UNIVERSITY IN LONDON.

Dr. Bristowe has presented to the Chancellor of the University a report on the difficulties experienced by candidates in obtaining medical degrees at the University, and suggesting means of removing some of the restrictions. We understand that the report is to be printed for further consideration.

DEPARTED WORTHIES.

CUSTOM has decreed that the principal feature of the President's address, at the annual meeting of the Royal Medical and Chirurgical Society, shall be a notice of the lives of the Fellows who have died during the preceding year. On no occasion, within our memory, has the obituary list been so rich in the names of eminent men, as was that which formed the text of Mr. Erichsen's address on Monday evening. It contained the names of the sound physician, successful teacher, and excellent man Charles Murchison, of whom the President said that he could scarcely conceive greater heroism in civil medical life than was displayed by the physician who, knowing himself to be the subject of an incurable and inevitably fatal disease, went on bravely in his labours for the relief of human suffering and the improvement of medical science, and died in the actual performance of duty; of George William Callender, esteemed by all, and eminent for his successful endeavours to show how the mortality of hospitals could be reduced; of Tilbury Fox, the able dermatologist, who also, sustained by his sense of duty, laboured at his post in spite of incurable disease; of Charles Brooke, talented as a mathematician; of the veteran surgeon Henry Hancock; of Arthur Leared, an accomplished traveller and scholar, as well as a well-known practical physician; of Soelberg Wells, the distinguished ophthalmic surgeon and writer on ophthalmology; of Thomas Cutler, long the respected English physician at Spa, in Belgium; and of Edward Cator Seaton, whose recent death is lamented by all friends of sanitary science. With the merits of these departed worthies, Mr. Erichsen dealt in a most able and impressive manner; bringing out clearly, in simple but eloquent language, the principal points in their professional career. His remarks on Dr. Murchison must have been especially gratifying to the friends of that excellent physician who happened to be present; nor did he fail to avail himself of the opportunities afforded, as far as the exigencies of restricted time allowed, of doing justice to the memory of men, several of whom perished while yet a long career of usefulness seemed, in the course of nature, open to them, and whose names will hold an honourable place in the annals of medicine.

DIPHTHERIA IN THE LUDLOW WORKHOUSE.

AN outbreak of diphtheria took place among the school children of the Ludlow Union Workhouse on February 17th, and the contagion spread for about ten days. It did not extend beyond the children. Its origin cannot be traced with any certainty. The disease has been lingering about the town for some time. The situation of the workhouse is, we are informed, very good; and the children are kept remarkably clean. Out of about fifty children, thirty-one have been attacked; but in only six was the disease fully developed. The others had merely slight sore-throats, with very little constitutional derangement. Two of the worst cases died after suffering about a week; in each of them the inflammation extended to the larynx. The other cases are going on favourably. Complete isolation was immediately had recourse to, together with sulphur fumigation.

NURSING AT GUY'S HOSPITAL.

WE understand that the governors at Guy's Hospital, who have hitherto never interfered with the administration of the hospital, but have been content with supporting the treasurer and his new scheme of nursing, have now been forced to take up the question of the nursing. The medical staff firmly maintain and declare that they cannot perform their duties with a matron in authority over them. We believe that meetings have already taken place between the governors and the medical staff, at which the latter have reiterated their claims to be heard in the matter of the nursing. Whether or not the governors will adopt the ready solution of taking the opinion of the medical staff, or consider it more worthy of their office to support the supremacy of the treasurer, remains to be seen.

DEATH OF DR. PROCTER OF YORK.

WE regret to have to announce the death, at the age of sixty-two, of Dr. William Procter of York, for many years the much esteemed Secretary of the Yorkshire Branch of the Association. Dr. Procter's health had been failing for many months; and, although a short time ago there were transient hopes of improvement, he gradually sank during the last week of his life, and died on February 29th. Dr. Procter had practised in York since 1842, and had filled several professional offices. He enjoyed the general respect of the citizens of York, and no less that of his friends and colleagues in the Association.

PATHOLOGICAL SOCIETY OF LONDON.

AT the last meeting of this Society, the President announced that the Council had appointed a committee to prepare a list of pathological subjects on which further information was desired, with a view to giving some guidance to members as to the directions in which the most profitable work may be done. The committee would be glad to receive any suggestions from members of the Society which may aid them in preparing this list.

SCOTLAND.

REGISTRAR-GENERAL'S RETURNS.

FROM the weekly return of the Registrar-General for the week ending February 21st, it appears that the death-rate in the eight principal towns was 25.5 per 1,000 of estimated population. This rate is 1.3 above that for the corresponding week of last year. The lowest mortality was recorded in Greenock, viz., 20.3 per 1,000; and the highest in Perth, viz., 39.0 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.7 per 1,000, being 0.6 above that for the previous week. A slight increase occurred in the number of deaths from measles and whooping-cough. In Leith, four deaths resulted from measles, and three from scarlet fever. The number of deaths from inflammatory affections of the respiratory organs was 169, or 20 more than the number recorded during last week. The mean temperature was 43.7, being 4.4 above that of the week immediately preceding.

GLASGOW PHILOSOPHICAL SOCIETY.

AT a meeting of this Society, held on the evening of February 26th—Dr. Fergus, the President, in the chair—an interesting paper was read by Mr. Isaac Shone, C.E., F.G.S. The subject of the paper was "Sewage, Sewerage, and Drainage, Scientific and Sanitary, *versus* Unscientific and Unsanitary Sewage or Drainage"; and the author condemned in strong terms the existing system of drainage by gravitation—advocating, instead of it, the double system, whereby the sewage and rainfall of a town are treated separately. In addition, he described and illustrated by numerous diagrams a system of pneumatic drainage which he has brought out. The lecture was listened to with great attention by a large audience, and a hearty vote of thanks awarded to Mr. Shone.

IMPORTANT DECISION UNDER THE PHARMACY ACTS.

ON February 26th, there was disposed of by the Sheriff at Ayr an important case under the Pharmacy Acts of 1852 and 1868. The complaint was at the instance of the Pharmaceutical Society of Great Britain; and the charges against the respondent were that, not being a duly qualified chemist and druggist or a legally qualified medical practitioner within the meaning of the said Acts, he kept an open shop for retailing, dispensing, or compounding poisons; and, further, that he sold a certain quantity of laudanum, being poison, under the said Acts, without the bottle in which it was contained being labelled with his name and address as seller thereof. After evidence had been given, the sheriff held that both contraventions were proved, and imposed a penalty of 10s. for each contravention, with expenses.

ALCOHOL: ITS PLACE AND FUNCTION.

ON Thursday, February 26th, Professor T. R. Fraser delivered a lecture in the Free Assembly Hall, Edinburgh, under the auspices of the University of Edinburgh and New College Temperance Society. The subject chosen by Dr. Fraser was "Alcohol: its place and function"; and, in the time at his disposal, he treated the subject as exhaustively as possible in its physiological, therapeutic, and moral aspects. He expressed the belief that, while total abstinence was a valuable protest against the evils produced by the abuse of alcohol, he had more hope of the amelioration of those evils in the diffusion of education and a better attention to the sanitary and hygienic state of the homes of the lower classes. Professor Sanders moved, and Dr. Miller seconded, a vote of thanks to the lecturer, which was cordially awarded by an audience consisting largely of students.

PROMPT SEIZURE AND DESTRUCTION OF UNWHOLESOME FOOD.

THE Sanitary Inspector for the parish of Uddingston was inquiring into an alleged nuisance in Thorniewood. Happening to go into a grocer's shop, he observed some fish on the counter unfit for human food. This led him to examine other articles in the same shop, which led to the discovery of putrid hams, cheese, tongues, and herrings. He took possession of them (they filled a cart), and removed them. By warrant of the justices, they were at once destroyed, and the owner is to be prosecuted.

AMBULANCE LECTURES TO LADIES.

UNDER the auspices of the Executive Committee of the Edinburgh School of Cookery, the first of a course of lectures on ambulance surgery, or "What to do in emergencies", was delivered by Dr. A. G. Miller, Assistant-Surgeon to the Royal Infirmary, in the lecture hall in Shandwich Place. Over two hundred ladies attended, and the chair was occupied by Professor Douglas Maclagan. The lecture embraced a description of the human skeleton in its bearing on fractures, a description of the different kinds of fractures and their causes and treatment, bandaging, and the conveyance of the injured.

ROYAL MEDICAL SOCIETY OF EDINBURGH.

THE annual dinner of the Royal Medical Society was held last week at the Waterloo Hotel. The chairman was E. H. Greves, M.B., and the croupier T. S. F. Caverhill, M.B. The Presidents of the Royal College of Physicians and of the Royal College of Surgeons, several professors of the Medical Faculty, teachers, and members of the profession were present. The various toasts given and replied to included the usual patriotic, some professional, and the ever-welcome "Floreat res Medica".

SCOTTISH NATIONAL INSTITUTE FOR IMBECILE CHILDREN.

THE report of the Medical Superintendent of the Scottish National Institution for Imbecile Children at Larbert (Dr. Ireland) submitted to the annual meeting of the supporters of the institution, held in Edinburgh on February 20th, states that there are at present in the house seventy-one males and forty-five females; and that, during the year, there have been twenty-three admissions, fifteen discharges, and four deaths. In his report, he directed attention to the three fundamental principles for which the asylum exists: (1) as training-school for imbecile children who had sufficient intelligence to receive education; (2) as a hospital for treating children who had constitutional or nervous diseases, complicated with idiocy and imbecility; (3) as an asylum for cases of hopeless idiocy which could not otherwise be cared for. The Directors' report shewed that the subscriptions for the year amounted to £2,253, and the donations to £472. Legacies of £1,000 from the late Mr. Sam Robertson, Elgin; £500 from the late Mr. A. T. Russell, Eastertown; and £100 from the late Miss Newbigging, Edinburgh, were also noticed.

ROYAL LUNATIC ASYLUM, MORNINGSIDE.

THE managers of and contributors to the Royal Edinburgh Asylum for the Insane held their annual meeting on February 23rd in the Council Chambers, Edinburgh. Lord Provost Boyd occupied the chair. There was a good attendance, among whom the clerical, legal, and medical professions were well represented. The report of the managers showed that the daily average number of patients occupying the East House and paying the higher rates of board was 112, being an increase of 11 over the number in 1878. The daily average number of cases at the West House was 700, being an increase of 25 over the number of the previous year. The gross daily average of patients under treatment in all the divisions of the institution was 812, which was an increase of 36 over the preceding year. The addition of the mansion of Craighouse for the reception of patients paying the highest rates of board had led to the increase in the number of paying patients. The ordinary income for the year was £39,696 6s. 3d., and the ordinary expenditure (including instalment to sinking-fund) £35,621 13s. 7d. The indebtedness of the corporation had been reduced by £2,998 11s. 7d. during the year. The Earl of Rosebery and Sir Robert Christison were appointed deputy governors of the Asylum. The Charity Committee, on which Dr. Littlejohn acts, reported that the charity fund now amounted to £9,483, and that, during the year, allowances had been made to 48 patients, each averaging a sum of £10 16s. 2d. The medical superintendent, Dr. Clouston, submitted an interesting and valuable report, for which, on the motion of Dr. Rutherford Haldane, he received a vote of thanks.

IRELAND.

IT is proposed to erect, at a cost of £8,000, a new hospital in the city of Waterford, with accommodation for at least one hundred inmates.

WE find upon inquiry that there is no outbreak of fever in Ireland which is attributable to want of food. The cases mentioned by Major Gaskell were cases of typhus not famine fever.

THE Committee of the Belfast Royal Hospital have arranged to hold a bazaar in the Ulster Hall for its benefit towards the latter end of the year. The last bazaar held was most successful, and we trust the arrangement this year will add a considerable sum to the funds of the hospital.

AT a meeting of the Cork Dispensary Committee, held last week, attention was drawn to the subject of removal to hospital of patients suffering from infectious diseases. Dr. Brodie, who was present, proposed that the medical officers be directed to put in force the Act of Parliament which compels the removal to hospital of persons whom it is proper to send there, in order to prevent the extension of contagious disease. The resolution was agreed to.

BELFAST HOSPITAL SUNDAY FUND.

THE collections taken up on the last Sunday in the past year have so far amounted to £514 2s. 6d., which shows a slight increase over that of the previous year. A small sum may still be expected in addition; but the total amount received shows very unfavourably as contrasted with similar collections in other places. Objection has been made as regards the time of the year selected for the collections for the Fund, and steps will shortly be taken with a view of having a more suitable day fixed. We may add that the sum obtained goes to the funds of the Belfast Royal Hospital.

BELFAST WORKHOUSE HOSPITAL.

A STATEMENT having been made that the Town Council sanitary authorities had not converted the workhouse into a quarantine and disinfecting establishment, a report on the subject was last week laid before the guardians by Dr. J. Seaton Reid. He observes that, in the early part of 1878, a system commenced of sending into the workhouse healthy members of families, as well as the sick, in whom contagious diseases had appeared. The healthy had to be placed in separate wards in the hospital, so that if infectious disease appeared in them, they could not communicate it to others who had not been exposed. The total number of this class admitted from houses where small-pox, fever, and scarlatina prevailed amounted to 125; and they and the clothing they wore in the infected houses they left had to be cleaned and disinfected. Dr. Browne, Medical Superintendent Officer of Health, in reply to this statement, in a recent report to the Belfast Town Council, points out that the hospital at the workhouse is the proper place for the treatment of all contagious diseases, and that persons requiring precautionary observation can be fully and properly accommodated in the extensive buildings of the Poor-law guardians. He also adds, that neither the sanitary nor any other authority can compel any one, when in health, to undergo what has been called "quarantine".

ARTISANS' DWELLINGS, CORK.

DURING the past year, ninety-eight houses have been built by the Cork Improved Dwellings' Company adjacent to the Fever Hospital in that town. The vicinity of a fever hospital appears rather a peculiar site for building operations; otherwise, it seems that the locality is an admirable one for these dwellings. There are now, including those in course of erection, two hundred and fifty-one of these improved dwellings in the city, the accommodation in each consisting of three to four rooms, a yard, and the necessary sanitary arrangements. Each yard has its own watercock and sewer-trap, the dustman collecting the refuse, as no ashpits are permitted. The report of the Cork Fever Hospital for the past year in reference to this matter points out that it is to the future extension of these improved dwellings, that we must look for a reduction in the prevalence of zymotic disease; but that also in these blocks of buildings it is absolutely necessary that strict sanitary precautions should be taken in times of epidemic disease. Every persuasion should be used to induce parents to send their children so affected to an hospital, as the rapid spread of an epidemic once it shows itself in these thickly populated and closely built tenements is to be dreaded, and can, indeed, hardly be averted, if the patients are kept at home. For a considerable time, the Corporation have been shown the urgent necessity of taking advantage of the Artisans' Dwellings Act, and it is satisfactory to learn that, under its provisions, Cork will shortly be able to boast of further improvements, in the possession of improved dwellings for the artisan and labouring classes.

THE REGISTRATION OF LAUNDRIES.

THE Society of Metropolitan Medical Officers of Health, the recent formation of which in Dublin was lately announced in the JOURNAL, have had the above subject brought before them by Dr. Chapman. This gentleman, like many other medical officers of health, has had experience of the propagation of infectious diseases through laundries; and with the view of checking the danger to the public health from this source, he has proposed the following resolutions, which have been adopted by the above-named Society, as well as by the Executive Committee of the Dublin Sanitary Association.

"That it is essential for the protection of public health that all public laundries should be registered, and subjected to special surveillance. That every person who undertakes to do laundry work for others than the actual residents of the house in which a laundry is situate, should be deemed to have a public laundry. That the work of a public laundry should not be permitted to be carried on in any room occupied as a sleeping apartment. That any person suffering from, or exposed to, any infectious disease, should not be permitted to enter, or to be employed in, a public laundry. That whenever any case of infectious disease occurs in any part of any house used as a public laundry, the business of such laundry should not be permitted to be carried on until after the termination of such case, or removal of the patient, and until the whole house and laundry have been thoroughly disinfected, and they be certified by the medical officer of health for the district in which they are situate to be, to the best of his opinion and belief, free from infection, and from every source of danger to public health. That for every such examination and certificate, the medical officer of health should be entitled to the fee of one guinea, to be paid to him by the sanitary authority of the district for which he is the medical officer of health. That articles of clothing, etc., exposed to any infectious disease, should not be permitted to be sent by any person to any public laundry until after such articles of clothing have been properly disinfected; and in such case that notice, with full information regarding the facts, be given to the registered proprietors of such public laundry, who should thereupon be required not to mix such articles with others in the process of laundry work. That observance of each regulation should be enforced under penalties."

THE DISTRESS IN IRELAND.

DR. CULLINAN of Ennis writes a thoughtful letter to a local paper with reference to the present distress in Ireland, drawing attention to a very important matter which, he says, has not yet arrested general attention. Having regard to the facts collected by the late Sir Dominic Corrigan, during the famine of 1846-8, Dr. Cullinan expresses fears as to the famine-fever which is sure to follow a scarcity of food of the right sort; and he suggests that the food supplied to the destitute people should not be limited to Indian meal. He observes that life and health cannot be maintained by Indian meal alone, however liberally supplied. If the poor are obliged to live exclusively, or almost exclusively, on Indian meal, that food will introduce into the system some elements in excess of the requirements of their bodies, or out of proportion to other constituents, which are either deficient or altogether wanting, and there must ensue an effort of nature to redress the balance and eliminate the absolute or proportional excess. This process of elimination necessitates a derangement of the most important natural functions, and much constitutional disturbance, that is *fever*, attended or followed by various dysenteric fluxes, or watery or dropsical swellings of the body and limbs, etc., which were so fatal during the last famine-fever. In order to avoid this disastrous fever and its attendant disorders, Dr. Cullinan suggests that other foods should be distributed with Indian meal, such as American pig's-head and Australian and South American tinned beef; salted fish, herrings, lings, etc.; peasemeal and lentils, onions and carrots, molasses, etc. If this can be compassed, it seems to us very desirable to be done, as Indian meal is undoubtedly lacking in some of the elements of nutrition.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of this Society was held at 53, Berners Street, on Monday, March 1st, at 8 P.M.; the President, JOHN ERIC ERICHSEN, Esq., F.R.S., in the Chair.

The Report of the President and Council was read by Mr. HOLMES, one of the Honorary Secretaries. It stated that the deaths during the year had been 17, and the admissions 32; the former being 2, and the latter 12, above the average of twenty-five years. One Fellow had resigned. The number of Fellows had increased during the year from 666 to 679. The receipts for subscriptions and admission fees exceeded those of the previous year by about £130. The expenditure had been slightly above the average of the preceding three years; the principal item of increase being the new catalogue and index, which had cost £614 7s. Reference was made to the important discussion on the relations between membranous croup and diphtheria, which had occupied three of the evening meetings. The library had received an addition of 371 books, exclusive of serial publications; of these, 219 were presented, and 152 purchased; 207 were English, and 164 foreign. Among the donations had been about a hundred volumes from the widow of the late Mr. Charles Brooke. The triennial examination of the library had been made; it showed that the number of works contained in it had increased from 25,568 in 1877 to 26,897 in 1880. The vote of fifty guineas made last year to the Harvey Memorial Fund had been called in question, and opinions of eminent counsel both for and against its legality had been obtained. The question would therefore be again submitted to the decision of the meeting.

On the motion of Dr. GREENHOW, seconded by Mr. R. W. PARKER, the report was ordered to be received, adopted, and printed in the proceedings of the Society.

The Harvey Memorial Fund.—The PRESIDENT stated that a former president of the Society, Mr. James Moncrieff Arnott, had questioned the legality of the vote of fifty guineas passed last year, and had obtained a legal opinion adverse to it. The Council of the Society had thereon consulted their solicitor, who had placed the matter in the hands of eminent counsel, whose decision was also adverse to the vote. On the other hand, one of the present vice-presidents had obtained a legal opinion in favour of the vote.—Dr. JOHN HARLEY thought that in the circumstances described, the only course that the Society could follow was to rescind the vote of last year. He moved "That in agreement with the legal opinion obtained by the Council, it is proposed that the vote of a sum of money to the Harvey Memorial Fund at the last annual general meeting be now rescinded."—Dr. GREENHOW seconded the motion. He said that there was really no need of a memorial to Harvey; he already had an imperishable memorial in his works, and in the influence which they had exercised on medical science.—Dr. QUAIN said that, in the present day, it was the fashion to erect statues to eminent persons; and as yet Harvey had none. He had taken legal opinion on the subject; not merely for the purpose of promoting the subscription to the fund, but for a higher object—that of ascertaining the powers of the Society in such matters. If the adverse opinion given were correct, the Society could not make the slightest expenditure on anything not strictly within the bounds of medical and surgical subjects. He read the opinion which he had obtained from Mr. Chitty, than whom no one was more eminent as a counsel; and this was clearly in favour of the legality of the vote.—Mr. COOPER FORSTER (treasurer) said that, if the vote were approved by the Society, the treasurer might be placed in an awkward position, and might be served with an injunction not to pay the money. —Dr. JOHN HARLEY said that, if the vote were confirmed, an injurious precedent would be established.—Mr. BIRKETT did not attach much value to legal opinions, which might, as on the present occasion, be opposed one to another; but he opposed the vote of money, because it would open a new state of things as regarded the distribution of the funds of the Society.—Dr. WEST said that the opinion of the Society's counsel must be respected; but he would regret exceedingly if it appeared that the objects and powers of the Society were so limited that it could not do itself the honour of sharing in the duty of paying a debt of gratitude to Harvey. He thought that the meeting might safely run the risk of approving the vote; and that, if it were found necessary, a vote of indemnity might be passed in favour of the treasurers. He would willingly join in a subscription to be raised by the Fellows of the Society; but this, coming from members in their capacities as individuals, would not be so truly a mark of respect to Harvey as a vote of the Society. Some time ago, he was in Rome, when the Italians were erecting a statue in honour of Cæsalpinus, whom they regarded as the discoverer of the circulation. It had been said that a dangerous precedent would be established; but the probability of another Harvey arising was exceedingly remote.—Mr. HOLMES thought it would be a great pity if the Society were rigorously bound by statutes or by legal documents. He thought that no one would bring an action against the Society for voting the money; and that, if the attempt were made, it would not succeed. But it must also be remembered that there was a strong opposition on the part of many Fellows of the Society. He would suggest, as a compromise, that a fund should be raised among the Fellows, to be presented to the Harvey Memorial Fund in the name of the Society.—Mr. COOPER FORSTER approved of Mr. Holmes's proposal.—Dr. WEST opposed, on the ground that the contribution would not be that of the Society, but of individual members.—After a few remarks from Dr. PAVY, Dr. QUAIN, and Dr. GREENHOW, a vote was taken on Dr. J. Harley's proposal; the numbers being, for, 22; against, 24. It was therefore lost.

President's Address.—The PRESIDENT addressed the meeting, congratulating the Fellows on the prosperous condition of the Society. The library catalogue and index had been completed, thanks to the voluntary labours of the honorary librarians, and to the talent and assiduity of the assistant librarian, Mr. Wheatly. He then gave biographical sketches of the seventeen Fellows who had died during the year; viz., Dr. Charles Murchison; Mr. Jesse Leach of Heywood, in Lancashire; Dr. W. Reeves of Carlisle; Mr. Charles Brooke; Dr. Tilbury Fox; Mr. Samuel Wood of Shrewsbury; Dr. Patrick Black; Mr. Alfred Keyser; Dr. Arthur Leared; Mr. G. W. Callender; Mr. Soelberg Wells; Dr. Frederick Collins of Wanstead; Mr. R. F. George of Bath; Dr. Maclure; Dr. T. Cutler of Spa; Mr. Henry Hancock; and Dr. Edward C. Seaton.

Sir HENRY THOMPSON moved, Dr. CHOLMELEY seconded, and it was unanimously resolved, that the President be thanked for his address, and that he be requested to allow it to be published.

A vote of thanks was also passed, on the proposal of Dr. DOUGLAS POWELL, to the retiring Vice-President, Dr. Quain, and the other members of Council.

Dr. SYMES THOMPSON moved, and Dr. JOHN HARLEY seconded, a vote of thanks to the retiring secretary, Dr. James Andrew, which was unanimously carried.

The officers and Council nominated for the ensuing year, a list of whom was given in last week's JOURNAL on page 336, were unanimously elected.

THE SITUATION AS TO THE HABITUAL DRUNKARDS' ACT.

NUMEROUS inquiries continue to reach us regarding the Habitual Drunkards' Act, such as, "I have a patient anxious to be put under care"; "A patient of mine wishes to be cured of his disease; can you tell me where I can place him?" "Will you please tell me which is the best institution into which I can send a very distressing case."

To all these and similar inquiries, we are obliged to reply there is no institution that we know of which is registered under the Act for the treatment of inebriates. We say "registered under the Act", because there are several which are established for the cure of inebriates; but we believe that the proprietors have not availed themselves of the model rules which have been issued from Whitehall for the management of retreats licensed under the Act.

The rules are to some extent tentative, and are imperfect, as such rules always are, when first put forth. We propose to present an epitome of them to our readers.

The plans, as approved by the justices, according to the schedule of the Act, must be hung in some conspicuous place in the retreat; and those which are to be used by the patients must be distinguished from those which are used by the licensee and his family. There is no suggestion as to the rooms for visitors and friends, and no rules for guidance upon this point. Books are to be provided, in which the necessary entries are to be made from time to time; and should physical coercion or restraint be employed, a full detail is to be entered at once in the case-book. A book is to be kept for the Inspector, in which the latter officer shall enter such observations as he thinks fit, and a copy is to be sent by post within three days of the entry by the licensee to a Secretary of State. Notices of death or discharge are to be sent to the local authority and to the Secretary of State. Notice is also to be sent if a patient escape, and also if he be subsequently retaken or return. There are rules as to inspection; and, if any habitual drunkard become insane, notice is to be immediately sent, not only to the friends of the patient, but also to the relieving officer of the district in which the retreat is situated; and that officer will forthwith see that the patient be placed under proper care and control as a lunatic. This seems to be a rule which points somewhat in the direction of the State being responsible for the care and treatment of all classes of lunatics, without reference to position in society or the means of the patient. It is not usual to call in the aid of the relieving officer in ordinary cases of lunacy. We draw attention to this provision in Mr. Cross's order. It may not mean anything, or it may be significant of further legislation as to the care and control of lunatics. There are directions as to the separation of the sexes, and regulations as to the visits of friends. If the licensee should refuse to allow any particular person to see one of his patients, an entry of the reason is to be made in the case-book, and a copy sent to the Inspector within twenty-four hours.

There are regulations as to letters which a patient may write, but all that are written to any authority connected with the Act are to be forwarded unopened. There are no directions as to letters or communications addressed to the patients themselves. Attendants, when they are engaged, are to be informed of the offences specified in the Act, and it is placed as a duty incumbent upon the licensee to prosecute every official and servant offending against the Act or the rules.

Other regulations and orders are to be drawn up by the licensee within one month from the granting of the licence; these regulations and orders must be approved by the Inspector, and shall then be adopted and strictly observed in the conduct of the establishment.

We are not aware that any inspector has been appointed under the Act; and until there are places to inspect, we do not suppose that Mr. Cross will exercise his authority to appoint.

A question has been raised as to whether a proprietor would be allowed to have an establishment in which a portion of the patients were placed under the Act, and another portion were entirely voluntary residents; Mr. Cross has been applied to for information, but he has not answered the application in a direct manner. It is doubtful whether such a mixture would be allowed in the same building; but there is nothing at all in the Act to prevent the proprietor from having two establishments next door to one another; one licensed, the other not. We throw out this suggestion to those who have embarked in this line of practice, as one well worthy of consideration, and we wish especially to draw their attention to the clause in the Act which allows leave of absence under care from the licensed retreat. We think that capital ought to be forthcoming for the purposes of the Act, and that the two provisions mentioned would ensure a supply of patients, and give a good commercial return. At the same time, we are bound to say that, in the interests of correct procedure, we think that the plan proposed by the committee who are acting on behalf of a "Dalrymple Retreat", and to which we referred three weeks ago, is the right course to be adopted. We hope that all the friends of "habitual drunkards" will assist that committee in the work they have undertaken. Dr. Cameron is acting with them with a fair prospect of success. Mr. S. S. Alford has consented to act as Honorary Secretary, and in a short time will issue a circular upon the subject. It is proposed, as soon as arrangements can be made for the same, to hold a public meeting and enlist the support of the philanthropist, so that the Act may not be the dead letter which at present appears to be its fate.

THE CONTAGIOUS DISEASES ACTS: A CONTRAST.

This contrast shows the prevalence of "contagious diseases" at the twenty-eight largest military stations in the United Kingdom. In one half of the stations (14), the Acts have been gradually introduced into full operation; in the other half, the Acts have never been applied. All except those put in force by the Acts, the regulations affecting the health of the troops have been the same for all stations. The first Act was passed in 1864; the second Act came into partial operation in 1866; the last Act came into force in 1869. But all the provisions of the Acts were not generally enforced until some time in 1870 (*vide Parliamentary Report*, pp. 157-8-9). We give the ratio of admissions to hospital per 1,000 of strength of the forces for venereal sores and gonorrhœa at (A) fourteen stations that have been subjected to the operation of the Acts; (B) fourteen stations where the Acts have never been in force. The periods taken for comparison are three.

Four Years 1860-63: *No Preventive Measures in Force.*

	Stations A.	Stations B.
Primary sores	130	116
Gonorrhœa	135	129

London and Windsor are excluded from the returns for Stations B; if they be included, the figures will be, primary sores, 121; gonorrhœa, 112.

Four Years 1870-1873: *The Acts in Force at all the Fourteen Stations* (A).

	Stations A.	Stations B.
Primary sores	52	108
Gonorrhœa	100	101

Five Years 1874-78: *Acts thoroughly carried out at all the Fourteen Stations* (A).

	Stations A.	Stations B.
Primary sores	37	94
Gonorrhœa	67	75

From October 1873 to the middle of 1878, the Secretary for War ordered that the soldier's pay should be stopped while he was in hospital for primary venereal disease and gonorrhœa. This order applied to all stations alike. Hence some of the diminution in the returns is due to concealment of disease. But this cause was equally at work both at protected and at non-protected stations. The returns for 1879 are not yet published. The Army Reserves were called up in 1878, and there was an immediate increase of venereal disease at all the stations. But the beneficial effects of the Acts were shown most satisfactorily; for, whereas in the towns under the Acts the increase of primary venereal sores in 1878 as compared with 1877 was from 35 to 40, or only 5 per 1,000, in towns not under the Acts the increase was from 91 to 131, or 40 per 1,000.

Much disease is imported by women who migrate into the protected districts from other parts of the country where no preventive sanitary regulations are in force. In 1878, 664 women, coming immediately from places not under the Acts into the districts where the Acts are in force, were examined for the first time, and 437, or nearly 66 per cent., were then found diseased. Of 1,195 women resident in places where the Acts are in operation, only 303 were found diseased on their first inspection, or about 25 per cent.

DR. FARR, F.R.S.

So many of Dr. Farr's friends and admirers have expressed a wish to mark his retirement by some substantial mark of their appreciation of the value of his forty-two years' labours in the interest of public health and statistical science, that a committee is now being formed for the purpose of raising a testimonial fund to be presented to him. It is especially intended by the promoters of this project that the presentation shall simply be a personal tribute, in recognition of the public appreciation of the long and exceptionally valuable services of Dr. Farr.

The following names constitute a preliminary list of the proposed committee, to which other names will be added, so soon as the consent of those to whom application has been made shall have been received. Communications on the subject, and offers of co-operation in promoting the object in view, can be forwarded to Mr. Noel A. Humphreys, of the Registrar-General's Office, Somerset House, who is temporarily acting as Honorary Secretary.

Preliminary List of Committee.—The Earl of Derby; The Earl of Shaftesbury, K.G.; Earl Fortescue; Sir John Lubbock, Bart., M.P., Sir Brydges Henniker, Bart., Registrar-General; Sir Thomas Watson; Bart., M.D., F.R.S.; Sir William Jenner, K.C.B., M.D.; Sir James Paget, Bart., F.R.S.; Sir William Gull, Bart., M.D., F.R.S.; Sir George Burrows, Bart., M.D., F.R.S.; Sir Joseph Fayrer, K.C.S.I., F.R.S., President of the Epidemiological Society; Major Graham, late Registrar-General; Dr. Acland, F.R.S., President of the General Medical Council; Dr. Risdon Bennett, President of the Royal College of Physicians; Mr. Luther Holden, President of the Royal College of Surgeons; Mr. Erichsen, F.R.S., President of the Royal Medical and Chirurgical Society; Mr. A. H. Bailey, President of the Institute of Actuaries; Dr. A. Carpenter, President of the Council of the British Medical Association; Mr. G. W. Hastings, President of the Council of the Social Science Association; Mr. John Simon, C.B., F.R.S., late Medical Officer of the Privy Council; Mr. Robert Rawlinson, C.B., Chief Sanitary Inspector of the Local Government Board; Dr. James Wakley; Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee of the British Medical Association; Mr. William Newmarch, F.R.S.; Mr. Thomas Wakley; Mr. Richard B. Martin, 68, Lombard Street (Honorary Treasurer).

At a meeting of the Society of Medical Officers of Health held on February 20th, the following resolution was passed, a copy of which has been sent to Lord Beaconsfield and to Dr. Farr. "The Society of Medical Officers of Health desires to record its high appreciation of the scientific qualifications of Dr. Farr, and of his long and valuable services in the department of the Registrar-General; and is of opinion that his able deductions and statistical work have contributed in an eminent degree to the advancement of sanitary science, and entitle him to some special mark of honour and approval. The Society also desires to express its gratitude to Dr. Farr for his invariable courtesy towards all medical officers of health."

THE LATE MR. W. H. O'LEARY, M.P.

At an influential meeting held in Dublin on February 19th, the President of the Royal College of Surgeons of Ireland in the Chair, it was resolved, on the motion of Dr. Lyons, seconded by Mr. Porter, Surgeon in Ordinary to the Queen in Ireland: "That the professional services of the late Dr. O'Leary, M.P., his devotion to the sick poor, and the lamentable circumstances attending his sudden and unexpected death, before he was able to realise a provision for his family, entitle his widow and nine children to the warmest sympathy and support of the public and the profession, and that a subscription be opened to institute a fund to be specially reserved for the advancement of the family." We are glad to see that the appeal is being generously responded to, and that the subscriptions received amount already to more than £850. The subscription-list includes the names not only of many of the medical practitioners and citizens of Dublin, but also of a number of Mr. O'Leary's late colleagues in the House of Commons, without distinction of politics. Among the names are those of the Attorneys-General for England and for Ireland, the Solicitor-General, the Right Hon. Lyon Playfair, the Marquis of Hartington, the Right Hon. W. H. Smith, the Lord Advocate, Dr. Cameron, Colonel Loyd Lindsay, the Hon. D. Plunket, Mr. J. P. Corry, Mr. W. Goulding, etc. Funds are still urgently needed; and we earnestly commend this sad case to the kind consideration of our Associates. Subscriptions may be sent to the treasurers, G. Sampson, Esq.; the Rev. M. F. Shinnors; and Dr. R. D. Lyons; at 8, Merrion Square West, Dublin.

THE INFLUENCE OF FAMINE ON GROWTH OF POPULATION.

In view of the present distress amongst the poor in Ireland, and the probability of a famine in that country, it may be of interest to draw attention briefly to a most important and valuable paper by the Sanitary Commissioner for Madras, which has recently been published in that gentleman's annual report for 1878. Mr. Cornish's labours in connection with the Indian Famine Commission are well known, and his published papers on the subject tend greatly to enhance his already high reputation. Mr. Cornish's views in respect of the effect of food-dearth on the vitality of the population, enunciated at an early period of the Indian famine of 1876-7, have since been abundantly verified by experience in other parts of India. They were: (1) that deficiency of food not only caused diseases of innutrition, but that the conditions of famine aggravated the ordinary epidemic diseases of the country; (2) that the peculiar effect of famine was to bring about a fatal form of bowel-disease, with degeneration of the tissues concerned in the assimilation of food; (3) that the reproductive powers of the population were affected in proportion to the intensity and long continuance of food-scarcity; and (4) that the male population suffered, relatively, more than the female. The particular subject to which he addresses himself in the present paper is the influence of famine in the reduction of the population. Famines tend to this reduction in two ways: by excessive mortality of the living, and by bringing about wasting and changes of the reproductive organs, thus diminishing the fertility of a population. The excessive mortality in famine times arises from (1) an exaggeration of the conditions favourable to epidemic pestilences, and from a complication of want and privation, superadded to the difficulties of battling with ordinary disease; and (2) from diseased conditions, which are the physiological and pathological outcome of chronic insufficiency of nutriment. It is practically impossible to say how many deaths were the direct or indirect result of famine; but the registers of mortality and the results of a partial census of the famine alike indicate the close connection between severity of famine and excessive mortality. In proof of this, Mr. Cornish adduces copious statistics, comparing the non-famine districts with the famine districts. The general outcome of these is that, whilst in the non-famine tract the births had not decreased and the death-rate had increased only from 18.6 to 24.8 per 1,000, in the famine area the births had decreased from 20 to 14.4 and the deaths had increased from 19.7 to 70.2 per 1,000. The assigned causes of death are not very accurate, as they depend on unprofessional testimony; but, under all heads, there is an great increase of mortality during the famine period. Practically, epidemic cholera played much havoc amongst the people in the early days of the famine, when they began to desert their homes and herd closely in towns and relief centres. Small-pox is in India an invariable accompaniment of famine, and was unusually prevalent in 1877. Malarious fevers seem also very generally to affect a famine-stricken population after rain has fallen, and the dry and heated soil has been saturated with moisture. But, although the death-registration does not fully demonstrate the fact, it is the bodily wasting of the people, ending in diarrhœa, dysentery, and dropsy, that accounts for the great excess of mortality in famine times. In camps and relief-houses, where the worst class of sufferers were congregated, at least three-fourths of the mortality was the direct result of innutrition and wasting of the assimilating organs.

The prolonged scarcity and high cost of living appear to have had a sensible effect in diminishing the fertility of the people. In 1877, the registered births were 25 per cent. below the average of the two previous years. In 1878, the registered births fell to 11.9 per 1,000, or nearly 45 per cent. below the mean of the two years 1875 and 1876. Mr. Cornish calculates that, by diminished births alone, the population of Madras Presidency suffers an annual diminution of about half-a-million, so long as the influences of famine affect the poorer classes. These influences will pass away very slowly; and it seems probable that many women who, under ordinary circumstances, would have continued prolific for years to come, have been rendered permanently incapable of child-bearing by the severe wasting of the glandular structures concerned in reproduction. Mr. Cornish states that he was led to investigate the effects of food-dearth on reproduction by observing so many women in the relief-houses giving birth to children in a condition of extreme emaciation. These infants had been starved *in utero* by the defective nutrition of the mothers; and it seemed probable that, if defective nutrition had such an effect after conception, a continuance of the food-scarcity would cause such wasting of the structures concerned in reproduction as to sensibly influence the birth-rate. And this is exactly what happened. The monthly returns of births show that, in proportion to the intensity of famine in particular areas, the births decreased, and the fewest births were invariably recorded in the period nine months subsequent to the greatest famine pressure. Some diagrams, attached to Mr. Cornish's paper, illustrating the monthly fluctuations in birth-rates of typical districts, show clearly enough that, with the decrease of famine intensity, the birth-rate began to improve. From April and May 1878, there was a gradual improvement in the birth-rate in all the districts, except those in which the famine effects were still being felt by the poor; and, in many of the districts which had not suffered from food-scarcity in 1877, the continuance of high prices and occurrence of food distress in 1878 had a sensible effect in lowering the number of births. There seems, therefore, no room for doubt that, when food is so scanty as to cause wasting and privation of the poor, there must certainly be diminished powers of reproduction. Inasmuch as these causes continue to operate for a long period after a food-dearth passes away, it is evident that this important effect of famine can no longer be ignored. In the words of Mr. Cornish, "it has now passed beyond the domain of theory, and must in future be regarded as one of the most important results of famine on growth of population".

HOSPITAL AND DISPENSARY MANAGEMENT.

BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.

At Bradford, the medical men seem to work in harmony with the Friendly Societies' Medical Aid Association. A short time ago, a *soirée* was held at the Masons' Rooms, Salem Street, the principal object of which was to present Dr. Robertson, the medical officer of the Association, with a tea-and-coffee service as a recognition of his valuable services. Dr. Butterfield, the medical officer of the borough, and several other medical men were present on the occasion, and speeches were made setting forth the value of such associations to the working classes and the manner in which they are conducted.

THE TUNBRIDGE WELLS PROVIDENT DISPENSARY.

The annual general meeting of this dispensary was held on November 11th, when the report and balance sheet were presented. The Committee congratulate the friends of the institution upon its continued and increasing usefulness. The number of members on the books during the year has been 1,878, of whom 1,393 now remain. This represents an increase of 133 on the number reported last year. The financial position of the dispensary is satisfactory. Owing to a large outlay in establishing the dispensary, the last report showed a deficit of £91 15s. They are happy in being able to state that the whole of this, with the exception of 6s. 9d., has been met, in addition to the ordinary expenses of the year. For a state of things so favourable, they are indebted to those friends who have given in subscriptions and donations to the amount of £153 14s., being an advance of £29 15s. 6d. upon the amount received from the same source last year. Life-subscriptions amounting to £42 5s. have also been received, and the payments by provident members have amounted to £334 17s. 2d., a result that must be considered highly satisfactory. The Committee confidently hope, as the benefits of the institution become more extensively known, the number of its provident and honorary members will greatly increase. The sum of £221 was divided among the medical officers.

THE READING MEDICAL DISPENSARY.

This dispensary has both a provident and a charitable department, and is a thoroughly efficient and successful institution. The Committee, in their report for 1878, point with pleasure to the satisfactory results which have been attained in every department of the dispensary work; and this statement is fully borne out by the statistical tables. The number of persons admitted as new provident members in 1878 was 2,176, and the total number of members on the books entitled to medical attendance during the year amounted to 11,341. In addition to these 844 persons were nominated by subscribers, and received gratuitous medical aid. The respective numbers for the preceding year were: new members, 1,726; total number of members, 10,401; and governors' nominations, 845. The number of attendances given by the surgeons was 62,675, being an increase of 6,792 over the previous year; of these, 31,516 were made at the homes of the patients. In comparing the number of cases requiring immediate treatment by the surgeons, the Committee regret to note the increase from 106 to 142, as they fear that a larger proportion of new members have deferred applying for admission until sickness has overtaken them; and in these cases a fee of seven shillings and sixpence has to be paid in addition to the ordinary payments. At the close of the year, a sum of £1,173 was divided among the six medical officers for vaccination, midwifery, and general attendance.

KILBURN PROVIDENT DISPENSARY.

Notwithstanding the general depression in trade, the Committee are able to give a satisfactory account of the progress of the dispensary during 1879. The number of members on the books on December 31st, 1878, was 2,209, comprising 730 families. During the year, 758 new members have joined; and the names of 691, who have ceased to be members from non-payment of their subscriptions and other causes, have been erased from the books, leaving a net gain of 67. This makes the total number of members on December 31st, 1879, 2,276; viz., 384 men, 748 women, and 1,144 children, comprising 781 families. Although the rate of increase, as shown by the number of members left on the books at the end of the year, is not so large as in the last report, the number actually paying and participating in the benefits during 1879 was greater than in any year since the commencement, as is shown by the receipts from the members being £43 in excess of 1878.

The cases of illness treated during the year reached the high figure of 2,532; the increase being entirely among the patients treated at their own homes, who numbered 667, and received in all 4,603 visits. The total attendances of the 1,865 patients who received advice and medicine at the institute amounted to 7,110. The deaths, which were 40 in 1877 and 31 in 1878, were this year only 25. The members' payments amounted to £574 1s., and of this sum £411 6s. 3d. was divided among the six medical officers.

BATTERSEA PROVIDENT DISPENSARY.

THE report of this institution for the year 1879 indicates satisfactory progress. The number of benefit members shews an increase upon the year 1878, and consequently the sum divisible among the medical officers has been proportionately larger. There is every reason to think that the benefits of the Dispensary have corresponded with the increasing number of members, and are fully appreciated by them. The number of members entered for the year is 5,016. The average number of members for the year 1878 was 2,760, and the average for 1879 was 3,110. The number of cases of illness recorded at the Dispensary is 3,183: to these, 5,355 visits were made by the medical officers at the patients' own houses, and 6,944 attendances by members at the Dispensary. With regard to the financial state of the institution, the balance-sheet shows that the total income has been increased by £78, while the outlay has decreased by £31. In 1878, the sum divisible among the four medical officers was £271:9; but, for 1879, the Committee have been able to divide £355:4:11. Thus the *honorarium* has been increased by £84.

THE TORBAY HOSPITAL AND PROVIDENT DISPENSARY.

AT the annual general meeting of this institution, recently held, some questions of more than usual importance were discussed. There have lately been, as our readers are aware, some little difficulties between the Weekly Board and the executive officers. The matters in dispute were freely discussed, and the governors evidently attached very little weight to the charges of mismanagement which have been brought against the Weekly Board. It is a pity that the harmony, and, we may add, the prosperity, of an useful institution should be impaired by such questions.

A much more important issue was raised by Mr. James Pollard, when he stated that the Provident out-patient department cost the Hospital £200 a year, and proposed that it should be separated from it. After some discussion, Mr. Pollard withdrew his motion; and a committee was appointed to inquire into the working of the Provident Dispensary. It appears that the Torbay Dispensary was founded in 1850. In 1852, an in-patient department was formed; and, a few years ago, the Dispensary was placed on the provident footing. It is now, in fact, the out-patient department of the Hospital, and carried on upon provident principles. This is such an excellent arrangement, and so much in harmony with the opinions of those who have given most attention to hospital administration, that we trust the governors will be slow to sanction any fundamental change. Even if it be shown that the Provident Dispensary cost £200 a year, this is not a large sum for what is virtually an out-patient department; and, moreover, an out-patient department on a footing that is specially advantageous to the poor. But, we readily allow that all provident arrangements ought to be, as far as possible, self-supporting. What, then, can be done to meet the drawback that Mr. Pollard has pointed out? It appears that the number of provident members is small—only sixteen hundred. At Leamington, where the population is about the same, the Provident Dispensary has enrolled more than double this number. If a fresh effort were made, probably the list of members might be very much increased. If this were not enough, a slight addition might be made to the scale of charges. At Rugeley (if we remember rightly), each family is now charged an additional fee of one shilling a year for administrative expenses. It is by such expedients as this that the provident system must be raised above the need of charitable assistance.

Mr. Pollard does not propose that the Provident Dispensary should be entirely separated from the Torbay Hospital; but only that the financial relations of the out-patient and in-patient departments should be reconsidered. If the committee direct their attention to Reading, Rugeley, Devonport, and other places, where somewhat similar systems are in operation, they will no doubt find some means of adjusting this difficulty, and at the same time of benefiting the institution in which they are interested.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE fourth ordinary meeting of this Branch will be held at the Bristol Museum and Library, on Wednesday, March 10th, at half-past Seven o'clock; J. BEDDOE, M.D., President.

A communication will be made to the meeting with reference to the election of a Secretary to the Bristol Branch.

E. C. BOARD, *Honorary Secretary.*

Clifton, February 25th, 1880.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

THE next meeting of this district will be held at Guy's Hospital Medical School, on Wednesday, March 10th, 1880, at 8 p.m.; JOHN WOOD, Esq., F.R.S., President of the Branch, in the chair, when the following Papers will be read, and business transacted.

1. E. Noble Smith, M.R.C.S.: A few remarks upon the Treatment of Fractured Vertebræ.
2. J. Knowsley Thornton, M.B.: Causes of occasional high temperature after Aseptic Ovariotomy.
3. Election of Secretary for ensuing Session.

H. NELSON HARDY, *Honorary Secretary.*

The Grove, Dulwich, S.E., March 3rd, 1880.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 11th, at 4 P.M.; WM. GANDY, Esq., in the Chair. Dinner at 6 P.M. Charge, 6s., exclusive of wine.

Business.—1. Election of Secretary.
2. Dr. Bristowe: On Ulcerative Endocarditis.
3. Mr. Durham will exhibit a specimen of Wound of the Heart.
4. Dr. Coles: On Aids to Lingering Labour.
5. Dr. Hood: On some Points in connection with the Pathology and Treatment of Dyspepsia.
6. Dr. H. G. Thompson: On Acute Albuminuria.

JOHN H. GALTON, M.D.Lond., *Honorary Secretary.*

Woodside, Anerley Road, S.E., February 23rd, 1880.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE sixth meeting of the session will be held in the Examination Hall of the Queen's College, on Thursday, the 11th instant. The Chair will be taken by the President, Dr. JOHNSTON, at 3 P.M.

Business.—To ballot for three members of the Association for their election as members of the Branch. To receive nominations for officers, Council, and representatives of the Branch in the General Council of the Association for the ensuing year.

The following papers are promised.

Dr. Hickinbotham: Midwifery two hundred years ago.

Dr. Savage: On Oöphorectomy.

Members are invited to exhibit patients, pathological specimens, new drugs, instruments or appliances, at the commencement of the meeting.

E. MALINS, M.B., 8, Old Square, } *Hon.*
E. RICKARDS, M.B., 14, Newhall Street, } *Secs.*

March 3rd, 1880.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THE next meeting of this district will be held at the Myddleton Hall, Islington, on Thursday, March 18th, 1880, at 8.30 P.M. The following papers will be read.

Mr. Henty: On the Treatment of Tapeworm.

Dr. Dowse: On Neuralgia of the Heart.

THOMAS STRETCH DOWSE, M.D., *Honorary Secretary.*

2, Old Burlington Street, March 2nd, 1880.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.

THE next meeting of this district will be held at Farnham, on Thursday, March 25th, 1880.

Gentlemen wishing to read papers or make any communication are requested to apply at once to the Secretary.

A. ARTHUR NAPPER, *Honorary Secretary.*

Cranleigh, Surrey, February 25th, 1880.

WEST OF IRELAND BRANCH.

A MEETING of this Branch will be held at the Queen's College, Galway, on Thursday, March 18th, at 7.30 P.M.

The following papers will be read.

1. Dr. W. B. Deely: A case of Intestinal Obstruction: Successful Aspiration of Bowels.
2. J. J. Gorham, M.D.: On the Vaccination Amendment Act (1879).
3. William Rutherford, M.D.: Short Notes on Peculiar Symptoms connected with the Eruption of the Permanent Molars.

JOHN J. LYNHAM, M.D.,
Honorary Secretary and Treasurer.

Galway, March 3rd, 1880.

WEST SOMERSET BRANCH.

THE spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 18th, at Five o'clock.

The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner:—"What are your views on the Resolutions with regard to Medical Education passed by the Metropolitan Counties Branch, as published in the JOURNAL of January 24th, 1880, p. 146?"

Members who have any communication for the meeting are requested to send early notice of its title to the Honorary Secretary.

Dinner 5s. a head, exclusive of wine.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, February 20th, 1880.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE next meeting of this district will be held at the Ship Hotel, Faversham, on Thursday, March 25th, at 3 o'clock: Dr. GANGE in the Chair.

Members intending to read papers are requested to communicate at once with the Secretary.

WM. KNIGHT TREVES, F.R.C.S., *Honorary Secretary.*

Margate, February 24th, 1880.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE fourth meeting of the session was held in the Queen's College, on January 8th, under the presidency of Dr. JAMES JOHNSTON. There were twenty-eight members present.

New Members.—The following members of the Association were elected to the Branch: C. F. Garrett, Esq., Walsall; Justin McC. McCarthy, Esq., St. George's, near Wellington; G. H. Hornsby, Esq., Bromsgrove; C. W. Suckling, Esq., Queen's College; S. A. Welch, Esq., West Bromwich.

Communications.—The following communications were made.

1. Mr. J. S. GAMGEE showed specimens of Absorbent Cotton-Wool Gauze Pads and Bandages, and demonstrated their usefulness in the treatment of wounds.

2. Mr. LAWSON TAIT showed a microscopical specimen of one of two Ovaries which he had recently removed on account of severe dysmenorrhœa due to exanthematic cirrhosis. The preparation showed the new tissue and thickened vessels. The patient had recovered without a bad symptom. He also showed Neuber's new Drainage-tube of decalcified bone.

3. Dr. MALINS showed the Ovaries he had removed a week previously from a patient who had suffered for many years from continual ill-health and ovarian dysmenorrhœa due to prolapse of one ovary. The patient had since done well, and so far none of the former pain was complained of.

4. Dr. WARDEN showed an apparatus for the cure of Contraction of the Hands and Fingers, and explained its use in a case where he had resorted to it with marked success.

5. Dr. WARDEN read a paper on Congenital Talipes Equino-Varus. After explaining the different degrees of distortion and the mode of their production, he expressed his opinion that, as regarded the part the muscles play in this, the development was due in the following order: 1. to the tibialis anticus; 2. to the gastrocnemius and soleus, ending in the common tendon; 3. to the flexor longus digitorum and plantar fascia in the sole of the foot. He advocated early treatment, and insisted upon the fact that much might be done at this stage by properly applied splints and manipulation. He used himself malleable splints; first straight, then curved, until the deformity was reduced to simple talipes equinus. The tendons of the tibialis anticus and posticus might require dividing at this stage. When eversion was complete, the tendo Achillis was divided, and the plantar fascia; perhaps also the flexor longus pollicis and flexor longus digitorum. Scarpa's shoe was subsequently applied, and the foot thoroughly manipulated night and morning to mould and stretch the tendons, until the heel was completely brought down. He expressed his belief that the plan of taking out a wedge of bone was quite unnecessary in young children, unless the deformity were very severe and the foot much ossified and unyielding; but in adults it might be expedient and even absolutely desirable.

CORRESPONDENCE.

ANIMAL VACCINATION.

SIR,—The letter of Sir Thomas Watson which appeared in your issue of to-day will, I venture to think, be hailed with immense relief by all your readers. It was not a little embarrassing to find supported by so eminent an authority the statements which have recently appeared in the public prints as to the vaccine lymph raised by Mr. Ceely and Mr. Badcock by the variolation of the cow being, in fact, small-pox lymph.

Sir Thomas Watson has, however, now distinctly withdrawn the sanction of his great name to the theory that vaccination with variola-vaccine lymph is in fact inoculation for the small-pox; and as the unconscious agent in his conversion, perhaps you will allow me to say a few words on the subject. Dr. Cameron, M.P., in his letters to the *Times*, following M. Chauveau and his colleagues, says that lymph obtained by variolation of the cow "is not vaccine lymph at all, but small-pox lymph capable of being inoculated apparently with greater safety to the individual than ordinary small-pox, but, like the mildest inoculated small-pox, capable of propagating that disease in its most virulent form by infection". In a subsequent letter, Dr. Cameron somewhat modified his earlier statement by remarking that he sees "no reason why what Chauveau terms vaccino-variolic lymph should not be less contagious, as it certainly appears to be more local in its effects, than small-pox matter taken direct from the human being. It may, for that matter, be shorn of its contagious properties altogether." This remark can apparently only mean that such lymph induces a new species of small-pox, as yet unrecognised, which has none of the characteristics of that disease, since it is neither eruptive nor contagious. Dr. Cameron has evidently mastered the experiments of the Lyons Commission on the subject; but I should much doubt whether he has studied with equal assiduity the important work by Mr. Ceely which appeared in the early *Transactions* of this Association, and which has now convinced Sir Thomas Watson. It is to be feared, indeed, that Mr. Ceely's painstaking researches into this question have never been sufficiently known or thoroughly understood. Abroad especially, they are not so well known as they deserve; and as M. Chauveau and his colleagues state that they had not seen Mr. Ceely's "plates", it is more than likely that they had not seen his report. If M. Chauveau and his colleagues had seen Mr. Ceely's plates, they would have learnt that their own local results on cattle had been quite well known in this country twenty-five years before. The local effects produced by their inoculations were not in any respect greater than those produced by Mr. Ceely in cases which he regarded as failures, nor than in cases which the authors themselves at first put aside as failures. It is not in the least improbable that, if Mr. Ceely had dealt with the tumid papules that arose on the cows, as M. Chauveau did (viz., in removing a quantity of them from the cows, and scraping their inner surface), he might have got from them the same stuff that was put in, stuff which, in the words of the late Dr. Seaton, "had undergone no sort of transformation whatever, but which had lain where it was put, as in a pouch, quite inert, giving rise only to local irritation without inducing any sort of general affection or disease". It is significant that M. Bouley, having inoculated a cow with variola with the same results as M. Chauveau obtained, vaccinated it afterwards with the result of producing regular cow-pox; and Mr. Ceely, in his variolous experiments on cattle, constantly produced the phenomena described by M. Chauveau, and found subsequent vaccination of these animals, in the great majority of cases, successful. The Lyons experimenters did not, it is true, in the least dispute Mr. Ceely's account of the results he met with, but maintained that what he mistook on the cow for cow-pox vesicles was in reality the variolous eruption; and what he produced on children taken from these vesicles was not, as he imagined, cow-pox at all, but simply inoculated small-pox.—I am, etc.,

FRITHIOF.

February 28th, 1880.

THE POSTAL MICROSCOPICAL SOCIETY.

SIR,—Thanks to your insertion of letters on the subject, the effort made by the Postal Microscopical Society to establish a separate Histo-Pathological Section has been most successful, and a number of boxes have been placed in circulation. Most of the slides have been of a very high order. Some have been sent by a professional mounter; and others the work of amateurs—medical men—are triumphs of section-cutting, injecting, staining, etc., and being accompanied by accounts of the cases from which they were taken, are thus made exceedingly instructive.

It is a great pity that slides illustrating rare forms of disease, or original investigations into the causes of morbid action, should be seen by the comparatively small number of medical men who attend the meetings of societies; and it will be a great boon to the profession generally, if those who have such slides to exhibit will place them at the disposal of this Society, that they may be seen by any of us who are interested in microscopy. The boxes have been gradually improved, so that it is almost impossible for properly mounted slides to be injured in transit. The annual subscription is very small, namely, five shillings.

Any information about the Society will be gladly given by the honorary secretary, Mr. Alfred Allen, 1, Cambridge Place, Bath, or by yours truly, CAREY PEARCE COOMBS, M.D.Lond.

Castle Cary, January 30th, 1880.

OBITUARY.

EDWARD COPEMAN, M.D., F.R.C.P.,

VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

DR. COPEMAN, whose death was briefly recorded in last week's JOURNAL, was the eldest son of Edward Breese Copeman, Esq., merchant, and was born at Great Witchingham, in Norfolk, on December 26th, 1809. He commenced the study of medicine as pupil to Mr. Arthur Brown of Norwich; and, on the death of Mr. Brown two years later, was transferred to the late eminent surgeon Mr. John G. Crosse, with whom he completed his apprenticeship, being, during a portion of the time, a dresser at the Norfolk and Norwich Hospital. He afterwards studied at St. George's Hospital, and became a Licentiate of the Apothecaries' Society in 1831, and a Member of the Royal College of Surgeons in 1832. Soon afterwards, he was elected House-Surgeon to the Norfolk and Norwich Hospital; and, on leaving this institution, he entered into general practice at Cottishall, in Norfolk, in partnership with the late Mr. W. Taylor. On Mr. Taylor's death, he carried on the practice, which was large and increasing, until 1848, when he removed to Norwich and established himself in consulting practice; having in 1845 obtained by examination the diploma of Fellow of the Royal College of Surgeons of England, and in 1847 the degree of Doctor of Medicine of King's College, Aberdeen. He subsequently, in 1859, became a Member, and in 1871 a Fellow, of the Royal College of Physicians of London. He had an extensive practice in East Anglia as a consulting physician, and, moreover, enjoyed a high reputation as a consulting obstetrician. In the latter capacity, he was a strong advocate of the use of the vectis, which was his favourite instrument.

In 1851, Dr. Copeman was elected Physician to the Norfolk and Norwich Hospital, and held the office until the end of 1878, when he resigned, and was appointed Consulting Physician. The governors at the same time passed a resolution, expressing their high sense of the value of his services to the hospital, and congratulating him on his successful contributions to medical literature, which had increased the widespread reputation of the physicians and surgeons of the Norfolk and Norwich Hospital. He was also Physician to the Norwich Eye Infirmary and the Norwich Magdalen, and Consulting Accoucheur to the Norwich Lying-in Charity; and he was the first physician of the Jenny Lind Hospital for Children, of which he was one of the founders.

Dr. Copeman was for many years a member of the British Medical Association. He was President of the East Anglian Branch in 1863; and, in 1874, he presided over the annual meeting of the Association held at Norwich. On retiring from the presidency in the following year, he was elected a vice-president. He was also a Fellow of the Obstetrical Society of London, and a member of the Norwich Pathological Society.

Dr. Copeman's contributions to medical literature were of an eminently practical character. His first work was a *Treatise on Apoplexy*, published in 1845, in which he called attention to the abuse of bleeding in that affection, and was thus one of the first to shew the necessity of a more restricted use of the lancet. It is interesting that one of his last contributions—a paper published in this JOURNAL on December 13th, 1879—was a paper on Blood-letting, in which he gave the result of his matured experience, and, suggesting that the reaction against blood-letting had probably gone too far, described the conditions in which, in his opinion, it might be useful. He also contributed a number of other papers of a practical character to this JOURNAL, among which were a series of cases of Intestinal Obstruction in 1860 and 1861, and a number of Rare Cases in Midwifery in 1862. He published, in 1860, a treatise on Puerperal Fever, in which he strongly advocated the use of turpentine in that disease. None of his writings, however, have attracted so much attention, both at home and abroad, as his papers in this JOURNAL on the treatment of the vomiting of pregnancy by dilatation of the os uteri. Both in Berlin and Paris, and in America, this method has been followed with much success; and we are informed that Dr. Copeman had received numerous communications on the subject from all parts of the kingdom, as well as from abroad. A paper on the subject was published by Dr. Rosenthal, in the *Berliner Klinische Wochenschrift* for June 30th, 1879, an abstract of which was given in this JOURNAL for June 2nd. He was also the author of *Cerebral Diseases of Infancy*, a *History of the Norfolk and Norwich Hospital*, and other works and papers.

Dr. Copeman was an enthusiastic lover of music, and was a violoncello player of considerable ability. He was at one time and for many years Chairman of the Subcommittee of Management of the Norfolk and Norwich Musical Festivals, in which he took deep interest. This duty he resigned a few years ago, when a testimonial of regard, in the shape of a handsome silver tea and coffee service, was presented to him, to which the Lord-Lieutenant and leading citizens of the county and city subscribed.

"Dr. Copeman", says a Norwich contemporary, "was not only an accomplished physician, but he was distinguished by great ability, combined with high and generous impulses. He was a warm friend, and, in every sense of the term, a Christian gentleman. By his death, medical science has been deprived of one of her most active votaries, and Norwich has lost one of her foremost citizens." Our associates will cordially endorse this verdict; and especially those who knew him as the able and genial President of the Association in 1874.

Dr. Copeman had been in failing health for some time, but continued to see patients up to the day preceding his death, which took place on February 25th, in an attack of cardiac dyspnœa. On the 28th, the Board of Management of the Norfolk and Norwich Hospital unanimously passed the following resolution.

"The Board of Management of the Norfolk and Norwich Hospital have heard with deep regret of the unexpected death of Dr. Copeman, who for so many years acted on the medical staff as a physician to the hospital. His valuable services ranged over the long period of twenty-nine years, in recognition of which, when he retired from active duty, he was appointed Consulting Physician to the institution. The Board now wish to record their deep sense of the loss which the hospital has sustained, and not only the hospital, but the city generally, in which his professional ability was so highly valued and esteemed. The Board desire to express their profound sympathy with Dr. Copeman's family on the melancholy occasion, assuring them that his memory will long be cherished in the institution, on which he has conferred so many benefits; and that his name will be associated with the most distinguished of those eminent men who, by their labours in the Norfolk and Norwich Hospital, have attained for it the high reputation which it holds amongst the hospitals of the kingdom."

THOMAS FAIRBANK, M.D.,

PHYSICIAN TO THE QUEEN'S HOUSEHOLD AT WINDSOR.

WE feel deep regret in announcing the death of Dr. Fairbank of Windsor, at the early age of thirty-six. This untimely close of a most promising career will awaken in the profession a keen feeling of sorrow and of strong sympathy with his bereaved family.

Dr. Fairbank was born in 1843, and received his education at the Forest School, under Dr. Guy; in the course of which we are assured that he evinced an aptitude for classical and other literary studies, which gave promise of the highest success, if, as was at one time contemplated, he had proceeded to the University of Oxford. But Dr. Fairbank's preference for the medical profession induced his friends to give him an early opportunity of pursuing the career which he had selected. He received his professional education at St. Bartholomew's Hospital, and became a Member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries in 1864. In the same year, he graduated as M.B. in the University of London, and was placed in the First Class in Honours in Medicine, Forensic Medicine, and Obstetric Medicine, in the former two of which subjects he took gold medals. In 1865, he proceeded to the degree of

M.D. He became for a short time House-Surgeon to the Metropolitan Free Hospital in Devonshire Square; and when Mr. Brown, the Queen's Surgeon at Windsor, retired from practice, Dr. Fairbank was recommended by the late Sir James Clark and Sir James (then Mr.) Paget to succeed him. Thus, at the early age of twenty-three, he succeeded to one of the best and most responsible private practices in England, besides becoming Surgeon to Her Majesty the Queen, the royal family, and the royal household at Windsor Castle, as well as to their Royal Highnesses the Prince and Princess Christian and their household at Frogmore.

During fourteen years, he lived respected, honoured, and beloved by all who knew him; and we believe that we are not transgressing the bounds of good taste in saying that throughout that period Dr. Fairbank was regarded by their Royal Highnesses the Prince and Princess Christian as not only an invaluable medical adviser, but also as a tried and esteemed friend, whose loss they deeply deplore.

He was buried in Clewer churchyard on Wednesday. Sir John Cowell, Master of the Household, represented Her Majesty; and Colonel Gordon, Equerry to Prince Christian, attended on behalf of his Royal Highness. The coffin was covered with wreaths and floral offerings, a very handsome cross being sent by Princess Christian. The Dean of Windsor performed the burial service, the hymns and psalms being sung by the choir of St. George's Chapel, under the direction of Sir George Elvey.

ROBERT BAKER, C.B.,

LATE CHIEF INSPECTOR OF FACTORIES.

Mr. Robert Baker was born at York, in which city he was also educated. At an early age, he was apprenticed to the late Sir William Pearson of Hull, surgeon, and subsequently completed his medical studies at Guy's Hospital. He commenced practice in Leeds in 1825, and soon secured to himself a leading position, becoming town-surgeon. At the time of the outbreak of Asiatic cholera in 1832, he turned his attention to the study of the nature of the disease, and the discovery of the modes of propagation of the scourge, and the causes leading to its production. With this object in view, Mr. Baker visited Sunderland and the neighbourhood, where the disease prevailed with great intensity. This act in the cause of medical science was gratefully acknowledged by the Leeds Workhouse Board in a series of resolutions, accompanied by an honorarium. Impressed with the relations subsisting between the development and propagation of disease and the sanitary state of a town, he applied himself to a minute examination of the health-condition of Leeds, putting his conclusions in the form of a statistical report, which at once attracted attention, and induced the Town Council to form a committee of inquiry into the sanitary needs of the town, an inquiry which resulted in the "Leeds Improvement Act" and the "Leeds Burial Ground Act". Having embarked so far in public work, Mr. Baker seemed now to have discovered the field for his future energies. He threw himself heartily into the work of mechanics' institutions, promoting them by taking part in their management and by giving lectures. He also took an active part in the proceedings which led to the passing of the Factory Act of 1833, and was among the first to realise the necessity for an organised system of inspection and the scope for medical supervision in the physical interests of the mill-workers. He was for some time voluntarily engaged by several leading manufacturers in Leeds, and the value of his services speedily obtained recognition. Mr. Baker was appointed a Subinspector of Factories under the Factory Act of 1833. Henceforward the administration of the Factory Acts became the object of his life, and he lent all his energies and thought to their amendment and extension. The performance of his work as a Subinspector of Factories in the large district allotted him could not fail of recognition. Consequently, when a vacancy occurred in 1848 in the office of Inspector of Factories, the magistrates of the West Riding and of the borough of Leeds presented testimonials to the Home Secretary recommending Mr. Baker for this higher appointment. He did not obtain this preferment till 1858, and the occasion was marked by a presentation of plate, subscribed for by the whole of the certifying surgeons of his district, the largest in the kingdom. At the same time, the overlookers of the town and neighbourhood of Bradford presented him, at a public meeting, with a most flattering testimonial. The division of the United Kingdom which fell under his supervision contained the western part of England, with the whole of Wales and Ireland. In 1877, this area contained 23,346 factories and workshops, giving employment to 2,010,637 persons of all ages. Twice a year a report appeared showing the work accomplished within the previous six months, indicating alterations and amendments of the law, and illustrating the benefits conferred by the Factory Acts. His reports attracted wide attention, and led to his being invited to visit France, where he became for a time the guest of M. Dollfus of Mulhouse, a man foremost in devising means to advance the material and moral prosperity of his operatives. In 1867, a silver medal and diploma were presented to him by the Société de Protection des Apprentis et des Enfants; and in 1873, he received another address and medal from the Association for the Prevention of Accidents by Machinery at Mulhouse, in recognition of the valuable advice he had willingly rendered the association at all times. In the same year, an illuminated address was presented to him by the factory hands of Lancashire, Yorkshire, and the surrounding counties.

The concluding part of his career as an inspector was marked by two special events. When his resignation became known, an association of factory surgeons contributed among themselves a sum for the purpose of securing some lasting memorial of Mr. Baker's worth. Her Majesty the Queen instituted him a Companion of the Most Honourable Order of the Bath; and the conferring of this Order afforded widespread satisfaction among his numerous friends and fellow-officials. After his retirement from office, he enjoyed but a comparatively short repose from his labours, the effects of age making rapid strides. His death took place at his residence in Leamington, early on February 6th; and he was buried in the York Cemetery on the 11th.

JAMES CRAIG, F.R.C.S.Ed.

This much respected surgeon died at the ripe age of eighty, at Lennox Street, Edinburgh, on February 20th. He was a well-known and successful practitioner for more than forty years at Ratho, near Edinburgh. He was Surgeon to the Royal Midlothian Yeomanry; author of the *Law of the Coroner*, and of several contributions to the Edinburgh medical journals. He was a favourite pupil, and for some years assistant, of the late eminent surgeon George Bell of Edinburgh. Failing health compelled his retirement from active work in 1838, since which date he resided in Edinburgh. He was popular not only on account of his professional skill, but for his genial disposition and for his kindness in gratuitously attending to the poor before and after his retirement. He had a fund of professional and other anecdotes with which he would amuse his friends, even in the intervals of pain during his last and long illness. His disease was of an internal and obscure nature, and was not clearly made out by his medical friends. He, however, bore all with patient resignation to the last. His funeral took place on February 25th, at Ratho, where he was laid beside his predeceased wife.

DAVID FIDDES, M.D., Aberdeen.

Dr. David Fiddes died at his residence in Union Street, Aberdeen, on February 25th. In 1832, he took his M.R.C.S. diploma, and, in 1843, he graduated as M.D. at Aberdeen. He commenced practice in Aberdeen nearly forty years ago, and had both plenty of work to do and much respect from the citizens. He was Consulting Physician to the Royal Infirmary, Aberdeen, and Medical Officer for Robert Gordon's Hospital and for other institutions there.

The Chemists' and Druggists' Trade Association of Great Britain.—At a special meeting of the executive committee of the Chemists' and Druggists' Trade Association of Great Britain, held on the 27th ult., under the presidency of Mr. Thomas Clay, it was resolved, on the motion of Mr. Hampson (London), seconded by Mr. Mackenzie (Edinburgh), that the Pharmaceutical Council, as representing pharmacy, should be legally empowered, in conjunction with the Medical Council, to frame and amend the future edition of the *Pharmacopœia*. A copy of a resolution passed by the Manchester Chemists' and Druggists' Association was received, setting forth the desirability of procuring a repeal of that portion of the Pharmacy Act of 1868 which excludes stamped proprietary articles or so-called patent medicines, from its operations. After considering a special report from the Law and Parliamentary Committee on the subject, it was resolved: "That this executive respectfully urges the Council of the Pharmaceutical Society of Great Britain to take steps to amend the provisions of the Pharmacy Act, 1868, in order to restrict the sale of scheduled poisons under cover of the patent medicine stamp to registered chemists and druggists." Mr. Shaw (Liverpool) said the recent successful prosecutions by the association for illegal trading in Leeds, Liverpool, Birmingham, and other towns, would be appreciated by the chemists and druggists throughout the country. Mr. Mackenzie concurred, suggesting that action should now be taken for the suppression of illegal trading in Scotland, where drapers were to be found making pills. The Law and Parliamentary Committee were instructed to watch the medical Bills before Parliament, and take what action may be necessary.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE NOTIFICATION OF INFECTIOUS DISEASES.

SIR,—In your issue of February 14th, you publish a "Report on Local Legislation as to Infection and Infectious Diseases"; and, in a previous number, you printed the able communication of Dr. John William Moore to the Dublin Branch of the Association, on the compulsory notification of infectious diseases. Having published so much on one side of the question, I trust that you will permit me to give the reasons for considering this compulsory notification as, in certain cases, most objectionable in practice.

I perfectly recognise the duty of the medical profession to do everything in their power to diminish the spread of disease; and in the case of tenement-houses, inhabited by a number of families all using the same stairs and entrance, I entirely approve of this compulsory notification to the sanitary authority. I would go further, and give power to compulsorily remove the patient to a hospital compulsorily provided by the local sanitary authority, or even to remove all the healthy inhabitants to a house of refuge while the infected tenement-house was being depurated; and I would have all this done at the public expense for the protection of the poor, whose circumstances compel them to live in close proximity and contact.

Even at the risk of being accused of taking "a narrow view", I contend that the case of private houses of the better class is entirely different. Such a house is usually inhabited by one family and their servants; it has its own separate entrance; and, especially in large towns, no connection with or perhaps knowledge of the neighbours on either side; and it appears to me that the proposal of compelling the attending physician to report the case to the sanitary authority, under a penalty, or the hardly less objectionable one of his handing the certificate to the occupier, and telling him to do so, would seriously impair the honourable confidence which exists between physician and patient. Suppose the occupier refuses to so notify, the sanitary authority would no doubt prosecute. Is it proposed that the attending physician (who alone may be able to prove the case) is to be placed in the witness-box to convict his own patient? I should say not. My view of the matter, as a practising physician, is, that the patient's malady is the patient's secret; and that it is my duty to keep it. Should the patient object to my notifying, I would not notify; and, if he did not, no legal obligation would induce me to go into the witness-box to convict him. If the desirability of the notification of communicable disease is to supersede all other considerations, why not notify venereal diseases? It would certainly tend to prevent their spread. I am as ardent an advocate of sanitary science as anyone can be; but I cannot approve of the general compulsory notification of infectious disease.—Your obedient servant,

F. J. B. QUINLAN, M.D.Univ.Dubl.,
Fellow of the King and Queen's College of Physicians.

29, Lower Fitzwilliam Street, Dublin, February 17th, 1880.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ASTON MANOR.—This report is at once a very readable and a very practical one. It sums up the work of the year in a very clear and thorough fashion, and reflects generally much credit upon Mr. May. Sanitary work in this important suburb of Birmingham seems to be rapidly progressing, though there is still much to be done. A most salutary reform was effected in 1878 by the Authority's undertaking the removal of night-soil, and the privies generally are undergoing reconstruction. During 1878, 2,080 births and 990 deaths were registered in the district, giving rates of 42.3 and 20.1 per 1,000, as against 43.2 and 17.5 in 1877. The infant mortality was at the rate of 15.6 per 100 births. Zymotic diseases caused 246 deaths (90 more than in 1877), or 25 per cent. of the total deaths. The deaths from scarlet fever (84), whooping-cough (60), and diarrhœa (64) show the largest increase, scarlatina having been especially prevalent and fatal, particularly amongst children. A great number of cases of infectious disease came to the knowledge of the sanitary officers, and the visitation of the premises where these occurred naturally greatly increased the amount of their work. During the year, 293 cases in 199 houses were reported, 93 of which latter were houses built back to back, or without through ventilation.

MID-WARWICKSHIRE.—Dr. George Wilson is one of the best medical officers of health in the kingdom, and it is matter for very sincere regret that his annual reports are not printed and published, as they richly deserve to be. His report for 1877 was indeed printed, and is extremely interesting; but we believe we are correct in stating that none of these for previous years, nor for 1878, have been published in any permanent form. We subjoin abstracts of such as have fallen into our hands; and we cannot but deplore that the preservation of these reports is bound up with the brief life of a local newspaper. *Kenilworth.*—The most remarkable feature in the statistics of this district is the high infantile mortality, which reached the rate of 172 per 1,000 births. Dr. Wilson ascribes this mortality to want of proper care in nursing, rather than to insanitary conditions. But, as the scavenging arrangements and the drainage of the town seem to have been during 1878 susceptible of improvement, we should be inclined not to exclude altogether insanitary conditions as a cause of this mortality. The general death-rate was 19.1, and the district was remarkably free from zymotic disease. *Rugby.*—The health of this district during 1878 was satisfactory. The general death-rate was low (14.2 per 1,000), and so was the rate from zymotic disease and the infantile mortality. Of 140 deaths, 43 occurred in children under five years of age and 56 amongst persons over sixty. The scavenging has been well attended to, and some further improvements carried out in respect to the flushing and ventilation of the sewers. *Rugby Rural District.*—The vital statistics of this district show a steady improvement, due (Dr. Wilson thinks) to sanitary action. The death-rate for 1878 was 17.1, which is considerably less than that for former years. The zymotic rate was low, and the only unfavourable feature is the high rate of infant mortality, 64 out of the 276 deaths occurring in children under one year. A good account of sanitary work is shown. *Warwick.*—Not much improvement in the death statistics of this place is apparent, though typhoid fever has been very rare, and a marked reduction has taken place in the rate of infantile mortality. Considerable progress is, however, undoubtedly being made in its sanitary condition, as last year more ventilating shafts to the sewers were provided, and the water-supply was made constant instead of intermittent. This latter is a great improvement, and has saved something like 125,000 gallons of water every twenty-four hours. The corrected death-rate for 1878 was 19.4, after deducting deaths in the workhouse. Among the causes of death, 20 were attributed to scarlatina, 4 to diphtheria, and 9 to whooping-cough. Scarlatina was very prevalent in the latter part of the year, 69 cases being reported. Whooping-cough was also prevalent in the first two quarters. Altogether, the deaths from zymotic diseases, excluding diarrhœa, amounted to 41, representing a zymotic death-rate of 3.6 per 1,000. From the description given, we think the Inspector of Nuisances might be more active with advantage.

ROCHDALE.—In this important town, the estimated population of which is 71,200, there were 2,426 births and 1,720 deaths in the year 1878. The death-rate was 24.2 per 1,000, or an increase of nearly 4 per 1,000 over that for 1877. The total deaths from the seven principal zymotic diseases were 292, or 55 more than the average of the last four years. This increase was due to deaths from measles and scarlet fever. Measles caused 67 deaths amongst children under five years of age, and commenced to be epidemic in the early part of the year. Scarlatina was epidemic throughout the whole year, and occasioned 107 deaths, most of which were associated with bad sanitary conditions. The deaths returned as from fever were 43, which was the average number for the last four years. The cases were equally distributed over the different districts of the town, and there seems no reason to doubt that many of them were wrongly described as typhoid fever. Fifty-one deaths were caused by diarrhœa, 37 of them being in children under one year of age, and only 3 cases occurring over five years of age. Dr. Mitchell Wilson thinks the widespread practice of feeding infants with bad and unsuitable food is undoubtedly the cause of the greater part of the mortality from diarrhœa; and that the prevalence of dirt about the children, the houses, and the yards has a good deal to do with the frequency with which elder children succumb to attacks of the same complaint. No fewer than 56 infants under one year, and over 100 cases at all ages, died without a proper medical certificate of the cause of death—a fact which proves how large an amount of sickness is allowed to continue without any endeavour to obtain for the patient some chance of relief. The alteration of old privies to the new pail system is progressing favourably, and a large number of house-drains have been disconnected and trapped. The improvements which now appear most to be required are the ventilation of many of the town sewers, the abolition of the too frequent cellar-dwellings, the proper scavenging of courts and by-streets, the provision of public wash-houses, of a mortuary, and of a hospital for infectious cases.

WANDSWORTH.—The district under the Wandsworth Board of Works is divided into five districts, each of which is under the charge of a separate officer of health. This arrangement seems, on the whole, to have worked well, though we conceive it to be better, as a general rule, that one officer whose entire time is devoted to the duties should be appointed to superintend the health-affairs of a London district. The local summaries as to each district are well written and clear, and a general report at the beginning gives all needful information as to the district as a whole. During 1878, the number of births registered in the district was 6,508, or 39.4 per 1,000 of the official population, and the number of deaths 3,275, or 19.8 per 1,000. Zymotic diseases caused 164 deaths more in 1878 than in 1877, the exact number being 583. The increase was due to epidemics of measles (84 deaths) and whooping-cough (149 deaths), and to an increased prevalence of diarrhœa (182 deaths) and croup (30 deaths). Small-pox was fatal in 19 cases, a decided decrease from the fatality of the previous year. Scarlatina was greatly under the average, being fatal in 39 cases. Small-pox, fever, and diarrhœa were most prevalent in Battersea, measles and scarlatina in Clapham, croup in Putney, and diphtheria in Wandsworth. An increase in the deaths among children was observed over the whole metropolis during the past year, and in this district the infant mortality constituted 30 per cent. of the entire deaths. The mortality over eighty was strikingly high in 1878. The deaths numbered 142, and constituted 4.2 per cent. of the total. The number of uncertified deaths still continues to rise; and the fact that in one district fifty human beings can pass away in a single year without anything definite being known regarding their mode of exit from the world is certainly rather uncomfortable.

MAGISTERIAL DEFINITION OF INSANITY.

SIR,—I am sorry that I should have misspelled Dr. Edmunds's name, as I am no way desirous of misrepresenting him in any particular—notably as to "the duty cast on him to re-examine certified pauper lunatics, and of attending at the magistrate's office and advising him", etc. This duty, if I am correctly informed, he accepted from the Westminster Board of Guardians, and for every such attendance he receives a fee of 10s. 6d. or thereabouts. Such attendance is in no way necessitated by the Pauper Lunacy Act, which provides that one certificate is sufficient. Mr. Newton, however, insists on the production of two, hence Dr. Edmunds's occasional appearance on the scene. Dr. Edmunds admits that he "was decidedly of opinion that not only was the patient of unsound mind, but also a fit and proper person to be detained and taken care of, and that he advised the magistrate to that effect". Surely if he did give such opinion to the magistrate—and from what I have since heard he most undoubtedly did—there can be no justification for his writing to you and complaining of my impeachment of Mr. Newton's conduct. He says: "Mr. Newton occupies a very responsible position." That is correct; and I am willing to admit that, according to his lights, he is a very painstaking and conscientious magistrate. I would I could say as much of his treatment of officials, who, like myself, have occasionally to go before him: a little more courtesy would be acceptable. My contention, however, is, that he travelled outside the lines of his duty in refusing to act upon the certificates presented to him, and notably in interfering with me in the performance of my duty as the medical officer of the workhouse. It is, however, not improbable that, singular as his action was in the case of John Sobieski, I might have remained quiet but for the fact that this was not the first instance by a great many in which Mr. Newton has refused to act upon the certificates presented to him, and that, too, to the detriment of the lunatic. I had once a female pauper lunatic (now a hopelessly incurable patient at Hanwell) five months in the workhouse because Mr. Newton chose to set up his judgment in opposition to my and my two colleagues' opinions. The woman was eventually removed whilst Mr. Newton was away on a holiday.

Dr. Edmunds considers my impeachment of Mr. Newton's "conduct as not likely to increase the influence or usefulness of the profession". I am at a loss to understand the force of his assertion. Mr. Newton chose to set aside not my opinion only, but that of Dr. Edmunds and of the divisional surgeon, and further threatened that he would complain of my conduct to the Local Government Board if I did not let this religious monomaniac leave the workhouse. I hold—and the common sense of the profession and the public will, I am convinced, support me—that I have adopted the only course open to me in commenting on Mr. Newton's action in this case.

Dr. Edmunds says that I might just as fairly impeach his conduct, because in a few instances he has not been able to certify in cases demonstrated to be insane by me. It is just possible that Dr. Edmunds might have been content with my references to him in the cases to which he refers, if by chance they had been brought to his knowledge. Suffice it to say that, with hardly an exception, those cases have had to be reconsidered by Dr. Edmunds, or have been sent to Caterham, with the view of avoiding further obstructiveness.

Having been away from town three weeks, I know nothing about the return of an alleged lunatic by order of the Commissioners. No such case was ever brought to my knowledge.—I am, etc.,
JOSEPH ROGERS.
33, Soho Square, February 1880.

W. H. W.—If the appointment be declared, by public notice, to be open to competition, our correspondent would be justified in applying for it.

THE HEALTH OF SOUTH-COAST TOWNS.

SIR,—My attention has been drawn by a friend to a leading article in the BRITISH MEDICAL JOURNAL of December 6th, 1879, on the above subject, which had escaped my notice. I therein observe that a comparison is endeavoured to be instituted between the health of Brighton, Portsmouth, and Plymouth; but, finding the conditions of the first-named town are so diverse from those of the other two, Brighton has been wisely discarded after a few introductory remarks, and Portsmouth and Plymouth are then made to face each other. After advancing many statistics, based on the Registrar-General's returns (and which I will take for granted are correct), I am asked to account for the disparity in the death-rates of the two towns when "judged by the same standard". What standard? Notwithstanding all the array of statistics, the most important have been omitted (I presume accidentally), for it is by the standard of "density of population" the judgment must be based. In the Registrar-General's third Quarterly Return, 1879, I find that "Portsmouth" includes four subdistricts, with an area of 4,832 acres, and an estimated population of 131,821; whilst Plymouth embraces an area of 1,491 acres, and contains an estimated population of 74,293. These figures give to Portsmouth 29.4 persons to an acre, and to Plymouth 53.3 persons—or, in other words, the latter town is 81 per cent. more thickly populated than the former. The average density of population in the twenty large towns of England is 38.6, Plymouth being the most thickly populated but two, whilst Portsmouth stands twelfth on the list. If Plymouth were allowed to stretch her borders beyond the present municipal boundary, and include the well-to-do inhabitants of the villas and terraces on the north side, there would be some show of truth in your remark that "it appears difficult to urge any good reason why the mortality statistics of Plymouth and Portsmouth should not be fairly comparable". I am informed the poorest classes in the district, described by the Registrar-General as "Portsmouth", reside in Portsmouth Town subdistrict, an area of only 126 acres, with a population of about 12,000, whilst the remaining three subdistricts are inhabited by respectable artisans and the upper and middle classes of society. Would that I could say as much for Plymouth, that only one-eleventh of the population were poor, and that only one thirty-eighth of the entire district was mainly covered by old dilapidated houses. In addition to our own poor, we have large importations of Irish, whose ideas of sanitation are not of the highest order.

On the question of density, the Registrar-General's statistics do not always convey a right impression; for two boroughs having equal average and population would be said to have equal density of population, although in the one case the inhabitants might be thinly spread over the entire area, and in the other case be crowded into one-third of its area. Plymouth suffers somewhat in this manner, chiefly by the overcrowding of families in large houses, especially in the old part of the town. It would be far more valuable to ascertain the average density of population in the inhabited portions only of a given borough or district.

As regards the high rate of infant mortality in Plymouth as compared with the rate in Portsmouth, my knowledge enables me to endorse your remark that such mortality "is influenced by social as well as sanitary causes": indeed, it frequently happens the two are combined. Fortunately, infantile diarrhœa is not a zymotic disease, otherwise the mortality would have been much greater. On the other hand, in the Quarterly Return above referred to, I observe people live to greater ages in Plymouth than in Portsmouth district; the death-rate per 1000 above sixty years of age in the former place being 56.7, whilst in the latter place it was 47.8.

I trust I have said enough to show that the conditions of the two districts under consideration have not sufficient resemblance to enable one to make a fair comparison of their health-statistics. I believe that Plymouth, with all her faults, such as are common to most large towns, if placed on an equal footing with Portsmouth, as regards extent of area, would show as low, if not a lower, death-rate than that in Portsmouth. Plymouth, possessing many local attractions, and a neighbourhood having the most varied scenery in the kingdom, will continue to grow in importance; and I am glad of this opportunity of explaining to you and the public how necessary it is to be acquainted with all the bearings of the question before the true value of a death-rate can be estimated.

I have not dealt with all the points in your leading article, but have satisfied myself by answering the most prominent. I would now ask, What should be done to relieve the overcrowding in dwellings? The Artisans' Dwellings Act must be amended before it can be of any practical service. The Public Health Act gives certain powers: but before a family is ejected, it should be ascertained whether a suitable dwelling can be resorted to, otherwise nothing will be gained. At present, the working-classes are depending on the *chance* of capitalists investing in a special kind of household property. In this town, the supply is not equal to the demand; and I fear the difficulty will always obtain, more or less, until local corporations have the power not only to tear down uninhabitable houses, but to build up others more suitable for the reception of groups of families. Such power should be granted, and it would be found that by its use not only would there be no pecuniary loss, but a real benefit would be conferred on the poor, and, indirectly, on the general public.—I am, sir, yours obediently,
HENRY GREENWAY, Medical Officer of Health.
Plymouth, February 11th, 1880.

⁂ We have little difficulty in accepting Mr. Greenway's attempt to explain the unfavourable mortality statistics of Plymouth, compared with those of Portsmouth, when he attributes it to over-crowding, and to the fact that *more* than one thirty-eighth of the entire district is "mainly covered by old dilapidated houses". We attach, however, very little value to calculations of density of population based merely upon the average number of persons living on each acre within the arbitrary boundaries of different municipal boroughs, nor do we think it probable that the Plymouth population contains a much larger proportional Irish contingent than does that of Portsmouth. The Public Health Acts of 1872 and 1875, with all their faults, can be used to redress the sanitary defects of Plymouth, pointed out by its medical officer of health, if the sanitary authority be in earnest in the matter. Mr. Greenway declares that infantile diarrhœa is not a zymotic disease; but we hardly see how this assertion, sound or unsound, affects the rate of infant mortality of Plymouth by making it greater or less. We would also point out to Mr. Greenway that a high rate of mortality among persons aged upwards of sixty years is no proof that persons "live to greater ages in Plymouth".

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL SERVICE.—The *London Gazette* of Tuesday announces that Dr. John Watt Reid, the newly appointed Director-General of the Medical Department of the Navy, and Dr. Ahmuty Irwin, recently appointed Superintendent of the Royal Naval Hospital at Plymouth, have been promoted to the rank of Inspector-General of Hospitals and Fleets, with seniority of 25th February.—The following appointments have been made: Surgeons—R. J. Barry, to the *Torch*; A. Flood, to the *Euryalus*.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, February 26th.

The Artisans' and Labourers' Dwellings Improvement (*Scotland*) *Act* (1875) *Amendment Bill.*—This Bill was read a third time and passed.

HOUSE OF COMMONS.—Monday, March 1st.

The Army Medical Service.—Colonel STANLEY, in moving the Army Estimates for the ensuing year, said: There is a great concurrence of opinion in favour of the medical warrant as it now stands. I think the liberality with which, by the consent of the Chancellor of the Exchequer, the Government has been enabled to deal with the subject has been distinctly a benefit. I am glad to hear that it has been successful in attracting candidates of a better class than those who have been brought into the army for many years past. There seems to be a consensus of opinion that the warrant is so far liberal that, if it do not attract candidates, nothing will. There have been two examinations of candidates since December last, when the warrant was issued. At the first, seventy-two candidates passed out of seventy-six who offered themselves for examination; and, on the second occasion, forty-two candidates presented themselves, of whom thirty-five came up to the required standard and were accepted. Thus, within the space of a little more than two months, there were one hundred and eighteen competitors, of whom one hundred and seven were successful. Both in South Africa and in Afghanistan, the generals in command have spoken in the highest terms of the efficiency, zeal, and self-devotion of all ranks of officers; and I am afraid that, in this respect, there is even melancholy evidence in the large numbers who have succumbed to hard work, especially among the Indian forces. I must refer to the loss which the medical service and the medical world in general have sustained by the death, at Sherpur, of Deputy Surgeon-General Porter, an officer whose arrangements for all the medical duties of the campaign left nothing to be desired. He leaves, both among the medical world and those who are his countrymen, a reputation to which his friends may look back with satisfaction, and a memory which will be dear to all those who knew him. There is another point in connection with the medical service to which I should like also to draw attention. In the recent attack on Secocoeni's camp, the ambulances were for the first time fully organised; and it is satisfactory to know that this was attended by the best results, under the direction of Surgeon-Major Hector. It is important that I should draw attention to this, because it is a marked feature in field medical organisation. The official report of the principal medical officer states that so efficiently and rapidly did the corps perform its duty, that no wounded man was left two minutes on the ground before he was taken to the dressing-station. Subject to certain conditions, exchanges are now as absolutely free as in the combatant branch. The only exception is that, when a medical officer returns invalided from such a climate as India, he is prevented from going into a similar climate. The concession of forage to surgeons has been treated by almost all of them as a genuine and welcome concession. We have also introduced a system, when there is not work enough to employ an army medical officer, to engage the services of others at a lower rate of pay. Twenty-one medical officers on half-pay and six militia medical officers have been appointed to these stationary posts. The admissions into the hospitals were at the rate of 827 per 1,000, and the rate of deaths was 7.37, which, compared with the rates of previous years, shows that the admissions into the hospitals have slightly increased. The increase of the rate at Bengal was due to cholera, and the increased sickness at Gibraltar is stated to have arisen partly from the prevalence of paroxysmal fever among the troops sent thither from Cyprus. With regard to Cyprus, there is a marked improvement in the health of the troops in that island, both the rates of sickness and of death having decreased during the past year.

Vaccination Statistics.—Mr. GOURLEY asked it attention had been directed to the reports of the vaccination-officers of the Durham guardians for the year 1878, in which they stated that, out of 2,381 children born in the Western and St. Nicholas district, 305 died from the effects of vaccination; and, during the first six months of last year, the number of deaths in the same union, from the same cause, was 141.—Mr. G. SCLATER-BOOTH said the reports of the vaccination-officers of the Durham guardians for 1878 and 1879 had been carefully examined. They contained no information as to the deaths from vaccination; but they contained the number of children born, and who died previously to vaccination. As he found the number corresponded very nearly to the numbers stated in the question, the excessive mortality was the mortality of the children who had died before vaccination.

Tuesday, March 2nd.

London Water-Supply.—Mr. CROSS moved for leave to introduce a Bill to make further provision for the supply of the metropolis and the adjoining populous places with water. The result of his investigations during the recess had been to convince him that unification of the existing companies was absolutely essential; and the best way of obtaining it was, that the companies should surrender the powers they possessed to some central body, who should have absolute power over the supply. The companies would be taken over by a Water Trust, who would issue a three-and-a-half per cent. stock, which the directors of the several companies had agreed to take. The question of price had been settled by an agreement with the companies, and was now presented for ratification by Parliament. The aggregate capital sum to be paid to the companies would be twenty-two millions, and the unearned increments to be paid to the companies in course of the next few years would amount to six or seven millions more. The Water Trust would consist of three salaried members; the Lord Mayor; the Chairman of the Metropolitan Board of Works; four members nominated by the Local Government Board, the Chief Commissioner of Works, the Commissioners of Sewers, and the Metropolitan Board respectively; twelve elected members from metropolitan boroughs and the metropolitan district.—Leave was given to bring in the Bill.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, February 26th, 1880.

Astley, John Dugdale, Cambridge Gardens, Notting Hill
Berridge, William Alfred, Red Hill, Surrey
Collier, William, Stapleford, Cambridgeshire
English, Edgar, Whitby
Lloyd, John Jenkin, Llanelly

The following gentlemen also on the same day passed their primary professional examination.

Dester, William Parker, Bristol Royal Infirmary
Johnston, Edward Cocks, Queen's Hospital, Birmingham
Shillito, William Alsope, General Infirmary, Sheffield

UNIVERSITY OF DUBLIN: TRINITY COLLEGE.—At the Hilary Term Examination for the Degree of Bachelor of Medicine, held on Monday and Tuesday, January 26th and 27th, the candidates passed in the following order of merit.

Francis A. Bede Thierry Mouillot, Alexander Silcock, Thomas Robert Lingard, Edward E. Moore, William J. Patton, Thomas J. R. Lucas, Charles H. Dixon, Richard C. Studdert, Alfred Mason, David C. Smith, and John S. Kane.

At the same examination, the Licentiateship in Medicine was obtained by

George W. Brazier-Creagh.

The Degree of Bachelor of Medicine was obtained by

Richard C. C. Hickson, Army Medical Department.

At the examination for the Degree of Bachelor in Surgery, held on Monday and Tuesday, February 2nd and 3rd, the candidates passed in the following order of merit.

John Singleton Darling, Alexander Silcock, Malcolm H. Moore, David C. Smith, and Abraham Cohen.

The degrees were conferred by the University *Caput* on February 10th; and at the same time the degree of Doctor in Medicine was conferred on

Henry Nathaniel Dudley, Richard C. C. Hickson, and Jonas S. Poole.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, February 9th, 10th, 11th, and 12th, the following candidates were successful.

For the Licence to Practise Medicine.—Robert Allman, George Edward Fisher, John Joseph Hayes, Robert Charles Lyle, Michael Joseph McCoy, Benjamin George MacDowel, Mary Adamson Marshall, John Alexander Miller, Jeremiah O'Donovan; Walter Stephen Palmer, Thomas Cathcart Taylor.

For the Licence to Practise Midwifery.—Robert Allman, Nicolas Santana Alvares, George Edward Fisher, John Joseph Hayes, Michael Joseph McCoy, Mary Adamson Marshall, Jeremiah O'Donovan, Alexander Sharpe, Thomas Cathcart Taylor, John Americus de Courcy Williams.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BELFORD UNION—Medical Officer for the Workhouse and West District.

*CARMARTHEN INFIRMARY—House-Surgeon. Salary, £125 per annum, with lodging, fire, and washing. Applications to the Secretary on or before March 31st.

DRAYTON UNION—Medical Officer for the Fifth District.

*GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff—House-Surgeon. Salary, £100 per annum, with board, washing, and furnished apartments. Applications, with testimonials, to the Secretary on or before March 8th.

GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary, on or before March 18th.

HUDDERSFIELD UNION—Medical Officer for the Crosland Moor Workhouse. Salary, £50 per annum, and certain fees. Applications on or before March 8th.

LINCOLN UNION—Medical Officer for the Second and Eleventh Districts.

*LONDON LOCK HOSPITAL—Assistant House-Surgeon to the Female Department. Applications, with copies of testimonials, on or before March 17th.

*NEWPORT (Monmouthshire) ODD FELLOWS MEDICAL AID ASSOCIATION—Assistant Medical Officer. Applications to the Secretary, with testimonials, before March 20th.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL, STOKE-ON-TRENT—House-Physician. Salary, £100 per annum, increasing £10 a-year at the discretion of the Committee, with board, furnished apartments, and washing. Applications, with testimonials, to the Secretary not later than March 24th.

QUEEN'S UNIVERSITY IN IRELAND—Examiner in Medicine at a salary of £100; in Surgery, at £100; in Midwifery and the Diseases of Women and Children, at £75; in Materia Medica, at £75; and in Medical Jurisprudence, at £75. Applications to be made to the Secretary, Queen's University, Dublin Castle, on or before the 16th instant.

RATHDOWN UNION—Medical Officer for the Bray portion of the Bray and Rathmichael Dispensary District. Salary, £110 per annum, with £27:10 as Medical Officer of Health, and the usual Registration and Vaccination Fees. Election on March 8th.

ROYAL WINDSOR DISPENSARY AND INFIRMARY—Surgeon.

*ST. BARTHOLOMEW'S HOSPITAL, Chatham—Assistant House-Surgeon. Salary, £80 per annum, with board, washing, etc. Applications on or before March 22nd.

*SEAMEN'S HOSPITAL, Greenwich—House-Physician. Salary, £75 per annum, with board, furnished apartments, and attendance. Applications to the Secretary on or before March 8th.

*WARWICK COUNTY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Application, with testimonials, to the Medical Superintendent.

WOOLWICH UNION, KENT—Assistant Medical Officer. Salary, £90 per annum, with board, lodging, and washing. Applications on or before the 9th instant.

YORK DISPENSARY—Physician.

*YORK DISPENSARY—Resident Medical Officer—Salary, £130 per annum, with furnished apartments, coals, and gas. Applications, with testimonials, on or before March 9th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BATTY, W. E. L., M.R.C.S.Eng., appointed House-Surgeon to the Liverpool Northern Hospital, *vice* W. McGeagh, M.D., resigned.

*BOULTON, Percy, M.D., appointed Physician for In-Patients to the Samaritan Free Hospital.

BUCKLE, John, M.R.C.S.Eng., appointed Resident House-Surgeon to the Western Branch of the Brighton and Hove Dispensary, *vice* Augustus Hewett, M.R.C.S.Eng., resigned.

*CLIBBORN, William, B.A., M.D., appointed Honorary Medical Officer to the Lying-in Charity, Birmingham, *vice* T. H. Ravenhill, M.R.C.S.Eng., resigned.

*EDWARDS, Frederick S., F.R.C.S.Eng., appointed Assistant Surgeon to the West London Hospital, *vice* H. T. Butlin, F.R.C.S.Eng., resigned.

*HENRY, George Fraser, F.R.C.P.Ed., appointed first Resident Medical Officer to the Bury St. Edmund's Friendly Societies' Medical Association.

HURST, George, M.B., appointed House-Physician to the General Lying-in Hospital.

*MERCIER, C. A., M.B., appointed first Assistant Medical Officer to the Leavesden Asylum for Imbeciles, *vice* C. S. W. Cobbold, M.D., resigned.

PENRUDDOCKE, Charles, M.R.C.S.Eng., appointed Assistant Surgeon to the Tewkesbury Rural Hospital.

ROBBINS, James, M.B., appointed House-Surgeon to the Richmond Hospital, Surrey, *vice* J. T. Gadsby, M.B., resigned.

SHEARS, Charles H. B., appointed Assistant House-Surgeon to the Liverpool Northern Hospital, *vice* W. E. L. Batty, M.R.C.S.Eng., appointed House-Surgeon.

*STATHERS, George N., M.R.C.S., appointed House-Surgeon to the Burton-on-Trent Infirmary, *vice* H. L. Calder, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BOOTH.—On February 24th, at the Beeches, Farnworth, the wife of J. B. Booth, M.R.C.S.Eng., L.R.C.P.Ed., of a son.

McDOWALL.—At Cottingwood, Morpeth, on the 3rd inst., the wife of Dr. T. W. McDowall, of a son.

WOODMAN.—February 20th, at 5, Prospect Terrace, Ramsgate, the wife of Samuel Woodman, F.R.C.S., of a daughter.

DEATHS.

BATEMAN.—On February 29th, at Whitchurch, Oxon., Francis Henry, the beloved son of Francis Bateman, M.B.Lond., aged thirteen months.

GOOD, JOSEPH, Esq., surgeon, late of Wilton, aged 39, of paralysis, on February 27th.

MAGINNISS, Robert M., B.A., M.D., at 158, Camden Road, of apoplexy, aged 25, on February 28th.

PROCTER.—On the 29th February, at 24, Petergate, York, William Procter, M.D., aged 62, for many years Secretary of the Yorkshire Branch of the British Medical Association.

BEQUESTS.—Mr. William Henry Braddell has left £50 to the Belfast Royal Hospital. Mr. Abraham Colles, late of Ballyfallon, Meath, has bequeathed £100 to Steevens' Hospital, Dublin.

PUBLIC HEALTH.—During last week, being the eighth week of the year, 3,907 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 24 deaths annually in every 1,000 persons living. The annual death-rate was 21 in Edinburgh, 21 in Glasgow, and 42 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Wolverhampton 14, Bradford 17, Leeds 17, Leicester 18, Brighton 19, Bristol 19, Birmingham 21, Sunderland 21, Salford 22, Sheffield 22, Portsmouth 23, London 24, Norwich 24, Manchester 24, Newcastle-upon-Tyne 24, Hull 25, Oldham 27, Liverpool 27, and the highest rate 32 both in Nottingham and Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.2 per 1,000 in the twenty towns, and ranged from 1.1 in Leeds and Birmingham to 7.6 and 9.7 in Nottingham and Plymouth. Measles showed the largest proportional fatality in Nottingham, Plymouth, and Hull; scarlet fever in Sunderland, Nottingham, Brighton, Norwich, and Newcastle-upon-Tyne; and whooping-cough in Plymouth and Newcastle-upon-Tyne. In London, 1,662 deaths were registered, showing a marked decline, and being 141 below the average. The annual death-rate from all causes, which in the three previous weeks had been equal to 48.1, 35.5, and 28.7 per 1,000, further declined last week to 23.7. The 1,662 deaths included 13 from small-pox, 18 from measles, 46 from scarlet fever, 5 from diphtheria, 135 from whooping-cough, 13 from different forms of fever, and 9 from diarrhœa—in all, 239 zymotic deaths, which were 9 below the average, and were equal to an annual rate of 3.4 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 1,557, 1,020, and 693 in the three preceding weeks, further declined to 459 last week, and were 12 below the corrected weekly average; 306 resulted from bronchitis, and 104 from pneumonia. Different forms of violence caused 44 deaths; 32 were the result of negligence or accident, including 15 from fractures and contusions, 3 from burns and scalds, 6 from drowning, and 3 of infants under one year of age from suffocation. Twelve cases of suicide were recorded during the week. At Greenwich, the mean temperature of the air was 40.5°, and 0.6° above the average. The direction of the wind was variable, and the horizontal movement of the air averaged 14.1 miles per hour, which was 1.0° above the average. Rain fell on three days of the week, to the aggregate amount of 0.35 of an inch. The duration of registered bright sunshine in the week was equal to 14 per cent. of its possible duration. The recorded amount of ozone was below the average throughout the week except on Saturday.

DREADNOUGHT SEAMEN'S HOSPITAL.—The annual court of the Dreadnought Seamen's Hospital Society was held on February 20th at Willis's Rooms, the Right Honourable W. H. Smith, M.P., First Lord of the Admiralty, presiding. The report for the past year showed that 1,899 patients had been under treatment in the hospital, and 3,084 had been admitted as out-patients. There had been a falling-off in the amount of subscriptions, and the committee now appealed for an increase of £2,000 from this source of revenue. In addressing the meeting, the chairman said that it seemed to him that, from the services they rendered, seamen had a claim on society for the support of the very useful institution at Greenwich, which ministered to them when they were ill. He was struck with the fact that one-tenth of the annual cost of the hospital was contributed by sailors; and as the system of collecting funds on board ships had only been in operation for three years, probably their proportion of the receipts would be increased. He was under the impression that in no other London hospital was so much of the funds contributed by its *clientèle*. For these and other reasons he urged the claims of this charity to the assistance of the public. Resolutions approving the report and appointing office-bearers for the ensuing year were agreed to. It was stated that the Empress of Germany had spontaneously sent a donation of £20, with a desire that her name be added to the list of patrons of the Dreadnought Hospital, and that the King of Sweden had intimated a donation of £25.

OPERATION DAYS AT THE HOSPITALS.

MONDAY…….	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY……	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY….	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY…….	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY….	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London. 107th Anniversary.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. A. E. Barker, "On Nephrectomy by Abdominal Section."

WEDNESDAY.—Hunterian Society. At 7.30 P.M., Council Meeting. At 8 P.M., Dr. F. Warner, "A Case of Athetosis associated with Epilepsy"; Mr. F. Startin, "A Case of Elephantiasis"; Dr. Carrington, "Cancer of the Bile-Duct fatal by suppuration of the liver".

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Eve, "A Case of Impacted Fish-Bone in the Œsophagus, penetrating the Diaphragm and Pericardium and wounding the Heart"; Dr. Greenhow, "A Case of Typhoid Fever, associated with Acute Nephritis and Profuse Hæmaturia, without Dropsy"; Dr. Buzzard, "A Case of Rapid and almost Universal Paralysis, involving the four Extremities, both Sides of the Face, Respiration, and Deglutition: Recovery"; Mr. Eve, "A Case of Fracture extending through the Temporal Bone"; Mr. Clutton: "A Case of Femoral Aneurism: Ligature of the External Iliac Artery: Recovery"; Dr. Crocker will exhibit a Case of Herpes Iris.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

THE COPLAND FUND.

SIR,—In closing the above fund, I beg to state that the whole sum collected amounted to £101 5s., which I have handed over to Mrs. Copland; and I am desired, on the part of the Committee, to thank the subscribers and the editor of the BRITISH MEDICAL JOURNAL for their kind assistance.—I remain, sir, yours,

R. H. SEMPLE, M.D., Treasurer of the Fund.

8, Torrington Square, March 1st, 1880.

A LUNACY GRIEVANCE.

THE *Pall Mall Gazette* of the 24th February, "as an example of what may happen under the present lunacy laws, and of what does happen, it may be feared, oftener than is imagined", quotes an incident reported to it by an anonymous correspondent; and in doing so, affords a good example of what may happen, and does happen, it may be feared, oftener than is imagined in the present crusade against the lunacy laws. The incident, in the words of the narrator, is as follows.

"A friend of mine had been exposed to the rigour of a severe snowstorm, and when the subsequent depression passed off and reaction set in, the doctors mistook delirium for dementia, and hurried him off to a private asylum in a most indecent haste, to the dismay of some of his friends, who were at a distance, and who got him out after some trouble. Taking the responsibility on themselves, they took him to London, where they got the advice of the highest medical authorities in these cases, who certified that he not only was quite sane, but had not any symptoms of ever having been otherwise. I am glad to add that he is now as well as he ever was in his life."

This story is evidently too vague and deficient in detail to enable any judgment to be formed, whether the circumstances which it recounts do really cast discredit on the medical men engaged in the case or on the lunacy laws. Delirium, due to reaction following upon depression subsequent to exposure to the rigour of a severe snowstorm, is an exceedingly rare malady in this, and, indeed, in any country, and medical men might well be excused had they mistaken it for something else. But there is no evidence that they did so; for what is here called delirium is really acute mania of an intense type, due probably to paralysis of the vaso-motor nerves of the head and neck, and congestion of the brain, and requiring prompt and vigorous treatment. It is not to be supposed that the mental derangement produced by exposure to cold is a slight and transient delirium like vinous intoxication: on the contrary, it is characterised by violent excitement and restlessness, destructive propensities and objectionable habits, and is generally fatal, sometimes in as brief a period as forty-eight hours. The gentleman referred to in the *Pall Mall Gazette*, therefore, instead of grumbling at his doctors, ought, it seems, to feel thankful to them for conducting him safely and expeditiously through a very formidable illness. Most persons would think life cheaply purchased at the cost of a short detention in a lunatic asylum; and it is not at all unlikely that the sufferer from cold-stroke really owed his recovery to the care and appliances of the asylum and the treatment that he there received. On the other hand, he might have recovered quite as rapidly in the place where he was attacked; and this is obviously what he and his friends think would have occurred had he been left alone, but it is easy to be wise after the event. The doctors had probably a raving and dangerous lunatic before them: they saw no signs of any abatement of his malady, and in good faith (for no sinister motive is alleged against them) they did what they thought best for his safety and recovery, and perhaps for the safety of others also. Their patient is now "as well as he ever was in his life", and turns to rend them. It is said that the doctors acted with "indecent haste"; but that is a relative term, and what is indecent haste to one person may be unjustifiable delay to another. Of course, in cases of acute insanity, it is advisable, when practicable, to give home-treatment a fair trial; but everything depends on the nature of the insanity, the means of the patient, and the circumstances in which he is placed. A dozen sets of circumstances are conceivable, in which removal to an asylum ought to be as prompt as possible. Suppose that a gentleman of small income who has not been drinking is suddenly seized in a hotel where he is living with violent mania, in which he smashes the furniture, attempts suicide, threatens murder, and disturbs and alarms the other inmates, will any one argue that there would be impropriety in putting him in an asylum as quickly as possible?

It is possible that the case referred to by the correspondent of the *Pall Mall Gazette* is a glaring instance of defects or "undue facilities" in the lunacy laws, which certainly require amendment in many directions, or of gross abuse of the existing provisions of these laws. But, on the other hand, it is possible that it is merely an instance of one of those personal grievances that will occur from time to time under the best of laws, and that no legislative foresight is equal to avoid. Only a meagre outline of it has been presented; but it seems to amount to this, that a gentleman when temporarily insane was placed for his good in a private lunatic asylum, and that, having recovered, he is much annoyed at the event. The grievance of which he has to complain, however, is surely not greater than that of an innocent person who has been imprisoned while awaiting trial because found in suspicious circumstances.

"M.B." asks where the complete literature of septicæmia is to be found.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. **Francis Fowke**, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Sick Clubs and their Medical Officers.

Several correspondents have written in reference to the letter on this subject signed "Quid pro Quo", and published in the Journal for February 21st.

A Parish Doctor thinks that the only way to alter the existing state of affairs will be either to get the Irish Poor-law dispensary system introduced into this country, or to get some payment per case for the pauper work. Many clubs exist in his neighbourhood which pay far less per head than the lowest sum named by "Quid pro Quo". Under the present system, if these clubs are suppressed, many of the members will in all probability become chargeable to the parish when ill; and the parish-doctor takes any club he can get, knowing that, should he refuse it, the members thereof would get a parish order for medical attendance, and the drugs used for their medicines would have to come out of his fixed salary. Under the dispensary system, in such cases the expense of the medicines would not fall on the medical men. "Parish Doctor" regards clubs as of no real benefit: their tendency is to make a man careless and slovenly in his work, and consequently many cases run a risk of being perfunctorily treated and drifting into chronic disease. He has resigned almost every club he formerly held, and says that he is happier and richer without them; but were he the only medical man in the place, many of these club-members would become pauper-patients.

"Country Doctor" bears testimony to the inadequacy of the fees paid by clubs for attendance on the sick. During the four months from October 1st to February 1st, he has kept an accurate account of the work he has done, and finds that he has paid five visits at a distance of four miles, fifty-eight within one mile, has had one hundred and six attendances at his surgery, and has supplied seventy-six ordinary mixtures, one hundred and twenty-one containing sixteen doses, besides lotions, powders, pills, and ointments. For all this he will receive £11 16s. To make matters worse, many of his club-patients are quite in a position to pay.

"L.R.C.P." fears that the proposal to strike against the miserable terms offered by sick clubs is open to many objections. The experiment was tried a few years ago in an adjoining town, and resulted in complete failure. As soon as the various clubs became alive to the fact that the local practitioners were unanimous in their demand for a higher rate of remuneration, they advertised their appointments in the medical journals, and very quickly secured the services of as many surgeons as they required. Thus the promoters of the scheme not only failed to obtain their object, but suffered by the introduction of fresh practitioners into the district. The supply of general practitioners is greatly in excess of the demand, and so long as this state of things continues all attempts to raise the tariff will probably fail.

"Concordia Crescimus" says that it is most astonishing that, whilst expenses have largely increased, and whilst wages and salaries in almost all classes have advanced, the payment to medical officers of benefit societies remains the same as it was many years ago. He is the surgeon to a society of considerable size, and receives four shillings *per annum* per member. As many of the members are in a fairly good position, and no extras are allowed for fractures, operations, etc., and as he has to find all medicines, he considers this a very inadequate remuneration. A short time since he made an application for an increase of pay, but was contemptuously refused. It has been suggested that a charge of 2s. 6d. should be paid for each visit, but he thinks that in many places that system would not answer. The members would consider it too much to pay each time; and if paid from the funds of the society, the medical officer would constantly be called to account for visiting too often, or keeping the members too long on the sick list. He suggests that a suggestion might be made to the large societies, such as the Odd Fellows and Foresters, that they should recommend all their branches to pay their doctors not less than a certain sum, say six shillings or seven shillings *per annum* per member.

"Club-Doctor" says that it is useless to make a demand for 10s. or even 5s. per member when many of the societies are asking time to pay 2s. 6d. He knows of no friendly society which could pay 10s. per member, and very few that could pay 5s. If a small sum (say 1s.) were charged for medicine each time the member of a friendly society came to his club-doctor (over and above the annual 2s. 6d.), it would have the effect of making such member pause before going to the doctor, while it would reconcile the latter to the annoyance of being compelled to give bottles of medicine where absolutely nothing medicinal was required.

"A Dissatisfied Club-Doctor" says that there are few surgeons holding club appointments under the contract system in mining districts who cannot bear witness to the indignities to which club-doctors are daily exposed, and the many insults to which they have to submit from the ignorant and illiterate, who form the great bulk of club-patients met with in the coal and iron districts.

"One of a Contented Firm" calls attention to a letter published by him in the Journal for November 15th, 1879, pages 786 and 799. He says that the remedy there described has been thoroughly tested for twenty-five years, and has been found perfectly satisfactory both to patients and to doctors. He feels sure that, although "Quid pro Quo" may hitherto have done work equal to six times his salary, he will not during an average of future years do so much if he adopt the plan of fair pay for fair work (charging not 2s. 6d. a visit, including medicine, but at least double that sum, or half-a-crown an item), besides gaining immensely in drugs, stable expenses, comfort, and dignity, while it is manifest that the chief cause of complaint will be totally abolished; for, if he be paid for every case, it will be of no consequence to him what class of persons are admitted to the benefits of the club. He hopes that some enterprising associates will have the courage to prove the experiment in their own districts.

"Veritas" is of opinion that if a man cannot save 10s. *per annum* for his doctor's expenses, he ought to apply to the parish medical officer, or to some infirmary or provident institution maintained by the public; and that, on the other hand, if he can afford to pay a medical fee (a reasonable sum), as most small farmers and tradespeople can, he ought not to be allowed to enter a club which includes medical attendance; or, if already in one, he should be excluded from this privilege. He suggests that a society should be formed to inquire into the opinion of the profession on this matter.

Remedy for Corns.

Mr. Gezow, a Russian apothecary, recommends the following in the *Pharmaceutische Zeitung* as a "sure" remedy for corns, stating that it proves effective within a short time, and without causing any pain:—Salicylic acid, 30 parts; extract of cannabis Indica, 5 parts; collodion, 240 parts. To be applied by means of a camel's hair-pencil.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. **Fowke**, not later than *Thursday*, Twelve o'clock.

Nursing in Hospitals.

Sir,—Considering how important in the treatment of disease nursing is now considered, I fail entirely to understand how such a valuable means of treatment should not have been retained in the hands of the hospital medical staff instead of being handed over to the management and control of an irresponsible person like the matron or lady-superintendent. Surely if a medical man be capable of managing the ventilation of wards, the diet of patients, and the dispensing of medicines, is the subject of nursing either too simple or too complex for him to master? Is there any necessity at all for a matron or lady-superintendent in our hospitals? I venture to say that no such necessity exists. The ward-administration could be perfectly well managed by a resident medical officer responsible to the medical staff; and the control of the sisters, nurses, etc., when off duty, could be vested in a subordinate officer called the house-keeper, who would besides have the supervision of the kitchen, laundry, linen-room, and of the domestic arrangements of the administrative block; but the wards or the nursing staff whilst on duty should be solely under the control of the medical officer. This practice obtains, I believe, in some of our best managed county asylums. The title of matron or lady-superintendent appears to convey too much, and administrative talent does not seem to be very prevalent amongst women: brilliant exceptions are on record, but even the secretary of the Nightingale Institution is fain to admit that the supply of suitable persons for the post of matron is still small. None but those who have lived in a large institution where the matron has much power, and is determined to make her presence felt, can understand how utterly unfitted for governing a woman is. The tyranny, injustice, and, I might almost say, cruelty to her unfortunate subordinates, are such as only can be inflicted by a woman on another of her sex. I feel satisfied that no hospital administration can possibly be permanently successful where the medical staff has not the control of the nursing staff, matron, or housekeeper.—I remain, sir, yours, etc., Gamma.

Sir,—I have read with much satisfaction the letter in the Journal of February 14th, from "A Former House-Surgeon of Guy's", as it shows in a very clear manner what members of the profession attached to a hospital have to put up with from the matrons or lady-superintendents of those institutions. Having myself been for the last eight months a resident medical officer of a workhouse infirmary, and coming into contact with other medical men in a similar position, ample opportunities have been afforded me of forming an opinion about this class of institutions. "The abominable system of espionage", your correspondent remarks, is exactly what occurs in these infirmaries; and not only does the matron "pump" the nurses and other subordinate officials about what goes on, but she goes to the scrubbers and pauper patients and carries on this disgraceful system with them. Such questions as these are put: "Do you ever see Dr. or Mr. —— sitting in the nurse's sitting-room?" "Does Dr. —— attend to you properly?" "Do you ever see him do anything which you think the guardians would not approve of?" etc. Having done this, she counsels with one of her spies how to make the most of what she has heard, and if she have not succeeded in obtaining any information, she fabricates charges against the medical officers or other victims of hers, and then makes a long complaint to the guardians, about which they hold an inquiry, which terminates in either of two ways—viz., a slight reprimand, or nothing at all is said; and, what is most unsatisfactory, the matron is not even reproved for fabricating falsehoods, or for carrying on this disgraceful system of espionage.

Another point worth remarking in the arrangement of these institutions is the very unsuitable class of persons employed as nurses. I have nothing to say against the respectability and moral character of these persons, as, with few exceptions, these are all that can be desired; but the advertisement for assistant-nurses has always the following sentence in it, "General servants may apply". Now, sir, what does a general servant know about a nursing? Nothing—not even how to make a poultice; consequently the medical officers have to go through a course of instruction with these people, who very likely will not like their new occupation, and leave in six or eight weeks.—I am, yours, Assistant Medical Officer.

G. W. H.—There is is no complete list of the provident dispensaries throughout England. The particulars named could only be learned by studying the annual report of each institution. In the first edition of his pamphlet on *Metropolitan Medical Relief*, Sir Charles Trevelyan tabulated twenty-six provident dispensaries in and around London. His tables give the scale of charges, but not the sums divided among the medical officers.

Royal College of Surgeons of England: Dental Examination.

The candidates for the diploma in Dental Surgery on the 19th February had to undergo a written examination in Anatomy and Physiology, and in Surgery and Pathology, when the following questions were submitted to them, and they were required to answer at least one in each of the two sets.—*Anatomy and Physiology.* 1. By what forms of suture are the bones of the cranium united? Name these sutures, and describe each form. 2. Describe the circulation of the blood, and state by what forces it is circulated.—*Surgery and Pathology.* 1. Mention the different forms of ulcer which are met with in the mouth; and describe briefly the characters and treatment of each. 2. What are the symptoms of periostitis? State how it may be produced, and what treatment you would adopt in its different stages. From five to eight o'clock the same day, they had another written examination on Dental Anatomy and Physiology, and Dental Surgery and Pathology, when the following questions were submitted to them, the candidate being required to answer at least two out of the three questions in each subject.—*Dental Anatomy and Physiology.* 1. Describe the specimens under the microscrope No. 1, 2, and 3. 2. What relation have the teeth to the function of speech? Describe the effects on articulate sounds occasioned by the loss of the several teeth respectively. 3. What are the anatomical and histological peculiarities of the teeth in marsupial animals? —*Dental Surgery and Pathology.* 1. In what manner would the dental surgeon employ the following substances? Arsenious acid, carbolic acid, chlorate of potass, chloride of zinc, permanganate of potass, nitrate of silver, and nitric acid. 2. Enumerate and describe the various forms of cystic disease connected with the teeth. 3. Enumerate and briefly describe the several affections of the nervous system that may arise from diseases of the teeth. On the following day, they had to undergo a practical examination in Dental Surgery, for which purpose about a dozen patients were in attendance. In addition to other practical work, each candidate had to make a gold fitting, the cavity having been prepared on a previous occasion. Each candidate was required to bring his own plugging instruments and materials. On the 23rd and final examination, the candidates were orally examined by the whole board.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

OVERPOPULATION, AND ITS TREATMENT BY POPULATION CHECKS.

SIR,—Certain members of the profession think it right to advocate, on account of the rapid increase of our population, the system of limitation as practised in France. It is as well, therefore, that they and the people to whom they address themselves should know what the French themselves think of the system. After showing that the population of France has been steadily on the decline for the last two hundred years, *La République Française* comes to the conclusion that this gradual diminution of the rate of increase is deplorable. It considers that the rapid increase of the population is not only an element of military strength, of productive power, and of intellectual superiority, but points out that one of the consequences of this waning population is dearth of labour. France has to import at considerable expense labourers from Belgium and Italy for agricultural and industrial purposes. The cause of the evil, it asserts, is to be found in the fact that French marriages are unfruitful, and it is a serious danger for the political and military power of the country. May those who are advocating population-checks in England take warning from the above.—I am, sir, your obedient servant, F. P. ATKINSON, M.D.

Kingston-on-Thames, February 1880.

A CARD.

A CORRESPONDENT writes:—"I beg to hand you the enclosed card, which was left at the house of a friend of mine in Clapham, "with Dr. Noble's compliments".

"Dr. Noble, physician, surgeon, etc., 62, Tasman Road, Landor Road, three minutes' walk from Clapham Station. Hours of attendance: Morning, till 12; evening, after six. Vaccinations, etc. Dr. Noble gives professional advice, etc., upon the following fees (cash only). Visit, advice and medicine, 1s. 6d.; advice and medicine, 1s.; midwifery, from 15s. Notes immediately attended to."

*** If a medical man choose to put himself upon the footing of the baker or greengrocer, he cannot be surprised if his "professional status" is estimated accordingly by the public whom he thus solicits.

"A DOCTOR'S WIFE" asks if any member will kindly tell her of some quiet cheap healthy seaside village, easily reached from Leeds, where she may take two or three children, and be boarded and lodged for a month at a reasonable rate?

CATALEPSY OR NOT.

SIR,—A patient of mine has on several occasions consulted me for the following symptoms. When at work as fireman in a mill, about eighteen months ago, he says all at once "a peculiar feeling came over him, which he cannot describe, but which lasted for about ten minutes: the whole time, with the exception of the last two minutes, he was quite conscious". There is no outward change of the countenance, but he seems fixed to the spot where he is seized, like one in catalepsy. There is no headache after the attack leaves, and no disagreeable feelings of any kind. He used to have these attacks two or three times daily. I have tried many remedies, including bromide of potassium, which latter seemed to reduce the attacks to two or three a week, but now again he has them regularly twice a day. I would feel obliged if any of your readers would give me any idea what this peculiar disease is, and what treatment should be adopted.—Yours, etc.,

February 1880. A PUZZLED MEMBER.

ENQUIRER.—The literature of malignant pustule is very extensive. Up to 1850, the chief references are embodied in Heusinger's fine monograph *Die Milzbrandkrankheiten der Thiere und des Menschen* (Erlangen, 1850). After this period, the writings on the subject, and especially on its veterinary aspect, are almost innumerable; but everything the correspondent will probably desire to know relating to it will, in all likelihood, be found in the article "Pustule Maligne" in the *Dictionnaire Encyclopédique des Sciences Médicales*. Appended to that article is an excellent bibliographical list.

METAMORPHIC MILK.

SIR,—Some years ago, a paper appeared in the BRITISH MEDICAL JOURNAL (I regret to say I forget the name of the author) suggesting buttermilk as a diet in cases of dyspepsia and irritability of the stomach. Having a case of extreme marasmus under treatment at the time, which, from the excessive irritability of the digestive organs, seemed hopeless (tabes mesenterica in an infant under a year old) I tried the buttermilk, to the exclusion of all other diet and medicine. The cure was continuous and complete, and the infant is now a healthy boy. Since then, I have tried the same treatment in similar cases, with always beneficial results. The great difficulty which I experienced in carrying out the treatment in many instances was to obtain the buttermilk. Since, however, the introduction of koumiss by Dr. Jagielski, I have advised its substitution when the ordinary buttermilk was unobtainable: but, again, another obstruction presented itself in the high price of koumiss. It is quite out of the reach of any but the very well-to-do classes.

To try to overcome this obstacle, I set about a series of experiments in the fermentation of milk. Numerous correspondents of the BRITISH MEDICAL JOURNAL, to whom I desire to return many thanks, placed their experience at my disposal; but though I tried the various ferments suggested, I did not find any that fulfilled all the requirements: all without exception separated the fresh milk into curds and whey. Finally, it occurred to me that milk contains in itself the elements of fermentation (casein and sugar of milk), and that exclusion of atmosphere and retention of carbonic acid at a suitable temperature would fulfil all the needful conditions. Experiments proved this view to be correct, and I have succeeded in making excellent koumiss, or, as I propose to call it, metamorphic milk, by the subjoined process.

Metamorphic Milk, No. 1.—Milk fresh from the cow should be put up in clean soda-water or other suitable bottles, filled nearly to the top, tightly corked, the cork tied down with a cord or wire. It is kept at a temperature of about 70 deg. Fahr., and shaken every day. Fit to drink in ten days (A); fit to drink in eighteen days (B). By keeping yet longer, the amount of fixed air can be so increased that a syphon tap must be used to decant it.

Metamorphic Milk, No. 2.—This is prepared in the same way from milk from which the cream has been removed after standing twelve hours.

As it is not always easy to secure a regular temperature, some discretion should be used as to length of time left for fermentation. In fact, a little experience will teach any patient who prepares it for himself to secure the exact amount of effervescence he desires, which depends altogether on temperature and time. One part of the process must be particularly insisted on—tight corking.

I have adopted the term "metamorphic" both on account of the condition of the milk itself, and because it seems to induce a similar action in other food in the stomach, thus aiding the natural process of digestion.—I am, sir, your obedient servant,

R. EATON POWER, Medical Officer H. M. Prison, Portsmouth.

WORKHOUSE MEDICAL OFFICERS AND THE CONTAGIOUS DISEASES ACTS.

SIR,—Your annotation last week on this subject is well timed. Nearly three weeks ago, I sent the following reply to a circular forwarded to me as medical officer to the Cardiff Workhouse.

"Dear Sir,—I have mislaid your paper of questions. It was not my intention, however, to answer them, because categorical replies given to such a series of questions, put by an avowed antagonist to the Contagious Diseases Acts and their principle, could, in my opinion, serve no useful purpose whatever. I am entirely in favour of the principles of these Acts; and I only trust that the results of the present Select Committee will be an extension of them. My experience at our workhouse, where the power of detention as to both men and women is put in force, leads me to the firm opinion that the introduction of the Contagious Diseases Acts would bring about happy results in many ways."

Cardiff, March 1st, 1880. Yours faithfully, ALFRED SHEEN, M.D.

R. K. C.—We think not.

THE METRIC SYSTEM.

THIS system makes its way among English and American medical men with some difficulty. Some of the mistakes made in writing about these metric matters are truly comical. The editor of a Western medical journal informs his readers that the nickel five-cent piece is "just a metre in diameter"! This is as good in its way as the story of the New Jersey editor, who, during the Franco-German war, having read in the foreign telegrams that "Bazaine had moved twenty kilometers out of Metz", sat down and wrote the following editorial comment thereupon:—"All friends of humanity in warfare will be delighted to hear that all the kilometers have been removed, and that the innocent people of Metz are no longer endangered by the presence of these devilish engines of war—sleeping on a volcano, as it were." Then he went on to describe some experiments made with kilometers in the Crimea, in which one of them exploded and blew a frigate out of the water.

THE PREVENTION OF TYPHOID FEVER.

SIR,—It is the opinion of most medical authorities that typhoid fever depends upon a specific germ which consists of definite organic particles. These germs are not generally believed to arise *de novo*, but to depend on parent germs, yielded by the bowels of patients suffering from enteric fever, and by finding their way into the human system by some means, be it milk, water, or sewer-gas, give rise to enteric fever. There is reason to believe that typhoid fever does sometimes spread by contagion in the same way as small-pox, scarlet fever, or measles, although its power in this respect seems to be feeble. At present, and confining attention to the mode of propagation through bad drainage, the question arises, Is it not possible to destroy this poison "in the bud" by thorough disinfection of the discharges? If disinfectants, such as carbolic acid, chloride of lime, and such like, are capable of rendering the typhoid germs innocuous, it behoves every one in charge of cases to insist on complete disinfection. Assuming that this fever does not arise *de novo*, then, if no living germs find their way into drains, none can come out. Doubtless a difficulty arises in getting disinfection properly carried out without good nursing, especially in the homes of the poorer classes; but the importance of the subject demands a solution of the difficulty.—I am, etc., A. B. C.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

*** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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THE CROONIAN LECTURES

ON

SOME POINTS IN THE PATHOLOGY AND TREATMENT OF TYPHOID FEVER.

Delivered before the Royal College of Physicians of London.

By WILLIAM CAYLEY, M.D., F.R.C.P.,
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LECTURE I.

IN taking for the subject of these lectures the pathology and treatment of typhoid fever, I fear I may seem to have chosen one which has been completely exhausted, and about which, therefore, little or nothing new remains to be said; its general pathology, its mode of origin and dissemination, its distinction from other diseases, have indeed been thoroughly investigated, owing in no small degree to the researches of eminent Fellows of this College, among whom I need only enumerate the names of Stewart, Jenner, and Murchison.

Of late years, too, there has been a pretty general agreement as to the principle on which the disease should be treated; but, notwithstanding, upwards of seventy-three thousand persons died of typhoid fever during the past nine years in England alone. In the face, then, of this great mortality, I think it may not be without some degree of interest and advantage if we again pass in review some of the received opinions as to its nature and treatment. I do not, however, propose again to discuss the distinction between typhoid and other fevers, or to give any clinical account of the disease, but to confine myself to the consideration of some points about which more or less difference of opinion and practice still prevails. And I shall first consider the causation and mode of dissemination; secondly, some points in the pathology; and, lastly, the treatment.

In proceeding to consider the mode of origin and propagation of typhoid fever, we are at once arrested by the question, What are the nature and properties of the poison which is supposed to give rise to the disease? Now, the typhoid poison has up to the present time eluded all attempts to isolate it or to demonstrate its nature either by microscopical examination or chemical analysis; we are only conscious of its existence by the effects which it produces on the human organism. Nevertheless, some of its properties are known with tolerable certainty: (1) when introduced into the system it multiplies; (2) it is contained in the alvine discharges of persons suffering from the disease; (3) it retains its activity for an indefinite time after it has passed out of the body, when placed under favourable conditions, these conditions being the presence of decaying animal matter and moisture. Hence its usual habitats out of the body are drains, sewers, cesspools, dung-heaps, wet manured soils. And there are some grounds for supposing that, in these situations also, it may possess the power of multiplying. Lastly, in all probability, it is particulate, and not either liquid or gaseous. The actual nature of the poison—whether it be, according to the hypothesis most generally accepted, some kind of fungus, or microzyme, or protoplasm, in a word, a *contagium vivum;* or whether, as maintained by others, it is some derivative of albumen, capable of exercising a catalytic action on other albumen—I do not propose to discuss, as it is a question at present rather of theoretical than of practical interest; and it is one, moreover, for whose final determination the data are hardly yet sufficient. A subsidiary question to this, but one of considerable practical importance, is whether the poison can be generated *de novo* from decaying organic matter, whether it be pythogenic, as was ably maintained by Dr. Murchison, or whether it can only arise by continuous propagation, as was maintained no less ably by Dr. William Budd.

The arguments on both sides may be very briefly stated. In favour of its origin *de novo*, it is asserted that typhoid fever has often broken out in isolated situations—as solitary farmhouses, far removed from, and holding no communication with, places where the disease exists; and many such instances are given by Dr. Murchison. On the other hand, it has been proved incontestably by many instances, both in this country and on the Continent, that all the conditions supposed to be required for its generation may be present for an indefinite time—as percolation of sewage into wells supplying drinking-water—and yet the disease does not show itself till the poison is introduced by the arrival of an infected person, when an outbreak at once takes place. Now, I would submit that this latter argument far outweighs the former; for otherwise, if it be proved that all the conditions necessary for the origination of the poison are present, as shown by its subsequent development when the germs are introduced, and yet it does not develop, we should have to admit that the same causes are not always followed by the same effects. The instances in which persons in the latent stage of typhoid fever, or actually ill with it, have carried the disease to distant places, and caused it to spread, are so numerous that I believe that this mode of propagation is now universally admitted; the communication of the disease taking place not by direct contagion from the sick to those brought into immediate contact with them, but by the ordinary mode of sewage-contamination.

I will quote in illustration three instances which have occurred in this country. One is the famous epidemic at Over Darwen. The water-supply pipes of the town were leaky, and the soil through which they passed was soaked at one spot by the sewage from a particular house. No harm resulted till a young lady suffering from typhoid fever was brought to this house from a distant place; within three weeks of her arrival the disease broke out, and 1,500 persons were attacked. Another well-marked instance occurred at Calne. A laundress occupied the middle one of a row of three houses supplied by one well, into which the slop of the laundress's house leaked. She on one occasion received the linen soiled [by the discharges of a case of typhoid fever, and after fourteen days cases occurred in all three houses. At Nunney, a number of houses received their water-supply from a foul brook contaminated by the leakage of the cesspool of one of the houses, but no fever showed itself till a man ill with typhoid came from a distance to this house. In about fourteen days, an outbreak of fever took place in all the houses.

Many equally striking instances might be quoted from foreign sources; I will, however, only adduce the well-known one of Lausen, as it illustrates some other points of great importance in the etiology and prophylaxis of the disease. Lausen is a village through which I have no doubt most of my hearers have passed, as it lies on the railway between Basle and Olten, shortly before coming to the great Hauenstein Tunnel. It is situated in the Jura, in the valley of the Ergolz, and consists of 103 houses, with 819 inhabitants; it was remarkably healthy and resorted to on that account as a place of summer residence. With the exception of six houses, it is supplied with water by a spring with two heads which rises above the village at the southern foot of a mountain called the Stockhalder, composed of oolite. The water is received into a well-built covered reservoir, and is distributed by wooden pipes to four public fountains, whence it is drawn by the inhabitants. Six houses had an independent supply—five from wells, one from the mill-dam of a paper-factory. On August 7th, 1872, ten inhabitants of Lausen, living in different houses, were seized by typhoid fever, and during the next nine days fifty-seven other cases occurred, the only houses escaping being those six which were not supplied by the public fountains. The disease continued to spread, and in all 130 persons were attacked, and several children who had been sent to Lausen for the benefit of the fresh air fell ill after their return home. A careful investigation was made into the cause of this epidemic, and a complete explanation was given. Separated from the valley of the Ergolz, in which Lausen lies, by the Stockhalder, the mountain at the foot of which the spring supplying Lausen rises, is a side valley called the Furlenthal, traversed by a stream, the Furlenbach, which joins the Ergolz just below Lausen, the Stockhalder occupying the fork of the valleys. The Furlenthal contained six farmhouses, which were supplied with drinking-water, not from the Furlenbach, but by a spring rising on the opposite side of the valley to the Stockhalder. Now, there was reason to believe that, under certain circumstances, water from the Furlenbach found its way under the Stockhalder into one of the heads of the fountain supplying Lausen. It was noticed that when the meadows on one side of the Furlenthal were irrigated, which was done periodically, the flow of water in the Lausen spring was increased, rendering it probable that the irrigation water percolated through the superficial strata and found its way under the Stockhalder by subterranean channels in the limestone rock. Moreover, some years before, a hole on one occasion formed close to the Furlenbach by the sinking-in of the superficial strata, and the stream became diverted into it and disappeared, while shortly afterwards the spring at Lausen began to flow much more abundantly. The hole was filled up, and the Furlenbach resumed its usual course. The Furlenbach was unquestionably contaminated by the privies of the adjacent farmhouses, the soil-pits of which communicated with it. Thus from time immemorial, whenever the meadows of the Furlenthal were irrigated, the contaminated water of the Furlenbach, after percolation through the superficial strata and a long underground course, helped to feed one of the two heads of the fountain supplying Lausen. The natural filtration, however, which it underwent rendered it perfectly bright and clear, and chemical examination showed it to be remarkably free from organic impurities; and Lausen was extremely healthy and exempt from fever. On June 10th, one of the peasants of the Furlenthal fell ill with typhoid fever, the source of which was not clearly made out, and passed through a severe attack with relapses, so that he remained ill all the summer; and on July 10th a girl in the same house, and in August a boy, were attacked. Their dejections were certainly, in part, thrown into the Furlenbach; and, moreover, the soil-pit of the privy communicated with the brook. In the middle of July the meadows of Furlenthal were irrigated as usual for the second hay crop, and within three weeks this was followed by the outbreak of the epidemic at Lausen.

In order to demonstrate the connection between the water-supply of Lausen and the Furlenbach, the following experiments were performed. The hole I mentioned above as having on one occasion diverted the Furlenbach into the presumed subterranean channels under the Stockhalder was cleared out, and 18 cwt. of salt were dissolved in water and poured in, and the stream again diverted into it. The next day, salt was found in the spring at Lausen. Fifty pounds of wheat flour were then poured into the hole, and the Furlenbach again diverted into it; but the spring at Lausen continued quite clear, and no reaction of starch could be obtained, showing that the water must have found its way under the Stockhalder in part by percolation through the porous strata, and not by distinct channels.

Besides showing the necessity of the introduction of the specific poison in order to render sewage contamination capable of giving rise to typhoid fever, this case is remarkable as an instance of the extreme dilution to which the poison may be subjected without losing its potency, and also the uselessness of irrigation and any ordinary filtration in separating it or rendering it inert. Here the dejections of two cases of typhoid are thrown into a stream; the water of this stream is used to irrigate extensive meadows; a portion of it sinks through the superficial strata, and probably finds its way into subterraneous channels, and passes through a distance of many thousand feet under a mountain, partly, no doubt, by mere percolation; it then takes an insignificant part in feeding one head of a copious spring, which has another head that is not contaminated, and, nevertheless, it gives typhoid fever to 130 persons out of a population of 800. The dilution must have been almost infinitesimal, unless we assume that a multiplication of the poison took place after its discharge from the intestinal canal of the first two cases—possibly in the reservoir at Lausen.

The apparently spontaneous origin of the disease in isolated places may, doubtless, be in part explained by the very long time the poison may lie dormant, still retaining its essential properties, and capable, under favourable conditions, of developing its activity.

The poison, too, may be introduced in quite unsuspected modes. It is well known that the typhoid poison by no means always produces what is usually recognised as typhoid fever. In very many cases, its only effect is to cause some malaise, together with slight intestinal catarrh, which is not necessarily attended by diarrhœa. These cases are only recognised as typhoid when they occur during an epidemic, and among persons who have been exposed to infection; but if we may judge by the analogy of scarlatina, diphtheria, and other contagious fevers, where similar slight unrecognisable forms are not uncommon, these apparently trivial cases should be as potent in communicating the disease as the severe well-marked forms. Hence it is quite possible that the typhoid poison may be introduced into a locality by a person whom no one would suspect of being infected with the disease.

It has been ingeniously suggested by my colleague, Dr. Robert King, that the typhoid poison is derived solely from decomposing albumen, which is not present in healthy stools; and that it can therefore only arise from morbid stools which contain albumen, as is the case in some forms of catarrhal diarrhœa; and he has published a case where the poison seemed to be generated in this manner. This theory might certainly account for long-continued sewage contamination of water without the production of typhoid fever, as the special material from which the typhoid poison is generated might be absent. But it is hardly likely that any such derivative of albumen would remain undecomposed in a drain or cesspool for so long a period as we have reason to believe to be the case with the typhoid poison.

We have next to consider how long the typhoid poison can thus retain its activity out of the body in a suitable locality. One of the clearest pieces of evidence on this point is the well-known instance related by Dr. von Gietl. To a village free from typhoid an inhabitant returned suffering from the disease, which he had acquired at a distant place. His evacuations were buried in a dunghill. Some weeks later, five persons who were employed in removing dung from this heap were attacked by typhoid fever; their alvine discharges were again buried deeply in the same heap; and nine months later, one of two men who were employed in the complete removal of the dung was attacked and died. Here we have distinct evidence that the poison retained its powers for nine months. Dr. Murchison, in his work on *Fevers*, gives an instance in which six cases were spread over a period of eight years. I have recently seen an instance in which an interval of two years occurred without apparently any fresh importation of the poison. Supposing the germ-theory to be correct, there is, of course, no reason why the poison should not preserve its vitality, by continuous propagation, for an indefinite time. On the whole, though the point cannot be regarded as finally determined, I think the weight of evidence is against the *de novo* origin of the disease.

We have now to consider a question about which much difference of opinion still prevails; viz., the contagiousness of typhoid fever. That this disease is communicable from the sick to the healthy is, I believe, universally acknowledged; the point in dispute being the mode in which the transmission takes place, whether directly by emanations from the patient, or from his fresh evacuations, or indirectly from eating or drinking, or inhaling the emanations from the stools, modified by their having undergone some kind of decomposition or fermentation outside the organism. Although the point in dispute is a narrow one, it is of considerable importance, and erroneous views may lead, on the one hand, to the adoption of unnecessary restrictions, which may seriously incommode the patient and his attendants, while at the same time it is only too likely to cause a neglect of the really essential precautions. I have myself witnessed an outbreak of typhoid fever where the belief in its contagiousness—shared, I may say, by the medical practitioners—was so strong as to excite quite a panic, so that difficulty was found in procuring attendants for the sick. In consequence, I had on one occasion myself to carry a patient from one room to another, and a man who volunteered to help me was regarded as having done something rather heroic. I need hardly say that, at the same time, the utmost recklessness is commonly shown with regard to the real causes of its dissemination. On the other hand, a disbelief in the direct contagiousness of the disease might, if not well founded, lead to an unnecessary exposure of the patient's friends.

The arguments against the direct contagiousness of the disease are in the main these. 1. In hospitals, we rarely find that typhoid fever spreads either to the attendants on the sick or to the other patients. When it does thus spread, persons in other parts of the building, who have never been brought into contact with the typhoid cases, are attacked about as frequently as the immediate attendants themselves. Dr. Murchison has published the evidence on this point afforded by the London Fever Hospital for a period of twenty-three years, up to 1870. During this period, 5,988 cases of typhoid fever were admitted, and seventeen of the resident staff took the disease; but of these seventeen only five were in communication with the typhoid cases, and twelve occurred at a time when there were serious defects in the drains. Twelve patients also admitted for other diseases, became infected. But since 1861, when the patients were so classified that the typhoid cases and the patients suffering from other acute diseases, not fever, were placed in the same wards, not a single instance has occurred in which the infection has spread to the non-typhoid cases, though the same night-stools and water-closets have been used by both classes of patients, and the use of disinfectants has been exceptional. This shows pretty conclusively that the emanations from the recent stools are not capable of communicating the disease. Since 1871, 1,447 cases of typhoid have been admitted and treated in the same wards with 692 patients suffering from other diseases; and during this time only three nurses and no patients have acquired the disease. On several occasions, however, cases of scarlet fever lying in other wards have become infected. So far as the London Fever Hospital is concerned, it would seem that the risk of becoming infected with typhoid fever is rather less in the typhoid wards than in other parts of the building. The experience of other hospitals is for the most part in accordance with that of the London Fever Hospital. Liebermeister states that, up to 1865, neither at Greifswald, nor at Tübingen, nor at Berlin, had a single instance been known of the disease spreading to other patients in the hospital or to the attendants on the sick. The Hôtel Dieu and La Pitié at Paris, the City of Glasgow Fever Hospital, and the general hospitals of London, show much the same results.

During the past year, sixty cases of typhoid fever were admitted into the Middlesex Hospital, and six nurses took the disease; but of these six, five were on duty in the surgical wards, and never came into contact, directly or indirectly, with the typhoid cases. I need hardly say how unlike this is to the behaviour of a contagious disease. I have no doubt that in all these six cases the disease was due to the condition of the drains of the dormitory.

It is also found that when persons suffering from typhoid fever are removed to distant places, it is the exception, and not the rule, for the disease to spread; and when it does spread, it quite as commonly attacks persons who have not been brought into immediate contact with the sick, as it does the attendants themselves. It may, I think, be laid down as absolutely certain, that an epidemic of typhoid is never caused by the disease spreading by direct contagion, as epidemics of small-pox, scarlatina, and typhus are. On the other hand, it is argued that sometimes, in hospital practice, typhoid does spread to the attendants on the sick or the other patients; and, not at all uncommonly, persons suffering from typhoid, when removed to a distance, do communicate the disease to those brought into contact with them. Thus, in the hospital at Basle, 1,900 cases were admitted in six years; and during this period forty-five residents in the hospital became infected, and a large number in addition suffered from a non-febrile intestinal catarrh, which in all probability was due to the typhoid poison. But of these forty-five cases, many had never been brought into contact with the patients, and of the nurses it was found that those were especially liable to be attacked who occupied a particular room, where they were exposed to the emanations from a leaky choked soil-pipe. Probably there is no city in Europe, not even Munich, and no hospital, so saturated with the poison of typhoid as Basle and its hospital; and, moreover, the hospital drains are or were in a very unsatisfactory condition; and thus there is every reason for believing that the contagion in all these forty-five cases was indirect.

The same argument applies to the spread of the disease in private houses. In the great majority of instances where the fever is imported from a distance it does not spread; where it does, some defect in the sanitary conditions favouring indirect contagion can generally be detected; and it is therefore almost certain that the same is the case in the other instances; otherwise, we should have to admit that typhoid fever is sometimes contagious and sometimes not—nay, that during the same epidemic, the disease is contagious in one house or institution, and not contagious in another house or institution, though they may be situated close together.

I have seen many instances of supposed direct contagion, but have generally succeeded in tracing them to an indirect source. A boy was admitted to the Middlesex Hospital under my care, on March 27th of last year, suffering from a very severe attack of typhoid. For several days he lay in an unconscious condition, and during this time he had very profuse diarrhœa—twelve to twenty liquid motions daily, which were for the most part passed in the bed. In the next bed was a boy aged six, who had been admitted on April 16th, with acute renal dropsy and bloody urine. He was kept strictly confined to bed, and never got up to go to the water-closet down which the motions of the typhoid case were thrown. On May 11th, when he was convalescing, the dropsy having disappeared and the albumen much diminished, he was seized by typhoid fever, and passed through a moderately severe attack, with a well marked rash and characteristic symptoms. This at first sight appeared to be a case of direct contagion, but I have no doubt that the true explanation is this. The bedding of the first patient was constantly kept saturated by his liquid motions, and, though every care was taken to change the linen frequently, it was obvious, from a distinctly fæcal smell which was always present, that the bedding or mattress remained contaminated, and thus time was given for the poison to develop its infectious properties. Another patient in the same ward, admitted for acute rheumatism, was also attacked by the fever. He occupied a bed on the opposite side, and never came near the first case, but, being convalescent, he used the water-closet down which the motions of the typhoid case were thrown; and it so happened that at this time the closet was out of order, the contents were retained, and an offensive smell was constantly present. Hence, I think, there can be no doubt but that he was infected by the emanations from the evacuations of the first case.

The first case affords an example of a very common mode of infection; and many of the cases attributed to direct contagion are really produced in this way, especially among the lower orders or where skilled nurses are not employed. The bed-linen or mattress, or the patient's own person, become soiled by the liquid alvine discharges. These soon dry, and are left undisturbed, and in a short time the poison developes its infectious properties. Soiled linen is well known to possess very active contagious powers, and to retain them for a long time.

If these views are correct, it becomes an important subject of inquiry as to how soon the stools acquire contagious properties. I am not aware of any observations which would enable us to decide this point with certainty, but the time is probably a very short one. The frequency with which washerwomen have been infected by soiled linen points to a very short duration, as such linen is seldom retained for any length of time. Some facts which have come under my own observation, though not conclusive, are also in favour of the period being very short.

At the Middlesex Hospital, it was formerly the custom to preserve the stools of cases of typhoid, which the physician wished to inspect, in pans which were placed in the water-closets of the wards. Now the time during which such stools would be so kept would hardly ever exceed twelve hours; nevertheless, several instances have occurred in which other patients using these closets have become infected. Supposing the cause of the infection to have been these reserved stools, we should have a period of not longer than twelve hours for the contagious properties to become developed. The experience of the London Fever Hospital pretty conclusively proves that the fresh stools are innocuous.

The practical conclusion to be drawn is, I think, this: that we have in all cases a few hours during which it lies in our power to render the poison innocuous, and to prevent the spread of the disease by direct infection.

[*To be continued.*]

THE GULSTONIAN LECTURES ON EPILEPSY.

Delivered before the Royal College of Physicians of London.

By W. R. GOWERS, M.D., F.R.C.P.,
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LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—The symptoms of the cases of convulsive disease which form the subject of these lectures, the forms of attack, their variations in severity and frequency, the mental and physical condition of the sufferers, and the mutual relation of these and other pathological elements, constitute subjects of much interest. It is useless to attempt in this lecture to traverse the whole of this extensive field, and our survey must be confined to a few points.

One subject which seems worthy of a passing notice, is the relative frequency with which fits occur by day or by night, using the terms as synonymous with the sleeping and the waking states. The investigation of this point in 840 cases has yielded the following conclusions. The attacks occurred only, or almost only, at night in one-fifth (21 per cent.); only, or almost only, by day in rather more than two-fifths (43 per cent.). They occurred by both day and night in rather less than two-fifths (37 per cent.). Fits occurred in the night, partially or only, in rather more than half the cases (57 per cent.); by day, partially or only, in four-fifths of the cases (80 per cent.). In 1 per cent., the attacks occurred only while going to sleep; in one-half per cent. only on waking up out of sleep. In 5 per cent. the attacks occurred only in the early morning. A much larger number had their first attack in the early morning; and many of these patients were in the habit of early rising, a habit which, it thus appears, should be practised with caution by those predisposed to epilepsy. Between the cases of epilepsy and those with hystero-epileptic symptoms, there was no difference in the frequency with which the attacks occurred in the day or in the night. The proportion, for instance, in which the attacks occurred exclusively, or almost exclusively, by night was, of epileptics, 21 per cent., and of cases with hystero-epileptic attacks, 20 per cent. In epileptics, it is somewhat more common for the first fit to occur in the day than in the night—rather more than half commenced in the former, rather less than half in the latter. In hystero-epileptics, it is much more common for the first fit to occur in the day than in the night. Two-thirds commenced in the day, one-third in the night. Nevertheless, in more than half these cases (56 per cent.) some fits subsequently occurred during the night—that is, during sleep. When the first fit occurred in the day, the subsequent fits occurred only in the day in half the cases, only in the night in one-seventh; by both night and day in one-third. When the first fit occurred during the night, the subsequent fits occurred only at night in about two-fifths of the cases; by day and night also in about two-fifths; and by day only in one-sixth. If we may apply to these proportions the doctrine of probabilities, we may say that if a patient who has his first fit in the day has subsequent fits, the probability is as six to one that some of his attacks will occur in the day; the probabilities are equal that his attacks will, or will not, be confined to the day; and they are equal that he will, or will not, have some attacks in the night; while the probability that he will have attacks only in the night is but one in seven. If a patient who has his first fit in the night has subsequent attacks, the probabilities are equal that these also will occur only by night, and that they will occur both by night and by day, being in each case two in five. The probability is as five to one that they will not be confined to the day—that is, in favour of some fits occurring in the night.

Frequently, fits which have recurred for a time in one condition, during sleep, waking, or both, change their time. The conclusions deducible regarding these are as follows. 1. When fits which have occurred only by night commence to occur by day, they commonly continue also during the night. 2. When fits which have occurred only during the day occur during the night, they commonly cease by day. 3. Attacks which have occurred by day and night often cease to occur in the day and continue at night, but very rarely cease by night and continue by day.

The relation of attacks in women to menstruation is a subject on which various opinions have been expressed. The facts I have to offer are small in extent, the point having been investigated in sufficient detail in only 82 cases. In one-twelfth (7 cases), no attacks occurred at the time of menstruation; in one-third (29 cases), there was no difference at these times; in more than half (46 cases), the attacks were worse at the monthly periods; most frequently they were worse before the period (17 cases); next in frequency they were worse during the period (15 cases), and much less frequently after the period (4 cases). In 10 cases, the exacerbation was variable, either before, during, or after; in 2 cases, the attacks were worse at the menstruation soon after the patient became subject to fits, but not after the disease had existed for some years. In 2 cases, fits never occurred at the periods when menstruation was regular, but they did when it was irregular.

I pass now to the phenomena of the attacks. The fits in idiopathic epilepsy are so rapid in their evolution, and so similar in most cases in their developed characters, the opportunities for watching them are so rare, that mere observation of attacks proved for a long time unproductive of much addition to our knowledge. A new era in the study of epilepsy may be said to have commenced with the investigation, by Dr. Hughlings Jackson, of the modes of onset of attacks which begin deliberately, combined with that of the subjective sensations by which attacks commence that are less deliberate in their onset. This subject —the study of the modes of onset—is still full of promise to further investigation, and there is perhaps no point in the symptoms of a consecutive series of cases to which our attention may be more usefully directed.

I need scarcely remind you that the aura of an attack was formerly regarded as a change in the nerves of the part to which it was referred, exciting the fit, and that it is now known to be merely the impression made upon the consciousness by the commencing action in the brain or by the effect of this on the periphery. The fact that an aura commencing in a limb may be arrested by a ligature around the limb, above the part to which the sensation is referred, was once thought to constitute evidence that the process of the convulsion originated at the periphery. It is now well known that the ligature will arrest a fit which is due to a cerebral tumour as effectually, and more frequently, than one of any other kind, and of this I have seen many striking instances. The fact that the aura is the result of the commencing change in the brain renders its study of even greater importance than if it originated at the periphery. By its means we gain information, to be obtained in no other way, of the brain function first deranged, that is, of the functional region in which the process of fit begins. In some cases, at least, this may be regarded as the seat of the disease. We learn also something of the form of normal cerebral action, which disease modifies rather than subverts.

The aura of an attack, using the term in its widest meaning, as signifying the subjective commencement, may consist in a consciousness of motion, or of sensation, or in a mental state. It has been long and often maintained by Dr. Hughlings Jackson, in extension of the older view of Laycock, that the whole brain is made up of structures which subserve sensori-motor processes, and that into such processes all its functions may be resolved. It is unnecessary now to consider this view as a whole, but that every structure of the brain concerned with sensation proper is connected, directly or indirectly, with a part concerned with motion may be regarded as a proposition scarcely needing proof. A discharge, such as occurs in an epileptic fit, taking place in either of these related structures may lead to a discharge in the other. The two may act so simultaneously that the resulting motion and sensation may occur together. The patient may feel a tingling in his hand at the same moment as the fingers begin to twitch; or the discharge in one may lead the way, and be followed by the other at an interval. The twitching or the tingling may come first. I think that it is of importance to determine, in any given case, with which the attack commences —the motion or the sensation—*i.e.*, whether the motor or the sensory centre leads in the discharge. By so doing, we are able to understand better the association of auræ and their progress. It is necessary, however, carefully to discriminate the form of the sensation, because, as Dr. Jackson has also pointed out, the consciousness may be affected directly by the action of a motor centre, although no movement results. There are motor sensations as well as sensory sensations, and, as we shall see, a fit may begin by a sense of motion before any actual movement occurs. The word "sensation", however, will here be used, when unqualified, to signify a sensation proper, such as numbness, tingling, and the like.

In what proportion of cases is consciousness lost so early that the commencement of the fit is unfelt? Of 1,000 cases, in which the presence or absence of a warning was noted, it was always absent in 495, while some aura existed, at least occasionally, in 505. Thus, roughly speaking, loss of consciousness precedes, or accompanies, the first symptoms in half the cases; in the other half, the patient is aware of the commencement of the attack. We may consider what facts regarding the modes of onset these 505 cases supply.

The sensation or motion with which the attacks commence may be referred to almost any part of the body, limbs, head, trunk, organs of special sense, and to many viscera. We must therefore infer that the process of the fit may commence in any part of the brain in which these various parts are represented. We may, for the present purpose, classify most of the auræ or modes of onset into seven groups. 1. The unilateral auræ, a motion or sensation in one side of the tongue, face, trunk, or in one arm or one leg. 2. Certain general auræ; bilateral sensations in the limbs, tremors, starts, malaise, faintness, etc. 3. Auræ referred to certain organs, mainly to those to which the pneumogastric nerve is distributed, and to this group belong most of the visceral warnings. The most common is the well known epigastric sensation, and others are a feeling of choking, dyspnœa, nausea, and cardiac sensations. 4. Vertigo and other allied sensations. 5. Certain sensations in the head, pain, etc. 6. Psychical auræ, the consciousness of an emotion or an idea. 7. Special sense warnings; some of these are strictly unilateral, but it is convenient to consider them together. This classification is clinical, and as such is adopted as affording facilities for the determination of facts apart from theories.

We may take first the unilateral peripheral auræ, present in 86 cases, or 17 per cent. of those with warnings. Of these, the commencement was in the arm in more than half (45 cases); in the leg and face in smaller and nearly equal numbers (15 and 17 cases); in the tongue in 5; and in the side of the trunk in only 2 cases. Such unilateral commencement is common in seizures due to organic brain-disease, and the organic disease causing them is usually at the surface of the brain, in the region stimulation of which causes movements in the parts first affected in the fit. Such stimulation, indeed, as Ferrier has shown, may cause convulsions beginning in the part. But, from the series of cases now under consideration, all those presenting symptoms suggestive of organic brain-disease were excluded.

In 5 cases only the aura was referred first to the tongue; in 2 others the tongue was affected secondarily. In 1 the commencement was by a movement, in 1 by a beating, in the rest there was merely a sensation; in 3 tingling, and in 1 a sensation of something crawling on the tongue. In each case the convulsion was right-sided, and, in each case in which the side of the tongue affected was noted, this was also the right side. Hence it seems probable that the sensori-motor processes for the tongue predominate on the left side of the brain, a fact also suggested by the great impairment of the movements of the tongue frequently noticed in right hemiplegia with aphasia. The association of movement of the tongue is twofold: one in its use for speech; one in its use in mastication and deglutition. We may trace this double association in the combinations of the aura. Tingling in the tongue was associated in one case with twitching in the lips; in another with a lateral movement, or sense of movement, in the jaw. The sensation of something crawling on the tongue in one case was followed by a feeling of sickness, then of something rising in the throat, and then by palpitation of the heart.

The seizure commenced in the face in 16 cases, and on one side as frequently as on the other, but much more frequently by a motion than by a sensation. In 8 cases the mouth was drawn to one side, no doubt by the zygomatic muscles. Commencement in the lips was rare. In only 2 cases was there an initial contraction in the orbicularis of the eyelids, and both were associated with a sensation in the hand, and were right-sided.

The cases in which the attacks commenced in the arm were 40 in number. In about three-quarters of the cases, the commencement was in the hand. Of those beginning by spasm, twitching, etc., the first motion was, in most instances, either in the hand as a whole (10 cases) or in the arm as a whole (8 cases). In only one case was there initial movement of the fingers, and this was clonic spasm in the common flexors. In 14 cases, the attack began by a sensation—"numbness", "tingling", "pins and needles", etc.; and in these the commencement was in most in a definite part of the hand—the forefinger in three cases, never in the thumb, twice in all the fingers, once in the middle finger, once in the palm, twice in the back of the hand, three times in the hand as a whole, and twice at the wrist. It never began higher up the arm. In five other cases, the sensation with which the fits began was less simple, and in several was certainly a motor sensation. One patient always felt "as if his arm were drawing up", and would beg that it might be held down, although there was no motion in it. The feeling was accompanied by severe pain, "as if the arm would break". In another case, there was a somewhat similar pain, "as if the arm were withering up". In a third, there was a feeling of stiffness; and in a fourth, a feeling of twitching in the first three fingers, apparently without movement; and in a fifth, there was a sensation in the back of the arm, "as if the nerves were being drawn". The attacks, commencing with motion, or with the sensations last described, probably motor, began in the right and left hands in an equal number of cases; but those commencing with a simple sensation began in the left hand twice as frequently as in the right. In three-quarters of the cases, consciousness was lost before the seizure had extended beyond the arm. But in 9 cases, after ascending the arm, the aura passed to the head, and in 4 to the mouth. In 2 cases, after passing up the arm to the shoulder, the aura passed down the side to the leg, and down to the foot. In no case, after passing to the head or mouth, did the sensation afterwards pass down the side to the leg; but in 2 cases, in which it passed to the mouth, it afterwards commenced again in the foot, and passed up the leg.

The seizure commenced in the leg in 14 cases, and in 10 of these in the foot. In only 5 did it distinctly begin as a movement, and this began in the toes once only, in the foot as a whole twice. In one case, the movement, twitching, began in the hip, and passed down the leg. In 5 cases, the commencement was by a simple sensation, once in the great toe, once in the sole, once in the dorsum, once in the foot as a whole, and once in the leg as a whole. A motor sensation, without movement, was described in one case: the patient suddenly felt as if the leg were bent up under the other, and that he must stretch it out. Of the cases in which the commencement was in the foot, consciousness was lost before the aura had extended beyond the foot in 2 cases; in 6 the aura extended up the leg and thigh; in 3 of these it passed on up the side to the head. In 2 cases, after passing up the side, instead of going to the head it passed down the arm to the hand, and then consciousness was lost. In no case in which it passed up to the head did it afterwards deliberately pass down the arm—just as in the cases in which the aura commenced in the arm if it ascended to the head, it never afterwards passed down the side. The passage of the discharge to the region in which the head is represented appears to be closely connected with loss of consciousness.* In 2 cases, the sensation, commencing in the foot, passed up the side, and when it had got to the level of the hand it recommenced there, and then passed up the arm. There are thus two modes in which the arm is involved secondarily to the leg, just as there are two modes in which the leg is involved secondarily to the arm—one extension by continuity, passing from the one limb to the other by the trunk, and passing down the limb secondarily involved; and the other by separate commencement in the extremity of the second limb, and the passage of the aura up both. It seems probable that, in the cases in which it passes from one to the other by continuity through the trunk, the discharge in the sensory centre takes the lead, and determines the course of the aura, although it may be closely, even instantly, followed by the motor discharge. The representation in the brain of the cutaneous nerves must be as continuous as the skin in which they are distributed. The passage of the aura by continuity up the arm, down the trunk, and down the leg, or *vice versâ*, is intelligible on this theory, but scarcely on the theory that the discharge in these cases begins in the motor centres. This view is supported by a case lately seen, in which the seizures began with a sensation in the foot, without motion. The sensation passed, as such, up the leg and side, and *down* the arm to the hand, and not until it reached the hand was spasm added; the hand began to twitch, and the movement passed up the arm, and then consciousness was lost.

In several cases in which the seizure began in the mouth and face, the aura passed afterwards down the arm first and down the leg afterwards. No aura *beginning* in the tongue, face, or leg was associated with one in the special senses. In three cases of attacks commencing in the arm, there was a subsequent special sense aura; but in each of these the seizure in the arm began by a sensation proper, not by a motion. This seems to indicate that, as might be expected, the special sense-centres are connected with the sensory limb-centres, rather than with the motor limb-centres. The only case in which a special sense aura was in any way associated with the lower extremity was one in which the seizures began with a pain in the back of the hand, and this pain passed up the arm and down the leg. When it reached, still as pain, the middle of the thigh, a flash of light appeared before the eyes. The pain went on down the leg, and, when it reached the foot, consciousness was lost.

In only two cases did the attack commence in the side of the trunk, and in one the sensation was described as "burning". In two cases, a left-sided aura was associated with palpitation of the heart. In one patient, a girl, a singular relation existed. The fits began with a feeling of numbness and beating in the right great toe, which passed up the leg, and, when it reached the groin, the patient felt a need to micturate. If she could do so, the aura ceased. If she could not, she suddenly felt as if turning over and over; then a peculiar psychical condition occurred; she lost consciousness, and passed into a severe epileptic fit. I have met with another case in which micturition sometimes arrested a commencing fit. I have also seen a case in which the act of micturition sometimes brought on a fit. The shiver, which in many children and some adults normally attends the act, indicates the associated affection of higher motor centres; and these facts suggest that the passage of urine during epileptic fits is not merely the result of loss of consciousness, but is really part of the convulsive action.

The mutual relation of the motor and special sense centres in the surface of the brain, ascertained by Hitzig and Ferrier, enables us to understand something of the progress of seizures. They do this whether we regard epilepsy as a cortical disease or not, because, from Burdon Sanderson's researches, the relation is similar in the lower centres. For instance, a fit beginning in the face or tongue, if it involve the limbs, takes the arm before the leg; and we find that the arm-centres intervene between those for the face and tongue, near the fissure of Sylvius, and those for the leg in the upper part of the hemisphere. Again, in a fit beginning with twitching of the angle of the mouth, rotation of the head commonly succeeds; and the centre for rotation of the head is situated in front of, and contiguous to, the centre for the action of the zygomatic muscles. But in other cases it is difficult to understand the progress of the aura from the experimental facts. For this there are probably three reasons. First, we know little of the degree of structural association or separation of the centres—the cerebral sulci, of course, affording no information on the matter; secondly, the centres represent, in many cases, complex movements, and fits begin usually with simple movements; thirdly, we are entirely ignorant of the mutual relations of the sensory centres of the limbs, which Ferrier's experiments locate on the inner aspect of the temporo-sphenoidal lobe. The facts of many auræ make it probable that these rather than the motor centres lead in the discharge, and determine the course of the commencing fit; and I think that thus the progress and association of many auræ may be explained.

A rare but curious condition sometimes attends the onset of a fit which begins unilaterally—what may be termed the alternation of the aura. In some right-sided convulsions, from left meningeal hæmorrhage, which I once watched, the rotation of the head to the right which accompanied the fit was preceded by a rotation to the left; and this itself was preceded by a slight initial rotation to the right—a double alternation. I have obtained very few indications of this phenomenon in idiopathic epilepsy. In one case, a left-sided fit was preceded by shaking and trembling of the limbs of the right side; in another case, the attacks began with a sensation in some left cranial nerve, followed by a sensation around the right wrist. The great majority of fits which begin unilaterally are epileptic. Of seventy-six in which the character of the fit could be ascertained, only nine (or 12 per cent.) presented hystero-epileptic or co-ordinated symptoms.

[*To be continued.*]

SWAMMERDAM THE NATURALIST.—On February 17th, a public meeting was held in Amsterdam, on the occasion of the two hundredth anniversary of the death of the celebrated Dutch naturalist Jan Swammerdam. A brief account of his life and works was given by Professor Stokvis, who said that, although the labours of Swammerdam were directed principally to the investigation of the structure of insects, and he seldom concerned himself with human anatomy, almost every step he took in the latter direction was marked by progress. His experiments on the muscles and on respiration might be regarded as models of strictly scientific investigation. The assembly afterwards visited the house where Swammerdam was born, in which a stone was placed bearing a Dutch inscription, of which the following is a translation: "John Swammerdam. His investigation of nature remains a model for all times. 1637-1680. 17th February, 1880." The Amsterdam Society for the Promotion of Natural and Medical Science has instituted a medal in honour of Swammerdam, to be awarded every tenth year.

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* In this statement, it must be remembered, cases of idiopathic disease are spoken of. In convulsion from organic disease, usually more deliberate, I have known a sensory aura pass up the arm to the side of the face, and afterwards pass down the side of the trunk to the leg.

ABSTRACT OF LECTURES
ON
THE STRUCTURE AND FUNCTIONS OF THE VERTEBRATE SKELETON.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, M.R.C.S.Eng., F.R.S.,
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LECTURE VI.

THE amphibia are a subdivision of the icthyopsida, which, like the dipnoi, develop lungs as well as gills, but which often shed the latter, breathing only by the former. Their embryos, like those of the fish, develop neither amnion nor allantois. They are, indeed, what may be termed quasi-fish. There are four orders of this subclass, namely, the cœcilians, the urodeles, the anura, and the labyrinthodonts, the last of these being the large extinct amphibia of the coal-measures. The living forms of amphibia begin life as a sort of fishes, having gills; and, as a rule, live in the water till they acquire lungs, when they shed their gills; some, however, keep their gills, and continue to live in the water.

In the urodeles and anura, or the tail-bearing and tailless amphibia, we find many things in common; they agree in possessing gills in their larval state, though different in character. The urodeles have, some for a while, and others throughout life, three pairs of pinnate external gills attached to the first three branchial arches, a single gill to each arch, there being generally a fourth arch which does not carry a gill. These are true inner branchial arches.

In the frogs and toads, there are three important modifications of the branchial system. In the common kinds, there are three fur-tufted gills growing from the first two, at least, of the four branchial arches, all of which are functional. These are soon hidden by an opercular outgrowth from the hyoid arch, which covers over and closes up all the branchial region, leaving, however, a small aperture on the left side. The primary pharyngeal wall not only splits, so as to form four clefts on each side, but the wall itself becomes divided, so as to form a series of pouches, each of which has a cartilage within and a cartilage without the opercular skin, loosely covering the pouches outside. The intra-branchial arches are small bars, while the second and fourth are large pouches. Tufted vascular growths, like those first seen outside, grow on the inside of the large pouches and bars, and also from the three branchial clefts outside the extrabranchials. These correspond to the external gills seen in unhatched skates and sharks. Suctorial cartilages have nearly disappeared in the embryos of urodeles, but in the batrachia they are nearly as much developed as in the lamprey. In the urodeles, we find no trace of a gill on the first and second arches behind the mouth, nor on the sixth, which exists in the majority of the species. It is evident that the tailed amphibia have been dropping from time to time parts no longer useful to them, whilst straining after a higher organisation. In them, we have the beginning of the middle ear; there are a stapes and a fenestra ovalis. Here, also, a larynx appears for the first time; and the shoulder and hip-girdles, and the fore and hind limbs, are developed similarly to those of higher types.

The metamorphosis that takes place in the life of frogs and toads is very wonderful. Born almost a lamprey, the frog changes into a creature which is a selachian and something more, for it passes through the further border of the sharks. In its changings, there begin to be formed the rudiments of many important organs which come to perfection in man and his nearest relatives. In them, the upper element of the hyoid arch is modified into the chain of the middle ear, the spicular cartilage into the ring of the ear-parchment, and the skin covering the first cleft into the membrana tympani. The part of the hyoid arch which is developed into the middle ear appears later than that which carries the tongue. The chorda tympani is found for the first time formed by the splitting of the seventh nerve as it arches over the first cleft. The auditory apparatus is quite flat on the face in these animals, and is formed entirely by the modification of true fish-elements.

LECTURE VII.

THE reptiles are divided into four families, namely, snakes, lizards, turtles, and crocodiles. They are all similar in having the lower jaw attached to the skull by a quadrate bone, which is not a fixed suspensorium, as in the frogs, but forms a true joint. This gives very free play and mobility to the jaw. In the snakes, the bones of the skull are extremely hard; but cartilage, when it survives, is perfectly elastic and unossified. The sutures are, as a rule, obliterated at a very early stage. The skull is largely formed of splint-bones, and the inner parts of the face are also formed of membranous bones, which, however, represent cartilaginous elements in fishes. The outer parts of the face are formed of bones which have no cartilaginous representatives in the lower forms, but exist as splint-bones or dermal scutes in ganoids, osseous fishes, and amphibia. The whole apparatus of the palate and upper and lower jaws is a very loosely articulated structure, and each bone is in the form of a simple bar. The hinder part of the endocranium and the auditory capsules are intensely hard, and the orbito-ali-sphenoids are separately developed in the membranous walls of the skull. The three bony elements of the auditory capsule remain separate, but the preotic unites with the basi-sphenoid, the epiotic with the supra-occipital, and the opisthotic with the exoccipital. The only visceral elements that are developed behind the mandible are the rod of the columella and the minute stylo-hyal, which coalesces with the quadrate. The lizards have a movable pin to the lower jaw, like the snakes, but differ from them both externally and internally. One of the most remarkable things in their skull is the retention of two rows of small bones strengthening the eyebrows, and another row over the temporal region, besides a bone flooring the outer nostril. The parietals are simply roof-bones propped up by a slender rod of bone called the columella, which must not be confounded with the bone of the same name in the middle ear. The brain is protected in those animals from injury by the cavity containing it being about three times larger than the brain itself; hence considerable bending of the cranial bones may take place without injury to or pressure upon the brain. Each of their tail-vertebræ is divided through its centre by a transverse partition formed of membrane; and, when the tail is suddenly bent, it snaps off at that point, so in this way the animal escapes from its pursuer when seized upon by that part of the body. The turtle develops in the same manner as the lizards, but, during its growth, it drops several body-segments of somatomes. This takes place especially in the neck, and, as a result, it is shortened. The shoulder-girdle and limbs are not attached to the sternal ribs or sternum, as they do not possess either. The whole of the back skin becomes ossified, so as to form a strong bony box, to which the name carapace is given, and into which the animal can draw itself. The carapace is principally formed by the bony matter from the spines of the back and the rib-shafts spreading into a thick overlying web of fibrous tissue. The anterior portion of the body is protected by the ossification of the dermis into the plastron. This is formed of four bones on each side, the anterior pair being separated by a single median piece. In the skull, the bones forming the anterior portion are hard and well ossified, while those of the posterior part are only cartilaginous. The pier of the tongue arch or hyoid is a long slender rod, the proximal end of which answers to the stapes, and the rest to the incus; it stretches between the fenestra ovalis and the drum-membrane.

NOTE ON LECTURE V.—The proper heterocercal tail is that in which the spine with its lessening joints runs up along the upper lobe; the lower and lesser lobe is formed of rays. The homocercal tail (found in most Teleostei) as a rule is heterocercal; but the many small terminal vertebræ are aborted and form an "urostyle". A diphycercal tail is one with no aborted vertebræ, but the lobes equal or rounded.

GLASGOW.—At Glasgow, the death-rate in 1878 was 3.6 per 1,000 below the average of the preceding ten years. This improvement was most marked in the earlier years of life, the death-rate under five years being 11½ per 1,000 below the average. The meteorological and vital characteristics of 1878 at Glasgow were a high temperature, low rainfall, and a diminished death-rate, especially among children. The general death-rate was 25.7 per 1,000, or the highest of any town in Scotland except Paisley. The deaths under five years amounted to 48 per cent. of the total deaths; 87 per cent. of the deaths were certified, and 40 per cent. were in friendly societies, on which latter subject Dr. Russell makes some interesting remarks. Of the deaths under one year, only 75 per cent. were certified, this percentage being lowered in the case of illegitimate children to 63½ per cent. The comparison of 1878 with the average of the five preceding years shows an improvement all round, but chiefly in the fatality of infectious diseases. The epidemic of the year was whooping-cough, which alone caused 985 deaths. The fevers were never so slightly fatal. Since 1869, the death-rate from these diseases has fallen year by year, with a trifling check in 1875. During the last four weeks, only 22 lives have been lost from small-pox in Glasgow.

A CASE OF OVARIOTOMY PERFORMED DURING THE SIXTH MONTH OF PREGNANCY WITHOUT INTERRUPTION TO GESTATION.

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MRS. L., aged 29, first consulted me on June 14th, 1879, on account of rapid enlargement of her abdomen during the last two months. She was then under the care of Mr. Powles of Shepherdess Walk. She had had two children, and no miscarriages. After each delivery, she thought that a lump had remained on the left side of the abdomen; but this had not been observed by her medical attendant. The last child was born in September 1878, and died in January 1879, having been suckled until its death. The distension of the abdomen was now much greater than at the full term of the previous pregnancies; and she was uncertain whether she were pregnant or not, having felt no fœtal movements, and having had no sickness nor other subjective signs of pregnancy. Menstruation had not recurred since the last delivery. After her first delivery, she had suckled the child for eleven months; and the second child had been born when the first was fifteen months old.

On examination, it was found that the abdomen was enormously distended, and its surface, from the umbilicus downwards, was extremely œdematous, so that the superficial tissues were increased in thickness to at least three inches. An uniform and distinct fluid thrill could be felt over the whole surface of the abdomen. On vaginal examination, the cervix was found to be closed, but appeared to be softened, as in pregnancy. The resistance of the anterior vaginal wall resembled that produced by the presence of the pregnant uterus. The condition of the breasts also appeared to indicate pregnancy. No fœtal movements were felt either from the abdomen or by vagina, and no fœtal heart-sounds nor uterine souffle could be heard. On bimanual examination, it was found absolutely impossible to define the size of the uterus or to ascertain the level of the fundus by the impulse communicated to the cervix. The urine was free from albumen, the legs were not œdematous, the temperature was normal, and the general health pretty good.

I considered the probable diagnosis to be that of an ovarian cyst combined with pregnancy; and, from the fact that no fœtal heart sounds nor fœtal movements could be made out, I thought that the pregnancy could not exceed four or five months in duration, conception having probably occurred soon after the death of the last child, and within five months after its birth. Since, however, the great œdema prevented the uterus from being defined bimanually, I considered the differential diagnosis from hydrops amnii not quite certain. The œdema of the abdominal wall made it evident that some interference would soon be necessary. I thought that, if the case should turn out to be hydrops amnii, the puncture of the uterine wall intapping would not be without risk, although the operation has been performed without fatal result in some cases in which hydrops amnii has been mistaken for an ovarian cyst with pregnancy. (See a case reported by Dr. Kidd to the Obstetrical Society of Dublin, *Obstetrical Journal*, December 1878.) I was, therefore, inclined to recommend an exploratory incision with antiseptic precautions, to be followed by ovariotomy if an ovarian cyst were found to exist.

Three days later, the patient was attacked with general abdominal pain accompanied by dyspnœa.

On June 20th, I was sent for to see her at home. I found her sitting up in a chair, the dyspnœa preventing her from lying down even at night. The œdema had now extended further over the abdomen, and the skin was reddened on the surface. The legs were also œdematous, and the urine contained a considerable proportion of albumen. There was much abdominal tenderness, and the temperature was 101.3° F., pulse 120. On examination under chloroform, fœtal movements were distinctly felt from the vagina. Even under the anæsthetic the finger could not be passed into the cervix, nor could the height of the fundus be made out.

Feeling now pretty certain, from this condition of the cervix, that the case was not one of hydrops amnii, I advised tapping for immediate relief. This operation was performed under carbolic spray the same evening, and twenty-one pints of fluid were drawn off. The fluid was of specific gravity 1007, pale and slightly glutinous, containing a moderate quantity of albumen. Towards the end, some soft flaky material escaped through the cannula. After removal of the fluid, the fundus of the uterus was found to reach close up to the umbilicus, and the fœtal heart could be heard. The date of pregnancy was estimated at about five months. Judging from the date of the subsequent delivery, it must then have been about seven days short of five calendar months. On microscopic examination of the fluid withdrawn, numerous clusters of cells of irregular shape were found, apparently indicating the existence, in the interior of the cyst, of papilloma with proliferating epithelium, and therefore of a tendency towards malignancy. The patient was much relieved after the tapping; the albuminuria and œdema disappeared, and the febrile symptoms gradually subsided, although tenderness of the abdomen continued for some days. Immediately after the tapping, the fœtal movements became at once distinctly perceptible to the patient, and appeared to her to be stronger than was usual at the fifth month of pregnancy.

On July 4th, there was found to be again a considerable increase in the distension of the abdomen, and fluctuation was again perceptible over a considerable surface, chiefly toward the upper part of the abdomen. On account of the microscopic characters of the fluid withdrawn at the first tapping and the great activity of the cyst, as shown by the rapid re-accumulation of fluid, I decided to recommend ovariotomy in preference to repeated tappings or the induction of premature labour. It was, however, to be expected that the operation would prove formidable on account of the stage of pregnancy which had been reached, in conjunction with the adhesions which the recent attack of peritonitis had probably left.

I performed the operation under carbolic spray on July 7th, when the patient must have been about ten days advanced in the sixth calendar month of pregnancy. The fundus uteri being felt nearly up to the level of the umbilicus, the incision through the abdominal wall was so made that its lower extremity corresponded with this spot. On tapping the cyst, about eight pints of fluid were drawn off. The fluid on this occasion was not pale, but was stained by blood-pigment to a deep reddish brown. The whole interior of the cyst was covered by papillary growth, and very vascular adhesions were found connecting it with the abdominal walls, the pelvic brim, and the uterus. The attachment, situated on the right side, was very broad, and had to be tied in sections with carbolised silk as closely as possible to the angle of the uterus. On cutting away the tumour, several small cysts, containing soft putty-like material, and covered, like the large cyst, with a papillary growth, were laid open. In order to remove the whole of the papillary surface, it was necessary to cut away the stump with scissors uncomfortably close to the ligatures, less than a quarter of an inch of tissue being left beyond them. After removal of the cyst, great difficulty was found in arresting the bleeding from the very vascular tissues of the uterus and its neighbourhood, and numerous ligatures of fine carbolised silk were applied to the bleeding points. Eventually, as blood was found repeatedly to well up from the right groin, the pedicle, which had retracted deeply, was brought into view again with some difficulty; and, as some oozing was taking place from it, an additional ligature was placed round its whole circumference. No drainage was employed, the abdominal wound being closed by silkworm-gut sutures. The operation had lasted an hour and three-quarters; and, before its conclusion, it proved necessary to replenish the boiler of the steam-spray apparatus which was in use, the wound being, of course, meanwhile suitably protected. In order to avert a miscarriage, if possible, one-third of a grain of acetate of morphia was injected subcutaneously immediately after the operation, and the same dose was repeated three or four times a-day for the next few days.

On July 8th, the patient appeared in fair condition; the temperature being 98.9° F., pulse 112. The morphia injections produced a considerable feeling of *malaise*, and appeared to cause vomiting. This effect was only slightly mitigated by the subsequent addition of atropine to the injections.

On the 9th, the temperature was 97.2° F., pulse 106. No pain was felt in the abdomen, except when the child moved. The patient was chiefly troubled by a swollen face, the result of decayed teeth, the swelling having existed at the time of the operation.

On the 10th, there were slight symptoms of peritonitis, the abdomen being painful and tender; and the temperature had risen to 101.2° F., pulse to 120. Next day, these symptoms had subsided, the temperature had fallen to 99°, and no threatening of labour occurred. When the sutures were removed on the seventh day, the whole wound was firmly united.

The patient did extremely well until the fifteenth day after the operation, and had already dismissed her nurse, when she was suddenly attacked by phlegmasia dolens of the left leg, accompanied by induration in the course of the femoral vessels from the groin to the popliteal space. There was considerable fever for several weeks, the temperature rising as high as 104° F., and she became much emaciated. No miscarriage, however, occurred. I was absent from England at the time of this illness, and did not see the patient again till September 7th. The swelling of the leg and fever had then subsided, but there was still great stiffness of the thigh and knee, with tenderness and induration in the course of the vessels. From this time, she gradually improved, and, during the last month of her pregnancy, had very good health. A living female child was born on October 27th. Labour lasted three days, chiefly through prolongation of the first stage. Mr. Powles was contemplating the application of forceps, but delivery eventually took place naturally. The former labours had been normal. A month after delivery, the patient was found to be in fair health. The cicatrix of the abdominal incision was quite firm, and there was no trace of pelvic induration, nor any indication of recurrence of growth in a malignant form. She still remains in good health, except that she has a little pain in the leg, and the baby is doing well.

Microscopic sections of the cyst after removal showed that its internal surface was everywhere covered with villous papillæ. Their epithelial covering was mainly of the columnar type, but was proliferating into tufts of irregular cells easily detached. In many places, the papillæ did not project freely into the cyst, but the surface was levelled by a layer of *débris* of blood and cells, similar to that often seen on the surface of a vegetating epithelioma of the cervix uteri. Beneath the papillæ was a layer of gland-like tissue, varying in depth from one-eighth to one-fourth of an inch, and evidently formed by the ingrowth of the depressions between the papillæ. Its histological structure was identical with that of columnar epithelioma, except that it was sharply limited at a very short distance from the surface. The epithelial lining of the glandular acini was mainly of a columnar type, but proliferating irregularly; and in many places the epithelium was growing in the form of prominences into irregularly dilated acini, the cells here being chiefly rounded. The fibrous stroma was infiltrated with nuclei in the immediate neighbourhood only of the glandular tissue. At a few points, epithelial cells were seen in the stroma resembling those in the acini immediately adjoining.

REMARKS.—The tolerance of the uterus in this patient, notwithstanding the very protracted operation, and the high fever produced by the attack of phlegmasia dolens fourteen days afterwards, appears to be remarkable. It would seem that in most, if not in all, recorded cases in which ovariotomy or similar operations have been performed at a later stage of pregnancy than the fourth or fifth month, premature labour has followed sooner or later. Thus, of the cases recorded by Mr. Spencer Wells in 1877 (*Obst. Trans.*, vol. xix), in one (Case 6), ovariotomy was performed about the end of the sixth month, labour followed the day after the operation, but the patient recovered; in a second (Case 7), the operation was performed in the sixth month, the fœtus was expelled six hours after the operation, and the patient died; in a third (Case 9), the operation was performed in the sixth month, and the patient recovered, but premature labour came on twenty-five days after the operation. In a case mentioned by Mr. Lawson Tait (*Obst. Trans.*, vol. xix), ovariotomy was performed in the seventh month, premature labour occurred on the sixth or seventh day, and the patient died a few hours afterwards. In a case recorded by Dr. Wilhelm Baum (*Berliner Klinische Wochenschrift*, 1877), ovariotomy was performed antiseptically about the end of the fifth month of pregnancy, miscarriage followed the day after the operation, and the patient had severe symptoms ending in a pelvic abscess, but ultimately recovered. Again, in the remarkable case of hydatids of the omentum, which simulated an ovarian tumour, and were removed by Mr. Knowsley Thornton in the seventh month of pregnancy, labour came on on the eighth day, the wound having opened after removal of the sutures on the seventh day. The patient ultimately recovered. (*Medical Times and Gazette*, November 16th, 1878.) And in a case of fibroid outgrowth from the uterus, also mistaken for an ovarian tumour, and removed by Mr. Knowsley Thornton between the seventh and eighth months of pregnancy, delivery took place on the night after the operation, and the patient died on the fifth day. (*Obst. Trans.*, vol. xxi.)

It is difficult to trace a direct causation for the phlegmasia dolens by which my patient was attacked fifteen days after the operation. If there had been any access of septic material, notwithstanding the carbolic spray, she would not have progressed so favourably for fourteen days after so severe an operation; and if the starting-point were inflammation near the pedicle, set up by the presence of the ligatures, it might have been expected that the right leg, and not the left, would have been affected.

THE appointment of Dr. Thomas Hatfield Walker as Medical Officer of Health for the Longtown Rural Sanitary District, Cumberland, having expired, it was, at the last meeting of the authority, proposed, pursuant to notice, to reduce his salary from £80 *per annum* (it was originally £100) to £50; but, after a long discussion, it was negatived, and he was again appointed at £80 *per annum* by 13 to 6.

NOTE ON THE NEUROTIC ORIGIN OF LICHEN PLANUS.*

By T. COLCOTT FOX, M.B.Lond.

ALTHOUGH the interesting papular eruption called lichen planus is now well known, its exact causation has always been a great puzzle. Hebra, who was the first to describe the more severe and general form, does not discuss a cause, although he states that the progress of the disease is attended by general symptoms, such as impairment of nutrition, loss of flesh, and even marasmus. He, however, remarks that these symptoms depend on the extent and progress of the eruption. Erasmus Wilson, who first described the milder affection which is not uncommon in England, could not detect any constitutional symptoms, but suggested as a cause nutritive and digestive derangement; in this he is corroborated by R. W. Taylor, who first called the attention of the profession in America to the disease. Neumann says we know nothing certainly as to its cause, and Piffard states that its etiology is unknown. Dr. Duhring noticed signs of improper nourishment, overwork, and nervous depression; and Mr. Hutchinson, in one of his clinical lectures, places lichen planus as a member of the dartrous family of skin-diseases, with psoriasis and pemphigus, *i.e.*, as he explains, one of the "relapsing symmetrical constitutional skin-diseases for which arsenic is proved to be more or less specific"; and he adds, "that there seems to be a number of strong facts both as regards clinical history and mode of cure in support of the creed that all the dartres are produced through some derangement of the nervous system rather than of the blood". Dr. Tilbury Fox, however, in the third edition of his work on *Skin-Diseases* (1873), was the first to point out, I believe, that the affection was certainly of neurotic origin; and, in alluding to the nervous dyspepsia, menorrhagia, heart-irregularity, and other functional disturbance he met with, he asserted that they and the hyperæmia and cell-change in the skin are only parts of a general disturbance of the sympathetic (trophic?) nerves. It is to this neurotic origin of the disease that I wish to redirect attention. The evidence I shall produce is certainly most imperfect, but it is given in the hope that it may form a part of other more complete proof.

In the first instance, as regards the general symptoms, although now and again we meet with a patient suffering from a mild form of the disease in whom any sign of general ill-health or cause for the eruption is not evident, just as is the case with the known neurotic diseases alopecia areata, morphœa, pemphigus *à petites bulles*, and ordinary pemphigus; yet the observation of nearly thirty cases of the disease has taught me that this is exceptional. Nearly always we may elicit a history of what may be conveniently termed "nervous debility", and often in a marked form, and disturbance of the sympathetic system of nerves. The system is jaded, and there is considerable nervous depression in connection with overwork, great worry, anxiety, distress of mind, flooding after childbirth, etc. The extreme *nervous temperament* of the patients has been noted by me in several cases which came under observation prior to the development of the eruption.

In the second place, I wish to suggest that it is incorrect to place the disease amongst the inflammations of the skin. There is no true inflammatory action present, but the chronic papules are produced by persistent neuroparalytic hyperæmia and its results, viz.: dilatation of the vessels and engorgement of the tissues with blood, the escape of leucocytes, œdema, hypertrophy of various structures, and slight desquamation. It is not necessary to call in the disturbed action of trophic nerves to supplement that of the vaso-motor apparatus.

Thirdly, I shall not press any argument derivable from the grouping of the papules or the habitat of the eruption, but I wish to describe two cases where the papules were distributed in a manner the significance of which will be at once apparent.

CASE I.—C., aged 50, a stout but active man, engaged in farming, had rheumatic fever in 1876, but without heart-affection. He was left much debilitated, and, in April 1878, suffered from herpes preputialis. In July 1878, he had pains in his legs, and was lame for some time; but, on that condition disappearing, he sought advice, in August 1878, for the outbreak of the eruption of lichen planus, which was most typical in character. He was excessively low-spirited, and in an exceedingly nervous state. The eruption was limited to the region of the elbows, the back of the right thigh, and to a narrow band which extended down the inner half of the front of the right thigh, on the inside of the knee, and, increasing in width on the inside of the calf, terminated just behind the internal malleolus.

CASE II was an almost precisely similar case, seen also nearly at the same time. The band of characteristic flattened purplish papules extended similarly all down the inner side of the left leg, and there were some papules on the front of the wrists. This gentleman was in a condition of extreme nervousness, and had been subjected to considerable worry.

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* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

In concluding these remarks, I wish to take the opportunity of placing on record a case, in which the typical lichen planus of Wilson terminated in the lichen ruber of Hebra; and I do so, because one of the more recent authors, in arguing against the identity of nature of the two affections, states that such a transition has never yet been recorded.

J. D., aged 50, a stout, plethoric, very dyspeptic, gentleman, applied for relief in May 1878, from the eruption of lichen planus on the arms and about the thighs, and also from the itching of urticarial wheals about the body. Both eruptions had been out for about a year, and, eighteen months previously to that he had lost his wife, and, shortly after, a considerable fortune by speculation. In consequence, he was very *nervous*, depressed, working long hours to retrieve himself, and feeding irregularly. Up to the end of August 1878, by careful and regular dieting, and the treatment by mineral acids, bark, iron, cod-liver oil, and arsenic, he had improved considerably in general health (but not in spirits), though only after several relapses. The urticaria had quite disappeared. In the beginning of September 1878, however, although Fowler's solution had been administered (three to six minims thrice daily) since May, the lichen rapidly appeared again, and over extensive areas. In a few weeks, the eruption thickly studded the whole of the trunk and limbs, and the aggregated papules could be traced joining with other collections to form extensive sheets, which almost continuously covered the surface. The skin at this stage was turgid, of a deep red colour, and slightly scaly. All trace of papules was lost, except in a few situations; and, indeed, one was reminded of pityriasis rubra, excepting that the desquamation was less extensive. The itching was intense; and the health deteriorating rapidly from sleeplessness and from unremitting business worries, the gentleman was sent to Harrogate, where, under Dr. Myrtle's care, he steadily improved in health.

CLINICAL MEMORANDA.

THE NATURE OF RHEUMATIC SYMPTOMS.

THE immense majority of morbid symptoms are of an inflammatory nature; and there might naturally be a tendency to attribute to inflammation phenomena which were, in truth, of an essentially different type. I will first remark that increased functional activity might, in certain cases, be mistaken for inflammation—especially if the function were not obvious and the process long continued. The blushing, swelling of, and effusion from, the gastric membrane during digestion are symptoms which resemble in a degree those of inflammation; but here the function is so obvious, its action so evanescent, that no mistake is possible.

But let us examine fibrous tissues, and ascertain whether they discharge duties other than those of merely mechanically connecting parts together. Now, it is a fact (which has, I think, hitherto escaped the eye of the pathologist) that fibrous tissues perform an important physiological function. They are bathed in blood-plasma, derived from capillaries in the neighbourhood; and, after the tissues have been nourished thereby, the remains of this plasma find their way into the rootlets of lymphatics; for in fibrous tissue lymphatics originate. In this manner many broken down and effete products are transmitted from the blood into the lymphatic system, and become again converted by lymph-glands into serviceable substances.

Here, then, we have an eliminative system; and, should an excess of such effete matters accumulate in the blood, is it not possible that nature might ordain an increased activity of this system? Suppose that such was the case, what symptoms would encounter us? In regions where fibrous tissues predominate, there would be dilatation of the capillaries, in order that plasma might more readily permeate their walls; there would be effusion, giving rise to swelling, and, by pressure upon the nerves, to pain. Now, I venture to think that such a series of symptoms would be particularly apt to be mistaken for inflammation. A few points, however, would guide us in our diagnosis. We might watch the results, and observe whether any of the usual sequelæ of inflammation made their appearance—such as suppuration or organisation of effused products. We might ascertain whether the process resolved itself slowly, after the manner of inflammation; or whether it ever vanished suddenly, as a functional process might do. We might, moreover, search for any increase in the fluid contents of those large lymph-sacs, the serous cavities, and, putting the results together, form a diagnosis.

Now, rheumatism is a disease due, in all probability, to the accumulation of some effete matter in the blood, and in this disease we perceive all the phenomena above indicated. We observe hyperæmia and effusion in fibrous textures, but never any inflammatory sequelæ—such as suppuration or new formation. The process, too, is often volatile, and may flit from joint to joint—a fact which inevitably suggests its functional nature. There is engorgement of those large lymph-sacs, the serous cavities, an engorgement which may in the case of the pericardium whose unceasing movement is necessitated, give rise secondarily to true inflammation.

I believe, then, that rheumatism is due to the accumulation of some morbid matter in the blood, and that the symptoms are traceable to an effort on the part of nature to eliminate that matter.

GEORGE BUDD, Junior.

OBSTETRIC MEMORANDA.

OBSTINATE VOMITING IN PREGNANCY.

MRS. D., aged 37, consulted me in July last. She was the mother of four children, the youngest being ten years of age. She had been a widow for nine years, and married to her second husband less than twelve months. Whilst pregnant with her four children, she had had no sickness worth mentioning; but, about six months ago, and soon after missing a period, sickness commenced and became most persistent, all food returning at once. She was seen by four different medical men, who tried medicines, hypodermic injections, and attempted to dilate the os uteri with the finger, as originally recommended by Dr. Edward Copeman (whose death I regret to see announced in the JOURNAL); but I gather from them that the hard and gristly cervix prevented the introduction of the finger. The patient's condition becoming desperate, labour was induced as the only means of saving her life. She recovered, and remained well till she was again about six weeks' pregnant, when the sickness returned; and, after continued vomiting for nearly a week, I saw her. The cervix, and especially the posterior lip, was hard and gristly, and I could not even introduce my finger within the os, nor was I successful with a sea-tangle tent. For two days, I tried various remedies both by the mouth and hypodermically. Matters, however, only grew worse; and, on the third day (as a last attempt, before inducing labour), I passed with difficulty a long and slightly anteriorly curved throat-forceps an inch within the os, and gently, but with some force, separated the blades half an inch. I then repeated this laterally. The effect was almost immediate; food was retained, the patient quickly regained strength, has continued well since, and last week, after a quick labour, gave birth to a fine female child.

J. FARRANT FRY, Swansea.

SURGICAL MEMORANDA.

DISLOCATION OF THE WRIST-JOINT.

THE extreme rarity of this injury induces me to record the following case.

J. R., aged 15, while employed in a coal-mine, had occasion to ride on a train of underground wagons, which were going at considerable speed, when, by the wagon in which he was riding leaving the rails, he was violently thrown and sustained a fracture of the left clavicle, a fracture of the right femur in its middle third, a fracture of both tibia and fibula immediately above the left ankle-joint, an extensive scalp-wound (laying bare a large portion of bone), and a complete dislocation of the right carpus on to the dorsal aspect of the radius and ulna. The numerous fractures and the scalp-wound having been first attended to, reduction of the wrist-joint was easily effected; and it was put up in two temporary splints, extending from the middle of the hand to the elbow-joint. On removal of these splints two days afterwards, there was found to be no swelling or pain in the articulation, and he had considerable mobility of the joint. He has now, fourteen days after receipt of the accident, perfect use of the wrist, and otherwise is progressing favourably.

The necessity of publishing such cases as this is at once apparent, when we find that the possibility of dislocation of the wrist-joint occurring at all is not only doubted, but denied, by surgeons of great eminence and extensive experience. The late Professor Syme told me that, although he had then been forty years in practice, he had never seen a case. Dupuytren states, as his opinion, that "there was not a single unequivocal instance on record of a *dislocation* of the radio-carpal articulation, and that he invariably found these pretended accidents always turned out to be fractures of the radius near the articulation". Sir Astley Cooper says that "dislocation of both bones is not of very frequent occurrence", Erichsen and Miller consider it "of rare occurrence". Notwithstanding these weighty opinions, careful examination of the injury in this case, and the fact that the patient has had free use of his arm without splints since the second day after the accident, I have no hesitation in recording this as a genuine case of complete dislocation of the wrist-joint.

Robert Anderton, M.D., L.R.C.S.Ed., Cramlington.

DRESSING OF WOUNDS IN MILITARY SURGERY.

I write to inform Surgeon-Major McNamara, whose communication on the above subject appears in the Journal of the 28th ultimo, as well as any other persons who are interested in the subject, that the first dressings to wounds applied to the wounded, white or black, of Wood's Flying Column, in the Zulu campaign, were invariably either carbolic oil on lint or carbolised tow. Though complete antiseptic treatment of wounds was impracticable, very good results followed the practice mentioned.

Charles McD. Cuffe, Surgeon-Major
(late Principal Medical Officer, Wood's Flying Column), Woolwich.

THERAPEUTIC MEMORANDA.

IODOFORM AS AN EXTERNAL AND INTERNAL REMEDY.

I have used the above remedy for upwards of four years, with an unvaried success, both applied in the form of ointment (one drachm to an ounce of lard), and of the powder dusted over the ulcer. The cases in which I have used iodoform have been mostly of a specific character, more especially old chronic varicose ulcers of the leg with a syphilitic taint. A healthy action has been produced in a marvellously rapid way. Cases which had resisted all forms of treatment for years have quickly got better, and ultimately healed over. In other cases, I have given the powder internally, mixed with mucilage (one to two grains to the ounce). I also combine with the iodoform treatment other internal remedies suitable to the cases under treatment. The chief reason why I have brought iodoform under the notice of the profession is for the purpose of giving it a more extensive trial in all cases of sores, both specific and non-specific. The last case which I have at the present time under treatment is one of a large carbuncle on the back of the neck, two by three inches in superficies, in which the whole of the skin of the neck over that surface sloughed away, leaving the muscles exposed with a clean-cut margin, where poultices and constitutional treatment were tried without any avail, the patient becoming weaker and weaker from the continual drain on the system, and fœtid smells; but, as soon as I treated the case with the iodoform ointment, the ulcer took on a healthy action, the discharge and fœtor ceased, and it is now healing rapidly. Of course I gave, internally, ammonia and bark—half a drachm of the former with an ounce of the latter. Other cases have been equally successful.

J. B. James.

Poplar.—There are two officers of health working in this extensive metropolitan district. Their reports show a satisfactory amount of personal work and of progress in sanitary improvement in their respective districts. A great advantage has been gained by appointing a separate officer to watch the various manure and chemical works and other offensive factories in the district. The death-rates of the two divisions during the year ended March 31st, 1879 (an illogical period to adopt) were 21.8 and 20.3 respectively. Small-pox showed a decline; and none of the other zymotics were particularly prevalent, except whooping-cough, which caused 100 deaths in each division. In the south district, nearly a third of the total mortality occurred to infants under one year, and considerably more than half to children under five years. Of the 1,148 deaths, 157 resulted after the age of sixty had been reached, and 33 after the age of eighty. Besides whooping-cough, the other more fatal diseases were bronchitis, phthisis, and pneumonia. In this division, there were 141 inquests during the year, 82 on account of deaths by violence. In the north district, 96 deaths occurred from diarrhœa, 65 being amongst children under one year or at the breast. The medical officer of health expresses his opinion that the alcoholised condition of the breast-milk and the foul state of the child's surroundings are chief factors in this mortality. As usual, more infant deaths are due to wasting diseases of children than to any other class. The medical officer truly observes that "many of these children are simply born to die. At the start, they have no chance; they bring with them their death. The majority are born apparently healthy and strong; but soon bad nourishment tells upon them, and they fall away to die of one of these diseases." It would be well that the tabular statements of the two officers were uniform.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ROYAL FREE HOSPITAL.

CASES OF SECONDARY SYPHILIS.

(Under the care of Dr. Allen Sturge.)

Case I. Mary Ann N., aged 33, was admitted into the Royal Free Hospital under Dr. Allen Sturge, on February 23rd, 1878. She had been married several years, had had four children, and one bad miscarriage about ten months before admission, in which she lost a large quantity of blood. A month afterwards, she began to suffer from dull aching pain in the head, which within a few hours became very severe. From that time until she came to the hospital, she had never been free from the pain, which was worse at night, and prevented her from sleeping. The pain was felt all over the head, but was especially severe across the bridge of the nose. The scalp became very tender, and on this account she could scarcely brush her hair. When first seen, on February 23rd, this headache was the only symptom; there was at that time no marked periosteal swelling on the head. About a week later, a rash appeared, which had all the characters of syphilitic roseola; she began to complain also of sore-throat and tongue, both of which were swollen, ulcerated, and presented white patches of thickened epithelium. The forehead had now become greatly swollen on both sides, the swelling being extremely tender, moderately hard, and evidently periosteal; there were similar swellings at different parts of the scalp. There was painful enlargement of all the superficial glands in the body, which made it difficult for her to move in bed. The treatment adopted was as follows. ℞ Liq. hydrargyri bichloridi ʒi; potassii iodidi, gr. x; decocti cinchonæ ℥i. Under this treatment, the rash rapidly disappeared, the periosteal swelling went down, and the headache ceased. After ten days, salivation set in, and the mercury was discontinued. On March 17th, the ciliary region of the left eye became much injected. Solution of atropine was at once dropped on the eye; belladonna fomentations were ordered; and three grains of grey powder twice a-day were prescribed. The injection of the eye continued, but there was no marked change of colour in the iris, and very little pain, until March 30th, when the eye became intensely painful, and continued so for many hours. Eight leeches were applied at different times to the left temple, and a blister behind the left ear. These measures gave relief to the pain, but shortly afterwards she began to complain of mistiness of vision in the left eye. Examined with the ophthalmoscope, the left disc was found to be hyperæmic, the vessels swollen, the outline less clear than that of the right disc, and there was a want of transparency in the vitreous humour. The mistiness of vision continued to increase, but the ciliary injection entirely disappeared. On May 1st, there was an attack of inflammation in the right eye. The iris became discoloured and adherent to the lens; there was slight obscurity of the vitreous humour, and the disc was redder and less defined than it had been previously. The adhesion was easily broken down by atropine. About the same time, she began to complain of deafness. This was more marked in the right than in the left ear. She could hear a watch four inches from the right, and six inches from the left ear; but she was unable to hear a watch through the bones of the head, when the external meatus was closed, even when it was pressed firmly against the bone in front of the meatus. The deafness subsequently diminished, but never entirely left her. Whilst she was in hospital, and doing no work of any kind, the right bursa patellæ became very painful, and filled rapidly with fluid. It was painted with liquor iodi, and, at the end of a fortnight or three weeks, the fluid had disappeared. About three months later, after her discharge from the hospital, the left bursa patellæ filled in a similar way. She asserted that she had not been kneeling before it began to swell. Subsequently, both bursæ became greatly thickened, and protruded for about an inch beyond the natural level. They felt very hard, and gave a little creaking sensation when kneaded. In July 1878, five months after the first onset of symptoms, two gummata appeared in the substance of the tongue, one about the size of a small nut, and the other about as large as a pea; the former disappeared under the influence of iodide of potassium, but the latter ulcerated before disappearing. In September, her eyes were examined by Mr. Nettleship, who made the following report. The right eye showed no sign of disease. With the left, she could only just read very large print. In the vitreous humour was a large "dusty cobweb" and several opaque floating bodies. The margin of the optic disc was invisible, owing to the presence of a diffuse whitish yellow haze, gradually shading off into the fundus. The disc was redder than normal, and swollen. There appeared to be a diffuse haze of the retina for some distance round it. There was no trace of choroidal disease. Mr. Nettleship was of opinion that she had had irido-cyclitis of the left eye, with consequent inflammation of the anterior part of the vitreous body, and syphilitic neuro-retinitis. He also thought that atrophy of the left nerve might be anticipated.

CASE II.—The husband of the preceding patient was attending at the Royal Free Hospital at the same time. He stated that he had had a chancre in September 1877, and that secondary symptoms began to show themselves the first week in December. As above seen, the wife miscarried in the latter part of December, and secondary symptoms appeared towards the end of January. The husband had very severe secondary symptoms, but the only manifestation of great interest was the early occurrence of total deafness in the right ear. This came on about the same time that the rash began to show itself, and was so complete that, when first seen, about six weeks afterwards, he was unable to hear a watch pressed closely against the ear, or held in contact with any part of the right side of the head. There was little or no improvement in this respect under treatment. He was quite sure that he had not been deaf before the period mentioned by him.

CASE III.—Kate V., aged 22, began to attend as an out-patient at the Royal Free Hospital, under the care of Dr. Allen Sturge, on September 13th, 1878. She had been married three years. Five months after marriage, she miscarried. Twelve months before the onset of her present illness, she was delivered of a nine months' healthy child. Six weeks before the onset of symptoms, she had a second miscarriage at about the third month of pregnancy. She had otherwise enjoyed good health since her marriage. At the beginning of July 1878, she found that there were several sore places about the vulva. When first seen, there were numerous mucous tubercles on the vulva and its neighbourhood. There was a coppery tubercular eruption under the left breast, and a little under the right breast. She was suffering from sore-throat, with excavating ulcers of the tonsils. The tongue also was ulcerated, and there was enlargement of the cervical glands. She was ordered two grains of grey powder three times a day, and calomel for outward application to the mucous tubercles. She became rapidly better under this treatment; but, on October 18th, she complained of pain over her right knee, and, on examination, the right bursa patellæ was found to be distended with fluid. The patient stated that she had not been kneeling, and could not account for the swelling. The effusion disappeared after a few applications of liquor iodi.

CASE IV.—At the same time, the child of Kate V., fifteen months old, who up to that time had been quite healthy, presented a very marked rash all over the body, having all the characteristics of a secondary syphilitic rash, roseolar in some parts and scaly in others, especially in the fold of the neck and the bends of the elbows. On dying away, it left a coppery discoloration. There was no sore-throat, and no signs of a chancre anywhere, nor was there a history of sore-throat or lips at any time. The mother stated that she weaned the child immediately upon the appearance of her own symptoms, but that she was in the habit of chewing the child's food before giving it to her, and had done so all the time that her throat and tongue had been sore. The eruption rapidly disappeared under mercurial treatment internally, but the child subsequently became half bald, the hair coming out "in handfuls". There could be no doubt that, in this case, the child had acquired syphilis from its mother. It may possibly have done so prior to being weaned; but it is more likely that the medium of infection was the saliva from the mother's mouth, covered, as it was, with secondary sores, with which the child's food was moistened. In the absence of any chancre in the mouth or throat, it is possible that, under these circumstances, the primary sore may have been in the stomach itself.

These cases are of interest in several ways:

1. In the presence of deafness in the first two cases, and the fact that in each of them there was not only more or less loss of hearing when a watch was held at a little distance from the ear, but there was complete loss of hearing through the bones of the skull, showing that the lesion implicated the inner ear rather than, or in addition to, the tympanic apparatus.

2. In the peculiar seat and the extent of the inflammation of the left eye in the first case. As is well known, the parts of the eye which suffer most usually in syphilis are the iris and the choroid. In this case, the iris was only slightly inflamed, and the choroid not at all; the principal seats of inflammation being the vitreous humour, the retina, and the optic disc.

3. In the inflammation of the bursæ patellæ in the first and third cases, the inflammation being bilateral in the first case, one bursa having inflamed whilst the patient was in hospital and at rest. Bursitis is described as occurring in the tertiary stages of syphilis; but secondary bursitus appears to be very rare.

4. The singular mode in which infection appears to have been conveyed in the last case. Numerous instances are on record of the conveyance of infection from mothers and wet-nurses to children through mucous tubercles or chancres of the mouth or breast, by kissing or suckling; but in these cases a chancre has usually been found on the lip, tongue, or elsewhere.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 9TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

NEPHRECTOMY BY ABDOMINAL SECTION.

BY A. E. BARKER, F.R.C.S.

IN this paper, the writer first sketched briefly the reasons which induced Professor Simon of Heidelberg to plan and carry out in 1869 the first case of nephrectomy designedly performed on the human subject. Simon had been preceded by two American surgeons in the mere matter of removing the kidney. Mr. BARKER pointed out the importance of Simon's experiments on animals, and his main conclusions: (1) that this operation was as well borne in the first instance by the system as others now fully recognised, such as excision of the uterus or ovary; (2) that the sudden removal of one kidney did not so far affect the urinary functions as at all to influence the question of the operation; (3) that the health of the animal might be quite as good after as before, and without any uræmic troubles, hypertrophy of the heart, or other evils. The question as to whether these conclusions hold good for man had been settled in many respects by the effect of the operation in Simon's first case, and in many since recorded. Of these, the author had collected twenty-eight from home and foreign sources. These he tabulated under the headings "Operator's Name", "Sex and Age", "Diagnosis or Object of Operation", "Duration of Complaint", "Date of Operation", "Situation of Incision", "Form of Dressing", "Treatment of Pedicle", "Symptoms after Operation", "Result, Immediate and Eventual", "Hæmorrhage after or at Operation". "Condition of Organ Removed", "Remarks on Points of Interest". In every case, the original reference (consulted in all but three instances) was given. Two cases in this list seemed to prove conclusively that neither the incision to the kidney in the loin, nor the ligature of its pedicle and its removal, need cause necessarily any great disturbance in the system. The organ in both had been wounded by a stab with a knife, and prolapsed, and was removed easily and without any immediate or remote ill effect. Of the twenty-eight attempted nephrectomies, six were done on a wrong diagnosis; in two for neoplasms, the operation was left uncompleted, owing to difficulties experienced in the isolation of the organ. Of the remaining twenty, undertaken with the distinct object of removing the kidney, and completed, the objects were the following: two for fistula of the ureter, both successful; two for acute pain in the kidney (cause unknown), one death, one recovery; two for calculous pyelitis, both fatal; three for injury of the organ, two complete recoveries, one fatal; six for acutely painful movable kidney, four complete recoveries, two deaths; four for neoplasms (one obscure, however), one death, three recoveries; finally, one for pyonephrosis perfectly successful. In the whole twenty-eight, there were fourteen recoveries and fourteen deaths. Excluding the six for wrong diagnosis, there were thirteen successful and nine fatal; two of the latter, however, were desperate, and left uncompleted. The causes of death were peritonitis in four (abdominal section in all); pyæmia in one; in one, the cause was not given, the patient died sixty-five hours after operation; in one, the cause was unexplained by the necropsy, "the patient died within a week"; two, both desperate cases, died of shock ten hours after the operation. In all the successful cases, recovery was complete, possible recurrence in two being excepted. Of the thirteen recoveries, nine were lumbar sections, four ventral. Of the nine fatal, five were lumbar, four ventral. Much more might be learned from a study of each individual case as to the merits of two rival incisions, than from a comparison of so few data as to their relative mortality. On the whole, a careful examination of all the records convinced him that nephrectomy was not accompanied by any peculiar shock or risks apart from those attending most grave operations, and that it was well borne in many cases; that, as an operation, it had a most useful future before it, when surgeons had learned to select proper cases and had better studied the operation itself. As to the mode of procedure, the lumbar operation appeared best suited for removal of healthy, or comparatively healthy, kidneys; also when there had been much perinephritic inflammation, old or recent; also for pyonephrosis and hydronephrosis, and perhaps for the smaller new growths of the organ, especially if fixed. The ventral incision appeared best suited for taking away movable kidneys, whether healthy or affected with neoplasms, especially if the latter were large; also for the ordinary cysts of the organ not fixed by inflammation. The difficulty in the case of the neoplasmata of removing the lymphatic glands in and about the pedicle of the kidney (which were known to be an early seat of recurrence) by the lumbar incision would influence him much in favour of abdominal section, by which the root could be better reached. He related the following case. An unmarried female aged 21, had had lumbar pain for eight months before admission into University College Hospital. Three months before admission, a medical man diagnosed a movable kidney. She suffered much from this time onward from intense pain, with frequent nausea, and even vomiting and hæmaturia, preventing all work for considerable periods. All this was aggravated from the time of admission. The diagnosis was movable kidney and possible new growth in it; later on, after observation, movable kidney affected with encephaloid. The hæmaturia was almost constant and often profuse during her fifty days' stay in hospital; the attacks of pain were very severe, and she was much weakened. The operation was performed on December 23rd, 1879, in the same way as ovariotomy in almost every respect, and under strictly antiseptic management. Very little difficulty was experienced in shelling out the enlarged organ from behind the external layer of the ascending mesocolon, though this had to be done with the utmost care, as the tumour was very soft in spots. The ureter was tied separately, the pedicle in two portions by transfixion, with twisted silk. The operation was almost bloodless. The patient bore it very well, and showed little shock. Twenty-four hours later, she was as strong as before the operation. Eight hours later, she began to be weak, with hurried breathing, as in the attacks before observed. The diagnosis was possible thrombosis; death took place at the end of the second day. At the necropsy, the abdominal cavity was found to be all that could be desired. Repair was already far advanced; there was no trace of sepsis. There was a large thrombus, firm and light-coloured, in the right ventricle of the heart and in the pulmonary artery. Small secondary deposits were found in the lungs and lumbar lymphatic glands, and suspicious specks in the liver. The other kidney was healthy.

The PRESIDENT said that he believed that this was the first paper on the subject that had been read before the Society. It presented several points of interest. It had been shown that it was possible to live a long time after removal of a kidney. The diagnosis of the conditions which would justify the operation was very important; for no doubt many abdomens had been opened for tumours supposed to be abdominal, which were really renal. The question between the abdominal and lumbar incisions was one on which various opinions might be held by surgeons.—Dr. W. H. DAY described the case of a little girl seven years old, who had been admitted into the Samaritan Hospital with a tumour of five years' duration. There was no disturbance of the general health, and no pain. The urine was healthy, but was passed in only small quantity, night and morning. The opinions as to the nature of the tumour, on the part of his colleagues in the hospital, had been most various. Mr. Knowsley Thornton drew off a quantity of urinous fluid by the aspirator. In three weeks, the tumour began to refill; and the tumour, a large renal cyst, was removed on January 3rd by abdominal section. Three days after the operation, the child was eating and sleeping well, and made a good recovery.—Mr. KNOWSLEY THORNTON had diagnosed the case as one of renal cyst, and had suggested puncture as a means of confirmation. He believed that in such cases the operation by abdominal incision was preferable. The only difficulties in the operation were that the child took anæsthetics badly, and that the intestines tended to protrude through the wound. Only two vessels required ligature; all the others were seized with Mr. Wells's artery-forceps. The operation, which was performed under antiseptic precautions, lasted an hour and a half: there was no shock. Bloody urine was passed several times on the day of the operation and the following day: this urine resisted putrefaction in comparison with other urine passed later, and Mr. Thornton attributed the condition to the effect of carbolic acid. The wound was healed on the sixth day; the child was up on the eleventh; and she was sent to a convalescent home on the thirtieth day.—Mr. CLEMENT LUCAS said that both the abdominal and the lumbar incisions were justifiable under proper conditions. Very large tumours could not be removed by the loin. The chief dangers of the operation were secondary hæmorrhage and embolism. Hæmorrhage might be prevented by torsion of the artery. He had three weeks previously removed a kidney by the lumbar incision on account of a sinus which had existed six years. The patient had gone on well for a fortnight, when, perhaps from disturbance of the ligature, secondary hæmorrhage set in. Having unsuccessfully attempted to restrain this by a fresh ligature, Mr. Lucas applied a sponge with perchloride of iron (leaving it in the wound), and the patient had had no return of the bleeding.—Mr. SPENCER WELLS had seen the case in which Dr. Simon of Heidelberg had removed the kidney on account of fistula of the ureter following ovariotomy. The removal through the loin was not difficult, but there might be conditions in which the abdominal incision would be preferable. One of the cases referred to by Mr. Barker was a case in which he (Mr. Wells) had removed a kidney with a large cyst attached to it; he did not, until he had removed it, know that it was the kidney. The patient died three days after the operation, apparently of septicæmia.—A VISITOR said that, while in China, he had met with an American doctor, who showed him a kidney that he had removed from a Chinaman. It had been prolapsed in consequence of a wound, and a dressing in Chinese fashion had been applied. When seen two or three weeks later, the man was in good health.—Dr. HILTON FAGGE questioned whether thrombosis of the right cavities of the heart and pulmonary artery was the cause of death. He doubted the *ante mortem* formation of clots in this situation.—Sir JOSEPH FAYRER said that pulmonary thrombosis was often the cause of death after operations in India.—Mr. HOLMES said that the indications for operation had not been discussed. The question was whether operation was indicated in a case of rapidly growing tumour of the kidney.—Mr. BARKER replied; and the Society adjourned.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 2ND, 1880.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

Pulsating Tumours of the Cranium and elsewhere.—Mr. HENRY MORRIS showed a tumour removed from the body of a woman aged 40, who had first come under his care in August 1874. Two years previously, she had fallen on her head, and shortly afterwards a tumour appeared at this spot, which increased in size, and eventually united with a second tumour of the same kind, which had appeared in its neighbourhood. When first seen, there was a pulsating tumour on the right side of the head, measuring thirteen inches in circumference. It was fixed to the bone, and in no way connected with the scalp; there were large veins in the skin covering its lower part; the glands in the neighbourhood were not involved; the sight of the left eye was slightly impaired. The tumour was punctured, and a little blood came out. Shortly afterwards, an uniformly pulsating and expansile tumour was found connected with the sternal end of the right clavicle. The left carotid artery pulsated more strongly than the right; but there was no difference between the radial pulses. At the second right cartilage, a rough systolic murmur was heard; the heart was not notably hypertrophied or dilated. The tumours continued to increase in size, but without the onset of any fresh symptoms, and in 1876 another tumour had appeared at the upper part of the right thigh, which felt like an expansion of the femur. It ultimately led to permanent flexion and rotation inwards of the thigh. In 1878, a pulsating tumour appeared over the left hip. The patient died in October 1878, and after death a fifth tumour was found over the inner condyle of the right femur. The cranial tumour appeared to have begun in the diploë, and to have extended inwards and outwards, partly destroying and perforating the tables of the skull, the inner to a greater extent than the outer. The tumour had passed through the perforations and spread itself over the surface of the adjacent bones. It was bounded externally by the pericranium and internally by the dura mater. The brain was flattened and compressed by it. The heart was enormously dilated and hypertrophied, the valves being healthy; the kidneys were healthy. The points of interest about the case were: 1. The long duration of the disease and the absence of cerebral symptoms; 2. The association of great hypertrophy of the heart with the growth of the tumours, the hypertrophy having only come on during the last two or three years of life; 3. The fact that, although the tumour had been examined microscopically by many eminent pathologists, there had been very great difference of opinion as to its nature.—Dr. BRISTOWE had recently seen a somewhat similar case in a woman aged about 35, who came to him suffering from severe dyspnœa. The right scapula was replaced by a large nævus-like growth, consisting of a congeries of vessels. A systolic murmur was heard over the tumour. There was a similar growth on each buttock. *Post mortem*, the tumours were found to be sarcomata.—Dr. THIN had examined the tumour exhibited by Mr. Morris, and had come to the conclusion that it was cartilaginous in its nature. It consisted of a firm resistant matrix, which contained cavities lined with cells. Dr. Hamilton of Edinburgh, who had also examined the tumour, regarded these cells as epithelial, but he (Dr. Thin) did not agree with this view, for if they were epithelial, the tumour must necessarily be glandular in its nature. But there was no glandular tissue in the diploë of the skull, nor did the tumour present any of the ordinary characteristics of growths originating in the sweat or sebaceous follicles.—Mr. KNOWSLEY THORNTON believed the tumour to be cystic, and that the cells lining the cysts were strictly epithelial.—Mr. PARKER had examined the tumour, and believed it to be a glandular tumour of the scalp, which were not uncommon, and which not unfrequently found their way through the bones of the cranium into the skull.—Mr. MORRIS stated, in reply, that some of those to whom he had submitted the tumour thought it was a sarcoma; others took it for a myxoma; others again for a cystic enchondroma, and others for an angioma.—The tumour was referred to the Morbid Growths Committee.

Microscopical Specimens illustrating the Degeneration and Regeneration of the Axis-Cylinders and Nerve-Fibres in Non-Traumatic Lesions.—Dr. HOGGAN exhibited a series of specimens illustrating this subject. He stated that hitherto the subject had only been investigated in experimental lesions in the lower animals, and that these profoundly modified the result as compared with non-traumatic lesions in man. Having referred to the different views held by Engelmann and Ranvier on the behaviour of the axis-cylinder after artificial section, he stated that in non-traumatic lesions the axis-cylinder might (1) break half an inch above the line of demarcation, or (2) extend downwards into the gangrenous tissue and there terminate distinctly as a gangrenous element. In the former case, the axis-cylinder being healthy and hyaline, when it breaks, both ends retracted like a spiral, and might leave an interval of several interannular segments between the spiral terminations, the retraction being gradual and the spiral on the central side particularly large, as if it there formed a reserve store for regeneration. This retraction was probably due to contraction of the protoplasm which surrounded the axis-cylinder. In regeneration, the spiral seemed simply to uncoil and cause the axis-cylinder to elongate in the direction of the periphery. The peripheral portion of the broken nerve broke up into fragments which became granular, and finally disintegrated, forming the granular ball whose presence in osmic acid preparations had hitherto puzzled histologists. When the axis-cylinder had not broken, the termination of the nerve became bulbous or swollen, as though from the swelling of some clear material, as of a fluid within a central canal in the axis-cylinder, the outer portion of which became granular. Sometimes, when the gangrene advanced so as to involve the spiral ending of a previously ruptured axis-cylinder, the spiral ending might take on the bulbous form, thus forming a connecting link between the two forms of axis-cylinder degeneration described. He found, moreover, that an axis-cylinder might undergo morbid degeneration within healthy interannular segments, without throwing these into the characteristic embryonic degeneration, proving that the axis-cylinder had no biological connection with the segments within which it might lie. The fact that the fragments of axis-cylinder, when broken off from their central connection, underwent the morbid degeneration described, while in similar circumstances the elements of interannular segments around them underwent the embryonic degeneration of inflammation, was a valuable support to the hypothesis of Remak and Ranvier that the axis-cylinder came direct from, and was in complete connection with, the nerve-cell in the nerve-centre; and it disposed of the hypothesis of Engelmann that the axis-cylinder, like the interannular segments within which it lay, was composed of independent entities.

Fungus from Tropical Ringworm.—Dr. THIN showed microscopical specimens of fungus which, he believed, differed entirely from the fungus of tinea circinata. It was found in the disease to which Hebra some years ago gave the name "eczema marginatum", and in which patches appear in the neighbourhood of the genital organs. A fungus had long been described as occurring in this disease, and it was very generally believed to be the fungus of tinea circinata modified by the position in which it occurred. Dr. Thin had long thought that the two diseases were different, and he was now confirmed in this view by Dr. Manson of Amoy, who had met with a large number of cases, as the disease was particularly liable to occur in the regions bordering the Straits of Malacca. Dr. Manson had repeatedly inoculated both diseases on the same patient, and had found that they always bred true. The two varieties of fungi were, moreever, unlike one another; the mycelium of tinea circinata was very uniform in size, whilst that of tinea imbricata (which was the name that Dr. Manson had given to the other disease) varied very much in size. The disease was very obstinate; it might disappear for a time, but it was very liable to break out again, and in this respect, also, it differed from tinea circinata.—Dr. BRISTOWE thought that the long continuance of the disease must not be taken as a diagnostic mark, as tinea circinata might last for years. He had recently had under his care a lady suffering from tinea circinata in the nails, which had been caught from some children whom she had tended for this disease seven years previously.—Sir JOSEPH FAYRER said that the disease was common in the damper and hotter parts of India. It was looked upon as a form of tinea circinata modified by the heat and moisture of the parts attacked. It was found to disappear rapidly on change of air and the application of Goa powder.—The PRESIDENT thought that the term "tropical ringworm" was a bad one, as ordinary tinea circinata might occur in the tropics. Ordinary tinea circinata might certainly attack the genitals, though he was not prepared to say that the disease described by Dr. Thin was identical with tinea circinata.—Dr. THIN, in reply, said that he agreed with all that the President had said. He had only retained the old name from an unwillingness to further complicate the terminology of skin-diseases. He agreed with Sir J. Fayrer that the disease might easily be got rid of temporarily, but it was very rarely completely eradicated by the measures he had mentioned. The disease may occur in any part of the body, and it is not necessarily found in the neighbourhood of the genitals. When occurring in hairy parts, it did not pierce or destroy the hair in any way.

Primary Cancer of Liver.—Dr. PYE-SMITH showed the liver of a boy aged 12 years, who had presented, soon after a fall on the right side, a swelling in the region of the liver. When first seen, the liver extended some inches below the ribs, and there was a semi-fluctuating feeling, which led him to believe that the tumour was hydatid in its nature. It was punctured, but without result. There were no other symptoms until within a few days of death, when the temperature rose to 104°, and the boy became deeply jaundiced. *Post mortem*, the liver was found to weigh two hundred ounces, and to be filled in all directions by a soft yellowish material, which grew into the great veins, forming fungus-like masses. The cancer was primary, and there was only one small secondary nodule in one lung. Under the microscope, it appeared to be a true carcinoma, consisting of nucleated smooth epithelial-like cells, packed in alveoli. It was probably a malignant adenoma of the liver. This form of growth presents great analogies to liver-structure, but the cells, instead of being regularly arranged, are greatly increased in number and packed together irregularly. The points of interest were (1) the extreme rarity of primary cancer beginning in the acini of the liver, and not in the ducts; (2) the youth of the patient; (3) the absence of symptoms until just before death; (4) the remarkable pathological condition leading to high temperature shortly before death, for which no cause was found.

Hypertrophy of the Masseter and Temporal Muscles.—Dr. WICKHAM LEGG showed a patient who presented this condition. The muscles were strong, and no other muscles were either enlarged or atrophied. Enlargement of the masseters sometimes came on in the later stages of pseudo-hypertrophic paralysis; but, so far as he had ascertained, it was never an early symptom. He should watch the future course of the case carefully. In conclusion, he called attention to the peculiar laws of heredity in pseudo-hypertrophic paralysis, viz., that the boys of a family were liable to inherit the disease; and the girls, though not showing any signs of the disease themselves, were liable to transmit it to their male children. He stated that the same law obtained in connection with hereditary hæmophylia, in hereditary colour-blindness, and, to a less extent, in gout.

Sclerema Neonatorum.—Dr. STEVENSON showed the body of a child aged ten weeks, who presented all the signs of this condition, the adipose tissue being everywhere very hard and leather-like, all other parts of the body being quite soft and flaccid. He had never seen the child during life, and could not get a good history of the case.—Dr. BARLOW thought that this was the earliest case of the disease that had been brought before the Society. He had, however, seen one case in which the disease was strictly congenital, and another child in whom it had come on when seven weeks' old. There was another variety of the disease described by French authors, in which a bluish-red patch appeared at some part, and of this variety he had seen one case. Dr. West described the disease as being attended by great marasmus, and he had himself seen one such case in Paris, in which the temperature descended to ten degrees below the normal. He thought the latter case belonged to a different category from the former.—Dr. NORMAN MOORE thought that the cases occurring in very young children were quite different from those seen in after-life. The former, according to his experience, were generally associated with marasmus, the latter are not so.—The PRESIDENT said that, where very young children were affected in this way, the disease was often ushered in by severe general symptoms, from which the patient might or might not recover.

Fresh Specimen of Cancer of the Stomach.—Mr. BOYCE BARROW showed the stomach of a gentleman who had suffered from symptoms of cancer of that organ for two years before death. The stomach was much thickened, and adherent to the surrounding organs. The neighbouring glands were large and hard. Microscopically, the growth was found to consist of an alveolar structure containing large cells, some of which had undergone colloid degeneration.

The following specimens were exhibited by card.

1. Pedunculated Fatty Tumour growing from the anterior superior spine of the ilium: Mr. Walsham.
2. Abscess of the Head of the Tibia: Mr. Furneaux Jordan.

REVIEWS AND NOTICES.

Medicinal Plants: being Descriptions, with Original Coloured Plates, of the principal Plants employed in Medicine, and an account of their Properties and Uses. By Robert Bentley, F.L.S., Professor of Botany in King's College, and Henry Trimen, M.B., Department of Botany, British Museum. London: J. and A. Churchill. 1880.

This magnificent work is now completed in four volumes, including 293 coloured plates of illustration. It has been issued in forty-two parts, and has occupied over four years in its publication. It is, we believe, the most important illustrated work of Medical Botany which has yet been produced in this country, and it reflects credit on everyone concerned in its production; on the authors and on the publishers. The plates drawn by Dr. Blane, F.L.S., either from nature or from dried preparations, are very artistic, very careful, and for the most part very satisfactory. With regard to some which are less meritorious than the general standard, the authors observe that, in the case of many rare plants, the materials at the disposal of the artist were necessarily scanty. They have, however, had access to both private and public collections, and both in letter-press and illustration this splendid book is singularly complete.

Medical practitioners will be particularly interested in the section which, under each head, is devoted to the medicinal properties and uses of the plant. Under this head, a fair summary is given of the diseases in which the drug has been found of value, and suggestions in cases where it seems worthy of more extended trial in this country. Notes are supplied in each case on the selection, preparation, and commercial relations of the drug and substance treated of, and also as to its chemical composition, its adulteration, and the various substitutions for it which are to be found in the market. In all these matters, Professor Bentley's long connection with the Pharmaceutical Society, of which he has for many years been the Botanical professor, has afforded him special opportunities, of which he has evidently diligently availed himself. The descriptions of the plant, and the technical references to the figures of the plant given elsewhere in medical botanies and its synonyms, and other purely botanical relations, are worked up with the utmost possible care. Three hundred and six species are elaborately figured, but many more are referred to in the text. The plants figured and described represent eighty-nine natural orders and two hundred and thirty-three genera, thus affording examples of all the divisions of the vegetable kingdom. Sixty-seven of the species figured are natives of the British Isles, and these are indicated by an asterisk. We conclude as we began, by expressing an admiring approval of this book, which will, we trust and believe, have so large a popularity as fully to reward the considerable scientific and artistic labours of its authors, and the enterprise of its publishers.

Transactions of the Pathological Society of London. Vol. xxx. 1879.

We have before us the bulkiest volume ever issued by the Society, and the hard-working doctor or pathologist may sigh on hearing of its unusual proportions and think how much there is to be read in these days, and what masses of half-elaborated work is hurried before the public by enthusiastic young strugglers. Fortunately, it is not such work that swells the pages of this thirtieth volume. Even the descriptions of specimens, the staple of the Society, and in the opinion of many its main object, show greater care in composition and in scientific accuracy than do similar records in previous volumes; and the numerous contributions of senior members are pleasing to contemplate. The flourishing physician or surgeon has but scant time to prepare papers and specimens for societies, and especially for the Pathological, which demands a very precise knowledge of the newest scientific discoveries of the day, learning which lies somewhat out of the reach of the practitioner long used to clinical responsibilities, and not always so tasteful to him as it should be; hence our double gratitude to the senior members who brought specimens to the Society and discussed them during the past session. The activity and enthusiasm of younger workers are, it is fair to add, tempered by judicious selection and by every sign that the recent researches of pathologists elsewhere have not been overlooked; for the competition of private works, of foreign societies, and of the indefatigable Dr. Creighton and other gentlemen contributing to the *Journal of Anatomy and Physiology* since its pages have been thrown open to pathology, furnish a most healthy stimulus to the Pathological Society. The account of the separate exhibition of these contributions has already appeared in our pages, and for more complete information this thirtieth volume must be consulted. It is gratifying to see how the cause of specialism, in its highest sense, is becoming stronger by the scientific manner in which its votaries set to work; this is testified by the valuable papers on skin-diseases and other subjects somewhat out of the range of the general pathologist. But the great feature of the thirtieth volume is the number of special contributions, which occupy more than a third of its pages, and thus accounts for its great bulk. The editor of this Journal insisted, some years since, on the necessity of such contributions to maintain the object of the Society, which, if reduced to the preservation of fragmentary knowledge gleaned from solitary morbid specimens, could never compete successfully against the records elsewhere of experience in special subjects. The past lamented President vigorously promoted the innovation we have ever encouraged, and the present president has continued that enlightened policy. Its best fruit is the report on pyæmia, septicæmia, and purulent infection, recently reviewed at some length in these columns. Mr. Watson Cheyne's remarkable monograph on the relation of organisms to antiseptic dressings is even better known than the report, having been made public in its entire form at an earlier date, and involving a question which, more than any other, occupied the minds of surgeons during the past year. The discussion on lardaceous disease, introduced by Dr. Dickinson, represents the earliest form of special communication published by the Society; it has, like Mr. Cheyne's paper, already attained publicity, and in interest does not fall short of previous discussions on cancer, syphilis, etc. Mr. Smee contributes a paper on garget, a disease of the udder in cows with secretion of bad ropy milk, the consumption of which by man has been suspected of being in some way connected with an epidemic of diphtheria. The author believes that the chain of evidence is far from complete, but that the probable use of diseased milk should be considered in the investigation of future outbreaks of diphtheria. The same question is discussed in another memoir by Mr. W. H. Power, on the nature of certain observed relations between diphtheria and milk. By this introduction of systematic comparative pathology, the Society may be the instrument of invaluable benefits to mankind; and this brief recapitulation of the contents of the thirtieth volume is sufficient to show that its unusual bulkiness is a matter not of regret, but of congratulation.

NOTES ON BOOKS.

Dr. Paul Börner's *Reichs-Medicinal-Kalender für Deutschland auf das Jahr* 1880. The concluding portion of this useful book (of which the other portion was noticed in the Journal of December 6th) has lately reached us, its appearance having been delayed by the illness of Dr. Börner. It may be briefly described as a German Medical Directory. The first part contains a register of the names of the medical practitioners holding official positions as members of medical councils, district medical officers, etc., in the several States; a list of practitioners, arranged under the heads of the towns in each State; an account of medical associations and of the organisation of the profession in Germany; the medical faculties of the universities in Germany, German Austria, and Switzerland, with the names of the professors and teachers; a list of the apothecaries in the various States, arranged according to the towns; a list of German medical men deceased from July 1878 to November 1879; and statistical tables of the number of practitioners and of population. The second part is a list of the army medical officers, arranged first according to their regiments, and secondly in order of seniority. An alphabetical index of the names completes the book.

Dr. Page, the Medical Officer of Health for Westmorland, has published in pamphlet form, with the title of *Facts about Fevers* (Kendal, W. Fisher), some very practical and useful rules for preventing the spread of infection. The "facts" are couched in plain and simple language, and give all needful information to the population at large as to the infectiousness of fevers, and the precautions which are necessary to prevent their propagation. Published at the low price of twopence, the pamphlet deserves a very extensive sale.

It is proposed to establish a provident dispensary at Kidderminster on the model of that at Leamington. A Committee has been appointed to prepare rules, and the medical men of the town are stated to take great interest in the movement.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 13TH, 1880.

THE PENDLEBURY HOSPITAL.

FOR several weeks, we have devoted considerable space to a controversy which has arisen out of some remarks we felt called upon to make on the treatment accorded to Dr. Humphreys by the governors of the Children's Hospital at Manchester. As it seems evident that no benefit can accrue from prolonging the discussion, we propose to end the matter by pointing out the lessons to be derived from a review of the whole case.

With regard to Dr. Humphreys, we may say, in passing, that nothing has transpired to alter the view we took concerning his suspension in our former article; not a single point on which that view was founded has been controverted. Dr. Humphreys went to Manchester, carrying with him an enviable reputation which recent events have not in the slightest degree impaired. His career in Manchester has shown that he is a scientific worker of a high order—a fact which will, we doubt not, be ere long recognised by some other hospital in Manchester or elsewhere.

Although we have felt compelled to criticise severely the conduct of the Pendlebury Board, we are willing to recognise that they have been animated by a desire to further the interests of the hospital; and, in the following remarks, we are actuated by no unkindly feeling towards a governing body to whose activity and large-heartedness the erection of the present hospital, with its magnificent appointments, is, we believe, largely due. It is essential for the good government of a hospital that both lay and medical elements shall have their proper proportion of weight and power in its management. The medical department is really the leading feature of every hospital, and can never be placed in a position of inferiority to the lay element without serious injury. The Board of Management at Pendlebury appear to have regarded the members of the Medical Committee as subordinates rather than as co-workers. Much of the present trouble seems to have arisen from this anomaly.

The unsatisfactory footing of the medical staff appears to date from the time when payment of its members was instituted. From that time, the medical staff ceased to be members of the Board of Management. The course of events at Pendlebury has, at any rate, revealed a difficulty which may arise in the practical working of a system of which the principle is perfectly just. The members of the medical staff should always, whether paid or not, be members of the governing body, or constitute a medical committee, with full control over all medical matters; neither of these conditions was fulfilled at Pendlebury.

The nursing department is not unfrequently a source of trouble. Usually, it cannot be entirely supervised by the medical staff, nor can its regulation be successfully undertaken by the Board. Probably the best solution of the difficulty is the appointment of a nursing committee, composed of lay and medical elements. But at Pendlebury, the nursing staff seems to have been independent of the medical staff, and accustomed to look for directions to the Board of Management. We have sufficiently expressed our views on this subject on a former occasion.

A curious anomaly in hospital management at Pendlebury is observed in the relative positions of the lady-superintendent of nurses and the resident medical officers. Usually, in the absence of the staff and board, the senior resident officer acts as their representative and controls the hospital; but, at Pendlebury, it appears as if the superintendent of nursing is the leading resident official, the resident medical officers being cyphers, except as regards their duties in the wards. We are satisfied that this arrangement is a grave mistake. It imposes duties on the nursing superintendent which she cannot fulfil with satisfaction, and it is sure to introduce an element of discord into the hospital. To the post of Directing Physician we have the strongest objection; and we are satisfied that such an office cannot be maintained without seriously impairing the efficiency of the medical staff. Though Dr. Borchardt resigned the position when he ceased to be an active member of the staff, there can be no doubt that, as the only medical member of the board of governors, he became practically the referee in all matters of medical administration. A position of this kind requires very great tact, judgment, and forbearance, if it is to be exercised without injury to the working staff; and we cannot help thinking that, had Dr. Borchardt declined the honour of a seat on the Board, and remained Chairman of the Medical Committee, the troubles in which the hospital has been recently involved might have been avoided. At the same time, it is but just to him to say that we believe his main object to have been throughout the welfare of the hospital, to which he has rendered valuable service.

We sincerely trust that out of evil good may come; and that the painful incident which gave rise to our first article may lead to such reforms in the management of the Pendlebury Hospital as to restore the confidence of the profession, and ensure its more adequate fulfilment of the objects which its founders had in view. We are glad to understand that reforms have already been instituted. A step in the right direction has been made by placing the two remaining members of the staff on the Board of Management, and by the appointment of a new superintendent of nursing, with a view to the thorough reorganisation of this department.

THE INDIAN MEDICAL SERVICE.

OUR readers will remember that, a short time ago, we devoted some space in the JOURNAL to an analysis of a Letter, addressed by Mr. Cornish, the Sanitary Commissioner of Madras, to the Secretary for India, in which that able officer sketched a scheme for the reorganisation of the Medical Service of India, in its leading features much the same as one submitted to the Government of India, some years ago, by the late Surgeon-General Beatson. It has long been evident that the double administration of medical affairs in India was doomed to early extinction; but it was hoped that, concurrently with this unavoidable reform, the organisation of the service, as it is to be for the future, would be made public; and that such changes as altered circumstances demand should be brought about so as to injure as little as possible the status and prospects of those who took service in India under the old *régime*, We regret to say that our hopes in this direction have been disappointed. The Government of India, by an Order published on the 3rd of January of this year, has, with one stroke of the pen, swept away all the Surgeons-General of the Indian Service; and decided that, in future, the head of the service in the three Presidencies is to be an officer of the British Medical Department—thus converting the Medical Service of India into a subordinate branch of the Medical Department of the British Army. It is neither our business nor our wish to draw invidious distinctions between the two services; but we may well ask how a Government that, for more than a century, has been so nobly served by its medical officers, could conceive the idea of subordinating them to their brethren in the British Army, who, whatever their merits may be, are not, and never were from first to last, the superiors of the men over whose heads they are thus so invidiously placed. No wonder that a cry of indignant surprise has arisen in India, by no means confined to those whose status and prospects are blasted by this treatment. Against a well considered scheme of amalgamation we have nothing to say, and we know that the circumstances of the case would of necessity demand some sacrifice on the part of Indian medical officers; but, if it were necessary to do them some injustice, to disappoint their hopes and expectations to some extent, was it necessary to "add insult to injury"?

Mr. Stanhope, in his reply to Dr. Lyon Playfair's question in the House, led the members and his questioner to believe, by the way in which he answered the question, that, by allowing the surgeons-general and the deputy surgeons who are forced to retire, the pension of their grade, the Government has met the justice of the case. Not a word is said of compensation to that large body of officers whose hopes of promotion and retirement on the higher grade of pension are for ever at an end; or of the provisions of the Act of Parliament which, when the Queen took over the Government of India, secured to the officers of the East India Company's Army all the advantages they enjoyed under that Government. We give "chapter and verse" for this statement below.*

We have now a very serious charge of questionable dealing to bring against the authorities in the India Office. On November 1st, 1879, seventeen highly qualified young medical men successfully competed for appointments in the Medical Service of India, have gone through the course of special instruction in the Army Medical School, and in a few days will sail for India. Recently, also, twenty-three gentlemen passed the competitive examination for the same service — taking, as we observe by the published list of marks, a much higher place than their brethren for the British Army at the same competition. On April 1st, they will go to Netley, and four months afterwards will proceed to India. To the parents, guardians, and friends of those forty highly qualified young men, or to themselves, not a hint was given of the altered conditions of service under which they go to India. Not two per cent. of them can ever hope to reach the administrative ranks, which alone entitle them to the highest rate of pension. Nor were the young men told that, whatever their merit, service, or attainments, they can never aspire to the highest position in the service; in other words, that they are to pass their lives under the galling condition of being deemed an inferior class to their brethren in the British Army. There is only one word in the English language that can rightly characterise such a transaction as this. We hear it, not alone in professional, but in military, circles freely applied to it. We forbear to use it; and content ourselves with saying that, so far as our knowledge extends, it is without a parallel in any other department of the State.

RECENT STUDIES IN THERAPEUTICS.

II.—NITRO-GLYCERINE.

FEW drugs have come more rapidly into favour than nitro-glycerine. A year or two ago, nothing seemed more unlikely than that it should be used in medicine; but it now bids fair to rank high as a curative agent. It was discovered, in 1847, by M. Sobrero; and its chemical properties have been fully investigated by Railton, De Vrij, De la Rue and Müller, Mills, Dupré, Martindale, and others. It is commonly prepared by what is known as Liebe's process. Half an ounce of dehydrated glycerine is poured with constant stirring into a mixture of two ounces of oil of vitriol, and one ounce of fuming nitric acid, of specific gravity 1.52—the temperature of the mixture being kept below 25° C. (77° F.) by external cooling with ice; and, as soon as oily drops begin to form on the surface, the mixture is poured with constant stirring into fifty ounces of cold water. Nitro-glycerine then separates, and may be purified by washing and drying in small quantities in a vapour bath. The greatest possible care must be taken in the process, the glycerine being added drop by drop, and the temperature carefully noted by means of the thermometer. The nitro-glycerine thus obtained must be well washed to free it from traces of acidity. It at first appears as a white opaque milky-looking oily fluid; but, on careful drying by exposing it in a warm room in flat dishes, containing thin layers, it becomes dehydrated, and forms a transparent colourless oily fluid. It is slightly soluble in water and freely in alcohol and ether, and it has recently been found by Mr. Martindale to dissolve readily in fats and oils. It is, although slightly volatile, inodorous, and has a sweet pungent aromatic taste. It crystallises or freezes at low temperatures. It is largely employed as an explosive in mining and blasting operations—being fired by percussion—and forms the basis of the compounds known as "dynamite", "glyoxylon", "dualin", etc. When boiled with potash, it is decomposed, glycerine and nitrate of potash being formed.

Two-and-twenty years ago, a curious controversy arose as to the properties, physiological and therapeutical, of nitro-glycerine, then known as nitrate of oxyde of glycyl. Mr. Field of Brighton described in detail the effects produced by taking one evening, after a hard day's work, two drops of the one per cent. alcoholic solution. He first experienced a feeling of fulness on both sides of the neck, succeeded by nausea. The next sensation of which he was conscious was as if some of the fluid were being poured down his throat, and then succeeded a few minutes of uncertainty as to where he was, during which there was a loud rushing noise in his ears, like steam passing out of a tea-kettle, and a feeling of constriction around the lower part of the neck, as if his coat were buttoned too tightly; his forehead was wet from perspiration; he yawned frequently. His head fell back, the jaw dropped, the face was pallid, his breathing was stertorous, and for the space of two minutes no pulse could be felt at the wrist. The symptoms gradually subsided, and were succeeded by a slight headache and a dull heavy pain in the stomach, with a decided feeling of sickness, though without any apprehension that it would amount to vomiting. He felt rather languid, but could talk cheerfully, conscious at the same time that he could very well exert himself both mentally and physically, but that it was more pleasant to be idle. This condition lasted half an hour, at the end of which he was quite well, and walked home (a distance of half a mile) with perfect comfort. He slept soundly from one o'clock till six, when he was called up, suffering from a slight general headache, but not such as he would have regarded but for the recollection of his previous night's adventure. Mr. Field says that he had never been in better health or spirits than on the day of this occurrence, and he had taken nothing for hours previously but a little cold tea. Being anxious to inform himself as to the effects of a smaller dose, he induced a medical friend to join him in some further observations. They each touched their tongue with a cork moistened with the same solution, and recorded the sensations which ensued. They were as nearly as possible identical: a sense of constriction of the neck and slight nausea, with fulness and pain in the head, as if the brain were expanding. Mr. Field's friend suffered so severely that he declined to continue the investigation. The sensations lasted about five minutes, and then passed off without leaving any unpleasant effects. Mr. Field's observations were confirmed by Dr. Thorowgood, the present lecturer on materia medica at the Middlesex Hospital, who described the effects he experienced in his own person from taking less than a hundredth of a grain of nitro-glycerine. He resolutely withstood the effects as long as he could, but was soon compelled to own to a tensive headache over the eyes and nose, extending also behind the ears, and soon followed by a tight and choaky feel about the throat, like strangulation. Neither loss of consciousness nor nausea was experienced, and a walk soon removed all unpleasant feeling. He was urged to try a second dose, but declined, feeling perfectly satisfied as to the power of the drug as a toxic or poisonous agent. Mr. James, a student of University College, then described, in very similar terms, the sensations experienced from taking a drop of the same solution. In the course of a few minutes, he suffered from a dull aching pain at the back of the head, alternately better and worse, each accession becoming more and more acute. It soon extended to the forehead and back of the neck, where there was a decided feeling of stiffness. He also experienced some difficulty in swallowing, succeeded by nausea, retching, and flatulence. Profuse perspiration ensued, and in a quarter of an hour the symptoms began to abate; but he continued dull and heavy for some hours. His pulse at the commencement of the observation was eighty, but soon rose to a hundred. Considerable headache remained, which increased in the after part of the day to such an extent that at six o'clock he was compelled to go to bed. At break of day, he was not relieved; but, after a few hours' more sleep, he arose in his usual health.

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* Section 56 of Act 21 and 22 Vic., c. 106, enacts "That the military and naval forces of the East India Company should be deemed to be the military and naval forces of Her Majesty, and should be under the same obligations to serve Her Majesty as they would have been to serve the said company within the same territorial limits only, for the same terms only, and be entitled to the like pay, pensions, allowances, and privileges, and like advantages as regards promotion and otherwise, as if they had continued in the service of the said company". Act 23 and 24 Vic., c. 100, enacts "That the advantages as to pay, pensions, allowances, privileges, promotions, and otherwise, secured to the military forces of the East India Company by the Act of the 21st and 22nd year of the Queen, c. 106, sec. 38, 56, and 58 respectively, shall be maintained in any plan for the reorganisation of the Indian Army, anything in this Act contained notwithstanding"

These observations did not long remain unchallenged, their accuracy being called in question by two well-known hospital physicians, one of whom stated, as the result of a series of observations made on himself and others, that nitro-glycerine was incapable of producing the effects ascribed to it, and that it might be taken with impunity in considerable quantity; whilst his colleague considered that the symptoms noted were exaggerated by imagination, and that no dangerous effects need be anticipated from moderate doses, although great caution should be observed if taken pure. Mr. Field, as the result of further observations and experiments, reiterated his statements; and published a collection of cases, showing that most decided effects might be experienced from even taking very small doses. A hospital patient, suffering from hemicrania, to whom he administered two drops of his solution, became pallid, felt sick and giddy, and sank on the bed by which he was standing, almost unconscious, his pulse falling so as scarcely to be felt. Mr. Lawrence of Brighton, from simply tasting the fluid, experienced a muddled sensation in his head, and felt as if he could easily have gone to sleep in the operating-room, where he then was; and expressed his belief that, had he taken a little more, he must have fallen asleep. His appetite failed for the rest of the day, and he passed a restless night. Dr. Brady of Sutherland records the case of a chemist, a relative of his, who took a single drop of the solution in water. Afterwards, a feeling of sickness and pain at the epigastrium came on, and he left his desk to pace about the shop, thinking to walk off the uncomfortable sensations. Instead of this, they grew worse, and an intolerable sense of oppression and swimming in the head, with spasmodic twitching of the limbs, supervened. He had barely time to call his assistant, when he fell back insensible. Cold water was freely dashed over his face, and the unconsciousness soon passed away. No vomiting ensued, but the sensation of sickness lasted for some time. Some further correspondence ensued; one party maintaining that nitro-glycerine was a drug of unparalleled activity, to be used only with the greatest caution; and the other, that it was practically destitute of active properties, and might be taken in any reasonable quantity with perfect impunity. Both parties were apparently perfectly satisfied as to the correctness of their own views; and there the matter rested, until a few months ago, when Dr. Murrell reopened the whole subject, and, from a study of its physiological action, suggested nitro-glycerine as a remedy for angina pectoris.

Dr. Murrell's observations, made on himself and on thirty-five people —friends and patients—are in the main in accord with Mr. Field's experience. One afternoon, whilst seeing out-patients, he applied the moistened cork of a bottle containing the one per cent. solution to his tongue, and in a few minutes experienced a violent pulsation in the head, which rapidly increased, and soon became so severe that each beat of the heart seemed to shake the whole body. The pulsation soon extended over the whole body, even to the tips of the fingers, so that a pen held in the hand was distinctly jerked. The pulsation was increased by movement, and especially by stooping. The symptoms gradually subsided; but, as in the case of other observers, were followed by a splitting headache, lasting for some hours. Dr. Murrell subsequently made a large number of observations on himself, taking the solution in doses of from one to ten minims, with the production of much the same symptoms. The acceleration of the pulse was found to be very constant—sometimes, however, amounting to not more than ten beats in the minute. The temperature remained unaffected. It was found that the amount of pulsation might be roughly measured by holding a looking-glass in the hand and throwing the reflection into a dark corner of the room. Before taking the drug, the bright spot could be kept steady, but, as soon as the pulsation began, it was jerked violently from side to side. In some instances, very disagreeable effects were experienced from even small doses. A married woman, aged 35, took one minim with very little inconvenience, but was powerfully affected by two. She was obliged to sit down after each dose, and was for a time afraid to move. It made her feel hot, and produced such beating in her head that she had to support it with her hands. She complained of a heavy weight on the top of the head, and also of a sharp darting pain over the eyes, which for a time was almost unbearable. A woman for whom a tenth of a grain was prescribed was sick after every dose, vomiting about five minutes after taking the medicine, the sickness being immediately followed by headache. On one occasion, she lost her senses, and remained unconscious for ten minutes. According to Dr. Lauder Brunton and others, the headache produced by nitro-glycerine is not always of the same kind, being sometimes frontal, sometimes occipital, sometimes affecting one side only, and sometimes the whole head. In Dr. Brunton himself, it was several times accompanied by vomiting. It has been said by some that the continued use of nitro-glycerine makes the person more sensitive to its action; but, in our experience, the opposite is more frequently the case. In exceptional cases, none of the ordinary symptoms are produced, probably from some idiosyncrasy on the part of the patient.

It has been found that the effects of nitrite of amyl and nitro-glycerine on the pulse are similar. Both produce a marked dicrotism, and both accelerate the rapidity of the heart's action. They differ, however, in the time they respectively take to produce these effects. The full action of nitro-glycerine on the pulse is not observed until from two to six minutes after the dose has been taken; whilst, in the case of nitrite of amyl, the dicrotism appears in from fifteen to twenty seconds after an inhalation, but its effect is transitory, being maintained for only a very short time. The nitro-glycerine acts more slowly, but the pulse does not resume its normal character for nearly half an hour.

Dr. Murrell has shown, from observations on a patient the subject of epispadias, that nitro-glycerine is a powerful diuretic. On one occasion, twenty minims of the one per cent. solution increased the amount of urine secreted, in half an hour, from fourteen and a half drachms to fifteen and a half ounces. This was the more remarkable, as the patient was not at all susceptible to the action of the drug, and experienced none of the ordinary symptoms from the unusually large doses he had taken.

In a future article, we shall consider the action of nitro-glycerine on the lower animals, and its therapeutic application.

WHAT IS A "NOXIOUS THING"?

JUDICIAL authorities have given different interpretations to the term noxious as applied to substances administered with the intention of procuring abortion. Thus according to one, any substance which is in common parlance a poisonous drug must be regarded as noxious. According to another authority, the noxiousness of a substance in a legal sense depends not on its being a poison *per se*, but on the *quantity* which may have been administered with the intent to procure abortion. This ruling, which makes noxiousness to depend on quantity, rests on the authority of a case tried before the Lord Chief Justice Cockburn at the Cornwall Lent Assizes in 1877. We commented on this case at the time, and Dr. D. Maclagan of Edinburgh pointed out the mischief which was likely to arise from this view of the meaning of the word noxious. In that case, cantharides had been administered to a young woman in the dose of about two grains. A local chemist and druggist, who sold the cantharides, deposed that this quantity would, if taken, be insufficient to produce any effect on the human system, and it was contended by prisoner's counsel that if what was administered could produce no effect, it would not in law amount to the administering of a "noxious" thing. This view was accepted by the learned judge, and the prisoner was acquitted.

A trial recently took place at the Kent Assizes, before Mr. Justice Denman, in which a similar objection was taken to the meaning of the word "noxious" under the statute relating to criminal abortion. The man was convicted, and the case reserved for the consideration of five of the judges, including Lord Coleridge. The prisoner was indicted for having administered a "noxious thing"—*i. e.*, half an ounce or 240 drops (minims) of oil of juniper to a young woman with intent to procure miscarriage. There was evidence that the quantity of the oil administered caused violent sickness, and the intention of the prisoner in administering it, was clearly proved. The Court, therefore, affirmed the conviction. Lord Coleridge, in delivering judgment, made the following remarks: "It was proved by the effects that the oil of juniper in the quantity administered in this case was a noxious thing." It is said it must be some kind of poison; but what is a poison? It is something which, as administered, is destructive or injurious to human life. There is hardly any active medicine which may not be so; and, on the other hand, there is hardly any poison which may not, in certain quantities and in given circumstances, be salutary. It is, therefore, a question in each case of the quantity administered and the circumstances in which it was administered. Most drugs, when administered in small quantities, may be medicines, and, when administered in large quantities, may be poisons. The reasonable construction, therefore, is, that n each case it is a question for the jury whether the substance administered, and in the circumstances in which it was administered, was "a noxious thing".

It is assumed throughout in this judgment that *quantity* is one of the elements for determining noxiousness. This is in accordance with the view of the Lord Chief Justice in the Cornish case. The Court was misled as to the effects of quantity, by the opinion of a retail druggist, on that occasion the vendor of the cantharides. He deposed that two grains would produce no effects. As it happened, the cantharides were not taken by the young woman. They were discovered in the food, and the food was properly rejected. In the BRITISH MEDICAL JOURNAL for April 1877, Dr. Maclagan relates a case in which less than two grains produced irritation of the bladder, strangury, and other symptoms sufficient to justify the application of the term noxious to the quantity attempted to be administered in this case.

It is obvious, from the opinions expressed by four of the judges constituting the Court of Appeal, that there is still a difference of opinion among them. The Lord Chief Justice Cockburn and Chief Justice Coleridge consider that the quantity of the poisonous substance is material; that if a man administer, with intent to cause abortion, so small a quantity of an acknowledged poison, such as arsenic, cantharides, or corrosive sublimate, that no effects are likely to be produced, the substance would not be regarded as "noxious" under the statute. The Justices Denman, Field, Stephen, and Baron Pollock dissent from this view. They consider that to administer *any quantity* of a poison with such an intent might be a criminal offence within the statute.

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THE Executive Committee of the Medical Council will meet next Thursday, at 2 P.M., for the transaction of general business.

THE deaths in London last week were 1,607, and 150 below the average. The annual death-rate, which in the four previous weeks had steadily declined from 48.1 to 23.7 per 1,000, further fell last week to 22.9.

DR. SAUNDBY will exhibit a series of microscopical preparations and drawings, illustrating the pathology of granular kidney, at the meeting of the Pathological Society, on the 16th instant.

THE Bavarian Royal Order of the Crown has been bestowed upon Professor Pettenkofer, of the University of Munich, widely and deservedly known by his researches in chemical hygiene.

SUNDAY last, the 7th instant, was the eighty-eighth anniversary of the birth of Sir Thomas Watson, Bart., M.D., F.R.S., one of the physicians in ordinary to the Queen, who was born at Kentisbeare, in Devonshire, on March 7th, 1792.

IN consequence of the fourth Friday in the month being Good Friday, the next meeting of the Clinical Society is fixed for the 19th instant. Papers announced for this evening (March 12th) and not read, will take precedence on March 19th.

AT an ordinary meeting of the Council of the College on the 11th instant, Mr. Edward Bellamy of the Charing Cross Hospital, and Mr. Jeremiah McCarthy of the London Hospital, were elected members of the Board of Examiners in Anatomy and Physiology, in the vacancies occasioned by the resignation of Messrs. Wood and Hulke, who are now members of the Court of Examiners.

THE case of Hill and others *v.* the Managers of the Metropolitan Asylums Board came on Wednesday before the Lords Justices on an application as to costs in the recent proceedings with respect to the Small-pox Hospital at Hampstead. Their lordships directed that the Asylums Board should pay over to the plaintiffs two-thirds of the costs already incurred by the plaintiffs, and which were stated to be £3,000; and that the injunction preventing the use of the hospital for small-pox patients should continue until the whole matter had been decided by the House of Lords.

THE prevalence of small-pox in Paris is causing much alarm, and a proposal has been made in the Municipal Council to ensure a prompter burial in cases of death by that epidemic. The establishment of deadhouses in each quarter, to obviate the danger caused by bodies left in the rooms inhabited by other people, was also advocated. Every precaution is being taken against a further spread of the disease, and vaccination is being largely resorted to.

THE PRINCESS LOUISE.

THE following bulletin has appeared in the *Ottawa Daily Citizen:* "Her Royal Highness much recovered from the shock. Ear slightly cut, and the side of the head bruised. The muscles of neck considerably strained. Her Royal Highness passed a favourable night, and is at present progressing favourably.—J. A. GRANT, M.D., M. BALDING, M.B."

THE LEVÉE.

THE following members of the medical profession were presented at the *levée* held by Her Majesty the Queen on Wednesday last: Acting Surgeon Henry F. Burnes, London Irish Volunteer Rifles, by Captain Howland Roberts; Surgeon D. H. Cullimore, Madras Medical Department, by the Secretary of State; Surgeon H. M. Crookshank, 49th Middlesex Rifle Volunteers, by His Serene Highness the Duke of Teck; Brigade-Surgeon L. Kidd, on his promotion, by the Adjutant-General; Dr. W. H. Lydall, Surgeon Central London Rifle Rangers, by Major M. B. F. Miller; Dr. John Watt Reid, on appointment as Director-General of the Medical Department of the Navy, by the Secretary of State; Surgeon J. J. Saville, North Somerset Yeomanry Cavalry, by the Earl of Cork and Orrery.—Dr. Samuel Wilks was also presented, on his appointment as Physician in Ordinary to their Royal Highnesses the Duke and Duchess of Connaught, by the Duke of Connaught.

CAPTAIN WEBB'S SWIM.

THE condition of Captain Webb, during his extraordinary feat of remaining sixty hours in water in the tank at the Westminster Royal Aquarium, and after its conclusion, has been carefully observed by Mr. F. J. Gant, who has presented us with some notes taken by him. The water in the tank was a solution of bay-salt, of specific gravity 1027, and having a temperature varying from 75° to 87° Fahr., the mean being 81°. Captain Webb swam and floated for 38 hours and 52 minutes, when he left the tank for 21 minutes; after which he remained in the water till the completion of the 60 hours. His food consisted chiefly of minced steak and fat in equal proportion, with eggs; this was made into balls, which he took from a board. For drink, he had chiefly beef-tea and coffee, strong green tea occasionally, and one glass of

Burton ale, which, he thought, did not agree with him. Urine was passed five or six times in the water; and he had one solid alvine evacuation, during his absence from the tank. He did not sleep; but dozed occasionally while floating on his back. On leaving the bath on Wednesday night, he appeared fresh and well. Mr. Gant made the following notes of his condition at this time. Temperature in mouth, 97.2° Fahr.; surface of body felt quite warm; pulse 64, rather weak and irregular, small and compressible; respiration normal; tongue clean and moist; no nausea, salt-water not having been swallowed during the swim; mental faculties perfect; pupils not dilated; no conjunctival congestion. Drowsiness soon supervened, and he slept for half-an-hour. Then, after a short interval, again fell into a placid sleep for two hours. On standing up, he felt giddy and faint. He now had brandy and soda-water, turtle soup, and a mutton cutlet. The urine passed immediately after emersion was rather pale and opalescent, slightly acid, of specific gravity 1018 (when cold), and contained half an ounce of mucus in six ounces. His cheeks were pink-red, slightly chapped. The skin was generally sound and of usual colour. There was a red mark on the back of the neck from friction of his jersey. There were erythematous patches on the lower portion of the thighs, and red marks in the flexures of the knees. Fourteen hours after leaving the water, he was removed to the Westminster Palace Hotel, after two hours' sleep at the Aquarium, and having taken supper and smoked a cigar. He then went to bed, where he slept soundly about six hours. The temperature on Thursday morning was 97.8 Fahr.; pulse 72. The erythema of the thighs had nearly disappeared. In the flexure of the right knee were a few small sloughy spots, from friction. The skin was generally quite natural; there was no desquamation of the cuticle. He felt quite well.

NOXIOUS VAPOURS.

MR. SCLATER-BOOTH's new Bill for the mitigation of noxious vapours has now been issued. Though it has been re-named the Alkali Acts Amendment Bill, it is in all essential respects similar to the Noxious Vapours Bill of last session, including the much debated clause as to the collective liability of manufacturers. The trades it proposes to reach are alkali works, sulphuric acid, nitric acid, chemical manure, sulphate of ammonia and muriate of ammonia, gas liquor, and coke works; and, in a less stringent fashion, arsenic, cement, copper, galvanising and tin-plate, glass, lead, nickel, spelter, salt-glazing, tar-dye and tar-distillery works, with any other works in which are conducted processes giving off acid of sulphur, nitrogen, or chlorine. The Bill is, of course, mainly intended to repress a commercial evil; but there are important medical considerations to be had in view in the repression of offence from such works as the Bill proposes to regulate. To these considerations we shall take an early opportunity of drawing attention.

THE ANIMAL VACCINATION BILL.

IN consequence of Lord Beaconsfield's *coup d'état*, Dr. Cameron has, in response to an appeal from Mr. Sclater-Booth, withdrawn for the present his Bill on Animal Vaccination. This is for many reasons to be regretted, though it would of course be futile to expect anything like a satisfactory debate on the question whilst the minds of members are distracted by the thought of the coming election. The announcement of the Government intentions with regard to animal vaccination was, however, looked forward to with great interest, as it was understood that an important statement of policy would be made by Mr. Sclater-Booth on the occasion of the second reading of the Bill. It is to be hoped that the Government will not lose sight of the subject, and will be prepared with some satisfactory statement when the new Parliament meets.

SCARLATINA IN DAIRIES.

THE complete insufficiency of the present statutory regulation of dairies under the Contagious Diseases (Animals) Act of 1878 is well exemplified in a case just heard at the Leicester county police-court. A dairyman was charged with a breach of an Order in Council by allowing persons suffering from scarlet fever to take part in the management of his dairy, which supplied sixty gallons of milk per day to people in Leicester. The inspector found five persons in the defendant's house suffering from the disease. The defendant was fined sixpence, with costs. On reference to the Act under which the Order of Council referred to was issued, we find that by Section 60 any person guilty of an offence against the Act or the Orders of Council made under it, is liable to a penalty not exceeding twenty pounds. It would be instructive to learn the reasons which induced the magistrates to regard the imposition of a fine of sixpence as a sufficient penalty for so monstrous a disregard of human life and of the most ordinary sanitary precautions.

LIABILITIES OF HOSPITALS.

THE liability of hospitals for the consequences of the acts of their visiting physicians and surgeons on duty has recently (says Dr. Draper in the *Boston Medical and Surgical Journal*) been tested anew in a case in New York; and the principle is reaffirmed, that, if such institutions have exercised due diligence in securing skilful and careful medical men to treat their patients, they cannot be held accountable for alleged malpractice. One of the surgeons of the Manhattan Eye and Ear Hospital, after consultation with his two colleagues, performed an operation for chronic glaucoma. The necessity of operation was agreed to by the three consultants, and there was no accident during its progress. Two weeks later, the patient left the hospital, with vision exactly the same as when she entered. In a few days after her discharge, inflammation developed, and she returned to the hospital for treatment. Another operation was advised, and the patient consented to its partial performance. The operation had no permanent beneficial effect, and the woman became blind. She brought a suit against the hospital for fifty thousand dollars for the loss of her sight. The trial took place before the New York Supreme Court. After a full hearing of the testimony, in which, on the part of the hospital, it was shown that no complaint was made at the time of the alleged injury to the surgeons or to any of the hospital authorities concerning the surgical treatment; that the surgeons were men of pre-eminent skill in their profession, and had pursued the usual methods of diagnosticating and treating chronic glaucoma—the judge dismissed the complaint, without giving the case to the jury. This decision in favour of the hospital rested on and reaffirmed the principles set forth in a judgment rendered by the Supreme Court of Massachusetts in a similar case; the essential points being, that the Manhattan Eye and Ear Hospital was a charitable institution which, having exercised due care in the selection of its agents, was not liable for any injuries to a patient caused by their negligence; that, in the present instance, there was no proof that there had been any negligence whatever on the part of the surgeons, who were shown to be men of superior skill, and to have exercised their skill with proper caution.

THE CONVICT WINGFIELD.

THE published reports of the trial of the convict Wingfield, who was sentenced to death by Mr. Justice Grove at the Central Criminal Court on the 4th instant, for the wilful murder of his wife, suggest grave doubts whether he was of sound mind when he committed the act, and whether he is not now labouring under disease of the brain. The convict, who has a sister confined in a lunatic asylum, and who is described as a person of very violent disposition, easily roused, was examined by Mr. Ring, a surgeon at Kilburn, a year ago, when he was in custody on a charge of breaking the windows of his house, and was then thought to be irresponsible for his actions. He was in a very excited state, and it was deemed desirable that he should be placed under observation. The murder for which he has been condemned was committed in the public street in broad daylight, when he stabbed his wife fourteen times in the head and body, saying to her as he did so, "You know I love you, my girl; I don't like to see you in misery". Having completed the butchery, he knelt down and kissed her. The motive of the crime suggested was jealousy, revealed in the exclamations of the convict, who, when stabbing his wife, said to her, "That is for going and dancing at the Metropolitan Music Hall"; and who also addressed the bystanders, and said, "She went to the Metropolitan Music Hall, and left my poor children at home starving". But it does not appear to have been proved that his wife had actually done as he said she had, or that he had any reasonable grounds for believing the statements which he made respecting her. The knife with which he committed the murder was won in a lottery, but he intimated that he had got it from the Sisters of Mercy to do for his wife. During the summing-up of the judge, the prisoner had to be attended to by Mr. Gibson, the Surgeon of Newgate, and Mr. Carpenter of Clerkenwell Prison, on account of a species of fit, "occasioned", says the legal reporter, "by remorse". A faint might have been easily explicable considering the trying circumstances in which the prisoner was placed; but a species of fit occasioned by remorse is suggestive of epilepsy, which would, of course, account for paroxysms of fury, with violence, delusions, and confused statements. The case evidently demands a thorough investigation by skilled persons.

MR. CROSS'S WATER BILL.

We are afraid that there will be much disappointment amongst London ratepayers concerning Mr. Cross's Water Bill. The companies have surely done nothing to deserve so exceptionally generous treatment as Mr. Cross has given them; and their powers can hardly be so great but that they can be overridden by Act of Parliament passed with the general consent of the community. Why the terms of purchase could not have been satisfactorily settled by arbitration it is difficult to see. In similar, though of course less extensive, proposals, this course has been adopted, and unwilling owners have been compelled to part with their rights for reasonable compensation. But the sum proposed to be given to the companies is a quite unreasonably large compensation, and should not therefore be agreed to without much further negotiation. What the ratepayers of London desire, and have a right to expect, is that the present monopoly of water exercised by the companies shall be substituted by a better and purer supply under the control of a single body, whose first thought shall not be large dividends, and whose last the convenience of their customers. Under any reasonable system of water-supply to a vast metropolis like London, these desiderata ought to be accomplished with a greatly decreased charge upon consumers. But Mr. Cross's Bill encourages no hope that our present exorbitant water-rates will be lightened, or indeed that the quality of the supply will be materially improved. With such a prospect, it is little likely that the proposal will be received with favour. Ratepayers may at least ask to have as much consideration given to their purses as to those of the shareholders of water-companies.

ZULU SKULLS.

We learn that the skulls of five Zulus have been received at the museum of the Royal College of Surgeons of England, the first arrival in this country after the late war of the osteological remains of that interesting race. Four of the skulls were picked up off the north-east part of the battle-field of Islandula, and the fifth is that of an old woman who died in one of the caves in the same district, from exposure and starvation. One of the skulls has been completely perforated by a bullet, which has entered the cranium through the upper and anterior part of the left parietal bone, and passed out through the lower and positive part of the opposite bone. There is also a simple fracture, extending on each side of the entrance-wound for some distance. The skulls possess all the characteristics which are typical of the negro races. It is to be hoped that additions will be made to those Zulu skulls now received, and that also some of the officials connected with the British Army in Afghanistan will follow the good example, and send home some skulls and skeletons of the inhabitants of that country.

THE MEDICAL REGISTER.

The *Medical Register* for 1880 has just appeared, and presents several improvements on its predecessors. We notice that a wider margin has been secured by slightly narrowing the columns on each page, and that the heading of the second column has been altered from "Residence" to the more appropriate word "Address". A running heading to the pages that contain the Medical Acts has been introduced. The entries relating to the various designations of officers in the medical departments of the army and navy have also been reduced to an uniform system. Altogether, the registrar may be congratulated on having added materially both to the appearance of the volume, and to its usefulness as a work of reference.

THE RELATIONS OF MEDICAL MEN TO THE CORONER'S COURT.

The following resolutions have been passed at recent meetings of medical men to consider their relations with the Coroner's Court, Dr. Hardwicke in the Chair.

1. "That the coroner be requested to accept the services and receive the evidence of a skilful medical gentleman in such cases where the medical man called in at death does not desire to make the *post mortem* examination, the fee for which (one guinea) should be paid by the medical man desiring such services."
2. "That it is desirable to refer the friends of a deceased person to the Registrar in cases where the medical man called in cannot satisfactorily certify as to the cause of a death, but that the said medical man communicate the ascertained facts direct to the Coroner's office on a form to be supplied for that purpose, so that the coroner can form his judgment as to the necessity of holding an inquiry; the communication being of a private character."
3. "That no registrar of deaths shall be entitled to give an order for the burial of the body without first receiving from a duly registered medical practitioner a certificate of the death as from natural causes; or a certificate from the coroner of the district after an inquest."

SELECT COMMITTEE ON MEDICAL REFORM.

The Select Committee of the House of Commons on the Medical Acts Amendment Bill, on adjourning last Monday, intended to continue taking evidence yesterday (Friday); but, in consequence of the dissolution of Parliament, they did not receive the witnesses who had been summoned from Ireland and Scotland. They will endeavour, however, to prepare a short report before breaking up.

THE FRENCH CODEX.

The French Minister of Public Instruction had decided on the preparation of a new edition of the *Codex*, or official formulary of medicinal and pharmaceutical preparations. The last edition was issued in 1867. A commission has been nominated, which is composed of the following members: M. Gavarret, President; M. Chatin, Vice-President; MM. Dumont and de Beauchant, representing the University; and as ordinary members, MM. Baillon, Bouchardat, Hayem, Regnault, Germain Sée, Vulpian, Wurtz, Baudrimont, Bouis, Bourgoin, A. Milne-Edwards, Planchon, and Riche. There are also six associated members, with a consultative voice.

METROPOLITAN WATER-SUPPLY.

Dr. Frankland reports, as the result of his analyses of the waters supplied to the metropolis during February, that, taking the average amount of organic impurity in a given volume of the Kent Company's water during the nine years ending December 1876 to represent unity, the proportional amount of such impurity in an equal volume of water supplied by each of the other Companies, and by the Tottenham Local Board, was: Kent 1.3, Colne Valley 1.5, Tottenham 1.7, West Middlesex 2.8, Chelsea 4.1, East London 5.3, New River 6.0, Lambeth 6.1, Grand Junction 7.0, and Southwark and Vauxhall 7.0. The West Middlesex Company's water, although inferior to that supplied by the same Company in recent months, was of superior quality to that delivered by any other Company drawing its supply from the Thames or Lea. The Thames water delivered by the Lambeth, Southwark, and Grand Junction Companies was "quite unfit for dietetic purposes". The Lambeth and Grand Junction waters were slightly turbid and contained moving organisms. The Lea water supplied by the East London and New River Companies was also of inferior quality; the New River water contained much organic impurity, and moving organisms, and was slightly turbid from inefficient filtration. The deep well waters were of their usual excellent quality.—Dr. Hill, the Medical Officer of Health for Birmingham, reports that the water supplied to that town was slightly turbid, and showed a considerable increase of organic impurity.—The Loch Katrine water, supplied to Glasgow, was reported by Dr. Mills to contain but little suspended matter, and to be light brown in colour.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

WE publish in another column a letter from Dr. Grigg respecting a death at the Queen Charlotte's Lying-in Hospital which the Registrar-General returned on February 26th as "puerperal fever". In the certificate given by the house-surgeon, among the possible complications, were inserted "puerperal peritonitis, septicæmia (?)", the primary causes being given as "chronic Bright's disease, putrid child and placenta, and induction of labour at the eighth month". On this certificate, Sir Brydges Henniker decided on inserting the case under the head of puerperal fever, omitting the query after the word "septicæmia". Dr. Grigg having pointed out to the Registrar-General that the case was not one of puerperal fever, sent him an exact copy of the death-certificate, which has been published in the last weekly report, still with the omission of the query after septicæmia. On Dr. Grigg again calling attention to this fact, the Registrar-General writes, in reply, "that it is now too late to adopt your *suggestion* as to inserting a query after the word septicæmia, as my weekly return was published last night". How the Registrar-General can designate as a suggestion a request to amend an error in a return, which was sent in a correct form, is difficult to understand. Perhaps, as the Registrar-General is not acquainted with medicine, he is not aware of the important distinction that may be implied in the expression of a doubt as to any cause of death mentioned in a certificate. The difference is simply analogous to that between "non-proven" and "guilty". We think that there is some justice in Dr. Grigg's complaint, that lying-in hospitals are placed at a disadvantage by the notification of isolated deaths occurring in them. With regard to the entering of a series of deaths within a short time, the same objection could not be taken.

ZYMOTIC DISEASES IN LONDON.

THE fatal cases of whooping-cough in London, which had been 248, 197, 171, and 135 in the four preceding weeks, rose again to 155 last week, and exceeded the corrected weekly average by no fewer than 84; 7 occurred in Fulham, 9 in Marylebone, 11 in Pancras, 23 in Islington, 6 in Bethnal Green, 6 in Stepney, 15 in Southwark, 19 in Lambeth, and 6 in Camberwell. The 44 deaths from scarlet fever included 6 in Southwark, and exceeded the corrected weekly average by 6. The fatality of measles and of diphtheria was considerably below the average. The fatal cases of fever, which had been 23 and 13 in the two preceding weeks, were 14 last week, and 11 below the corrected average; one was certified as typhus, 10 as enteric or typhoid, and 3 indefinitely as fever or continued fever. The deaths from small-pox, which had been 13 in each of the two preceding weeks, declined to 8 last week, of which 3 occurred in the Metropolitan Asylum Hospital at Deptford, and 5 in private dwelling-houses. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 91 to 163 at the end of the four preceding weeks, further rose to 185 on Saturday last; 49 new cases were admitted to these hospitals during last week, against 58 and 48 in the two previous weeks. The Highgate Small-pox Hospital contained 12 patients on Saturday last.

THE ALLEGED "MIRACLE" AT KNOCK.

THE correspondent of the *Daily News* describes some of the scenes witnessed by him at Knock Chapel, the "Irish Lourdes", as it is termed. He writes that the spectacle can only be described as the most saddening he ever saw. The chapel is close to the main road. In front of the gable on which the apparition is said to have been manifested were a number of people, some of them decently clad peasantry, men and women; but others, and these the majority, the most wretched-looking creatures that it is possible to conceive. Some were kneeling in the mud in front of the gable; others were kneeling at the cross over the grave of the founder of the chapel; and many were engaged carefully picking out scraps of cement, which were being carefully treasured by some, who put them in handkerchiefs, while others were in the act of moistening the cement and applying it to whatever part of their body was affected by an ailment. One respectable man, who was not blind, but who probably thought his sight might be improved, was applying the material to his eyes. Others were in the act of catching the water from the slating running over the gable, and moistening the clay with it. Large numbers were walking round the chapel continuously, muttering their prayers as they went. Among these were two men, seemingly father and son, the latter blind. Both were walking round and round the chapel, with their heads uncovered, when the writer arrived, and they were continuing to perform the same wearisome task when he left. One delicate-looking youth, seemingly in consumption, knelt in the mud, for it was mud everywhere around the stone cross already alluded to. He did not move the whole time the reporter was there, and it was obvious that the mode of relief which the poor lad was seeking was too likely to end in accelerating his descent to the grave.

DEATHS FROM CHLOROFORM.

WE regret to have to record two more deaths from the administration of this anæsthetic. One is now reported from St. John, New Brunswick. The patient was a boy, aged 18, suffering from an accident to the left foot. Only three drachms of chloroform were used. A *post mortem* examination showed hepatisation of the lower lobe of the lung and congestion of the remainder of the lungs. The left side of the heart was empty; the right distended with blood. The coroner gave it as his opinion that ether should have been employed. The second death is reported as having occurred at the Chicago Eclectic College, on January 3rd. The patient was a robust young farmer, but exceedingly nervous. He was to have been operated on for necrosis of the tibia. Before he had been fully placed under the influence of the anæsthetic, respiration stopped and could not be restored.

THE IMPROVED AUDIPHONE.

DR. CHARLES H. THOMAS of Philadelphia, at the meeting of the Philadelphia County Medical Society, held on December 10th, 1879, announced that he had been making a number of experiments upon audiphones; and that, at the following meeting of the Society, he would present some modifications of the original instrument. On December 17th, he accordingly presented and explained the audiphone; and demonstrated the fact that a number of substances were better adapted for the purpose than are the original materials. Of all the substances experimented with, the fuller's board (press-board), saturated with shellac varnish, gives the best results.

HÆMATEMESIS IN CHINA.

Two members of the Chinese Legation in London have recently suffered from hæmatemesis to an extent that might well alarm an English physician. Their condition, however, caused no anxiety amongst their compatriots, who stated that vomiting of blood is exceedingly common in China, and is rarely fatal, causing only discomfort and weakness for a time. Vulgar current opinion on a medical question is not of much value, but the statement as to the prevalence of hæmatemesis in China comes from cultivated Chinamen, who are not only repeating a rumour, but giving the results of their own observations. Their view is, that this gastric hæmorrhage is to be attributed to the habit of a large number of their countrymen of eating largely at wide intervals, and distending the stomach with fluids, so producing hyperæmic erosion of its walls and eruptions of vessels; and also to the effects of tea-drinking on the nutrition of the walls of the vessels in persons who are living poorly and obtaining very insufficient supplies of fresh meat and vegetables. It occurs most frequently in debilitated and cachectic persons; but they do not think that it is specially connected with diseases of the liver, lungs, pleura, or heart, and are of course unable to say whether gastric ulcers exist in association with it. It comes on generally after a meal, with a sense of fulness, cardialgia, and nausea; and the quantity of blood vomited is often very large. The Chinese distinguish clearly between hæmatemesis and hæmoptysis, and regard the latter with great apprehension, the former with indifference. The observation as to the part played by tea-drinking in the production of hæmatemesis in China is interesting in connection with Dr. Budd's conclusion, that ulcer of the stomach is most frequent in this country in maidservants, who certainly constitute one of our great tea-drinking classes. English medical men practising in China, of whom there are now a considerable number, might furnish valuable information on the subject of hæmatemesis in China.

FIRE AT THE ROYAL VICTORIA HOSPITAL, NETLEY.

THIS noble national hospital had a narrow escape from total destruction by fire on Thursday, the 4th instant. A little after two o'clock in the afternoon, Mr. Willis, a young medical officer, who was in sick-quarters in the centre block of the building, observed smoke issuing from the ceiling of his room, and called the attention of a friend, Mr. F. R. Barker, another young medical officer, who was with him, to the circumstance. Mr. Barker, with another friend, rushed to the room immediately above Mr. Willis's quarters; and bursting the door open, found the floor of the room on fire, and at a glance saw the source of it. A live coal from the fire in the grate had fallen on the rug, burnt a large hole in it, and set fire to the wood of the floor. The fire-alarm was instantly given, but before the fire-engines were got to work volumes of smoke were issuing from the windows of the room, and several of the quarters occupied by some of the gentlemen passing through their course of instruction in the Army Medical School. In all the rooms and wards of the hospital, provision had been made for free ventilation under the floors; this greatly facilitated the progress of the fire. Fortunately, there were a great many available men in the building—invalids, men of the Army Hospital and Army Service Corps. Perfect order and discipline prevailed, and all the officers of the establishment were quickly on the spot and rendered most efficient service. The ultimate safety of the building was, in a great measure, due to Surgeon-Major Griffith, who, at a critical moment, and in the right place, cut with an axe the flooring of a part of the museum in the upper storey, through which the hose was passed. The supply of water was fairly abundant, and was well served, not only through the fire-engines, but by means of buckets. Soon a party of officers and seamen from Her Majesty's ship *Hector*, which is stationed in the Southampton water opposite to the hospital, arrived and did capital service. Meanwhile, all the patients in bed were dressed, and held ready to be removed to the officers' quarters at a moment's notice. The valuable library of the Medical Department of the Army was with great labour cleared out, and also the contents of the Pathological and Model Museums. This work had to be done with great rapidity, and in the hurry of rapid removal and passing the specimens from hand to hand, a not inconsiderable amount of damage was done to rare and valuable scientific specimens that can never be replaced. In about three hours, the fire was completely mastered and got under before any very material damage was done to the building itself. As is usual in such cases, much unavoidable damage was done by the water used to extinguish the fire. It is feared that some of the young medical officers, whose term of study at Netley finished on the 8th instant, have suffered severely in their "kit" and property. A number of them are under orders for India, and, having just provided themselves with costly uniforms, worth about £60, have been unlucky enough to have them destroyed, as well as other articles of their foreign equipment.

SMALL-POX AMONGST UNVACCINATED COMMUNITIES.

IT has been well said that, inasmuch as small-pox has now almost ceased to be a fatal disease amongst the more intelligent classes of society, there is a temptation to forget how our forefathers regarded it. Hence, at the end of the nineteenth century, the very success of vaccination may have blinded people to its importance. If the protection which our population now enjoys from vaccination were all at once removed, it is beyond doubt that we should find ourselves thrown back into all the horrors of last century. When small-pox invades populations among whom vaccination has been but little if at all practised, its ravages are exactly like those met with in Europe in past generations. Two very recent cases merit notice. Mr. Ashbury, the senior member for Brighton, in the course of a recent yachting cruise, visited the seaport town of Ceara, in the Brazils. Finding that an epidemic of small-pox had recently partially depopulated the town, Mr. Ashbury inquired into the facts. He found that, in one cemetery alone, the burials of persons dead of small-pox amounted to 27,064 from August 1878 to June 1879. In December 1878, no fewer than 14,375 persons who had died of small-pox were buried in this cemetery; and one day as many as 812 such persons were interred. He had not time to obtain the official returns from the other cemetery; but he was informed, on good authority, that the burials there during the same period were about 13,000. Thus, out of a population not exceeding 70,000 persons, no fewer than 40,000 deaths took place. The United States consul at Tamatave, Madagascar, reports that small-pox, three and a half years ago, swept the eastern coast of the island, carrying off 800 persons in Tamatave alone within the space of two months, attacking all who had not had the disease or were not protected by vaccination, and only disappearing when it had no more subjects to feed upon. The disease was almost entirely confined to the natives, the foreign residents being generally protected by vaccination. Facts such as these show that small-pox, uncontrolled by vaccination, is at the present day exactly the same disfiguring and fatal disease which in the last century destroyed, on an average, 3,000 persons annually out of every million of our population, and which, at that rate, would now, but for vaccination, be causing in England alone, an average annual mortality of nearly 70,000 persons.

SCOTLAND.

OPHTHALMIC INSTITUTION, GLASGOW.

ON Monday, the annual meeting of the supporters of the Ophthalmic Institution, Glasgow, was held in the Religious Institution Rooms there. From the annual report which was submitted and adopted, it appears that during the year 3,683 new cases have been treated. Of these, 3,319 were dispensary cases; while the others were admitted to the hospital for treatment. The total number of cases treated exceeded those of the previous year by 161. There were 3,521 cases cured or recovered, 86 relieved, and 76 dismissed as being beyond treatment. The income for the year was £1,350, and the expenditure £1,176. Mr. James White of Overtoun presided.

THE LATE SURGEON-MAJOR SHEPHERD.

AT a meeting of the Senatus Academicus of Aberdeen University, held on Saturday, the final arrangements for the memorial to the late Surgeon-Major Shepherd were approved of. A gold medal is to be awarded to the student who shall make the best appearance in the principles and practice of surgery. The first award of the medal will take place this session at a time to be fixed by the medical faculty.

ROYAL MATERNITY HOSPITAL, EDINBURGH.

THE annual meeting (the first held since the opening of the new hospital buildings) of the subscribers and directors of the Royal Maternity and Simpson Memorial Hospital, Edinburgh, was held on Thursday, March 4th; Lord Balfour of Burleigh presided, and the attendance included many ladies and persons of influence. The report stated that the total cost for the new premises and fittings was £12,053, and that this had been paid off as far as to leave only a balance against the directors of £2,433. The directors had received £2,100 from the Simpson Memorial Committee, and also £400 contributed as a "Woman's Offering to the Maternity Hospital to the Memory of Sir J. Y. Simpson". Since the closing of the accounts, a sum of £274 11s. has been received from the same source. During the year, 206 patients have been admitted into the house and delivered there, while 464 have been attended at their own homes. In the first four months the new hospital was open, there were seven deaths; since September, however, there have been none. Drs. Keiller, Simpson, Halliday Croom, and Angus Macdonald have had charge of the hospital for periods of three months each during the year. After the formal business of the meeting, Professor A. R. Simpson, speaking on the part of the contributors, presented to the institution a portrait of the late Sir J. Y. Simpson, which, at Dr. Simpson's request, was unveiled by Mrs. Barbour. The portrait is a *replica*, by Mr. Norman Macbeth, R.S.A., of one formerly executed by that artist.

REGISTRAR-GENERAL'S RETURNS.

FROM the Registrar-General's returns for the eight principal towns of Scotland for the week ending Saturday, February 28th, it appears that the death-rate for the week was 22.1 per thousand of estimated population. This rate is 3.4 below that for the previous week of the present year. The lowest mortality was recorded equally in Glasgow and Greenock—viz., 21.0 per thousand—while the highest was in Paisley—viz., 34.0 per thousand. As has been already stated, however, in the quarterly and monthly reports, there is reason for believing that the population of Paisley is in excess of the estimate; and, if such be the case, the above proportion is too high. The mortality from the seven most familiar zymotic diseases was at the rate of 4.0 per thousand, or slightly in excess of that for last week. An increase of deaths occurred from whooping-cough, chiefly in Glasgow and Aberdeen. In Dundee, several deaths from measles occurred. The number of deaths from inflammatory affections of the respiratory organs was 143, or 26 less than the number recorded during the previous week. The mean temperature was 42.4°, being 1.3° under that of the week immediately preceding.

GLASGOW SCIENCE LECTURES.

THE last of the present course of science lectures in Glasgow was delivered on the 4th instant, to a large audience, by Mr. George J. Romanes. The lecturer chose for his subject "Mental Evolution"; and, in the course of his remarks, he said that it appeared to him there was a great amount of antecedent presumption that the human mind, like everything else in living nature, must have been evolved. The theory of evolution, he considered, had nothing to fear, but everything to welcome, in the science of comparative psychology. The general outcry that was continually being raised that all the time-honoured distinctions between man and the lower animals were about to be dissolved had not been justified. It had often been put forward to check the advance of science in the past, but it was not successful; and he thought that the present inquiry, though it touched man's highest hopes, did not necessarily do so with a desecrating hand.

ROYAL INFIRMARY, EDINBURGH.

AMONG the bequests to the Royal Infirmary, Edinburgh, was one lately, by the Rev. William McLean of Penninghame, amounting to £15,000. The managers, in the case of munificence such as this, usually mark their appreciation of it by naming one of the wards after the benefactor. On Friday, the managers met a considerable number of ladies and gentlemen by invitation in the chapel of the Infirmary, and, after an address from the Lord Provost, proceeded to Ward 18 in the surgical house, when the ward was formally named the "McLean Ward". Already a number of wards bear the names of conspicuous benefactors; but there are still a considerable number of wards remaining unnamed.

PHILOSOPHICAL SOCIETY OF GLASGOW.

AT the meeting of this Society held on the 3rd instant, Dr. Christie, the medical officer of health for the burgh of Stillhead, read a paper on "Provident Dispensaries as a means for promoting the Public Health". After sketching the rise of the system in England, and quoting the model rules for provident dispensaries as issued by the Charity Organisation Society, he proceeded to consider the question whether there was any necessity for the establishment of such dispensaries in Glasgow and similar large industrial centres. After regarding the matter from all points of view, and especially as it bore upon the present medical charities of the town, he was decidedly in favour of the introduction of such institutions; and he specially pointed out the advantages that would accrue to the community as regards the public health, where neglected disease of any kind was necessarily a serious matter. This neglect of disease would be very much diminished by the presence of provident dispensaries in different localities of a town. A hearty vote of thanks was awarded to Dr. Christie for his paper; and it is to be hoped that the subject will not be allowed to stop here, but that some steps may be taken to put it into practical working.

IRELAND.

WE regret to hear that Dr. Daniel Donovan of Skibbereen, to whose illness we recently referred, has died of typhus fever.

DR. BANKS has been appointed Physician-in-Ordinary to the Queen in Ireland, in the room of the late Sir Dominic Corrigan, Bart. The appointment is one which will give entire satisfaction.

MR. JOHN BENJAMIN STORY, B.A., M.B., Surgeon to St. Mark's Ophthalmic Hospital, has been appointed Examiner in Ophthalmic Surgery to Trinity College, Dublin, in room of the late Dr. Rainsford.

MR. H. R. SWANZY, F.R.C.S.I., Surgeon to the National Eye and Ear Infirmary, has been appointed Surgeon-Oculist to the National Institution and Molyneaux Asylum for the Blind of Ireland, *vice* Dr. Rainsford, deceased.

MR. MATTHEW T. KEHOE, Demonstrator of Anatomy in the Medical School of the Catholic University, has been appointed to the Surgeoncy of St. Vincent's Hospital, Dublin, vacated by the death of Mr. William H. O'Leary.

MONKSTOWN HOSPITAL.

THE annual meeting of the friends of this hospital, and the reopening of the institution after extensive alterations, which required it to be closed since August, took place last week. A new wing has been added, containing four wards, a pharmacy, bath-rooms, and wards intended for special surgical and medical cases. The walls are composed of granite, lined with bricks and cement; while the wood used for the floors, doors, etc., is of polished pitch-pine; and the drainage and ventilation have been carefully attended to. Two special wards, the "Charlotte" and "Barton", have been remodelled and furnished by the kindness of two ladies. The various alterations have cost £2,750, half of which sum has been obtained, and the committee trust, by the co-operation of friends, shortly to secure the remainder. During the year, £430 was received from annual subscriptions, and £219 from the Dublin Hospital Fund; while the cost of maintenance and other items amounted to £505. The number of persons who received advice and medicine at the dispensary during the year was 1,210; whilst at the Kingstown branch dispensary 888 cases were under treatment. The Chairman having declared the hospital open for the reception of patients, the proceedings terminated.

MONAGHAN DISTRICT LUNATIC ASYLUM.

THE annual report of this institution shows that the percentage on recoveries, on the daily average number of patients resident, was: males, 12.5; females, 9.6; total, 11.3; that the percentage of recoveries on the admissions were: for males, 49; females, 45.5; total, 47.7; and that the percentage of recoveries on the total number under treatment, during the year, was: males, 10.3; females, 8; total, 9.2. The percentage of deaths on the daily number resident was: males, 6; females, 10.9; total, 8.4; and on the admissions: males, 23.6; females, 51.5; total, 37.5. The average length of residence in the asylum of the 42 patients who were discharged during the year as cured was one year and two weeks. Of the 30 patients who died during the year, eight arose from cerebral and cerebro-spinal affections, one from fever, and one from suicide. The cost per head came to the low sum of £13 12s. 11d.

SELECT COMMITTEE ON THE MEDICAL ACT (1858) AMENDMENT BILL (No. 3).

House of Commons, Monday, March 8th, 1880.

THE Right Hon. W. E. Forster in the chair. The other members of the Committee were Dr. Cameron, Mr. Dalrymple, Mr. Errington, Mr. Goldney, Lord G. Hamilton, Mr. Mitchell Henry, Mr. Heygate, Sir Trevor Lawrence, Dr. Lush, Mr. A. Mills, Dr. Lyon Playfair, Mr. D. Plunkett, Serjeant Simon, Mr. Wheelhouse, Mr. Lowe, and Mr. Jno. Maitland.

The Committee resumed its sittings for the present session on Monday last, the chair being taken by the Right Hon. W. E. Forster.

Dr. STRUTHERS, in reply to the Chairman, said he was Professor of Anatomy at the University of Aberdeen, and also a Fellow of the Edinburgh University and of the Royal College of Surgeons of Edinburgh. He had been a teacher of anatomy in the Universities of Edinburgh and Aberdeen for more than thirty years; he had also been a visitor of examinations appointed by the Medical Council on two occasions. The appointments that he held had induced him to attend to different matters of medical legislation during the last quarter of a century.

The CHAIRMAN asked Dr. Struthers for his opinion on the proposal for the conjoint examination in each of the three divisions of the kingdom?

Dr. STRUTHERS said there were two evils in the present system. First, there was a want of security to the public from the half qualifications given by the corporations; and, secondly, there was the inconvenience to the student from having to go to two corporations in order to obtain his qualification. He did not consider that these difficulties applied to universities at all, but only to medical and surgical corporations. The Scotch universities conferred qualifications both in medicine and in surgery; and, therefore, the student was not inconvenienced by having to go to different bodies. The evil might be remedied without touching the universities, by simply requiring a complete qualification before registration; and the inconvenience to the student might be remedied by a joint examination by the corporations of each division of the kingdom, without interference with the universities at all. The number of students of medicine last year at Aberdeen was 376. The course of study was longer than was proposed by the English conjoint scheme; it was also longer than that required by the corporations. The course of study required at the universities was four years, including four winter sessions; whereas, in the corporations, it was only three winter and two summer sessions, and the student might spend one of the years as an apprentice without having commenced medical study at all. In the Scotch universities, the four years were spent in absolute study, the winter sessions extending over five months and the summer sessions three months. Nearly all their students studied in the summer, the subjects of study being more extensive in the universities than in the corporations. He considered the examination for degrees at the Aberdeen University a very searching one, and the teaching was also more thorough than that given by the corporations. One peculiarity of the Scotch universities was that the professors were devoted to their departments, and, as a result, a much more thorough education was given in the fundamental sciences than was the case in London. Within his own experience as a teacher of anatomy, the teachers at the English schools were continually changing, owing to the fact that, when they got into practice, they left off teaching. In Scotland, on the contrary, surgeons taught to the last, and did not throw up their professorships when they acquired a large practice. As an instance, he might state that Sir James Paget had thrown up his professorship, while, on the contrary, Mr. Syme taught to the very last. The result was that the teaching was much more thorough in the Scotch universities, even in medicine and surgery, than it was in London. Previous witnesses had referred to what the Medical Council was to do with regard to medical education; but, for his part, he did not know what they meant. It was impossible to remedy the weak points of the London and English schools through the Medical Council. The only way in which it could be done would be by an Act of Parliament, changing those institutions, and converting them into institutions like the Scotch universities. It was the custom at Aberdeen to have outside examiners, and at present there were six who sat by the side of the professors, and were entrusted with equal power. Securities were given, under the Act of 1858, that the universities should not lower their standards, because they were compelled to apply to the Privy Council for permission to omit anything, and no one university could act without the other. He did not consider that the conjoint scheme was called for, as far as the Scotch universities were concerned. With reference to the University of Aberdeen, great misapprehension had existed. It seemed to be considered that the Universities of St. Andrew's and of Aberdeen were of the same kind; whereas the fact was that St. Andrew's was not a medical school, while Aberdeen, before the Universities Act of 1858, had two colleges. He was not prepared to admit that there were advantages to general profession in the one portal system. It was not true, as had been stated, that Scotland graduated more students than it registered. The teaching in Aberdeen was particularly careful; they had a dissecting-room, a microscope-room, libraries, museums, all giving a complete medical education; and a careful register was kept of the work done by the students, the number of classes attended, and so on. He knew of no examinations which were more careful and searching than those carried on at the Aberdeen University; and the result was their students uniformly distinguished themselves, one of them being this year at the top of the Indian competition. The effect of the conjoint board system, as proposed by the Bill, would be to lower the minimum of education in Scotland. A conjoint board system was not called for in the universities; but, in the event of its being considered that there were reasons of national importance for establishing a system of licensing, the question was: What concession ought to be made. There had been a misunderstanding of their position in Scotland. There was a general idea that the Scotch were altogether opposed to conjoint boards. That was correct; but only in a certain sense. Everything depended upon what kind of joint board was proposed. There was a kind of conjoint board the establishment of which they would think it their duty to do their utmost to prevent—a board which would ignore the higher education and examination of the universities, thereby obliging the students to pass double examinations and subjecting them to heavy fees. Such a system would lay a serious and most uncalled for money-tax on a large body of students, and, in his opinion, would tend to lower the quality of medical education in Scotland. If the conjoint board system were set up as proposed, the result would be that there would be teachers of schools commencing as joint board teachers, especially preparing for its examinations, and in that way it would lead to grinding, which was unknown in Scotland. In London, which was the great place for grinders, there was a low standard of education, and the students did not care for the higher qualifications. He thought there should be a definite recognition in the Bill of the rights of the universities in some such words as Mr. Simon had referred to. If a conjoint system were established, students who had passed the university scientific examinations should be admitted to the conjoint examining board on the payment of a fee not exceeding five guineas. It had been urged as an important point that inspectors should be present at examinations. They had no objections to receiving as many men as the conjoint board chose to send, if they would not put the students to expense on that account. If their scientific examinations were exempted, they had not the least objection to any number of conjoint board examiners coming up; but they objected to their students having to pay money for it. The Duke of Buccleuch's proposal had special reference to the Scotch universities. The English universities were on a very different footing in that respect, and it was a most remarkable fact that in the English scheme the universities supplied no examiners. It had been urged in support of the English scheme that it would not do for the status of the examination to have the university element infused, and it was a remarkable fact that the examiners in the conjoint scheme were entirely corporation examiners, not a single examiner coming from the universities. That would show what a very slender connection the English universities had with medical education. The object of the Duke of Buccleuch's proposal was a double one; first to avoid disturbance of their examinations. For why should an university student who had passed a high examination in medicine, surgery, and midwifery be compelled to undergo a second examination. Having the conjoint board examiners alongside the university examiners would obviate that, and at the same time secure the object that the public should have the assurance that the examinations were not below the level of the board. That was an admirable suggestion on the part of the Duke of Buccleuch. By the English conjoint scheme, the board was to nominate twice the number of persons required, and then the corporations were to select their examiners from these. Something of the same kind might be done in selecting the conjoint board examiners, who should sit with the professors. He took substantially the same ground as that taken by Professor Turner, that either the Duke of Buccleuch's amendment, providing that a certain proportion of the examiners should be appointed by the board outside, or the other suggestion of the theoretical scientific examination being conducted by the university, and the practical examination by the medical board, should be accepted. Either of those suggestions would, to a great extent, remove his objection to the conjoint scheme; but he was not to be understood as supporting it. The universities would expect that their scientific examinations should be accepted, and also that, in the practical examinations, the conjoint board would come to each university and sit along with the professors. The universities did not think a conjoint board necessary; but if the corporations of London would do as the College of Physicians and the College of Surgeons of Edinburgh had done, namely, arrange a joint examination, that would be all that was necessary. There was no reason for thrusting the conjoint scheme upon the Scotch schools, which were doing excellent work. Having had a long experience, he was not aware that the examinations in Scotland were very low. The inspectors of examinations sent by the Medical Council had not said so. The cry for a conjoint board had been got up by the London corporations; it had not been put to the practitioners of England at all. In Edinburgh, twenty years ago, there was no difficulty in forming a conjoint board, and he did not see why the London College of Physicians and the College of Surgeons should have any difficulty in doing the same thing. This conjoint system had been tried in Germany, and, as was well known, the Germans were in advance of us in the matter of education. They tried a conjoint board; it was resisted, and the result was that now they had twenty examinations. There was the State examination, which was virtually an examination at each university, and was remarkably like the Scotch system, though perhaps not so thorough. For instance, the Professor of Bonn conducted the examination along with three assessors. The Central Government each year nominated the examining body, appointing the professors and a certain number of practitioners to sit with them. They had no security that there should not be a much lower examination in one university than in another, except in the character of the professors. There were no examining bodies in the universities, and Clause 5 of the Bill rendered affiliation to a corporation necessary. He objected to making it compulsory. If affiliation were left open, it would be sought as an honour; but if it was compelled, there would be no distinction, and it would be resisted. Every man would seek affiliation with the College of Surgeons. The whole clause was delusive, because, if the corporations were to have a right to oblige men to affiliate with them, they should also be obliged to accept the women; and he knew quite well that the College of Physicians would rather close their doors than admit the ladies. There was an enactment in the Bill that when a man was affiliated, the corporation was not to demand a fee. That was an extraordinary regulation. By the conjoint scheme, the student was to pay thirty guineas and to receive three diplomas, whereas the Bill required only one. That should be amended. Clause 19 related to the uniformity of fees in other parts of the kingdom. A great deal had been said about the Scotch underselling the others; but why should the fees be uniform? The standard of examination was one thing, and the amount of fees was another. He did not mean to say they were so very poor in Scotland that they could not afford £10; but there were no doubt many struggling students who had not £1 to spare, much less £10, and he did not see why the equality should be adopted. By the English conjoint scheme, the student had to pay thirty guineas, and this was to maintain three corporations, five guineas going to the museum of the College of Surgeons. That museum was no doubt not to be equalled anywhere in Europe; but he did not see the justice of making a poor Scotchman or Irishman pay towards its support.

With regard to the constitution of the Medical Council, he could not say that there was a very strong feeling in Scotland on the subject; but his own opinion was, that the Scotch universities were not sufficiently represented, while the corporations had an unfair proportion. Apothecaries' Companies should cease to be licensing bodies. With reference to the question of representation of the general practitioners, he was formerly of opinion that it was advisable; but at present, though he could not see the great objections that some people urged, he did not think it was likely to do very much good, and it would create a considerable turmoil. He thought the Medical Council was quite large enough at present. He suggested that, if there were to be a conjoint board system, the Medical Council should be elected by the Branch Councils of the three kingdoms. If this were done, the principle of direct representation, if adopted, might be applied to the Branch Councils. If the principle were a right one to apply to the General Council, it was also a right one to apply to the Branch Councils. His opinion had partly changed; but if there were any direct representation, he thought the body of the profession had a right to claim that one-half of the Council should be elected by them.

By Mr. ARTHUR MILLS: So far as Scotland was concerned, he thought the proposals of the Bill would rather tend to lower medical education. His former opinion had been in favour of direct representation on the Medical Council, but when he saw a man like Sir James Paget coming forward in the face of the petition from ten thousand practitioners, and saying that he thought it was not a good system, he was greatly impressed with such an opinion. It was difficult to say that the fact that the funds of the Medical Council were provided by the general practitioners was an argument in favour of direct representation. He did not think that it would be desirable to make the Medical Council a sort of subdepartment of the Privy Council, and to disestablish the existing Medical Council altogether. His view was, that the Branch Councils might be enlarged a little, at least in Scotland, and then the Branch Councils would elect a General Council, perhaps a little smaller. He should not like to see a small Council; a Council of a dozen would be dangerous. He thought there would be no harm in giving the profession representatives, but they would be disappointed in the results. If practitioners had to pay a fee of two shillings and sixpence to register their vote, he fancied not one in a hundred would do so.

By Sir TREVOR LAWRENCE: They would not get a better joint examination anywhere than in Edinburgh. He was opposed to the conjoint scheme as proposed by the English board; and, although he suggested amendments, it was only under protest. The medical profession in Scotland did not desire reform. He knew of no profession so well educated as the Scotch general practitioners; and, when disparaging remarks had been made with reference to the Scotch examinations by Mr. Simon and others, they were referring, perhaps, to what existed twenty years ago.

Sir TREVOR LAWRENCE: In the place of the conjoint scheme, would you prefer that the Medical Council should have power to take away their privileges from bodies that did not conduct efficient examinations?

Dr. STRUTHERS: The Medical Council have only a power as to the minimum, they have no power over the higher qualifications; and we are so far above the minimum that it really does not concern us. We should object to the Medical Council having power over the higher qualifications.

By Dr. CAMERON: His university gave no surgical degrees unless the candidate had passed all examinations for the medical degree. The Universities' Commission recommended that it should be a double degree of graduate of medicine and surgery; they would have no objection to that. At St. Andrew's, degrees were only granted after a complete examination. The cost of the Scotch qualification was about £20. It was an undoubted advantage to the public that no unnecessary expense or monetary impediment should be put in the way of good men getting degrees.

By Dr. LYON PLAYFAIR: He did not think the fact of the fee being twenty guineas in Edinburgh against thirty guineas in London would tempt men to go to Scotland to take their degree, especially when the cost of travelling was taken into consideration.

Professor GAIRDNER of the University of Glasgow was next examined. He said, in answer to the Chairman, the number of medical students who had matriculated in the Glasgow University had continually increased from 1861 to the present time. In the former year, there were 283 matriculated students, now there were 560. The increase was common to all the Scotch universities. In Glasgow, it had been accompanied by a very great increase in the means of teaching, both practical and scientific. The increase in the number was not caused by any diminution in the stringency of the examinations. From 1874 to 1879, there were 845 candidates for the first professional examination; of these, 456 passed, and 389, or 44.7 per cent., were remitted. In the second professional examination during the same years, there were 568 candidates, of whom 375 passed, and 193, or 34 per cent., were remitted. In the third and final examination, there were 414 candidates, of whom 334 passed, and 80, or 19.3 per cent., were rejected. He himself was alarmed at the proportion of the rejections at the first professional examination, and it was only by looking carefully into the matter that he was led to acquiesce in its justice. The outside examiners hardly ever complained of the laxity, but almost always of the stringency, of the examinations. There were originally two examinations, but there were now four. It was not possible that a student who had been plucked, or probably would be plucked by another examining board, should go to Glasgow with chance of success. He would have three or four examinations to pass. Dr. Acland had been asked whether such a thing was possible, and he replied that he did not know; but he ought, as President of the Medical Council, to be able to contradict it absolutely, because the regulations at Glasgow absolutely precluded it, just as much as the regulations at Oxford. The clinical examinations were conducted on the same principle as the others, partly by professors and partly by non-professorial examiners. They were thoroughly inspected by the Medical Council in 1867-68, and in 1874-75, and the inspectors reported very much in their favour. Each professor was a specialist in his own subject, and with each professor there was a non-professorial examiner, who exercised a perfectly independent judgment. There was nothing like the Dutch auction that had been spoken of by previous witnesses. A complete record was kept of the attendances of the students. In his opinion, a conjoint board would very greatly deteriorate the efficiency of all the universities in Scotland. He agreed very much with what Professor Turner had said on that subject, but he took a somewhat stronger view of the injury that would be done to the Scotch system by a conjoint board. It would tend to lower the prestige of the degrees of the universities, and take away from them their parliamentary and legal privilege which they held for a century and a half, and on which the efficiency of their system was built. Having already four examinations to pass, it would be very distracting to the students to think of having to pass another, conducted by a different set of men and probably upon totally different principles. If on national grounds it were considered desirable to have a conjoint board, he would have the examiners go to Glasgow and act in concert with the examiners there. He should prefer that to the suggestion that the theoretical and scientific examination should be conducted by the university, and the clinical and practical examination by the conjoint board. He did not think that was a sound principle; it distrusted the university examiners just where it was most important that the students should have confidence in their teachers. If the conjoint board system tended to make students determine to go in only for an education that would enable them to pass the conjoint board, that would be a very great evil. The English system induced a student to give the go-by to the fundamental sciences, which in Scotland were considered important. A student destined for practice in England would probably be expected to join one of the English colleges; and, in order to do that, he would have to pass the English conjoint board; and then would arise the question, Why send him to Scotland, and make him pass through an expensive university education? According to the Bill, a student would not be affiliated in either of the three divisions of the kingdom unless he had passed the conjoint board of that division. If it were proposed to alter that arrangement, he believed that all the English corporations would at once rise in opposition, for they did not want men who had not passed the conjoint board in England. If a man examined by the conjoint board in Scotland had the power to join any of the corporations in England or Scotland, his (Dr. Gairdner's) objection would be very much diminished.

He had no very strong view upon the subject of direct representation. There was a good deal of reason for the demand; and, if the machinery were adjusted so as not to be very cumbrous and troublesome, he should not object. But personally he shrank from the notion of periodical agitations in the medical profession, and a system of canvassing for the purpose of sending a man to the Medical Council. He did not think that there were any practical evils arising from the profession not being represented. If the Council confined itself to its own proper work—medical education and registration—it was quite competent to do it. If the Council were to be a Medical Parliament (which he did not approve of), it was too small in number; but, if it confined itself to its proper duties, it was, if anything, too large. There was at present a tendency to waste time in discussion; and, if the Council could be made smaller, while preserving its representative character, he thought it would be an advantage. As far as the representation of the Scotch universities was concerned, he thought it was inadequate. It was absurd that an university like Durham, or even like Oxford or Cambridge, should have a member of its own, while the Scotch universities, which were much more interested in medical education, had only half a member each. The Glasgow University had more medical students than Oxford, Cambridge, and Durham put together. The mode of bracketing the Scotch universities was objectionable. If they were to be represented in solidarity, he thought the better plan would be to give them as many members as might be considered right, and let all the four Scotch universities concur in the appointment. They were unanimous in Scotland as to the evil of admitting to the *Register* persons who had only one qualification. He believed that for thirty years there had been no instance in Scotland of men being sent out without a complete examination in all the departments of medicine and surgery. He was quite in favour of legislation to the effect that no practitioner should be simply a qualified surgeon or a qualified physician. The corporations and universities in Scotland had no doubt their several interests, and in some instances they were more or less opposed; but in reality he did not think there was any opposition. If the corporations were well conducted, they strengthened the universities, and the universities strengthened the corporations. The College of Surgeons of Edinburgh had often appeared to be opposed to the University, and the University had often had a dispute with the College of Surgeons; but he had been cognisant of all these matters for thirty years, and his father was a medical reformer on the College of Surgeons for the whole of his professional life, and he could say that all the disputes had tended to good; and the pre-eminence of Edinburgh University was very greatly due to the influence of the College of Surgeons upon it, and *vice versâ*. In order to get his certificate of surgery, a student at the College of Surgeons had to be examined in medicine and midwifery as well as in surgery. For years before conjoint boards were ever talked of, the College of Surgeons never passed a man without examining him in midwifery. There was no civilised country in the world except England where it had been an habitual thing for a man to practise simply with the licence in surgery, without being examined in midwifery and materia medica.

By Lord GEORGE HAMILTON: The conjoint board scheme would tend to increase the sums which students would have to pay before they could qualify to practise. It would be utterly extravagant to expect a student to pay £30 for a qualification which he practically had in his degree. Every unnecessary expense arising from merely a legal loading of expenditure would tend to prevent men from entering the profession, and it would produce an increase in the number of quacks.

By Mr. MITCHELL HENRY: The diploma of the College of Surgeons of England could be now obtained without an examination in midwifery, and there were hundreds of men now practising who had never been examined in midwifery. He saw no harm in having seven licensing bodies in Scotland, provided the licences were properly inspected by the Medical Council. He did not think there was any competition downwards. He believed that the idea of competition downwards had been much exaggerated; and, in the main, the whole tendency of the last twenty or thirty years, in all the bodies, had been upwards. The system of permitting bodies which gave the education also to give the licence to practise was a most valuable part of the discipline of the students. A man should not absolutely depend upon his own teachers for his qualification to practise; there should be any number of examiners appointed to co-operate with the teachers. He was entirely opposed to the scheme of one licence to practise in Scotland by the association and fusion of the seven licensing bodies, and a similar body for England, and also for Ireland. He saw no objection to having nineteen bodies giving licences to practise medicine and surgery, if those bodies were subject to control and inspection.

By Mr. WHEELHOUSE: He believed that none of the corporations in England, Scotland, or Ireland required residence. The Faculty of Physicians and Surgeons of Glasgow, like all other corporations, granted a diploma without residence. Whether or not it granted its diplomas on inadequate terms was a question which he could not answer. The diplomas were granted after two or three examinations. The student had to send in a schedule of his education, and to prove that he had passed a preliminary examination in general education. That was a diploma of a surgical, not a medical licence; but it entitled the candidate to be put on the *Register*. If he understood the *Staats-Examen*, he would be inclined to support a similar scheme for this country, with this exception. Professor Turner had stated that the *Staats-Examen* consisted of two examinations, going over the same ground. That was objectionable. He would rather that the examiner should simply conduct one set of examinations, and grant one degree carrying the licence to practise. Of course, that would cut at the very root of all conjoint schemes.

By Dr. PLAYFAIR: The corporations in Scotland had voluntarily formed a conjoint board already, and therefore practically there were not several independent examining bodies. The Faculty at Glasgow united with the Edinburgh College of Physicians in a conjoint examination, and the College of Physicians of Edinburgh united with the College of Surgeons; but they each retained their power to give separate diplomas. If a student from the University of Glasgow went to the Edinburgh College of Surgeons, they would give him a surgical diploma apart from the College of Physicians. He certainly thought that it would be a desirable thing that a man should always have a double qualification before he was allowed to practise; and a Medical Act which declined to admit any man on the *Register* until he had a double qualification would, in his opinion, be unexceptionable. He had no objection whatever to the Medical Council nominating a number of extra-academical examiners greater than would be required, and the University Court selecting out of the list those who should be appointed.

By Dr. CAMERON: He was not acquainted with the proceedings of the College of Physicians of Edinburgh, and therefore could not say that the College granted 115 licences in medicine alone last year; but every one of their licences would represent an examination in every department, including surgery. Thirty-four licences were granted by the Faculty of Physicians and Surgeons of Glasgow last year. Those licences ranked as surgical qualifications; but those who obtained them had to undergo complete examination in medicine, surgery, and midwifery. In no instance was any relaxation made by the Faculty of Physicians and Surgeons of Glasgow, except in the case of persons who had submitted to examination at the hands of some other licensing body. In that respect, the Faculty was on the same footing as the English licensing bodies, except that the College of Surgeons of England did not admit any licentiate without subjecting him to the whole of its own examination. He considered it an advantage to a medical student to have his education in different places, and he would be very glad if an arrangement could be made for the universities to recognise each other's examinations up to a certain point. He thought facilities should be given for a student to pass from one university to another, but it would be hardly safe to extend that to all the corporations. The chief reasons why English medical students went to Scotland was, because they could get their degree of M.D. without being graduates in arts. The degrees of the London, Oxford, and Cambridge Universities were, as far as they went, first-class, but he thought the universities of England had entirely failed in their duties to the medical profession, by not looking after the schools. There was no teaching university in England, and the University of London ought, in his opinion, to be a teaching university as well as an examining body. He was quite willing that the Medical Council should send assessors or assistant examiners to the examinations at the University of Glasgow, but it was a difficult question to say how the expense should be defrayed. The Scotch universities had not the means of paying for these luxuries which some people wished to force upon them. If it were proposed to appoint assistant examiners nominated by the Medical Council, he had no objection to the proposal, but pecuniary help ought to be given to the Scotch universities. One of the greatest objections to the conjoint board was that it made the student pay heavily for his examination. The universities had already the power of giving the double qualifications, and he had not the least objection to its being made statutory, and they should not give the qualifications separately.

By SIR TREVOR LAWRENCE: He had often said that the number of licensing bodies was of great advantage in an extending science like medicine and surgery, provided the bodies were kept up to their proper standard. The conjoint scheme would entirely do away with that variety, while his proposal to bring the one portal to the universities would leave the vitality and independence of the bodies as much untouched as was possible consistently with efficiency. The assessors would not be a sort of check on the examination going too low, but they would be a most valuable support to the professorial examiner.

By MR. MILLS: The fees for graduation were the same in all the Scotch universities. He thought the English universities had taught well whatever they had taught; but there was no English university which exercised the same kind of discipline and control over the entire circle of medical teaching that the Scotch universities did. He had not been led by his own feelings to attach much importance to direct representation, but he had great respect for the feelings of others. His objection to direct representation was the excitement that it might cause among the profession; it would disturb them in their proper work.

By MR. LOWE: In the examinations at the Glasgow University, the professorial and the non-professorial examiners were on an equal footing. He saw no objection whatever to the non-professorial examiners being nominated by the Medical Council in the manner which he had indicated. He objected to conjoint boards, because it was not the minting of a student, but the making of a student, that was the great thing. The education and training were of more importance than placing the mark on the students at the end of their studies; but, of course, it was important that the public should be protected by some examination. He did not believe it was possible to have equality or uniformity. All that could be done was to secure, in the most practical way possible, that a certain amount of education had been obtained. His experience was that examination by teachers themselves always tended to elevate the examinations.

By DR. PLAYFAIR: He thought it quite possible to secure efficiency without aiming at equality.

The Committee then adjourned till Friday next.

ARMY MEDICAL SCHOOL, NETLEY.

THE Winter Term of 1879-80 came to an end on Monday, the 8th instant. The beginning of the Session was put off from October 1st to November 1st, in hopes that the Royal Warrant for the medical department of the army would be promulgated in time to enable those entering under its terms to begin work with the candidates for commissions in the Royal Navy and H.M. Indian Service. It was not, however, until January 1st that seventy-one surgeons on probation, as they are now termed, were sent to Netley with instructions to be passed through what is a four months' course in two. It is needless to say that this arrangement, unavoidable under the circumstances, put great pressure on teachers and taught alike; without the hearty working together of both parties it would have been impossible to carry out the wishes of the authorities. The task has, however, been accomplished as well as circumstances admitted, although it is easy to understand that work so hurriedly done can never be so satisfactory, as when time is given to digest and assimilate the knowledge conveyed even by the most experienced teachers. Lord Bury, Under Secretary for War, represented the War Office on the occasion, and was accompanied by Sir William Muir, K.C.B., Director-General of the Medical Department of the Army, Rear-Admiral Commerell, C.B., V.C., one of the Lords of the Admiralty, with the Medical Director-General of the Navy, the Inspector-General of Haslar Hospital, Surgeon-General Gordon, C.B., Principal Medical Officer of the Southern Division, the military and medical staff of the hospital, and the professors of the Army Medical School. Seventy-one surgeons on probation for the army, sixteen candidates for H.M. Indian Service, and eight for the Royal Navy were found fit for commissions in their respective services. By a new rule, the *raison d'être* of which it is not easy to understand, all the surgeons for the army passed out of the school in the order in which they entered, without any reference to marks gained for the work done at Netley. Thus it happens that, although Mr. Keogh had a larger number of marks than the gentleman who was first at the entrance examination, and won the Herbert prize, the highest distinction the school can have, he stands second on the list. Mr. Keogh was also the winner of the Martin Memorial Gold Medal for military medicine, and greatly distinguished himself in every branch of study at Netley. The highest place in the Indian service was taken by Mr. Dennys, a young medical officer of great promise, The Parkes Memorial medal, for military hygiene, was taken by Mr. Kirker of the Royal Navy, who took a high place and won honourable mention in every branch of study. Lord Bury delivered an address to the gentlemen about to leave the school. His lordship expressed, on the part of the War Office, the satisfaction experienced by the authorities at the success of the Royal Warrant, evidenced by the number of high-class young medical officers who have come into the service under it. He described the position of medical officers under the old regimental system as one of great social importance in the army. In his lordship's experience, the old regimental surgeon was the friend and adviser of all the other officers, the composer of all difficulties that might arise, and the man to whom in an especial manner young officers went for advice and help in times of difficulty. He evidently regretted that the new system had put the parties to this friendly intercourse on a different footing, but admitted that what is called "unification" was a necessity of the times, and the system best calculated to work well in war—which was the most important consideration of all. Lord Bury congratulated them on the happy termination of their labours, and thanked the professors for the manner in which, without regard to their personal convenience, they had laboured, working double tides to meet the requirements of the occasion. Following the example of his chief, Colonel Stanley, his lordship paid an eloquent tribute to the services of the late Deputy Surgeon-General Porter, and concluded by delivering the prizes with words of hearty congratulation to the recipients. Professor Maclean then, in the name of his colleagues, congratulated the gentlemen about to leave, bade them all a hearty farewell, and declared the business of the session at an end. The guests then adjourned to the medical staff mess to luncheon.

THE SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

THE first public sitting of this Committee was held on Thursday, March 4th, when the following members were present: the Right Hon. W. N. Massey (in the Chair), Colonel Alexander, Mr. Cavendish Bentinck, Mr. Hanbury, Sir Harcourt Johnstone, Mr. Kavanagh, Mr. Ernest Noel, Mr. O'Shaughnessy, General Shute, Mr. Stansfeld, and Mr. John Tremayne.

Dr. JOHN BIRKBECK NEVINS of Liverpool was examined. In reply to Mr. Stansfeld, Dr. Nevins said that he was Consulting Surgeon to the Liverpool Eye and Ear Infirmary, and Consulting Physician to the Stanley Hospital. He was opposed to the Contagious Diseases Acts. In 1874, he wrote a paper called "Statement of the Grounds upon which the Contagious Diseases Acts are opposed", which was laid before the Home Secretary. Second and third editions were subsequently published at the expense of the Medical National Association for the Repeal of the Contagious Diseases Acts, of which Dr. Nevins is President. Those statements were based upon an examination of the Reports of Commissions and Committees on the Contagious Diseases Acts, and the Army and Navy Reports of successive years. Dr. Nevins considered that the profession generally accepted the classification of venereal diseases into "secondary syphilis, which affects the constitution and is liable to be transmitted; primary syphilis, which is a local disease, but which affects the constitution eventually; pseudo-syphilis, which is a local affection, but does not affect the constitution generally; and gonorrhœa with its consequences". This term "pseudo-syphilis", used by Dr. Nevins, we do not remember to have seen in any standard work on venereal diseases; and, indeed, Dr. Nevins's interpretation of the term is by no means clear, for he included in it what he called "dirt-sores", whatever they may be. Balanitis and irritation from want of cleanliness are, so far as we can see, the only affections which could be called "dirt-sores"; and these are not included in the Army Reports, as a soldier is not sent to hospital when suffering from them. Dr. Nevins then said that, in Dr. Balfour's statement in the Army Report for 1873, the term "primary venereal sore" did not correspond with that of syphilis. He admitted that a decided reduction had been shown in those sores in subjected districts, but denied that this proved a reduction in constitutional syphilis. He considered that the true criterion of the amount of real primary syphilis was the amount of secondary syphilis which followed thereupon. Of the truth of this, in the abstract, no one can doubt; but it is clear to anyone who has studied the Army Reports, that the number of cases of secondary syphilis does not and cannot correspond with the number of cases of primary syphilis—for this reason: suppose a soldier to contract syphilis (a disease from which he suffers more or less for at least a year) at any given station. It often happens that, before a year has elapsed, the regiment to which he belongs is moved to another district, and that the soldier suffers there from some general syphilitic affection due to the disease contracted at the former place. He is then entered as a case of constitutional syphilis, having been already classed as a case of primary syphilis at the station where he contracted it. Again the regiment is moved; and, if the man show further symptoms, he is a second time entered as a case of constitutional syphilis; and, in a severe case, this may be repeated time after time, the same soldier counting as a separate case of constitutional disease each time he is admitted into hospital for manifestations of his original attack. In answer to another question by Mr. Stansfeld, the witness expressed his opinion that constitutional syphilis is the only serious form of venereal disease involving after-consequences. He seems, however, to have overlooked the fact that disastrous and even fatal consequences of gonorrhœa are matters of every-day observation. Stricture, causing fatal disease of the bladder and kidneys, is very frequent in hospitals; to say nothing of other consequences, such as fistulæ in the male and sterility in both sexes.

Dr. Nevins is also of opinion that there has been great exaggeration as to the extent and severity of venereal diseases throughout the community generally. But it is well known that, except in the army and navy, there is no possibility of correctly ascertaining the prevalence of these diseases. Dr. Nevins put in a table which, he stated, he had prepared as the result of an inquiry at hospitals in seventeen seaports of Great Britain not under the Contagious Diseases Acts. It will at once be seen that such a table is fallacious: first, because all syphilitic persons are not treated in hospitals, and also because the later and most fatal forms of visceral disease are by no means always recorded as due to syphilis. Many such cases, also, are not diagnosed during life. The reports of the Registrar-General show that there has been a general and steady increase in the registered mortality from venereal diseases. This may be partially due to greater accuracy in diagnosis; but it is well known to medical practitioners that the recorded death-rate from syphilis forms but a small proportion of the mortality due to that disease. There is, however, little ground for doubting that the proportional deficiency in the recorded number of deaths from syphilis is pretty constant in all sections of the community. When Dr. Nevins declares that the Acts have had no influence in reducing constitutional syphilis, he must have forgotten that this JOURNAL has already published the important fact that (excluding Woolwich, because the Registrar-General's reports do not afford the means for obtaining the facts for this station) in eleven protected stations, the average annual death-rate from syphilis in the general population, civil and military, declined from 140.7 per million in the five years 1861-5 to 108.4 in the five years 1870-4. On the other hand, if we exclude these eleven stations, we find that, in the same two periods, the death-rate from syphilis actually increased among the general population of the rest of England and Wales from 66.1 to 79.7 per million. Thus, while the recorded mortality from syphilis declined 20 per cent. (or one-fifth) in the protected districts, it increased 20 per cent. (or one-fifth) in the rest of England and Wales. Further, while the mortality from syphilis in Portsmouth and Plymouth (both protected) has rapidly declined since the Acts were passed, a considerable increase in mortality from this disease has occurred in six other of the principal ports of England and Wales. During 1875 and 1876, the annual death-rate per million of the general population averaged only 112 in Portsmouth and Plymouth, whereas it was equal to 189 per million among the aggregate population of Liverpool, Bristol, Hull, Southampton, Cardiff, and Swansea.

DR. FARR, F.R.S.

WE are requested to state that during the past week the following names have been added to the Committee being formed for raising a Testimonial Fund for presentation to Dr. William Farr, F.R.S.: Earl Granville, K.G.; Lord Houghton, F.R.S.; Lord Aberdare; The Right Hon. Sir Stafford Northcote, Bart., M.P.; The Right Hon. W. H. Smith, M.P.; Thomas Brassey, M.P., President of the Statistical Society; John Walter, M.P.; William Spottiswoode, President of the Royal Society; John Hainworth, F.R.C.S., Master of the Society of Apothecaries; Professor W. T. Gairdner, M.D.; Professor Frankland, F.R.S.; J. De Cappelain, Esq.; J. Napier Higgins, Q.C.; R. Druitt, M.D.; G. H. Philipson, M.A., M.D.; Cosmo G. Logie, M.D., Deputy Surgeon-General; W. A. Greenhill, M.D.; D. B. Balding, F.R.C.S., Coroner for Hertfordshire; J. T. Clover, F.R.C.S. A meeting of the Committee will shortly be called, of which its members will receive due notice, to appoint an Executive Committee. Communications on the subject may be addressed to Mr. Noel A. Humphreys of the Registrar-General's Office, who is temporarily acting as Honorary Secretary.

The resolution relative to Dr. Farr has been forwarded from the Executive Council of the South-Eastern Branch to Lord Beaconsfield, and has been officially acknowledged. "That the Executive Council of the South-Eastern Branch of the British Medical Association learn with deep regret the retirement of Dr. W. Farr from the Statistical Department of the Registrar-General, which Department he has rendered so signally useful by his eminent scientific acquirements and assiduous labours for upwards of forty years; and they trust that Her Majesty's Government may see fit to recognise such services by conferring upon him some distinguished mark of honour and approval."

UNIVERSITY COLLEGE HOSPITAL.

THE annual dinner in aid of the funds of University College Hospital took place at Willis's Rooms on Thursday, March 11th. His Royal Highness Prince Leopold was to take the chair on the occasion; but he was not present. Sir William Jenner announced, at the commencement of the dinner, that His Royal Highness had a slight attack of indisposition, which, however desirous he was of presiding on the occasion, rendered it advisable that he should not undergo the risk. He hoped, however, to be able to preside next year. In the consequent unavoidable absence of His Royal Highness, the chair was taken by Sir Julian Goldsmid, Bart., M.P. Donations to the amount of £1,549 were announced during the evening.

SPECIAL CORRESPONDENCE.

BRIGHTON.

Children's Hospital: New Buildings.—Annual Meeting of the Sussex County Hospital.—Lying-in Hospital.—Provident Dispensary.—Throat and Ear Dispensary.—Medico-Chirurgical Society.

THE corner-stone of a new building for the Children's Hospital at Brighton was laid on Friday, the 21st ult., by Sir W. W. Burrell, M.P., with full Masonic ceremony, and in the presence of a large and brilliant assembly, which augurs well for the success of the charity. It is of some interest that the mallet used was the historic one of oak handled by Charles II at St. Paul's—"architect, Bro. Sir C. Wren". The parchment deposited in the foundation records that the charity was opened in 1868 in a private house in Western Road with three beds and no funds; but met with such liberal support that, in 1871, a large house and grounds were bought for £5,000, and forty patients could be received. Special mention is made of the "able guidance of Dr. R. P. B. Taaffe"; and it is commonly acknowledged that he has been the moving spirit in all the organisation of the hospital—adding another instance to the many in which one of the profession has been the chief founder of a children's hospital; *e.g.*, Dr. C. West, Dr. Heslop, and Dr. Borchardt. The new building is to be very complete in its appliances and to accommodate seventy-five patients. The ceremony was followed by a public luncheon, presided over by Mr. Ashbury, one of the borough members, who mentioned, in the course of his speech, that he had recently visited a friend and fellow M.P. (with fractured leg) at St. Bartholomew's Hospital, and "found him surrounded by every possible comfort and luxury, and also by those whom he must call nurses, though they were really ladies, and by whom any bachelor might well feel proud of being attended". His friend told him how thankful he was that he had been brought to that hospital instead of being taken home. "Although", he said, "I am possessed of great wealth and every comfort and luxury in my home—if I had a wife—if I met with an accident again or became sick, the very first word I should utter would be: Take me to the hospital; don't take me home."

The annual meeting of governors of the Sussex County Hospital at

Brighton was held last week, not without some free discussion on questions of general interest to hospital authorities. The number of in-patients during last year was 1,445; the daily average 128; average stay 33½ days; out-patients 5,700; total receipts £8,000; expenditure £9,600. All these figures are less than the corresponding items last year, and the revenue from subscriptions has been falling for some years past; and to meet the deficiency the number of patients had recently been limited, and a special appeal issued. In response to that, about £600 in new subscriptions has been already received, and £2,000 in donations since this year began. It was pointed out that the expenditure was large compared to the number, and the appointment of a general superintendent was urged; also the payment of a contribution by those "who were in a position to pay a doctor's bill"; also "that the junior officers should be paid salaries". Dr. Taaffe, saying that neither the governors, the committee, nor the secretary, could inquire into the cases, and that much abuse went on, suggested the help of the Charity Organisation Society for inquiry. Mr. Blaker protested against the suggestion that junior or any officers should be paid a salary; he knew that not one of his colleagues would condescend to take one. One speaker was bold enough to say that the charities of the town were not abused: "the public talked about abuse, but it was not true" (when it is a matter of calculation that, in Brighton alone, one person out of every four is in receipt of charity in some form). Baron de Teissier moved that all bequests and two-thirds of all donations should be placed to an inalienable fund—the hospital is said to have already a permanent fund of £40,000—and his seconder asked "if it were not a species of dishonesty to spend legacies and donations as current income?" Dr. Withers Moore fairly argued the opposite view, pointing out that if earlier legacies had been saved, later ones would not have been left. Ultimately, no change was made.

The local lying-in institution reports also a deficiency in its receipts. About nine hundred cases are attended yearly—twenty-eight only in the hospital—and seven hundred out-patient; but the provision for the special treatment of diseases of women here is by no means equal to the accepted standard now in most large towns. Mr. Frederick Blaker has been elected honorary surgeon in place of Mr. Salzmann, resigned.

The Brighton Provident Dispensary is more flourishing, £500 having been divided—the highest amount attained. In the course of the meeting, Dr. Moore plainly said "he could not understand how rich people could drive about in their carriages and when their servants were laid by with sickness expect educated gentlemen to attend them for nothing. If they would make them members of such a dispensary, they would avoid the ignominy of pauperising their servants. It was a disgrace that one-third of the population of Brighton should be receiving gratuitous medical assistance."

The modest but very useful Throat and Ear Dispensary, established only two or three years ago, had a successful meeting, and reported a *clientèle* of over three hundred patients, with a revenue of £120 and a small balance. "Otitis media catarrhalis" describes nearly fifty, and "otitis purulenta chronica" thirty-four of the patients.

At the local Medico-Chirurgical Society, Dr. Broadbent lately read a valuable paper on the Diagnosis and Prognosis of Mitral Stenosis; it was heard with much interest.

HOSPITAL AND DISPENSARY MANAGEMENT.

SELF-SUPPORTING AND PROVIDENT HOSPITALS.

SIR,—I am well aware of the objections to the Honorary Fund in connection with those and similar institutions, as pointed out by Dr. Fairlie Clarke. In this case, as in many others, it becomes a choice of two evils. Dr. Clarke has shown those of the Honorary Fund to amount mainly to an absence of a complete provident principle, as apart from one which is half eleemosynary and half self-supporting but which ensures good management. The plan I suggested would be practically provident throughout, because the subscriptions of the honorary members would reach only a nominal sum. If you abolish the Honorary Governor and leave the management wholly in the hands of free members, a greater abuse will result. The "Medical Institutes" managed by working men are not pleasant places for professional men to labour in. Where working men are masters, the medical profession do not find the situation a bed of roses. So well is this known, that I believe such a system of management would discredit the self-supporting hospital with the profession at the outset of its career. I therefore much prefer the Honorary Fund, which is but a bonus fund after all, and which ensures pleasant and efficient management' Canon Clarke owns the Battersea Hospital, and so he will be at liberty to nominate a Committee of Governors, and can so avoid both evils in his case.—I am, etc., HENRY C. BURDETT.

Seamen's Hospital, Greenwich, January 1880.

THE SUNDERLAND AND NORTH DURHAM EYE INFIRMARY.

THIS is a small but a growing institution; and situated, as it is, in the midst of a mining and seafaring population, amongst whom injuries to the eye must be common, we may anticipate for it an useful career. Last year the number of new cases was five hundred and ninety-three; the number of operations performed, forty-six. The in-patient accommodation is inconveniently cramped, and it is no wonder the Committee are desirous of obtaining more suitable premises. "At the present time", says the report, "only having one room for beds, male and female patients cannot be admitted at the same time, and therefore one bed may be occupied and the other remain empty, although cases are waiting to be admitted." The total receipts for the year amounted to £84:14:6; and, after defraying all expenses, there remained in the treasurer's hands a balance of £9:7:6.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THE next meeting of this district will be held at the Myddleton Hall, Islington, on Thursday, March 18th, 1880, at 8.30 P.M. The following papers will be read.

Mr. Henty: On the Treatment of Tapeworm.
Dr. Dowse: On Neuralgia of the Heart.

THOMAS STRETCH DOWSE, M.D., *Honorary Secretary.*
2, Old Burlington Street, March 2nd, 1880.

WEST OF IRELAND BRANCH.

A MEETING of this Branch will be held at the Queen's College, Galway, on Thursday, March 18th, at 7.30 P.M.

The following papers will be read.

1. Dr. W. B. Deely: A case of Intestinal Obstruction: Successful Aspiration of Bowels.
2. J. J. Gorham, M.D.: On the Vaccination Amendment Act (1879).
3. William Rutherford, M.D.: Short Notes on Peculiar Symptoms connected with the Eruption of the Permanent Molars.

JOHN J. LYNHAM, M.D.,
Honorary Secretary and Treasurer.
Galway, March 3rd, 1880.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THIS district will hold a meeting in the London Hospital Medical College on Thursday, March 18th, at 9 P.M.; STEPHEN MACKENZIE, M.D., in the Chair.

Alexander Collie, M.D.: On the Treatment of Pneumonia.

A. GRANT, M.D., *Honorary Secretary.*

THAMES VALLEY BRANCH.

THE next meeting of this Branch will be held at the Griffin Hotel, Kingston, on Thursday, March 25th, at 6 P.M.

Dr. Langdon Down will read a paper on Some Causes of Idiocy.

The dinner will take place after the meeting, at 7 P.M.

FREDERICK J. WADD, *Honorary Secretary.*
Richmond, Surrey, March 4th, 1880.

WEST SOMERSET BRANCH.

THE spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, March 18th, at Five o'clock.

The following question has been settled by the Council as the one on which members should be invited to express their opinion at the said meeting after dinner:—"What are your views on the Resolutions with regard to Medical Education passed by the Metropolitan Counties Branch, as published in the JOURNAL of January 24th, 1880, p. 146?"

Members who have any communication for the meeting are requested to send early notice of its title to the Honorary Secretary.

Dinner 5s. a head, exclusive of wine.

W. M. KELLY, M.D., *Honorary Secretary.*
Taunton, February 20th, 1880.

GLOUCESTERSHIRE BRANCH.

THE meeting for this month will be held in the Board Room of the County Infirmary, Gloucester, on Tuesday, March 16th, at 7.30 P.M., under the presidency of T. S. ELLIS, Esq., of Gloucester.

Business.—1. H. E. Waddy, Esq.: Surgical Cases. 2. A. M. Sydney-Turner, Esq.: Open Wounds. 3. Dr. Batten: Arsenical Wall-Papers.

RAYNER W. BATTEN, *Honorary Secretary.*

Gloucester, March 1880.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING of the above district will be held at Dartford on Tuesday, March 23rd; JOHN M. BURTON, Esq., in the Chair.

Dr. Armstrong will introduce a discussion on Rheumatism.

A. HALLOWES, *Honorary Secretary.*

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.

A MEETING will be held at the Bush Hotel, Farnham, on Thursday, March 25th, at 4 P.M.; S. G. SLOMAN, Esq., in the Chair.

Business.—1. Dr. Brushfield: A paper on Medical Certificates of Lunacy.

2. Mr. T. M. Butler: Three Cases of Intussusception.

3. Dr. Pearse: A paper on the Disorders of the First Dentition, and their Treatment.

4. Mr. S. Sloman: A Case.

A. ARTHUR NAPPER, *Honorary Secretary.*

Broad Oak, Cranleigh, March 12th, 1880.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE next meeting of this district will be held at the Ship Hotel, Faversham, on Thursday, March 25th, at 3 o'clock: Dr. GANGE in the Chair.

Members intending to read papers are requested to communicate at once with the Secretary.

WM. KNIGHT TREVES, F.R.C.S., *Honorary Secretary.*

Margate, February 24th, 1880.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING will be held at Brighton in the afternoon of Wednesday, March 31st; JARDINE MURRAY, Esq., in the Chair.

Gentlemen willing to read papers, etc., are requested to forward particulars to me by the 21st instant.

THOS. TROLLOPE, M.D., *Honorary Secretary.*

St. Leonard's-on-Sea, March 10th, 1880.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THIS district met in the London Hospital Medical College, on February 19th; THOMAS BARLOW, M.D., in the Chair.

Papers.—The following papers were read.

Mr. FREDERICK TREVES read a paper on certain Unavoidable Errors in Surgical Diagnosis, founding his remarks on cases of hernia, on tumours and chronic abscess, on fractures, and on wounds.

Mr. J. O. ADAMS read a paper on Forcible Feeding, and exhibited the chair in which he usually placed the patient, as well as the various instruments he found useful for overcoming difficulties that might arise.

The CHAIRMAN exhibited several Syphilitic Crania of Children.

GLOUCESTERSHIRE BRANCH: ORDINARY MEETING.

A MEETING was held on Tuesday, February 17th, Dr. WILSON presiding, in the unavoidable absence of the President, Mr. ELLIS.

Dr. ASKWITH read a paper on the Treatment of an Encysted Tumour of the Scalp.

Mr. BENNETT brought forward a case of Amputation at the Hip-Joint, showing the value of Davy's lever.

Mr. CARDEW exhibited the lungs and heart of a patient under Mr. Bubb's care, who had died suddenly and unexpectedly from Embolism of each Pulmonary Artery; also the Lens, infiltrated with cancerous masses, from a patient of Dr. Cook; also a portion of a Knitting Needle which had penetrated the right frontal lobe of the brain in a boy of six years of age; but which had been removed without the occurrence of any subsequent symptoms.

Mr. SHAW exhibited some well prepared Microscopic Specimens, illustrating fatty infiltration of the muscular structure of the heart; lymphadenoma; and myoma of the uterus.

CORRESPONDENCE.

MEDICAL MEN IN PARLIAMENT.

SIR,—Will you allow me to add a line in addition to your notice regarding the reasons which have led me to decline the invitations which have been made to induce me to become a candidate for the representation of East Surrey in the Imperial Parliament? I should have no objection to become a candidate, but I have objection to the conditions which are necessarily attached to such candidature—viz., that I should spend five thousand pounds in the contest. Such is the vicious principle upon which parliamentary elections are conducted, that a heavy expenditure is absolutely necessary to fight a good fight in East Surrey. I should have no objection to do a fair share; but I am not prepared to make so heavy a sacrifice. If the medical profession could be true to themselves, it would be unnecessary. To be an Englishman first and then a medical man is my motto. The custom, I fear, is self first; political party second; and our own profession third. I believe that the interests of the public are identical with our own, and in making the interests of the profession a prime consideration I should be doing that which is best for the country at large. Many of my professional brethren do not take that view; they think they show a magnanimous feeling to the world, and that they are entirely above such petty matters as self-interest, whilst in reality it is that feeling which is guiding their action.

Nevertheless, if opportunity arise, I should not hesitate to fight a fair and honest fight on equitable conditions.—Believe me, faithfully yours,

Croydon, March 8th, 1880. ALFRED CARPENTER.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

SIR,—In the Registrar-General's report, published on Thursday, the 26th ult., it is stated that a death occurred in this hospital from puerperal fever. This is an error. There has been only one death, that of a single girl on the 14th ult., who was admitted in the hospital suffering from advanced Bright's disease, and in whom labour had to be induced at the eighth month as the only means of giving her a chance of life. She was delivered of a putrid child and placenta the next day.

The house surgeon in the death certificate entered amongst the possible causes of death, "puerperal peritonitis (septicæmia?)", which was evidently misconstrued by the Registrar-General to imply "puerperal fever".

There has not been a single case of puerperal fever since the reopening of the hospital in September last, out of over two hundred and fifty deliveries; although many of the cases have been very severe, requiring operative interference or the induction of labour, besides which three-fourths of the patients have been single women, primiparæ, with whom the mortality in childbed is always exceptionally high.

I beg leave to call attention to the Registrar-General's system of always alluding by name to any lying-in hospital in which death from septicæmia or erysipelas occurs, while failing to treat other special or general hospitals in a like manner, as misleading to the public, who naturally conclude that deaths from such causes are peculiar to lying-in hospitals. If, in the public interest, the Registrar-General find it necessary particularly to note these deaths, it is but just that all hospitals and public institutions should be put on an equal footing.—I have the honour to remain, yours faithfully, W. C. GRIGG, M.D.,

Physician to Queen Charlotte's Hospital.

6, Curzon Street, Mayfair, W., March 6th, 1880.

THE PREVENTION OF HYDROPHOBIA.

SIR,—Paulus Ægineta tells us (vol. ii, page 157, Sydenham Society's translation), "that if a person happens to be bitten or stung by any venomous animal, he ought immediately to get the part sucked. The person who sucks it should not be fasting, and he ought first to rinse his mouth with wine and retain oil in it; and then, if the part admits, it should be cupped with much heat, scarifying also the surrounding parts; for the poison is forced back out of the body along with the spirits and blood, which are drawn out. The part in which the wound is situated ought also to be burnt, and eschars formed on it.........".

Sir Thomas Watson has cautioned the public against suction, in the article on Hydrophobia which appeared in the *Nineteenth Century*, and doubtless his advice will be followed by a large number.

I prefer to follow the advice of Paulus Ægineta, and must unhesitatingly recommend suction as an excellent remedy, and as unattended by danger to the operator. As, however, many may be deterred by the views of Sir Thomas Watson from lending their mouth, I offer a substitute. It is evident that cauterisation is not an efficient remedy after the bite of a rabid animal; for may not an encysted condition of the virus be thereby produced? I think it would be better to incise the wound, then to draw some blood from it, and, after thus cleaning it, to apply the caustic fixed on. For this purpose, I submit to your notice a small glass instrument, made at my suggestion by Atkins and Co., surgical instrument-makers, Bishop's Hill, York. It is simple and inexpensive. The mechanism may be understood both by the profession and by the public.—Hoping that it may be deemed worthy of attention, I remain yours faithfully, T. M. Dolan.

Harton House, Halifax, January 20, 1880.

THE BASSET INQUIRY.

Sir,—In the article in the British Medical Journal of February 28th, under the above head, Mr. Bucknill is reported to have said that private asylums are ten thousand times worse places than gaols. In justice to private lunatic asylums, and especially in justice to the proprietors of Brislington House, where Mr. Basset resides, I beg you to publish the exact words used by counsel on the occasion, as they appear on the shorthand note. Mr. Bucknill said: "It is not for me to dilate upon the, I will not use the word terrors of any asylum, because I do not believe they exist in that excellent establishment close to this house, but it is impossible for me, or for anyone out of an asylum, to imagine the agony of mind that must be endured by any man in a lunatic asylum who believes himself to be of sane mind: ten thousand times worse than a gaol. Whatever kindness a man may receive—and the patients receive every kindness at Brislington—there is the oppressive feeling of liberty taken away and connection with lunatics ten times worse than yourself."

I should not have troubled you with this letter but for the fact that, as the matter stands unexplained, an interpretation has been put on a few words which they cannot bear on a perusal of the whole sentence of which they form but the termination.—I am, etc., Veritas.

OBITUARY.

WILLIAM PROCTER, M.D.,

SECRETARY OF THE YORKSHIRE BRANCH OF THE ASSOCIATION.

Dr. William Procter, whose death took place in February, at the age of sixty-two, was the son of a former rector of Sutton-in-the-Forest. He commenced his medical education by being apprenticed to the late Mr. James Allan of York, and afterwards studied at St. George's and the Westminster Hospitals. He became a member of the Royal College of Surgeons and a Licentiate of the Society of Apothecaries in 1842; and in 1861 obtained the degree of M.D. from the University of St. Andrew's.

Soon after obtaining his diploma in 1842, he commenced general practice in York, and retired from it in 1874, at the termination of a five years' partnership with Mr. Draper. Since that time, he has acted as a consultant. He held for many years the appointment of resident medical officer at the York County Hospital, and was for seven years medical officer of a district of the York Union. During the existence of the York School of Medicine, he was lecturer on Chemistry and Medical Jurisprudence in that institution. On the resignation of Dr. Matterson in 1876, he was appointed Honorary Physician to the York Dispensary; and he was also Public Analyst for York and Beverley.

In 1868, Dr. Procter was appointed Secretary of the Yorkshire Branch of the Association, and held the office up to the time of his death, performing its duties in a manner which secured for him the sincere esteem not only of his fellow-members of the Branch, but of his colleagues in the Committee of Council of the Association, at the meetings of which, so long as his health permitted, he was a frequent attendant.

Dr. Procter was fond of the study of chemistry. He was a member of the Chemical Society; and in 1872 he published a work entitled the *Hygiene of Air and Water*, and also one on the *Practical Chemistry of Non-Metallic Elements*. In addition to these, he contributed, in 1846-7, a course of lectures on Organic Chemistry to the *Pharmaceutical Times;* in 1868, a Report on Disinfectants to the *Proceedings* of the St. Andrew's Graduates' Association; and he was the author of articles on Public Health. He was also lecturer on Chemistry at St. Peter's School, York. He was for many years a member of the Yorkshire Philosophical Society, and was Vice-President several times. He frequently delivered to the Society lectures on scientific and antiquarian subjects, and he filled the office of Curator of Geology for a considerable period until about four years ago. The Yorkshire Fine Art and Industrial Exhibition found in him a very cordial supporter, and he acted as joint honorary secretary in 1866, and in recognition of his services was, in conjunction with four other gentlemen, presented with a testimonial. He took a prominent part in the promotion of the recent Exhibition, and was again appointed one of the honorary secretaries, in which position he gave valuable advice and active service until prevented by failing health. He frequently delivered lectures at the York Mechanics' Institute. He was a member of the Committee of the Blue Coat Boys' School, and a governor of the York Lunatic Asylum. He was honorary secretary to the York Subscription Library. Dr. Procter was a great lover of music, and was a talented musician, being proficient on various instruments, his favourite one being the flute. Many societies having for their object the improvement and the advancement of musical art found in him a cordial supporter; but he was more directly connected with the Yorkshire Musical Union, in which he took the deepest interest.

Dr. Procter's quiet, unobtrusive, and kindly disposition gained for him during his long residence in York the general respect of his fellow-citizens; and he possessed no less the esteem of all his professional brethren with whom his membership of the Association brought him into contact. He leaves a widow, but no children.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

The Merthyr-Tydfil guardians have increased the salary of the Medical Officer of the Merthyr-Tydfil No. 1 District from £75 to £100 *per annum*.

Vaccination.—Mr. W. Donovan, public vaccinator of No. 4 district of the Ashby-de-la-Zouch Union, has been awarded a government grant of £19 4s. for efficient vaccination.

The Local Government Board have recommended a loan of £6,000 to be advanced to the Mallow Union, for the purpose of supplying that town with water.

The Local Government Board have upon several occasions objected to the appointment of Mr. Edward Stephens as Medical Officer of Health for the Chard Rural Sanitary District, Somersetshire; the salary (£50 *per annum*) being, in their opinion, inadequate; but, at a special meeting of the authority a few days ago, to take the matter into consideration, he was unanimously reappointed at the same salary. It is expected, from what has previously transpired and from what was communicated by one of the inspectors at a recent meeting, that the Board will refuse to sanction the appointment on the terms mentioned.

PAYMENT OF MEDICAL OFFICERS OF HEALTH BY FEE.

The proposal of the Okehampton Rural Sanitary Authority to remunerate their medical officer of health by fees for being called in "when the authority sees fit" (see Journal, vol. ii, 1879, p. 1,008) is, we are glad to observe, receiving no countenance from the Local Government Board, though it is doubtful whether the central office can, in the present state of the law, do anything but protest. Meanwhile, events are occurring in the district which show the utter futility of any such arrangement. At the last meeting of the authority, a serious case of overcrowding and fever was reported from South Tawton. There were seven people sleeping in one room, having a cubic capacity of two thousand three hundred cubic feet, and one of them had been seized with typhoid fever. The question whether it would be proper to call in the medical officer of health whilst his appointment remained unsanctioned by the Local Government Board was much discussed, and eventually the matter was referred to the latter body for their opinion on the subject. Thus much precious time is being wasted, and more precious lives perhaps lost, which a reasonable system of sanitary administration in the district would have completely avoided.

SUPERANNUATION ALLOWANCE TO A MEDICAL OFFICER.

We are always glad to be able to chronicle events which indicate satisfactory progress in the recognition of our rights as a profession. The Poor-law medical officers may take courage and hope that justice to them may be the rule instead of the exception, if we have to chronicle many more events similar to that which has recently occurred at Croydon. The board of guardians of that union have granted a pension of £100 a year to their late medical officer, Mr. A. G. Roper. We heartily congratulate Mr. Roper upon his good fortune, and trust that he may live long to enjoy it. We gather from the particulars furnished to us by the *Croydon Advertiser*, that Mr. Roper has been medical officer to the Croydon Board of Guardians for thirty-one years, and during all that time not a single complaint has been made against him for neglect of duty. Mr. Roper has also advised the board upon many important points besides his ordinary duties, which he has zealously performed; and those extra services are acknowledged to have been of great value. The decision was not arrived at without opposition; but, owing to the advocacy of the President of the Council of the British Medical Association, who is an *ex officio* member of the Croydon Board of Guardians, the resolution granting the annuity was unanimously agreed to, and a precedent set which we hope other boards of guardians will not be slow to follow. The result shows to some extent the advantage which may accrue to us as a profession by the presence of individual members of it, who are true to the interests of their profession, being among our governing bodies generally. It is especially a matter of congratulation for our Poor-law medical officers.

THE NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—I note with great pleasure that you are again giving prominence to this important subject. No one can have read Mr. Ernest Hart's report on the recent progress of legislation with regard to the notification to the sanitary authorities of the occurrence of cases of infectious disease (BRITISH MEDICAL JOURNAL, November 22nd, 1879), without coming to the conclusion that the important towns which have already adopted means of insuring this notification are only the vanguard of all others which are surely marching in the same direction. The valuable paper by Dr. J. W. Moore of Dublin, in this week's JOURNAL, shows how deeply the want of some registration of at least infectious disease had sunk into the minds of thinking men. This subject, and Mr. Hart's proposed model clause, were discussed at a recent meeting of the Birmingham and Midland Association of Medical Officers of Health, and adjourned until the next meeting. What the exact recommendations will be which the meeting may adopt I know not; but I am satisfied that that society, and every other similar one in the kingdom, will, before long, agree to press this subject most vigorously upon the attention of Parliament. But I should not have troubled you with these now trite observations, had it not been for the difficulties which appear to your correspondent Mr. North in this week's JOURNAL, to stand in the way of any useful action being taken upon the notification of cases of infectious disease to the sanitary body by their executive officers; nor are these difficulties confined to Mr. North; they have been expressed to me by other medical officers of health, who, I think, should have been more fully acquainted with the subject. Mr. North asks, "What use medical officers are to make of the information (of the existence of infectious disease) when they get it?" And, again, he supposes the medical man attending such a case saying to the friends of the patient: "Your corporation have an Act by which I am obliged, under a penalty, to give you this certificate; and by the same Act you are obliged to see that it is delivered at the office of the local authority; but no officer has any right to enter your house without your permission, and certainly no authority to examine or interfere with your sick relative." "If this be true", continues Mr. North, "surely it is not wise to be urging local authorities to obtain powers they cannot use for any practical purpose." But is it true? All I can say is that, if it be so, I and my sanitary authority have long been acting in a most illegal manner, and, I doubt not, other sanitary authorities also. How does Mr. North construe this clause of the Sanitary Act? "With the consent of the superintending body of a hospital or place for the reception of the sick provided within the district" (*without* now), "a justice may, on the certificate of a qualified medical practitioner, order the removal thither, at the cost of the sanitary authority, of persons suffering from any dangerous, contagious, or infectious disorder, being without *proper lodging or accommodation*, or lodged in a room occupied by more than one family, or being on board any ship or vessel" (29 and 30 Vict., 90). It is evident that the gist of this section turns upon the construction given to the words which I have placed in italics. How often can it be said that a person ill of a contagious disease in any house whatever has "proper lodging or accommodation", when, in nine cases out of every ten in the houses of the poor, and in at least one case out of every ten in the houses of the wealthier classes, such proper lodging, etc., cannot be obtained? For what is a proper lodging for a case of infectious disease? Assuredly one in which the patient may obtain every reasonable appliance necessary for his recovery, and which affords all reasonable guarantee against the spread of his infection to other persons. If this be not the legal as well as the natural meaning of these words, what meaning have they? If no action can be taken when the lodging and accommodation are found to be *improper*, of what use was the insertion of such a clause in the Act? Mr. North continues: "No officer has the right to enter your house without your permission, and certainly no authority to examine or interfere with your sick relative." All I can answer is that I, as the medical officer of health, am in the habit of entering *every* house amongst the poor where the "lodging and accommodation" are almost sure to be improper, and most of the houses of the richer classes where the lodgings, etc., are proper, whenever information reaches me of the existence of "dangerous, contagious, or infectious disease" in that house. No objection has ever been made to this action of mine. It is looked for as a necessary part of my duties; and, in point of fact, I am frequently applied to to remove to the "infectious" hospital cases from the houses of tradesmen and others wherein proper lodging accommodation might easily be obtained.

Again, how is the inspector to disinfect any house where infectious disease has existed unless it be presumed, that he has the power to enter it for that purpose? Our Sanitary Committee would severely censure him unless he reported that every house so infected had been, either by the householder or (more generally) by himself, thoroughly cleansed and disinfected, and the bedding and clothing of the sick sent to the disinfecting chamber. If I am asked, as I have been asked, under what section of the Sanitary Act we do this, I reply, under that which give the authorities power to enter *any* premises where they have reason to believe an unabated nuisance exists. Is not a case of typhoid fever, or scarlatina, or small-pox, which has not proper lodging, etc., as defined above, a nuisance and injurious to health? I think so, and so I construe the Act. The question I would ask of Mr. North and others is, have you a hospital for infectious cases? If you have not, then, indeed, this notification of infectious disorders will not only be useless, but a farce. If you have, for what was it provided except to remove thither cases of infectious disease not having proper lodging accommodation? and how can they be removed thither unless some one has the power to do so? And this, in conclusion, suggests to my mind an addition to the excellent form which has been drawn up to serve as a guide in reporting cases in the event of an enabling act being passed. After No. 4, "Nature of the Disease", in your JOURNAL, I would suggest a No. 5, stating whether the patient has or has not proper lodging and accommodation (under the meaning of the Act), so as to give a reasonable protection to the other inmates of the same house from catching the disease. This would be a guide to the medical officer of health, and would, indeed, compel his immediate attention to such cases as have *not* proper lodging, etc.—I am, sir, faithfully yours,

WILLIAM STRANGE, M.D., Medical Officer of Health.

Worcester, February 2nd, 1880.

MEDICAL ETIQUETTE.

SIR,—I attended a patient for about a fortnight, and, as her husband was out of work, she applied for parish relief, which was granted. Next day, the parish medical officer told her that, as she had accepted parish relief, she would be compelled to have him to attend her. She told him that I was in attendance, and that, as she was now convalescing, she did not wish to change. He told her that there was no alternative, and that she must discharge me and submit to his treatment. He never communicated with me in any way, but took the case and kept it. Was this in accordance with medical etiquette? and does the fact of a person's accepting temporary parish relief compel that person to have the parish doctor *nolens volens*?—I remain, yours, etc., DELTA.

*** Delta's patient having applied for parochial relief, it was incumbent on the relieving officer to give an order to the district medical officer to visit, take charge, and report on the nature of the case. So far, we consider that the medical officer was strictly *en règle*; but, having been informed that the poor woman had been under the care of another medical man, it would have been but an act of courtesy if he had allowed the case to remain under his treatment, or had communicated with him thereon. This, however, he was not required to do if he did not care to give himself the trouble.

MEMBER.—Our correspondent does not inform us whether in the contract he has made with the guardians all extras are commuted in the salary; if not (and the advice of the clerk would appear to show they are not), then he may charge a fee ranging from 10s. 6d. to £1 1s., according to the scale of fees paid in the union of which he is a medical officer; but one thing must be remembered, that if objection be made and the decision referred to the Local Government Board, the minimum fee of 10s. 6d. only will be paid, unless it be made clear that the cases were accompanied with difficulty or danger. Neither of the cases quoted can fairly come under that category.

THE MEDICAL OFFICER OF HEALTH FOR EXMOUTH.

MR. T. M. WARD of Exmouth writes to us that he did not resign the appointment of medical officer of health to that town. He says that he was appointed for 1879 at a salary of £40 a-year, for which he was to give the usual annual report on the health of the town, and also four long quarterly reports, all of which had of course to be in duplicate, for the Local Government Board requires a copy of each. He had also to perform the usual routine duties of medical officer; and that these duties were well and properly done was acknowledged. At the expiration of the year, the appointment was again offered him at £20 a-year inclusive, *i.e.*, he was to pay the registrar for all death-returns, books, etc., which must be legally provided by the sanitary authority; on which point he had fought and won a hard battle when first appointed. Of course, he says, he would not accept the miserable terms offered.

POOR-LAW MEDICAL APPOINTMENTS.

DOYLE, G. W., M.B., appointed Medical Officer to the 5th District of the Norwich Union, *vice* W. Woodhouse, M.R.C.S.Eng., resigned.

GOSSETT, George, M.B., appointed Public Vaccinator for No. 3 District of the Abingdon Union, *vice* J. H. Daly, L.R.C.P., resigned.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Wednesday, March 10th.

Vaccination Bill.—This Bill stood first on the Orders of the Day for second reading. Dr. CAMERON said he did not in intend to proceed with this Bill, as neither the country nor the House of Commons was in a state of mind for its consideration. Moreover, the Local Government Board had, since the question was mooted, made experiments to ascertain if his suggestions could be at the present juncture adopted. He therefore asked that the order for the second reading might be discharged. The order was discharged accordingly.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received certificate to practise, on Thursday, March 4th, 1880.

Waterhouse, George Beardmore, London Hospital

The following gentlemen also on the same day passed their primary professional examination.

Fotherby, Henry Arthur, Guy's Hospital
Sykes, Matthew Carrington, St. Bartholomew's Hospital

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns,

The following vacancies are announced:—

*CARMARTHEN INFIRMARY—House-Surgeon. Salary, £125 per annum, with lodging, fire, and washing. Applications to the Secretary on or before March 31st.

GREAT YARMOUTH HOSPITAL—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary, on or before March 18th.

*HALSTEAD UNION—Medical Officer for the Fourth District. Salary, £46 per annum. Applications, with testimonials, on or before March 19th.

*HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications, with testimonials, on or before March 20th.

INVERNESS NORTHERN INFIRMARY—Consulting Physician and Surgeon.

LONDON LOCK HOSPITAL—Assistant House-Surgeon to the Female Department. Applications, with copies of testimonials, on or before March 17th.

MANCHESTER TOWNSHIP—Medical Officer of the Industrial Schools at Swinton.

*METROPOLITAN FREE HOSPITAL—Assistant Physician. Honorarium of twenty-five guineas per annum. Applications on or before March 27th.

NEWPORT (Monmouthshire) ODD FELLOWS' MEDICAL AID ASSOCIATION—Assistant Medical Officer. Applications to the Secretary, with testimonials, before March 20th.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL, STOKE-ON-TRENT—House-Physician. Salary, £100 per annum, increasing £10 a-year at the discretion of the Committee, with board, furnished apartments, and washing. Applications, with testimonials, to the Secretary not later than March 24th.

*QUEEN CHARLOTTE LYING-IN HOSPITAL, London—Resident Medical Officer. Salary, £60 per annum, with board and lodging in the hospital. Applications, with copies of testimonials, to the Secretary before April 5th.

QUEEN'S UNIVERSITY IN IRELAND—Examiner in Medicine at a salary of £100; in Surgery, at £100; in Midwifery and the Diseases of Women and Children, at £75; in Materia Medica, at £75; and in Medical Jurisprudence, at £75. Applications to be made to the Secretary, Queen's University, Dublin Castle, on or before the 16th instant.

ROMFORD UNION—Medical Officer for the First District. Salary, £45 per annum. Applications to be sent in by the 15th instant.

ST. BARTHOLOMEW'S HOSPITAL, Chatham—Assistant House-Surgeon. Salary, £80 per annum, with board, washing, etc. Applications on or before March 22nd.

*ST. LEONARD'S PARISH, Shoreditch—Resident Assistant Medical Officer for the Workhouse and Infirmary. Salary, £100 per annum, with board, furnished apartments, and washing. Applications not later than March 22nd.

*SALFORD UNION—Resident Assistant Medical Officer to the Workhouse. Salary, £180 per annum, with furnished apartments in the workhouse. Applications, with testimonials, on or before March 22nd.

*THE GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Physician for Out-patients. Applications, with testimonials, on or before March 31st.

*TOWNSHIP OF TOXTETH PARK, Liverpool—Assistant Resident Medical Officer to Workhouse and Infirmary. Salary, £100 per annum, with rations and separate apartments. Applications on or before the 24th instant.

*WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon. Applications, with testimonials, to the Secretary on or before March 22nd.

*UNIVERSITY COLLEGE HOSPITAL—Third Assistant Physician. Applications on or before March 29th.

*UNIVERSITY OF EDINBURGH—Additional Examiner to the Clinical Surgery Department. Applications, with testimonials, to the Secretary not later than April 5th.

YORK DISPENSARY—Physician.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Brady, George S., M.D., M.R.C.S.Eng., F.Z.S., re-elected Honorary Medical Officer to the Sunderland Hospital for Sick Children.

Murphy, James, M.D., appointed Honorary Medical Officer to the Sunderland Hospital for Sick Children, *vice* R. A. Smith, M.D.

*Walmsley, F. H., M.D., appointed second Assistant Medical Officer to the Leavesden Asylum for Imbeciles, *vice* W. H. George, L.R.C.P.Ed., resigned.

Welford, G. E., M.D., re-elected Honorary Medical Officer to the Sunderland Hospital for Sick Children.

Willes, William, M.R.C.S., L.R.C.P., L.M., appointed Resident Surgeon to the Royal Sea-Bathing Infirmary, Margate, *vice* R. V. Musgrave, M.R.C.S.Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

Adams.—On March 6th, at Rippingale, Lincolnshire, the wife of George Norris Adams, M.D., of a son.

Bateman.—On March 2nd, at Whitchurch, Oxon., the wife of Francis Bateman, M.B.Lond., of a daughter.

DEATHS.

Cohen, Daniel W., M.D., at Bideford, aged 67, on February 28th.

Cornish.—On March 7th, at Taunton, aged 67, Jane, the wife of Charles Henry Cornish, F.R.C.S., Mayor of Taunton.

Duke, Herbert, M.B., at 321, Clapham Road, aged 26, on March 1st.

Walker, Alfred, M.D., late of Hertford, at Palace Road, Upper Norwood, on March 3rd.

Waring, Thomas W., L.S.A., at Cavendish, Suffolk, aged 68, on February 28th.

Wilson, John, M.D., of Woodcliff, Inverness, suddenly, in Edinburgh, aged 60, on February 17th.

Watson, Albert J., L.K.Q.C.P., of Tuam, aged 35.

Loch Katrine Water.—The monthly report of the quality of Loch Katrine water, prepared by Professor Mills of Anderson's College, has been issued, and the results, stated in parts per 100,000, are as follows. Total solid impurity, 2.96; organic carbon, 0.147; organic nitrogen, 0.014; ammonia, 0.000; nitric nitrogen, 0.007; total combined nitrogen, 0.021; chlorine, 0.60; hardness, 1.11. The water was sampled on February 12th, and was very light-brown in colour, and contained little suspended matter.

University College Hospital.—Vice-Admiral Pothuan, the French Ambassador, recently visited this hospital. His Excellency was highly pleased with the arrangements, and intimated his intention to become a subscriber.

Bequest.—Miss Susanna Caroline Palmer, late of Holme Park, Sonning, Berkshire, has bequeathed £2,000 to the Royal Berkshire Hospital.

Donation.—The *employés* of Mr. Bernard Hughes, baker, of Belfast, have contributed the very handsome sum of £50 towards the funds of the Belfast Royal Hospital.

The Duke of Beaufort has accepted the presidency of the centre of St. John's Ambulance Association being formed at Monmouth. New centres have lately been opened at Sydenham, Blandford, and Bournemouth, and numerous classes are now undergoing instruction in different parts of London.

Bequest.—Mr. Robert Donne of Odcombe, Somersetshire, has left £100 each to the Taunton and Somerset Hospital, the Sherborne Hospital and Dispensary, the Yeovil Hospital and Dispensary, and the Crewkerne Hospital and Dispensary.

Mr. George T. B. Moffatt of Downderry, Cornwall, Medical Officer of the emigrant ship *Taranaki*, accidentally fell overboard on the 15th November, and was drowned. He was only twenty-eight years of age.

Public Health.—During last week, being the ninth week of this year, 3,762 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 23 deaths annually in every 1,000 persons living. The annual death-rate was 23 in Edinburgh, 23 in Glasgow, and 36 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Bradford 17, Bristol 19, Birmingham 19, Portsmouth 19, Sunderland 20, Brighton 20, Wolverhampton 20, Hull 20, Leeds 21, Norwich 21, Sheffield 21, Salford 22, Leicester 22, Newcastle-upon-Tyne 22, Oldham 22, Manchester 23, London 23, Liverpool 25, Nottingham 26, and again the highest rate 29 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.2 per 1,000 in the twenty towns, and ranged from 0.4 and 0.7 in Portsmouth and Wolverhampton to 4.9 and 9.7 in Hull and Plymouth. Measles showed the largest proportional fatality in Plymouth, Hull, and Nottingham; scarlet fever in Sheffield; and whooping-cough in Salford and Plymouth. In London, 1,607 deaths were registered, which were 150 below the average, and gave an annual death-rate of 22.9. The 1,607 deaths included 8 from small-pox, 17 from measles, 44 from scarlet fever, 5 from diphtheria, 155 from whooping-cough, 14 from different forms of fever, and 14 from diarrhœa—in all, 257 zymotic deaths, which were 19 above the average, and were equal to an annual rate of 3.7 per 1,000. The deaths referred to diseases of the respiratory organs, which had steadily declined from 1,557 to 459 in the four preceding weeks, further decreased to 390 last week, and were 81 below the average; 258 resulted from bronchitis, and 91 from pneumonia. Different forms of violence caused 43 deaths; 37 were the result of negligence or accident, including 21 from fractures and contusions, 3 from burns and scalds, 2 from drowning, and 8 of infants under one year of age from suffocation. Six cases of suicide were registered. At Greenwich, the mean temperature of the air was 48.5°, and 8.1° above the average. The air was dry. The general direction of the wind was south-westerly, and the horizontal movement of the air averaged 26.4 miles per hour, which was 12.5 above the average in the corresponding week of sixteen years. Rain fell on two days of the week, to the aggregate amount of 0.41 of an inch. The duration of registered bright sunshine in the week was equal to 19 per cent. of its possible duration. The recorded amount of ozone showed a general excess throughout the week.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 p.m.—St. Mark's, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Royal Orthopædic, 2 p.m.

TUESDAY......Guy's, 1.30 p.m.—Westminster, 2 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—West London, 3 p.m.—St. Mark's, 9 a.m.—Cancer Hospital, Brompton, 3 p.m.

WEDNESDAY..St. Bartholomew's, 1.30 p.m.—St. Mary's, 1.30 p.m.—Middlesex, 1 p.m.—University College, 2 p.m.—King's College, 1.30 p.m.—London, 2 p.m.— Royal London Ophthalmic, 11 a.m.—Great Northern, 2 p.m.—Samaritan Free Hospital for Women and Children, 2.30 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—St. Peter's, 2 p.m.—National Orthopædic, 10 a.m.

THURSDAY....St. George's, 1 p.m.—Central London Ophthalmic, 1 p.m.—Charing Cross, 2 p.m.—Royal London Ophthalmic, 11 p.m.—Hospital for Diseases of the Throat, 2 p.m.—Royal Westminster Ophthalmic, 1.30 p.m.—Hospital for Women, 2 p.m.—London, 2 p.m.

FRIDAY........Royal Westminster Ophthalmic, 1.30 p.m.—Royal London Ophthalmic, 11 a.m.—Central London Ophthalmic, 2 p.m.—Royal South London Ophthalmic, 2 p.m.—Guy's, 1.30 p.m.—St. Thomas's (Ophthalmic Department), 2 p.m.—East London Hospital for Children, 2 p.m.

SATURDAY....St. Bartholomew's, 1.30 p.m.—King's College, 1 p.m.—Royal London Ophthalmic, 11 a.m.—Royal Westminster Ophthalmic, 1.30 p.m.—St. Thomas's, 1.30 p.m.—Royal Free, 9 a.m. and 2 p.m.—London, 2 p.m.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 p.m. The President (Mr. Gant) will deliver an opening address. Dr. Ord, "A Case of Thoracic Aneurism treated by Electrolysis, and Observations on Thoracic Aneurism".

TUESDAY.—Pathological Society of London, 8.30 p.m. Dr. Saundby (Birmingham), Specimens illustrating the Histology of Granular Kidney. Dr. Greenfield, Specimens of Granular Kidney. Mr. Nunn, 1. Section of Secondary Tumour after the Removal of the Breast; 2. Epithelioma of the Penis; 3. Melanosis of the Fingers. Dr. Norman Moore, 1. Aneurism of Mitral Valve; 2. Aortic Aneurism opening into Right Auricle; 3. Ulcer of Stomach. Mr. Startin, Sections of Molluscum Contagiosum. Dr. Thin, Microscopic Sections of Elephantiasis, and Photographs of the same disease from Shanghai. Mr. Walsham, Horny Growth from Lower Eyelid. Mr. Godlee, Melanosis of Finger. Dr. Barlow, Congenital Syphilis of Larynx. Mr. Morrant Baker, Skin-Disease, probably Lichen Ruber (living specimen). Mr. Hulke, Drawings of Cancer. The President, Multiple Ivory Patch Morphœa in process of rapid recovery (living specimen).

WEDNESDAY.—Association of Surgeons practising Dental Surgery, Council 7.30 p.m. 8.30 p.m. Mr. Francis Fox, "On Irregularities of the Teeth, and their Surgical Treatment".

THURSDAY.—Harveian Society of London, 8.30 p.m. Dr. A. J. Pepper, "A Case (and prepared specimen) of Malignant Disease of the Hip"; Mr. Knowsley Thornton, "The various methods of dealing with the Pedicle in Ovariotomy".

FRIDAY.—Clinical Society of London, 8.30 p.m. Papers postponed from the last meeting (Friday, March 12th). Mr. Thomas Smith, 1. Spontaneous Gangrene of the Thumb and Fingers of the Right Hand"; 2. "Two Cases of Cystic Hygroma". Dr. de Havilland Hall, "A Case of Intrathoracic Sarcoma". Mr. Nettleship, "Two Cases of Sympathetic Ophthalmitis, setting in three weeks after Excision of the other Eye". Dr. F. Taylor will show a case of Unusual Transmission of Cardiac Bruit by the Lung.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

We cannot undertake to return Manuscripts not used.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

Colonial Appointment.

Sir,—Will you be so good as to inform me through the medium of your Journal with regard to the colonial government medical appointments? I refer to salary, etc., especially. I should like to know something of Demerara, the African settlements, etc. I am not including the Indian army.—Yours truly, Colonial.

De. R. P. Harris (Philadelphia).—Duly received; and marked for early publication

A Question of Diagnosis.

Sir,—In July last year, I was requested to visit a patient, aged about 60, suffering from lumbar pain, especially on the left side, extending downwards to the iliac region and causing pain in and retraction of the left testis. This pain supervened after my patient had got wet in fishing, when barely recovered from a fit of gout, and he said it was a different pain from what he had ever suffered from before. He graphically described the pain as leading down to and attacking the testis on that side. The pain was constant, with exacerbations at times, almost unbearable, aggravated by rising or walking. He passed clear urine (very acid) frequently. He had sickness and vomiting at times. His bowels were regular. The pulse and temperature were affected. The pain continued more or less for two days; and when he went up to town, it was much aggravated by the motion of a cab.

Might I ask what, under these circumstances, would be the diagnosis? The patient's father suffered from calculus, and had it crushed when he was over seventy-one. Three days after I first saw him, and had given my diagnosis, a patch of herpes appeared on the upper part of the left thigh. The patient had occasionally suffered from gout, and he told me on the fourth day that he was free from pain.

Your obedient servant, X. M.

India-Rubber Bandages.

Sir,—As I had used Martin's bandages pretty extensively and under various conditions, as far as age, temperament, etc., are concerned, I can hardly attribute, as Mr. Owen and Dr. Spender have done, the mischief that occurred in their practices solely to the use of the India-rubber bandage. Within the past twelve months, I have used the bandages for sprains, varicose ulcers, eczema, chronic ulcers of traumatic origin, all of the lower extremities; and I have never yet met with an instance where any injury was occasioned by them. In two instances—one a woman, aged 84, with a chronic ulcer; and the other a middle-aged man with slight displacements of the ankle-bones from old injuries and apparently enfeebled ligaments—there were complaints of blisters forming very soon after the first application of the bandages; these burst and made the legs tender, but on closing them to leave the bandages off for a couple of days, and sponging the legs either with cold water or some lotion, they were enabled to continue the bandage without any further discomfort. I think it is probable, in some cases where the sponging of the legs every night with cold or tepid water, as directed by Martin, is omitted, the secretions of the skin may act as an irritant, and set up mischief, and when one sees the collection of perspiration that is present on the removal of the bandage at night, and where thorough cleanliness is not practised, and perhaps the bandage, unknown to the medical attendant, worn for a longer time than specified by him, one can imagine changes taking place in a limb, the possessor of which, in five out of six instances, is in indifferent health. In that way, the bandage may be blamed for cellulitis or any other damage that may occur; but where the directions are carried out, as given on several occasions most explicitly in the columns of your Journal, I hardly think it possible any great harm can ever accrue from the use of Martin's bandages. I have never met with an instance of bad symptoms from the healing of a chronic ulcer, and some of my patients are over seventy years of age. It is likely, in the case given by Dr. Spender as occurring in his practice, that the subject, advanced in years and in broken health, underwent some rapid blood-deterioration, and that the state of her limb—a weak point in her case—and the pneumonic attack, were irrespective of the presence of the bandage.—Yours truly, L.R.C.S.I.

Sea-side Lodgings.

Sir,—In reply to "A Doctor's Wife", I can confidently recommend Withernsea, near Hull. It is a large village standing well out to sea, and has a good pier, sea-wall, and promenade. It is exceedingly healthy, and much resorted to in the summer season. There is plenty of accommodation at a cheap rate; and a good hotel, standing in its own grounds, and having a full view of the German Ocean. From the present time up to the end of May, the lady and her children can be boarded and lodged at a very reasonable rate—half the usual charges. I have made inquiries about this, and should be glad to give her all particulars. The village is of easy access from Leeds—only about a three hours' run.—Yours faithfully,

Owthorne, Withernsea, Hull, March 6th, 1880. W. A. Rudd.

Premature Grey Hair.

Sir,—A patient—female, fair, and considerably under forty—appeals piteously to me as to the condition of her hair, which is turning rapidly grey, its natural colour being a jet black. She is extremely unwilling to do anything which would injuriously affect her health, but would be glad to adopt any wash which would be harmless and cleanly, and which would keep her still young-looking to her children. I am profoundly ignorant in the matter. Can any of your correspondents help us in the matter by the recommendation of an innocuous dye?—I am, yours truly,

Thilocoma.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. **Francis Fowke**, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

A Repudiation.

Sir,—In your last issue I notice a reference to the performances of a "Dr. Noble, Clapham". As, according to the last edition of the *Medical Register*, I am the only practitioner of the name of "Noble" in the south of London, would you kindly allow me to state in your columns that I know nothing of the advertiser in question.—I am, sir, yours, etc., James Black Noble, M.R.C.S.Eng.,
Member of the British Medical Association.

33, Trinity Square, Borough, S.E., March 10th, 1880.

Spasmodic Action of the Sterno-mastoid Muscles.

Sir,—I should feel obliged if any of the readers of the Journal could suggest anything likely to give relief in the following case.

A gentleman aged 60, tall, and somewhat corpulent and full-blooded, has for some months been suffering from a painful spasmodic action of one of the sterno-mastoids, drawing the face slowly but forcibly round to the shoulder, and necessitating the use of the patient's hands to restore the head to its proper position. This spasm sometimes occurs every few minutes, but is less frequent when the attention is fixed on some other object, and never prevents sleep at night. The patient is temperate, has a fair appetite and good digestion, and in other respects is healthy, except that he has occasionally rheumatic and neuralgic pains in different parts of the trunk, and once or twice has had distinct threatenings of a classical attack of gout. The lower limbs are somewhat erythematous and ecchymotic, and the heart's action is rather weak, but there is no evidence of organic disease either of heart or kidneys. I may mention that for some time past there has been a great deal of worry connected with business.

The treatment has included alkalis, the iodide and bromide of potassium, colchicum, quinine, arsenic, valerianate of zinc, and cannabis Indica; while various external remedies have been tried, such as iodine, sinapisms, atropine ointment, compound camphor liniment, and belladonna and aconite liniments with chloroform. Due attention has been paid to diet, open-air exercise, and other hygienic measures, while the bowels have been carefully regulated; but the patient still remains unrelieved. It will not escape notice, that the case, in some of its points, bears an analogy to chorea.—I am, etc., John Cross, M.D.Camb.

7, Stanhope Terrace, N.W.

⁂ Dr. Cross would perhaps gain some valuable information from the perusal of an interesting case reported by Dr. Heaton of Leeds, in the British Medical Journal for February 15th, 1879, page 228.

Tempora Mutantur.—Mr. H. B. Blackburn writes to us that the original and correct words of this very common quotation are "Omnia mutantur, nos et mutamur in illis". They occur in a poem by Nicholas de Bourbon, tutor to the mother of Henry IV of France, on Education. The title of the work is *Pædologia, sive de Puerorum Moribus Formandis.*

Nurses and Doctors.

Sir,—The able letter from a "Former House-Surgeon of Guy's" in your issue of February 14th is, I feel sure, written by the late House-Surgeon of a large hospital in which I lived for some years; if not, the conditions are exactly similar in at least two large provincial hospitals nursed on the Nightingale system. Every young nurse had to depend for her promotion on the favour of the lady superintendent alone; no recommendation for attention and abilities from the House-Surgeon being either asked for or attended to if given. In consequence, some of the nurses were sufficiently encouraged to disobey orders when they felt they would be supported by their mistress against the house-surgeon. For instance, a nurse was ordered to pad a splint for an urgent case; she persistently refused because it was Sunday, and was so strenuously supported by the lady superintendent that the house-surgeon had to take the case before the general committee before he could get her discharged, and then only with great difficulty.

The nurses were required to keep note-books, in which they jotted down the events of the day, presumably only those connected with their duties, but it was thoroughly understood that the more their statements reported the general conduct of the medical staff and the other residents of the institution, the greater was the chance of their ultimate promotion. These books were periodically inspected by the lady superintendent.

So long as the house-surgeon was fairly pliant, so long were the lady's claws sheathed and her paws velvety; but directly he crossed her path and opposed her ideas about the "superior rights of women", the system of espionage was brought into active play and every slight indiscretion of which he might have been guilty, or not, would be raked up and used to damage his character with the individual members of the committee, until a sufficient effect was produced to enable her to bring a charge before the general committee with good hopes of success.

I have known a member of a visiting committee to sit down in the lady superintendent's room and receive the verbal and written evidence of any nurse she called in; to attend the next general committee, and have the different members of the staff called in and reprimanded without their being given a chance to confront their accusers. The best and hardest working house-surgeon I ever knew was nearly deprived of his promotion to the senior house-surgeoncy by the machinations of the lady superintendent, whom he had offended. Fortunately, his opponent—a M.B.Lond. and M.R.C.P.Lond.—had not the L.S.A., which an ancient law of the hospital required, and the medical board were enabled to stop his competition on this technicality. That by-law has since been repealed as an absurdity, but it once did good service. Both the candidates, I may say, occupy at present prominent positions as honorary physician and surgeon respectively to the principal hospitals in the town in which they practise.—Believe me, yours, etc., L.R.C.P.L.

P.S.—The ideas of the lady to whom I refer in my letter were so advanced that she even agitated for the whole of the dressing to be placed in the hands of her nurses, to the exclusion of the students of a large medical school attached. She used, also, to assume the control of the ventilation throughout the hospital. I have seen a window fully opened just over the head of a patient with acute bronchitis, seen it closed by the house-surgeon, and re-opened by order directly he left the ward. I fully endorse the proposal that the lady superintendent should be directly under the control of a subcommittee containing a proper proportion of the honorary medical staff.

Mr. Edward Berry (Southport).—The information required will be found in the Educational number of the British Medical Journal, published on September 13th, 1879. A copy may be obtained for sixpence, on application at the office.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. Fowke, not later than *Thursday*, Twelve o'clock.

The Habitual Drunkards' Act.

Sir,—This Act was defunct long before its third reading. No one having yet insisted on a committal being made out to one of Her Majesty's prisons, in the absence of other provision for meeting cases occurring *in formâ pauperis*, proves this must be so. Otherwise, if a magistrate's court refused to commit to one of Her Majesty's gaols, that fact alone would be sufficient to condemn the Act as a practical measure, because unless there were an order that could be brought up to be quashed under *certiorari*, it is clear there could be no *mandamus* to compel the issue of an order for which Parliament never considered there was any necessity.—I am, etc., E. M. G.

February 28th, 1880.

An Ethical Question.

Sir,—Under the heading of "An Ethical Question", you publish, in your number for February 28th, a letter from Mr. Meadows of Yarmouth, asking "Is it unprofessional conduct to publish a circular, with testimonials, seeking for the Honorary Surgeoncy of a hospital when no vacancy has been declared, and when none of the existing medical officers have expressed any intention of resigning". Mr. Meadows omitted to mention that the senior surgeon to the institution—a gentleman over seventy years of age—although he had not in words expressed his intention of resigning, had entirely ceased to attend at the hospital for some years; and that, before the circular complained of was issued, a private canvass had been begun for another candidate.—I am, sir, yours truly,

Great Yarmouth, March 2nd, 1880. The Candidate referred to.

L.R.C.P.Ed., etc.—There are hardly sufficient data in the enclosed account upon which to form a very definite opinion. The amount is not, however, excessive.

Peculiar Ephemeral Swellings.

I have a patient, a lady aged about 60, who for some years has suffered from a peculiar complaint regarding which I would be obliged to any of my brethren for more light. Without any premonitory symptom, a swelling will appear on the skin, or in it, of from one to two or three inches in diameter (superficially). The swelling is not at all tense, and is not attended with much pain, though the skin sometimes becomes slightly discoloured. The face and arms are most liable to be affected, but no part of the body seems to be exempt. After remaining for a day or so, the swelling (or swellings, for there may be more than one at the same time) begins to abate, and soon disappears. Though my patient is not robust, her health, but for these swellings, is pretty good. A. B. C.

Registered and Unregistered.

The two following advertisements appeared in a recent number of the *Newcastle Daily Chronicle.*

"*Medical Consultations Free.*—Dr. Gibb, M.R.C.S., and L.S.A., London, late House Surgeon of the Royal Maternity Hospital, Edinburgh, sees Patients Daily from 10 A.M. to 9 P.M., at his new Consulting Rooms, 69, Blackett Street."

"*Bonesetting.*—Edward Graves, the Bonesetter, 18, Quayside, Newcastle, has removed his Residence from 8, Jackson Street, Gateshead, to the above address. E. G. will receive Patients at the above address. In every case where a cure is possible a cure will be made."

A Card and a Handbill.

A Member of the Association sends us a card of which the following is a copy, and says that it is distributed indiscriminately in the neighbourhood.

"Dr. G. A. Batchelor, surgeon and accoucheur, 15, Cassland Crescent. Surgery: Terrace Road, Well Street, South Hackney. For the convenience of the labouring classes and those of limited means, Dr. Batchelor sees patients in his surgery before 10 A.M. and after 6 P.M. Consultation and Medicine, 1s. Patients visited at their homes, 2s., with medicine. (Messages to be sent before 10 A.M.) Midwifery cases from 15s."

Another correspondent sends a handbill which is too long for quotation, but which begins in the following way.

"The People's Dispensaries are now in full working operation at the following places: Branch Surgery, 62, Lamb Lane, Queen's Road (close to Miles Platting station); Central Surgery, 389, Rochdale Road. Hours of attendance distinctly painted up outside each place. Advice and Medicine, sixpence each bottle, cash. These dispensaries have been opened by Richard Carter Goddard, Surgeon...... Consulting Surgeon to and Medical Superintendent of the Manchester and Salford Independent *(not provident)* Dispensaries", etc. Much more follows in the worst style of professional advertising, which we forbear to quote. Such documents as this card and handbill can only be characterised as utterly unworthy of members of the medical profession.

A Circular.

The following is being circulated over South Kensington. "14, Redcliffe Gardens, S.W. Dr. Thomas Burrough Partridge, B.A., M.B.Cantab. (who obtained Classical Honours and a First Class in the Degree Examination at Cambridge in 1856), Senior Physician to the Chelsea Dispensary, Physician to the Surrey Dispensary, late Senior Assistant Physician to the Metropolitan Free Hospital, and Physician to the West Derby Union Cholera Dispensary, may be consulted privately at his residence, 14, Redcliffe Gardens, South Kensington, Fulham Road, S.W., on Monday, Tuesday, and Thursday mornings from 9 till 12, and every evening, except Saturday, from 7 P.M. At the Chelsea Dispensary, Sloane Square, on Tuesday afternoons from 3.30 to 4.30, and on Friday mornings from 11.30 to 12.30. At the Surrey Dispensary, Great Dover Street, Borough, on Wednesday and Saturday mornings from 11.30 to 12.30. *Indigestion, Rheumatism, Bronchitis, and Diseases of the Liver specially treated.* Dr. Partridge has ventured to adopt this method of making known the particular time at which he may be consulted, as he has known very many instances in which patients residing in the country have applied to him for advice in his absence, and been obliged to suffer much vexatious delay."

Tucking-in of Children's Bed-Clothes.

Sir,—Mr. E. Owen's remarks on the Surgery of the Joints, particularly of childhood, where the recuperative powers are, as a rule, largely in the ascendant, deserve especial attention. I feel convinced that very many operations are undertaken in childhood without sufficient perseverance in allowing the elasticity of youth to throw off the disease. During my recent connection with a children's charity in this town, several cases came under my care where children had been removed from elsewhere on declining operative interference. In nearly all of these cases, a little judicious treatment and time sufficed to restore their joints without operation. Mr. Owen's remarks as to placing a child in its cot are very good; he, however, seems to be satisfied with tucking-in of the bed-clothes, and having a flannel night-dress secured beneath the feet. I have found that the tucking-in of the bed-clothes is not sufficient, as they are frequently thrown off by the tossing about of the arms and twisting of the body. I have resorted for some time to the plan of tying the corners of the sheet and blankets to the sides of the cot on a line with the centre of the pillow, and close down to the top surface of the mattress. This allows sufficient elevation and depression of the top edge of the bed-clothes so as not to be irksome or give a feeling of restraint to the child. I frequently found that the feeling of restraint to a child, even when asleep, caused it to turn half on its face, and force the clothes by getting on his elbows and knees. In tying, the child can get its arm out or in with comparative freedom, but it cannot throw down the bed-clothes from its body. I also direct the sides to be tucked in up to this point.—I am, etc.,

JOHN MARTIN, L.K.Q.C.P.I., L.R.C.S.I.,
Senior Medical Officer to the Dispensary, Belfast.

Clarence Place, Belfast, February 27th, 1880.

The Glasgow Discussion on the Relation of Croup and Diphtheria.

SIR,—I have been very much interested in the perusal of your condensed report of the discussion on the relation of croup and diphtheria in the Glasgow and West of Scotland Branch of the Association. The results of that discussion are so far satisfactory that they evince a growing disposition to examine the question, instead of dogmatically asserting the essential difference between the two affections.

Dr. Russell, who commenced the discussion, admitted that he had not had any clinical experience on the subject, and that he had drawn his materials only from the statistical returns of the Glasgow sanitary authorities. Now it is almost unnecessary, in the present day, to remark that statistical returns are absolutely worthless as bearing on the relations existing between the so-called "croup" and diphtheria, because these returns merely represent the opinions of the respective medical men who happen to report the cases; and as "croup" is a convenient term to represent infantile laryngitis, laryngismus stridulus, and many other affections of the larynx and trachea in children, it is of course very generally employed; while the term diphtheria, comprehending, of course, the epidemic outbreaks now unfortunately so well known, is also in very common use, but surely no diagnostic value can be attached to such reports.

The clinical arguments appear to have been very ably handled by many of the speakers. Dr. Gairdner's speech deserves especial attention. With the candour of a real student, he admits that his opinion as to the distinct nature of (membranous) croup and (laryngo-tracheal) diphtheria begins to be shaken, and that he has now the "greatest difficulty in making up his mind what to believe, and especially what to teach to his students". I have not the smallest doubt that when so distinguished a physician as Dr. Gairdner has examined the whole question a little more carefully, his difficulties will disappear. If I understand Dr. Gairdner's difficulties aright, they arise partly from the fact that he and his father before him regarded diphtheria and croup as two different and distinct diseases, and partly from the fact that Dr. Home and Dr. Cheyne, in their well known monographs, described "croup", but did not describe diphtheria. As for the first difficulty, it hardly deserves any examination, for so intelligent and candid an investigator as Dr. Gairdner would no more, on such merely personal grounds, deny a new view as to the relations between croup and diphtheria than he would deny the essential difference between typhus and typhoid fever, though he no doubt in his earlier years regarded them as identical. As to the arguments drawn from the essays of Home and Cheyne, a very slight investigation of their books will prove its invalidity, for those authors have clearly described in their monographs, under one name, two different diseases, namely, fatal diphtheria when there is a false membrane (accurately figured and coloured in Cheyne's work), and curable infantile laryngitis in which there is no false membrane.

One great difficulty undoubtedly complicates the question, namely, the persistence with which most medical practitioners still confound common infantile laryngitis with membranous croup; and although the circular distributed by the Committee of the Royal Medical and Chirurgical Society (of which I was a member) distinctly asked for information only as to "membranous" croup, nine-tenths of those who answered evidently regarded croup as synonomous with that ordinary form of laryngitis; and, in that view of the case, were of course justified in regarding it as wholly distinct from laryngo-tracheal diphtheria.

If, then, Dr. Gairdner or any other equally candid inquirer will rigorously exclude infantile laryngitis and laryngismus stridulus from the category, he will find that the difficulties as to the identity of (membranous) croup and (laryngo-tracheal) diphtheria will vanish. The nature of the membrane is identical in both, whether as to chemical or microscopical character; but the symptoms and results of diphtheria will of course vary according to the part affected, the diphtheria of the fauces being generally manageable, while the diphtheria of the larynx and windpipe is too often fatal. As to the silence of our forefathers as to the existence and prevalence of diphtheria, the very same remark may be made as to Bright's disease, leucocythæmia, Addison's disease, locomotor ataxy, and a host of others, although there is no reasonable ground for supposing that these diseases were absent in former times. But, moreover, there is no question but that diphtheria is very capricious in its outbreaks, sometimes visiting a locality with great virulence, and in other localities occurring only seldom, or in a mild form, or not at all. As to the epidemic and contagious character of diphtheria, very great varieties and anomalies are observed, the disease being often sporadic and non-contagious, although in both cases its essential characters are the same. But many other epidemic diseases often occur in the sporadic form.—I remain, sir, yours, etc.,

R. H. SEMPLE, M.D., F.R.C.P.Lond.

8, Torrington Square, London, February 1880.

The Mortality referable to Alcohol.

SIR,—Dr. Ridge is in error in stating that the Council of the Medical Temperance Association suppressed some returns on the mortality from alcohol, which they had asked from their members, because of the statistics being vitiated by one extravagant return. As a matter of fact, the statistics were never suppressed, and are to be found in the *Medical Temperance Journal* for July 1877 and July 1878. The simple truth is, that the returns died a natural death. They were quarterly; and the few men who started sending them in lessened rapidly in number till persistence in the effort became an absurdity. As the society numbered only about forty members all told (though it now has about two hundred more), the attempt could not but be a failure. It is as necessary to have a revising committee competent for their work as to have accurate returns.

Dr. Ridge makes the statement that the published returns of the Harveian Society, if extended over the country, would show 113,000 deaths annually occurring from poisoning by alcohol. I am conscious that when, from a strong desire always to understate the truth, I estimated the deaths from personal alcoholic excess at 40,500, I was far under the real number; but I demur altogether to the hypothesis that the actual fatality is three times as great. Dr. Ridge is in error here, too, the Harveian returns indicating a total over the whole kingdom of less than 50,000 deaths.

M. A. is mistaken in quoting a speaker at the Harveian debate as contending that a fatal accident to a child from a drunken driver's carelessness was within the limit of the society's inquiry. This is undoubtedly a death from some one's excess, but certainly not from the victim's. The society's returns are limited to deaths from personal intemperance. The committee is composed of thoroughly reliable men, who have had experience of all kinds of practice, and only one of their number is an abstainer. The extended returns they now ask for will be of considerable use as a guide to future investigation, but I have always contended that past counterfoils are of little value. What I advocated before the Harveian Society, and have endeavoured to impress on other scientific inquirers, is that returns should be collected from at least five hundred practitioners in different parts of the country and in all varieties of practice, the recording to begin simultaneously on a certain future date and to extend over twelve months. The reporters, having been supplied with a form ready to be filled in with all the required particulars immediately after each death, would thus know exactly what to report. I should have liked to see any inquiry of this kind embrace the mortality from poverty, starvation, accident, violence, and disease, arising from the indulgence of persons other than the slain, a mortality which is probably at least double that from personal indulgence; but, as it is, we ought all to welcome the cautious and well matured plan adopted by the Harveian Society as a preliminary investigation of great interest and importance.—Your obedient servant,

NORMAN KERR, M.D.

42, Grove Road, Regent's Park, N.W., February 21st, 1880.

ERRATA.—In the JOURNAL for February 28th, page 343, lines 25 and 26 from bottom, for "corrective treatment", read "curative treament". At page 325, column 1, line 32 from bottom, for "the interval between", read "the interval before".

Statistics of Stammering in France.

M. CHERVIN, who has founded several institutions for the cure of stammering in European cities, and especially Paris, has published lately some statistics of this infirmity, and the conditions of its increase. A map of France indicating the degrees of prevalence of stammering shows two pretty distinct regions separated by a line from Bordeaux to Geneva. South of this line, stammering is much more frequent than north of it. Paris has only six stammering recruits in 10,000, whereas the Bouches-du-Rhone has more than 153. The ordinary frequency, however, is about five in 1000; at least at the recruiting age (for it seems to vary much with age). The peri-Mediterranean departments, then, are extraordinarily subject to stammering. M. Chervin also finds it frequent in Piedmont, which is under much the same climate and has a pretty similar population. He attributes this greater frequency in part to the extreme animation of speech of the Southerners, accompanied by gesture, demonstrations, and expressive mimicry, which some push even to grimace. The words (like a crowd issuing from a theatre) come out in a jerking irregular way, and impatience adds to the embarrassment. M. Bertillon has suggested *(La Nature)* that the various nervous maladies common in the south as a result of hot winds may affect some children with disorders which produce stammering. The most common cause of stammering generally M. Chervin considers to be some sudden fright in childhood. A fire, a boat-accident, or the like, will make a child a stammerer suddenly. The evil may, however, come gradually, and sometimes from involuntary imitation of stammering in another. Men are much more subject to stammering than women. All authors agree in this, reckoning only ten to twenty females in one hundred stammerers. Country parts contain twice or thrice as many stammerers as towns (according to recruiting data). With this may, perhaps, be connected the other fact brought to light by M. Chervin, and which is easily explained, viz., that countries containing most schools have fewest stammerers. By learning to know their tongue, to distinguish, read, and write, the different words, children must come to apprehend and articulate these more distinctly and avoid stammering. In savage countries where grammar is an art wholly unknown, travellers have often been struck with the number of stammerers. M. Petitot mentions a tribe in North America—the Litchaureæ—of which all the members stammered more or less. To this frequency may probably be attributed the frequent repetition of the syllables in words of savages (as may be seen from any geographical map of Africa or America). M. Chervin shows that in France about one thousand youths are exempted annually from military service because of stammering; and he considers that the cure of the infirmity should receive more attention in normal schools.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Augustus Brown, London; Dr. P. M. Rice, Galway; Dr. Edward Malins, Birmingham; Dr. A. Samelson, Manchester; Dr. A. Ransome, Manchester; Mr. T. H. Bagshaw, Salford; Mr. F. Hird, London; Dr. McVail, Kilmarnock; Mr. Craven, Thurso; Dr. J. Broom, Clifton; Mr. Jas. Spence, Edinburgh; Mr. H. H. Clutton, London; Mr. Marriott, Sevenoaks; Dr. Carpenter, Croydon; Mr. H. F. Baker, London; Dr. H. H. Kane, New York; Mr. J. Startin, London; A Disgusted Club-Doctor; L.R.C.S.I.; Mr. McDowall, Morpeth; Mr. Henry May, Birmingham; Mr. A. Sangster, London; Dr. G. Gray, Castlewellan; Mr. H. W. Ellis, Doncaster; Mr. C. H. Wade, London; Mr. E. A. Schäfer, London; Mr. G. Budd, Edinburgh; Dr. R. Saundby, Birmingham; Dr. A. T. Corrie, Portsmouth; Dr. H. E. Snow, London; Dr. A. Robertson, Glasgow; Dr. J. Edmunds, London; Dr. Russell, London; Dr. Crichton Browne, London; Mr. W. Donovan, Whitwick; Messrs. F. Newbery and Sons, London; Mr. W. Sykes, Meyborough; Dr. T. M. Lownds, Egham; Dr. Hugh George, Horncastle; Dr. R. P. Harris, Philadelphia; Dr. C. Creighton, Cambridge; Dr. Graham, Keyworth; Dr. W. Rutherford, Edinburgh; Dr. J. Cross, London; Mr. Henry M. Master, Bungay; Dr. Bodington, Kingswinford; Mr. A. A. Napper, Cranleigh; Mr. J. Hamilton Craigie, London; Mr. Sydney Henson, Manchester; Mr. C. S. Kilner, Bury St. Edmund's; Mr. James B. Noble, London; Messrs. Siebe and Gorman, London; Dr. A. H. Carter, Birmingham; Our Glasgow Correspondent; Dr. R. W. Batten, Gloucester; Dr. Orchard, Manchester; Our Dublin Correspondent; Mr. A. P. Nix, Truro; Mr. G. C. Rowland, Richmond; Dr. Turner, London; Mr. Watson Cheyne, London; Mr. G. F. Hodgson, Brighton; Dr. S. W. Smith, Pershore; Dr. W. W. Campbell, Dunse; Dr. C. G. Campbell, Tamworth; Mr. John Tomes, London; Our Edinburgh Correspondent; Mr. Louis Greg, London; Mr. W. J. Beatty, Seaham; Mr. C. Norman, Monaghan; Dr. Colcott Fox, London; Dr. W. F. Clarke, Southborough; Mr. Robert Bowen, Rudgeway; Dr. J. Murphy, Sunderland; Dr. Warlomont, Brussels; Mr. A. Hallowes, Maidstone; Dr. C. Parsons, Dover; Mr. J. B. James, London; Dr. Oliver, Staindrop; Dr. W. Stevenson, London; Mr. John Griffiths, Lampeter; L.R.C.P.L.; Mr. F. H Walmsley, London; Dr. G. N. Adams, Rippingale; Mr. Greenway, Plymouth Mr. W. A. Rudd, Owthorne; Dr. Wolfe, Glasgow; etc.

THE GULSTONIAN LECTURES ON EPILEPSY.

Delivered before the Royal College of Physicians of London.

By W. R. GOWERS, M.D., F.R.C.P.,
Senior Assistant-Physician to University College Hospital; Physician to the National Hospital for the Paralysed and Epileptic.

LECTURE II.*

I HAVE placed together, in the next group, the bilateral sensations in the limbs and certain general sensations which seem to the patient to be universal. Of the attacks beginning simultaneously in the limbs of both sides, the commencement was in the arms in 11 cases. In 4, it was by a sensation only—numbness, tingling, or pain; in 7, by twitching or cramp, with or without tingling. In most cases, the commencement was in the hands as a whole, as might be anticipated from the wide distribution of the discharge. In 12 cases, the attacks commenced simultaneously in both legs. In half of these, the aura began in the feet, as a tingling, trembling, or creeping sensation. Two of the cases of this group were distinctly due to chronic alcoholism. Auræ referred to the trunk, and not distinctly visceral, are very rare; and the sensation is almost exclusively felt in the back—pain, or a sense of trembling in the spine. The frequency with which there are hystero-epileptic convulsions in these cases differs very strikingly according to the seat of the aura. All the cases with a spinal aura were epileptic, and so were almost all those in which the attacks began in both arms, only 1 of 14 having been hystero-epileptic. But of 11 cases in which the aura was referred to the feet, in only 4 could I be certain that the attacks were epileptic; in 3, they were certainly hystero-epileptic, and in 4, their exact character was doubtful.

The other auræ, grouped together as general—tremor, startings, jerkings, malaise, faintness—were described in 51 cases—one-tenth of the whole. General tremor or shivering, present in 13 cases, was associated in 3 with pain in the head. General starts or jerkings, the aura in 10 cases were never associated with pain in the head. In several of the cases, the fits occurred during sleep; the patient was awakened by the starts or jerks, and then passed into the fit. General sensations were described as preceding the attacks in 15 cases; a feeling of general illness or malaise, of general powerlessness, of general heat (in 3 cases), of general cold (in 1 case). A sense of faintness, which the patient could not localise, was the aura in 13 cases, and was associated with sweating in 1 case and with giddiness in 3. Almost all the cases commencing with tremor or starting were purely epileptic; whereas among those which commenced by faintness, one-third, and of those commencing by other general sensations, one-half, were hystero-epileptic.

The next group of auræ are those which I have associated as referable to the region of the pneumogastric nerve, including the respiratory part of the spinal accessory. It is not suggested that they have any special relation to this nerve as such. Some of them begin or pass beyond it, but the pneumogastric is the nerve to the organs in which visceral auræ are most frequent, and the majority of these auræ are confined to its functions. These warnings were described in 106 cases.

The commonest form is the so-called "epigastric aura", a sensation referred to the pit of the stomach, present in one-half (51 cases). In a third of these, it was actual pain; in half, it was a vague, indescribable sensation; in the remainder, it was described as a feeling of "burning", of "coldness", of "trembling", of "something there", or of "winding up". In most cases, it was referred to the epigastric region generally; in a few, it was a little to the left; in none to the right. In 2, it commenced lower in the abdomen; in several, it was referred to both the epigastrium and the lower part of the sternum. Whenever the sensation was actual pain, it remained at the epigastrium until consciousness was lost. In many of the cases in which the sensation was vague, it was described as "rising up through the chest" to the throat or head. The passage to the head was usually followed by immediate loss of consciousness; that to the throat by a sensation of choking. The latter reminds us of the well known sensation in hysteria, and in many cases of genuine epilepsy the sensation appears to be exactly the same as the globus hystericus. Not only so, but I have seen a case of tumour of the pons in which the epileptiform convulsions commenced with the same sensation, described as a "ball rising up from the stomach to the throat, and stopping the breath".

In 18 cases in which there was no sensation at the epigastrium, the warning was the choking feeling only. In 2 of these, there was also coughing. In 7 cases, the attacks commenced by some other sensation in the throat. One patient would suddenly exclaim that her throat was sore, grasp it with her hands, and fall in the fit. In 6 cases, there was a sensation of dyspnœa or suffocation, referred to the chest and not to the throat. In 5 cases, there was some other sensation in the chest, vague in 2, "burning" in 3.

These auræ felt in or ascending to the chest and throat, appear to be the expression of a disturbance in the sensori-motor processes connected with the respiratory function of the pneumogastric. I need hardly remind you that spasmodic actions form part of the normal action of the respiratory centre as they do of no other, and must be reproduced in higher and associated centres. The epigastric pain which remains limited to the epigastrium appears to be related exclusively to the gastric division of the vagus. Accordingly we find that in 14 cases there was described, as part of the aura, another sensation referable to the same function—nausea, evidently such after most careful questioning, and accompanied in several cases by actual retching. In 1 case, sudden, intense hunger was described. Other symptoms, often associated with gastric disturbance, accompanied the pneumogastric aura in some cases, as pain in the head and giddiness, the latter especially when there was actual nausea.

Another organ within the innervation of the vagus is the heart, and cardiac sensations constituted the aura in 16 cases, pain in 2, a vague sensation in 3, and palpitation in 11. Hystero-epileptic attacks occurred in a larger proportion of the cases in this than in any other group—one-fourth. They constituted one-fifth of those with an epigastric aura, or with chest dyspnœa, one-half of those with a throat aura, and one-third of those with a cardiac aura.

The next group comprehends the cases, 90 in number, in which the attacks commenced with a sensation of giddiness, vague or definitely vertiginous, or with the fact of rotation. As a rule, when a sensation merely, the direction could not be ascertained; but of 5 cases, the sensation was of turning to the right in 2, and to the left in 3. Of 15 cases with actual rotation, the movement was to the right in 5, and to the left in 10. In nearly all, the convulsion was bilateral. In bilateral fits, the discharge is never quite equal on the two sides, as proved by the common deviation of the head, and the rotation and vertigo seem to be the expression of this inequality. Almost all the cases were epileptic, one-sixth only being hystero-epileptic. In most, consciousness was very easily lost.

Sensations referred to the head preceded the fits in 50 cases. In 21, the sensation was actual pain, mostly general or undefined; in a few, frontal; in very few, vertical or unilateral. It was rarely associated with any other aura. In 29 cases, the sensation was other than pain, usually vague; in a few, definite—described as "blood rushing to the head", "coldness", "burning", or a dim sense of heaviness or pressure. In some cases, it was associated with distinct vertigo, and in others, the cephalic sensation itself was closely allied to vertigo. In one patient, for instance, the sensation was always described as "two circles within the head moving rapidly in opposite directions, and seeming to get alternately nearer and farther off", until consciousness was lost. In one or two cases, a cephalic sensation was associated with an auditory aura, in none with a visual sensation. In one-fourth of the cases with this aura, the convulsions were the hystero-epileptic, and the proportion was nearly the same whether it was a mere sensation or actual pain. Sudden somnolence preceded the fit in five cases, all purely epileptic. Sudden inability to speak constituted the warning in 9 cases, of which 2 were hystero-epileptic.

The aura was psychical in 25 cases, an emotion in 10, an idea in 15. The emotional auræ in all took the form of fear—vague alarm or intense terror. Associations with other auræ were rare, the only combinations being with a sensation in the legs, and with pain or other feelings in the head. In no case was it combined with an epigastric sensation. In every case the fits were purely epileptic, although in some they were slight. This is remarkable, since, as we shall see, manifestations of terror are common in hystero-epileptic attacks. The occurrence of this aura bore no relation to fright as a cause of the attacks. Its comparative rarity may excite surprise. No case was reckoned in which the sensation was not mentioned spontaneously by the patient. In most, perhaps in all, cases with a deliberate onset, a natural feeling of alarm is produced by the warning, and if the patient be asked if he have a feeling of fear, he always replies in the affirmative, but this can evidently not be reckoned as a true emotional aura. Of the 15 cases in which the attacks were preceded by a mental state, in 12 they were purely epileptic, in 3, hystero-epileptic symptoms occurred. In most cases, no other description of the aura could be given than that "an idea seems to come into the mind". In one case, that just mentioned as commencing by a sensation in the great toe, followed by a desire to micturate and a feeling of turning over and over, this was succeeded by the idea of being in heaven, seeing persons, and hearing a question asked. The subsequent fit was certainly epileptic. Several patients described a feeling analogous to that which Dr. Hughlings Jackson has designated "voluminous", apparently similar to that said to be experienced during the act of drowning, a sudden recollection of many past events. Another occasional aura was a sense of strangeness; familiar objects suddenly seemed unfamiliar, and then the attack came on. In one case, whatever was taking place before the patient would suddenly seem to be wrong—*i.e.*, morally wrong—and then he lost consciousness.

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* Concluded from page 395 of last number.

The last group of auræ are those referred to the special senses and their organs, which were present in 119 cases. Two-thirds of these (84) were referred to the organ or sense of sight, one-fifth (26) were auditory, 9 olfactory or nasal, and 1 gustatory.

Sensations of smell preceded the fit in 7 cases, all purely epileptic. In most cases, the sensation was of an unpleasant smell. One patient described it as a smell like matter; another, such as is caused by burning dead bodies; another, as like rotten eggs; another compared it to Tonquin beans. The only associations noted were with a visual aura (2 cases) and with a feeling of suffocation (2 cases). A true gustatory aura is among the rarest forms of warning, and was met with in only 1 case. It was described as a taste between sour and bitter, and was referred to the back of the tongue.

The warnings referred to the organs of vision may be divided into five classes; a sensation in the eyeball itself; diplopia; an apparent increase or diminution in the size of objects; loss of sight; distinct visual sensations. A sensation in the eyeball was present in 7 cases, 5 purely epileptic. The eye to which it was referred was in 1 case on the same side as the first motor symptom of the fit; in 1, on the opposite side. It is probable that the centre for common sensation in the eyeball is connected with that for vision. This is suggested by the phenomena of photophobia due to the fifth nerve. In one patient, fits commencing with a pain in the eye were followed by red vision; and in a case of cerebral tumour, presently to be mentioned, a visual sensation and pain in one eye were associated as the aura of the fits. Double vision preceded the attacks in 5 cases. Two were cases of hystero-epilepsy, and the diplopia may have been due to the convergent strabismus common in hysteroid states. In 2 of the cases, however, the attacks were epileptic. In 1, the diplopia was associated with aching in one eye and an apparent magnification of objects. The apparent increase or diminution in the size of objects is a rare and curious aura. It is apparently connected with increase or diminution in the sensitiveness of the visual centre, which produces the same effect on the consciousness as the stimulation of a larger or smaller area of the retina by a larger or smaller image. Loss of sight preceded loss of consciousness in 26 cases—18 purely epileptic, 4 co-ordinated. It was commonly complete and simultaneous in the two eyes. In 1 case, it was said that the sight of the right eye went before the left, followed by rotation of the head to the left. The loss was preceded by a visual sensation in 2 cases, by an auditory sensation in 1, and in 1 case loss of hearing followed the loss of sight. The only frequent associations were with vertigo in 4 cases, and with rotation of the head in 2.

The aura was a distinct visual sensation in no fewer than 46 cases (35 epileptic, 3 with hystero-epileptic symptoms, 8 doubtful). The sensation in 9 cases was that of light, not colour—sparks, a ball of light, a flash, or a glare. In 17, colours were seen; and 15 patients were able to give some account of the colours. In 7, only one colour was seen, and this was always either red or blue—the former described five times, the latter twice. No other colour was ever seen alone. Combinations described were—red and blue twice; red, blue, and purple, once; red, blue, and green, once; red and green once; blue, green, and yellow, twice; red, blue, and yellow, once. Thus not only were red and blue the only colours seen alone, but they were both present in half the cases in which other colours were seen, and in no case were both absent. Taking the cases together, the order of frequency of the several colours is—red (eleven times), blue (eight times), green (three times), yellow (three times), and purple (once). It is evident that this order does not correspond to the physical relations of colour, as shown, for instance, by their grouping in the spectrum; nor does it correspond in any way to the areas of retinal perception. Red, seen most frequently, has one of the smallest retinal fields; but green, seen much less frequently, has a still smaller field; while the field for yellow, seen as rarely as green, is one of the largest, and is nearly the same as the field for blue, which is one of the colours mentioned most frequently. But the order does correspond, not exactly, but in a very suggestive manner, to the degree of visibility of colours. Cohn (BRIT. MED. JOUR., Oct. 4th, 1879) found that the order in which spots of colour, one *millimètre* in diameter, can be seen in direct sunlight at different distances is—beginning with that which can be recognised at the greatest distance—red, next blue and green (equal), next yellow, and last violet. This is evidently not far from the order of development in epilepsy.

In 14 cases, the aura was a highly specialised visual sensation, a visual idea. In 2 cases, this succeeded a simple visual sensation. One patient, in attacks of *petit mal*, first saw a number of red and white dazzling stars, and then an old woman and other objects which she could not remember. This is, of course, rather an attack than an aura. But another patient first saw always bright lights—red, green, yellow; and then, the lights continuing, she saw a girl, and tried to get to her to ask what the lights meant, and then fell in the fit. In the first of these cases, the less specialised preceded the more specialised sensation: a sequence to which Dr. Jackson has drawn attention, as suggesting that the more special sensation is the result of the loss of control from the discharge causing the less special sensation. But in the second the more and the less specialised sensations occurred together; and, in other cases, an equally special sensation, a visual idea, constituted the sole warning of the fit, and must be ascribed to the discharge itself. Two patients had visions of an old woman, and in 3 ugly faces were seen, and in 2 "various people"; in 1, "animals". Two patients described an aura consisting of visions of objects and places familiar long ago: a visual sensation analogous to the psychical aura I have mentioned. In one patient, the fits were preceded by a vison of "beautiful places, large rooms", etc.

Associations of the visual aura are comparatively rare. In 3 cases the conjoined aura was in the limbs, and, as already mentioned, in all these the aura in the limb commenced by a sensation. One of these was the case in which a flash was seen as soon as a pain, which commenced in the arm, reached the middle of the thigh. When the visual sensation was unilateral, the side in several was the same as that on which the limbs were involved. Thus, in 1 case, some fits commenced with the appearance of a blue star before the left eye, which grew larger and larger until consciousness was lost, and other fits began in the left arm, and others in the left leg. In another patient, a bright light referred to the right eye was associated with loss of speech. In these cases the sensation may have been rather referable to one side of both fields of vision than to one eye. Epigastric sensations were associated in 3 cases, and in 3 an auditory sensation. The sensations in one patient were very complex and numerous, and, as I shall have to refer to it again, it may be well to relate the case in some detail. The patient was an intelligent man, twenty-six years of age, and all his attacks began in the same manner. First there was a sensation in the left hypochondriac region "like pain with a cramp"; then, this sensation continuing, a kind of lump seemed to pass up the left side of the chest, with a "thump, thump", and when it reached the upper part of the chest it became a "knocking", which was heard as well as felt. The sensation rose up to the left ear, and then was like the "hissing of a railway engine", and this seemed to "work over his head". Then he suddenly and invariably saw before him an old woman in a brown-stuff dress, who offered him something which had the smell of Tonquin beans. The old woman then disappeared, and two great lights came before him—round lights, side by side, which got nearer and nearer with a jerking motion. When the lights appeared the hissing noise ceased, and he felt a choking sensation in the throat, and lost consciousness in the fit, which, from the description, was undoubtedly epileptic. He had also attacks of *petit mal*, which consisted of a vision of a dull red ball to the right in the lower part of the field. Thus here we have first a pneumogastric (visceral) sensation, which becomes intermitting and sound-like as it ascends towards the ear, until it is finally an intermitting hissing, perhaps the least specialised of all the auditory sensations. This is accompanied by a visual sensation of very high specialisation—a visual idea associated with an olfactory sensation. This gives place to a much less specialised sensation—the two lights, and, as the visual centre becomes invaded by this discharge, that in the auditory centre ceases. Finally, the aura terminates with the completion of the pneumogastric sensation—a sense of choking. I shall have to refer to this case again in my next lecture, and will now merely point out that the more specialised visual sensation preceded the less special, and therefore cannot have been due to "loss of control" by preceding discharge; it was evidently due to the discharge itself. The phenomenon of *two* lights before the eyes is one of great rarity among the auræ of epilepsy. Lastly, the association of intermission of the sound with a jerking movement of the lights is worth remark. The only necropsy which I believe has been published of a case in which the visual warning existed is one which I recorded about a year ago. The fits were preceded by a flash of light or pain in the eye, and micropsy, and were due to a tumour in the occipital lobe, which had extended forwards as far as the visual centre in the angular convolution.

To pass to other forms of auditory warnings, noted in 26 cases. In 6 there was an auditory loss, a sudden sense of stillness analogous to the sudden loss of sight already mentioned. In 1 case, the two were associated; for a moment all was silent, then all was dark, then consciousness was lost. In a case in which the sensation began in the tongue and passed to the arm and leg, sight was lost after the arm was involved, and hearing after the sensation was felt in the leg. In 1 case some attacks were preceded by an auditory sensation, "singing in the ears"; others by an auditory loss. Auditory sensations preceded the fits in 21 cases. In 4 it was a sensation of an explosion or crash; in other cases the sensations described were "the sound of a drum" (twice), a "whiz" (twice), a "hissing" (twice), a "ringing" (twice), a "rustling" a "rushing sound", and a "sound of thunder". All these may be regarded as the lowest forms of auditory sensation. In 3 cases the sensation was more special—an auditory idea. One patient always heard the words "c-o-n with a con" repeated several times, and then came the fit. In 2 cases music was heard. The most frequent associations of the auditory aura were with a visual aura (in 7 cases), and an olfactory aura (in 2 cases). In two cases it was associated with a sensation beginning in the left hand, and other combinations noted were with auræ beginning in both legs, in both arms, with vertigo, an epigastric sensation, and nausea. In the 3 latter, we may trace the normal association of the auditory centre. In several cases in which a visual and auditory aura were combined, the two corresponded in character—*i. e.*, in their degree of specialisation. For instance, one patient described a red light and a rushing sensation like water. The patient who heard the words "c-o-n with a con" saw a girl standing by her who was saying them, and a patient who saw "beautiful places, large rooms, etc.", heard at the same time "beautiful music". The association of the visual and auditory warnings is well explained by the contiguity of their centres as determined by Ferrier. The angular gyrus, in which is the visual centre, is continuous with the superior temporo-sphenoidal convolution, in which is the auditory centre. I am aware of no published *post mortem* examination of a case in which an auditory aura preceded the fits; but in a case of cerebral tumour of Dr. Hughlings Jackson's (which I had the opportunity of watching with him for some years, and which he kindly permits me to mention), a sound of bells ringing, referred to the left ear, preceded left-sided fits in an early period of the disease. After death, we found a tumour outside the opposite optic thalamus. It was extensive, but had evidently commenced between the thalamus and the upper temporo-sphenoidal convolution.

Dr. Hughlings Jackson has suggested that the senses are not equally represented on the two sides of the brain, and that the more special the sense the more unequal is its bilateral representation, the more does it preponderate on the right side. The facts of this series of cases give only a partial support to this view. We have seen that attacks commencing by a sensation in the arm began twice as frequently in the left arm as in the right. Nevertheless, all the cases commencing by a sensation in the tongue were right-sided. In none of the cases with an olfactory aura was there any indication of the side which led in the fit. In most of the cases with an auditory aura, the sensation was referred to both ears. In 6 cases, however, it was referred to one ear, twice to the right (left side of the brain), and four times to the left (right side of brain). But in 10 cases in which visual sensations commenced the fit, in which there were indications of the leading side, there was no difference between the two; in 5, the fits began on the right, and in 5 on the left side; and we must regard the visual as perhaps the most special of all the senses. Among the other symptoms of the attacks of epilepsy in this series of cases, time permits me to mention only one or two points. The first of these is that pallor of face, although frequent in the early stage of epileptic fits, is also entirely absent in a considerable number of cases. I have watched many attacks, both slight and severe, in which there has been absolutely no change in the appearance of the face until cyanosis came on from interference with respiration.

A typical fit consists of first tonic and then clonic spasm. It has been customary to separate the periods marked by these two forms of spasm, and assign them to different causes. But close observation will show that there is no abrupt transition from one to the other. The clonic spasm is developed by interruptions in the tonic spasm, and these interruptions may be detected by the hand before they are visible to the eye. The clonic spasm is, indeed, only a condition of tetanus in the physiological sense of the word. Slight intermissions probably exist, but are too frequent to be recognised. As they become less frequent, they increase in degree, until they become complete. The muscular contractions are thus separated; as the fit ceases, they do not become slighter, but less frequent, and the last jerk is often as intense as any which preceded it. In partial epileptiform seizures, the spasm is usually clonic throughout; and I have seen, in rare instances, tolerably severe attacks in which all the spasm was clonic. The significance of these facts will be considered in the next lecture. There is one class of epileptic attacks in which there is only tonic spasm—general rigidity. They constitute, however, a special group, and are on the side of epilepsy towards hystero-epilepsy.

In the spasm of an epileptic fit, flexion predominates slightly over extension, and more in the distal than in the proximal parts of limbs, at least in the arms. The hands are said to be usually tightly clenched. Sometimes this is the case; but a much more common position is with the wrist strongly flexed, and the fingers in the interosseal position, that is, with the metacarpo-phalangeal joints flexed and the others extended, the thumb being within the fingers, and all close together. It is an exaggeration of the posture seen in tetany.

The cases which present co-ordinated spasm as part of the attack, and which may be somewhat loosely grouped together under the name of hystero-epilepsy, are of much interest on account of their practical importance, and on account of the attention which has lately been directed to them. These forms of attack present many variations, and, as seen in this country, differ somewhat in their character from that which they present abroad. Attacks of these forms have long been described as hysterical. But their severity, their epileptoid aspect, have led to their being designated by such terms as hystero-epilepsy, hysterical epilepsy, and Dr. W. Roberts has lately proposed to call them hysteroid. They have unquestionably close relations with epilepsy. They own for the most part the same causes, near and remote; are, as we shall see, pathologically connected with epilepsy; and, as stated in the first lecture, many of them have almost certainly been included in all published statistics of epilepsy. They have also relations with insanity as well as with hysteria in its simpler forms.

The cases which have come under my notice may be grouped into four classes. The first and most frequent is that which resembles the most closely the description of hysteria major given by Charcot. A patient suddenly falls, apparently unconscious, and, sometimes after a brief period of tonic rigidity, sometimes instantly, presents more or less violent co-ordinated movements, extreme opisthotonos, wild movements of the limbs, which are sometimes jerked quickly, regularly or irregularly, more often thrown about. Often the opisthotonos alternates with simple tonic spasm, in which the arms are stretched out at right angles to the trunk, in the attitude designated by Charcot "crucifiement". The eyes converge strongly, or are rolled up, or directed to one side or the other. They never diverge. Often the paroxysms of violent movement alternate with manifestations of the most intense terror. The eyes are fixed on some imaginary object, as with a look of horror the patient half rises or tries to shrink away. In a moment, convulsive movements of frenzied intensity succeed. The head is dashed about with such violence as often to inflict serious bruises, and the back is arched with such rapidity and force as almost to make the patient bound off the bed; the attempts to restrain the movements increase their violence. The more restraint used the more is needed, and these are the attacks in which the friends of a patient sometimes tell us that "six persons have to sit on him to keep him down". The violent paroxysms often alternate with periods of tranquillity, in which, however, peculiarities in tone and aspect tell those accustomed to these attacks that the fit is not yet over, and presently a fresh paroxysm of terror or furor comes on, and, if not cut short by treatment, the condition may go on for hours. The end is unusually sudden, often with a deep sigh. These attacks vary infinitely in severity and character. When slight, they resemble, and are indeed identical with, the attacks properly called hysterical. When severe, they resemble epileptic mania rather than hysteria, and might indeed be called attacks of compressed mania. In slighter paroxysms, the patients may talk wildly. One patient always counted backwards with extreme rapidity. In some cases, especially in children, the patients scream loudly throughout; these are the "screaming fits" of which the friends speak. In severe seizures, a curious condition is often observed, which may be called therio-mimicry. The noises and actions of animals are strangely imitated. The patient mews like a cat, or, much more frequently, barks like a dog. This is evidently in part mimetic, although some patients who present the symptom are, in the intervals between the attacks, as far as possible removed from any absurdity. But it seems to be, in part also, the manifestation of some strange animal instinct which we possess in a latent or modified condition, like our canine teeth. A frequent characteristic is the tendency to bite, which may exist apart from any other imitation of animals. It renders the task of attending to these patients in the attacks not wholly devoid of danger. Not only do they bite, but they do so in a curiously animal manner. I have seen a lad of sixteen take the corner of his pillow between his teeth, and shake it exactly as a cat does a mouse, or as the lion shook Livingstone. We are reminded by the barking and biting of some of the symptoms of hydrophobia; and one effect of the poison of rabies in man appears to be to develope a condition identical with hystero-epilepsy, and the convulsions of hydrophobia are always more or less co-ordinate in character. Such symptoms as I have described may probably succeed a true epileptic fit. They may also succeed attacks of *petit mal.* But the coordinated convulsion may also, as I have seen, commence in the first moment of the attack. The tonic rigidity, which often initiates these seizures, is different from the condition in a true epileptic fit, although apparently nearly the same as that which Charcot has described as the epileptic stage of these fits.

In women suffering from these attacks, I have occasionally found ovarian tenderness, and by ovarian pressure I have often made the patients feel ill, and caused choking sensations in the throat, but I have never succeeded in producing an attack. Nor, of many gentlemen who have practised ovarian compression at the Salpêtrière, and tried it on the hystero-epileptics at Queen Square, has anyone, as far as I am aware, been more successful. Now and then, I have arrested a fit by ovarian compression, but the arrest has appeared to be due merely to the pain caused, and not to any special influence; and, in such cases, the attacks could be cut short much more readily by faradisation of the skin. In one of the most severe cases of hystero-epilepsy which I have seen, Dr. Wilson of Surbiton found that at first ovarian compression had no effect; after many repetitions, in different attacks, it did arrest them, but even then less readily than compression at the epigastric region. Another point of difference from the disease as it occurs abroad is that, in the natives of this country, it is never, so far as I have seen, accompanied by any erotic manifestations. Such attacks occur in girls of any age over seven, in women under forty, in boys not at all rarely, and occasionally in adult men. Some of the severest attacks which I have seen have been in men between twenty and thirty-five. They frequently come on during sleep.

In the co-ordinated attacks just described, opisthotonos is frequent. A second variety presents, as its predominant characteristic, spasms of the opposite variety, emprosthotonos. The trunk is flexed, so that the head and thighs are in contact. This form occurs chiefly in boys, and is usually very uniform in its occurrence, all the attacks being similar. One patient, a woman, whose attacks came on in the night, always woke up from sleep with a sensation of this spasm, although there was in reality merely general tonic rigidity. A third variety presents coordinated spasm in the legs of regular rhythm. During the attack, the legs are alternately drawn up and pushed down, the patient being commonly on her back. If on the floor, she may be gradually propelled, head foremost, from one side of the room to the other. Several cases which I have seen have presented singular uniformity in the character of the spasm. All were females. Identical convulsive movements in the legs have been observed in hydrophobia. A fourth variety of attack is characterised by extreme difficulty of breathing, not the rapid breathing sometimes observed in hysterical patients, but intense respiratory spasm. They are the "choking fits" of adults. It is no doubt an extreme degree of the disturbance, which in slighter measure causes the globus hystericus. Since this variety is rare, I may describe briefly an example of it. The patient was a quiet well-conducted girl. She was unconscious of any warning, but an observer could note a slightly frightened expression and restless movement of the eyes just before an attack; then she would suddenly fall, and instantly begin labouring for breath. If placed on a chair, she could sit up, but the agony of dyspnœa was extreme. Her head was thrown back, her mouth half open, her arms held out before her with fingers separated; the muscles of inspiration were thrown into violent action, and a choking noise in the throat accompanied each laboured breath. From time to time, there was an ineffectual attempt to swallow, and she would strike the upper part of the chest with violence, as if trying to shake something down. Her face became rapidly flushed, then dusky, and the dyspnœa increased, until she seemed on the point of suffocation. By closing the mouth and nose, and so producing actual apnœa, the spasm could generally be stopped, but her aspect was wild, and she spoke strangely, and in a few minutes passed into another similar paroxysm. Even if placed under the influence of chloroform, the dyspnœa returned as the effect of the anæsthetic passed away, and, if not stopped by means to be described in the next lecture, such attacks would go on for hours. It is instructive to compare the features of such an attack with the other well-known forms of respiratory spasm—the globus hystericus, the epigastric-throat aura of epilepsy, the paroxysms of laryngismus stridulus, and the respiratory spasm, which constitutes so prominent a feature in the symptoms of hydrophobia. The relation which attacks of the co-ordinated class bear to epilepsy and to hysteria is a subject on which various opinions may be and are held, and to which I hope to refer briefly in the next lecture, in considering the pathology of these diseases.

Dr. Mathew Joseph Kehoe has been elected Surgeon to St. Vincent's Hospital, Dublin, in the place of the late Mr. O'Leary, M.P.

THE CROONIAN LECTURES
ON
SOME POINTS IN THE PATHOLOGY AND TREATMENT OF TYPHOID FEVER.

Delivered before the Royal College of Physicians of London.

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Lecture I.*

Admitting, then, that in all probability typhoid fever never arises *de novo* from decomposing sewage, and that, whenever it spreads from the sick to the healthy, it is by a process of indirect infection, it still remains to be considered whether this is the only way in which the disease may originate or become disseminated. To this question, I think we are compelled to give a negative answer. Several outbreaks have now been recorded which have been ascribed to eating diseased meat. And although in some of these considerable doubt has been expressed as to the real nature of the disease, in others I think the evidence is quite decisive.

The first of these outbreaks on record is the well-known one which occurred at Andelfingen, in the canton of Zürich, in 1839. On July 10th of this year, the Local Choral Society held a festival meeting, after which, 513 persons of all ages sat down to a cold collation, consisting chiefly of veal and ham. It was noticed at the time that neither the veal nor the ham was perfectly good. Some portions of the former had a greenish colour and a disagreeable smell; the ham, also, is said not to have tasted well. But most of the guests observed nothing amiss, and ate heartily. Of the 513 persons who partook of this collation, 421 were subsequently attacked by an acute febrile disease, which was regarded at the time as typhoid. Thirty-four inhabitants of Andelfingen were also attacked who had taken no part in the choral festival, but all of whom, it was ascertained, had been supplied by the same butcher who had furnished the veal and ham for the festival. The day after the festival, there was a wedding in the neighbourhood of Andelfingen, at which fifteen persons were present, only one of whom had attended the choral meeting. The meat—veal and beef—for the wedding breakfast was supplied by the same butcher. Of these fifteen persons, eleven were attacked. The period of incubation of this epidemic was very variable. A few were seized with nausea and vomiting on their way home, but this was ascribed to their having drunk too much wine. Out out of 230 cases in which the incubation period was ascertained, 43 were taken ill during the first five days, 123 during the second five days, 48 during the third five days, and 16 during the fourth five days, 6 being attacked on the nineteenth day. The symptoms were those of severe gastrointestinal irritation, with high fever, delirium, stupor, congestion of the lungs, and great prostration. No rose rash was observed, but in some cases there were petechiæ. The duration of the milder cases was about eight days; of the severer ones, three to four weeks. Convalescence was slow, and often the hair fell out. The mortality was slight; and, on *post mortem* examination, in some cases there were infiltration and ulceration in the lower part of the ileum, with enlargement of the spleen; in others, these changes were not observed. There can be no doubt as to the meat having been the cause of the epidemic, as only those persons who had partaken of it were attacked, while a very large number of persons from all parts of the canton were present as singers or spectators who did not share in the collation, and they all escaped. But great doubts have been expressed as to whether it was really typhoid fever, or a form of poisoning resembling sausage-poisoning.

In 1845, a similar epidemic occurred at Thalweil, though on a much smaller scale. The particulars of this I have failed to obtain, as the journals containing it are out of print. But eight out of ten persons were attacked with what was believed to be typhoid fever after eating bad veal.

A third epidemic due to the same cause, and which was undoubtedly typhoid fever, occurred at Kloten, a place about seven miles north of Zürich, in 1878. On Ascension Day, June 30th, a festival was held of the united choral societies of the district, together with choirs from Zürich and Winterthur. The festival collation was furnished by the landlord of one of the inns, who himself was attacked by the epidemic. The food supplied consisted of ragout of veal, roast veal, and veal-sausages. The meat, which came from various sources, was hung up in the meat-room of the inn, and, the day before the festival, was partly roasted, partly minced-up for sausages, and the fragments used for the ragout were cooked on the following day. Nothing amiss was observed with the ragout, but the cold roast veal was in part decomposed, and the sausages were manifestly bad. In consequence of this, they were largely distributed amongst the spectators, the children, and persons who could not afford to pay. Out of 690 persons who sat down to the collation, 290 were attacked. In all, 668 persons were infected who had partaken of the meat provided for the festival, either at the collation or at the inn, or who had been supplied with it at home; besides which, 49 secondary cases occurred—*i.e.*, persons who subsequently became affected by contagion without having eaten of the meat. All other sources of infection could be almost certainly excluded, and Kloten was quite free from typhoid at the time. A very large number of visitors to the festival ate no meat, but only drank wine; none of these were attacked. And it was clearly shown that the water was not the cause of the outbreak. Many persons who had drunk no water were attacked, and others who had drunk freely escaped. Several persons who drank wine to excess, and consequently vomited in the evening, afterwards escaped. The incubation period, as in the Andelfingen epidemic, was for the most part very short. Some persons were taken ill on the second day, with loss of appetite, nausea, headache, pain and swelling of the belly, and slight fever. These early cases were the mildest, and many patients recovered in a few days. The greater number fell ill between the fifth and the ninth days. The symptoms were chills, fever, diarrhœa, great prostration, in many cases early and violent delirium. Epistaxis frequently occurred, and also profuse intestinal hæmorrhage. The roseolous rash of typhoid was present in almost all the cases, and in many was remarkable for its extensive development, sometimes leading to little infiltrations forming distinct elevations, and leaving behind slight pigmentations. *Post mortem* examination showed the characteristic appearances of typhoid fever, infiltration, and sloughing of Peyer's patches and the solitary glands, with characteristic ulcers where the sloughs were detached; not unfrequently, also, infiltration and sloughing of the solitary glands of the large intestine, great enlargement of the mesenteric glands and spleen. With regard to the meat supplied, the following facts were ascertained. Forty-two pounds of veal were furnished by a butcher at Seebach, taken from a calf which appears to have been at the point of death from some disease, when it received the *coup-de-grâce* from the hands of the butcher. All the flesh of this animal was sent to supply the festival at Kloten, but the liver was eaten by an inhabitant of Seebach, and he was attacked by typhoid fever; and the brain was sent to the parsonage at Seebach, and all the household became affected by the same disease. It was also ascertained that another of the calves which supplied the veal was suffering from umbilical phlebitis and peritonitis, and was at the point of death when it was slaughtered. The veal from this calf had been kept fourteen days, and was in a decomposed condition. All the meat was placed together in the meat receptacle of the inn, which was in a horribly filthy state, and no doubt the putrefying flesh of this last calf, together with the state of the receptacle, would rapidly excite decomposition in the whole supply. According to Professor Huguenin, the meat had two injurious qualities—(1) it was putrid; (2) it was infected with the specific typhoid poison. And the resulting epidemic showed two corresponding groups of symptoms—(1) a putrid intoxication, which caused an acute catarrh of the gastro-intestinal mucous membrane, coming on early; and (2) typhoid fever, which sometimes followed on the former, and sometimes occurred independently. The mortality was extremely small, this being probably due to the fact that many of the affected persons only suffered from the former symptoms. The peculiarities of the Andelfingen epidemic are no doubt to be explained in the same manner. The question now arises, How did the meat acquire the specific typhoid infection? There can be little doubt that this was derived from the calf supplied by the butcher at Seebach, the liver and brain of which gave typhoid fever to persons residing there who had not visited Kloten. This calf was very ill; and Professor Huguenin thinks there can be no doubt but that the animal was itself suffering from typhoid fever. He has convinced himself that typhoid fever is not uncommon among cattle in Switzerland; and that the flesh of such animals is often eaten without any injurious results, some putrefactive changes being necessary to develop the infectious properties. A remarkable fact bearing on this question was observed in this epidemic. In the house of one of the persons attacked, while he was still laid up, two calves were taken ill and slaughtered, and a *post mortem* examination showed the characteristic intestinal lesions of typhoid fever, the presumption being that these animals became affected by the alvine discharges of their master before he took to his bed.

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* Concluded from page 393 of last number.

Shortly after this outbreak, another small one took place at Kronau. A butcher there refused to buy a calf because it was ill; the family, therefore, to whom it belonged, ate it themselves, and six members were attacked by typhoid fever. A similar outbreak, affecting fifteen persons, occurred near Winterthur in 1869, the particulars of which I have been unable to obtain; and one has been recorded from Iceland.

I think, therefore, the evidence that typhoid fever may be caused or disseminated by diseased meat is sufficiently conclusive. But whether this is due to the animals being themselves affected with the disease, requires further investigation. The experiment of feeding pigs with typhoid stools in this country has always failed to produce the disease; whether the attempt has been made with calves, I do not know.

A point of great interest in the pathology of typhoid fever, and one which may perhaps be most conveniently considered in connection with the etiology, is the period of latency or incubation, the determination of which presents great difficulties. If we are to accept as trustworthy the statements which have been made by the authorities who have written on this subject, we should have to confess that typhoid fever may have an incubation varying from a few hours to six weeks; and though the evidence adduced in favour of these extremes is practically valueless, nevertheless it can hardly be doubted but that great variations do occur.

We may, I think, accept as well established that the usual period, especially when the disease is communicated by drinking-water, is about fourteen days. But considerable deviations, both real and apparent, are often met with. Often much difficulty is experienced in fixing the exact date of onset of the disease, and to this many of the apparent deviations from the usual period are due. Not only in many cases is the onset gradual, but frequently there are distinct premonitory symptoms, a *stadium prodromatum*, during which the patients complain of weariness, some pain and weight in the limbs, impairment of appetite, often diarrhœa. These symptoms may pass gradually into those of the developed disease; and, unless thermometrical observations have been made—which is rarely the case at this stage—it becomes impossible to fix the date of the true commencement of the attack, which should be reckoned from the time at which the temperature rises. In other cases, the period of invasion is distinctly indicated by the occurrence of rigors, which may or may not have been preceded by these premonitory symptoms. I have recently seen a very severe case of typhoid, in which the premonitory symptoms lasted for a fortnight before the occurrence of rigors and the definite onset. In this case, a very slight increase in the severity of these premonitory symptoms might easily have caused the incubation period to have been reckoned as one day instead of fourteen. In children, whose nervous systems react strongly to slight causes of disturbance, I have no doubt that the premonitory stage is often included in the fever; and many of the best authenticated cases of unusually short incubation periods have occurred among children. Another difficulty is that of excluding, in a disease like typhoid, of which the contagion is indirect, other sources of infection than that which is supposed to have caused the attack.

The following may be cited as instances of unusually short incubation. In the milk epidemic in Marylebone, a child was taken ill five days after drinking the contaminated milk, but it is possible that here the premonitory stage was included in the fever.

Griesinger relates three cases in which the period was less than twenty-four hours. He states that one day, while sitting by the bedside of a case of typhoid, he suddenly felt unwell and thought he had caught the fever, and the next day he was taken ill. I only mention this case, as it is not unfrequently quoted as an evidence of the occasional occurrence of very short periods. His other two cases are almost equally valueless.

Dr. Clifford Allbutt published a case in which the period of incubation was exactly four days; but further investigation showed that the disease was acquired, in all probability, in quite a different manner from that at first supposed, and that consequently no conclusion could be drawn from it as to the incubation period.

One of the most striking instances of a supposed very short incubation period is the well known outbreak at a school at Clapham in 1829. Here, within four days of exposure to the emanations from the contents of a choked drain, twenty boys out of twenty-two were attacked by vomiting, purging, fever, and extreme prostration, and two died comatose within twenty-five hours. In these two cases, the solitary glands and Peyer's patches were found swollen and infiltrated. Here, however, the nature of the disease is open to doubt. Some very high authorities, as Sir Thomas Watson, do not regard it as having been typhoid; and certainly the phenomena were very unlike those of ordinary typhoid. The contagion must have been of extreme virulence, as two cases died comatose in twenty-four hours, and yet the other eighteen recovered, giving a general mortality below the average. There can be no doubt that decomposing sewage may contain other poisons besides that of typhoid fever, and considerable swelling of the glandular apparatus of the intestine may be caused by many kinds of irritation.

Professor Quincke of Bern cites the following example of unusually short periods. Three boys played on successive days, from March 13th to 16th, with some straw from a mattress soiled with the discharges of a fatal case of typhoid. All three were infected; the first was taken ill on March 22nd. Here the maximum limit was nine, the minimum three days. Another case was that of a woman who came from a distance to an infected house, where she stayed two or three days. She felt ill on her way home, and after a few days took to her bed, and died on the fourteenth day. Here the maximum limit was six days.

More common than very short are protracted periods, and an incubation of twenty-one days is by no means infrequent, especially when the cause has been contaminated water or milk. But periods of five or six weeks may, I think, in all cases be ascribed to errors of observation.

The causes of this variability of the incubation period of the contagious fevers are very obscure, and cannot be satisfactorily accounted for on any of the theories which have been put forward as to the nature of these diseases. In some the period is much more variable than in others. Thus in morbilli, rubeola, variola, varicella, and for the most part typhus, it is pretty constant, and is much the same in all; scarlatina with a short, and typhoid with a long period, are much more variable; and in some fevers in which poison is fixed, and can only be communicated by inoculation, as syphilis and hydrophobia, the period may be protracted to an extraordinary degree.

Among the causes which may influence the incubation period is, first, the mode in which infection takes place. It seems probable that, when the poison directly enters blood, as by inoculation, it is likely to take effect more rapidly than when it is absorbed through the mucous surfaces. Thus there is reason to believe that, when the poison of scarlatina is introduced through a wound or raw surface, as after a surgical operation or delivery, the incubation may be very much curtailed. So too we might expect that when the lymphatics are the medium of absorption, and the poison is first conveyed to the glands, the incubation period would be longer than when it is absorbed by the blood-vessels. Thus in syphilis, which has a very long incubation, the poison is absorbed by the lymphatics.

According to the views of Liebermeister, the poison of typhoid is always swallowed and absorbed by the intestinal glands, where it exercises its primary influence. There can, however, I think, be little doubt that it may also be absorbed by the respiratory and other mucous membranes, and so obtain a more direct entrance into the blood. Indeed, if, as is maintained by Friedreich, the spleen begin to enlarge during the incubation period, it is manifest that the poison does not lie dormant during this period in the intestinal and mesenteric glands, but has already passed into the blood. Now it appears, on the whole, that the incubation period is more frequently unusually short, where the disease has been acquired by exposure to emanations from decomposing sewage, than where drinking-water has been the medium of contagion, whereas the unusually long periods have occurred in the latter condition. But to this there are exceptions, as in the milk case I quoted above; and further evidence is required before any positive conclusions can be drawn.

Another cause which may influence the incubation period is temperature. It is well known that vaccinia will often run a somewhat shorter course in hot weather; and by increasing the temperature of the skin, as by a blister, the eruption of small-pox may be hastened: it is therefore probable, if anything occur to cause febrile disturbance, and so raise the temperature during the period of incubation, that this will be shortened. Lastly, certain constitutional conditions will influence the incubation period. Thus Obermeier has shown that the occurrence of menstruation shortens the latent period of small-pox.

That the variability of the incubation period is due in many cases to some peculiarity on the part of the patient, and not to any difference in the state of the poison or in the manner in which it is introduced, is manifest from the fact that it usually happens, when several persons are exposed at the same time and in the same manner, that they fall ill at very variable intervals. A very remarkable instance of this kind is narrated hy Professor Quincke. On June 22nd, 1873, the Federal Gymnastic Festival was held at Münsingen, a village situated about seven miles from Bern, and there was a large gathering of visitors from all parts of Switzerland, most of whom left Münsingen the same day. It so happened that the wife and son of the landlord of one of the inns, which was close to the ground where the gymnastic meeting was held, were ill with typhoid fever, and only ten feet from the leaky soil-pit of the privy of the inn was a well from which water was supplied to the persons taking part in the festival, as well as to those who took refreshments at the inn itself. An epidemic of typhoid fever broke out among persons who had attended this festival, and the particulars of fourteen cases occurring among visitors who came from places free from typhoid have been ascertained. In one case, the attack commenced eight days after the festival; in three cases on the twelfth day; in one case on the thirteenth day: in two cases on the fourteenth day; in two cases on the fifteenth day; in two cases on the sixteenth day; in two cases between the sixteenth and eighteenth days; and in one case some time between the fourteenth and twenty-second days, when he first came under medical observation. Here, then, we see incubation periods varying from eight to eighteen days, where there is strong reason for believing that the conditions of infection were the same.

Seeing, then, that the flesh of calves suffering from typhoid fever, when in a state of decomposition, appears to be capable of communicating the disease, it is an interesting inquiry as to whether the milk of cows similarly affected would also possess contagious properties. I believe that in this country, wherever epidemics have been caused by contaminated milk, the poison has been traced to the water which has been mixed with the milk; but, judging by analogy, there is great probability that the milk itself might be capable of communicating the disease. It has been demonstrated by repeated experiments that not only will the flesh of tuberculous animals, when eaten by other animals, cause tubercular ulceration of the intestines, followed by general tuberculosis, but that also the milk of tuberculous cows possesses the same properties; in both cases, the infection is prevented by thorough cooking or boiling. It is an uncomfortable reflection that cooking seems not to have destroyed the poison contained in this infected meat. Doubtless these questions, which are of the utmost importance to the public health, will soon be determined by the researches of foreign experimenters; for in this country I presume we must, in investigations of this kind, be satisfied now to play the part of hearers rather than of doers.

The usual modes in which typhoid fever becomes disseminated have been so thoroughly investigated, and are so universally recognised, that I do not propose again to repeat them. Wide-spread epidemics have always been traced to contamination of the water-supply, the water itself being the medium of the infection, or else the milk with which the contaminated water has been mixed. Local outbreaks confined to particular houses are sometimes due to the same cause; sometimes to inhaling emanations from cesspools, drains, and sewers, in consequence of some defective sanitary arrangement; and it must be confessed that great ingenuity has been shown by architects, builders, and plumbers to ensure that the air we breathe or the water we drink shall be so contaminated. Sometimes this is due to dishonesty; sometimes to carelessness; more often to ignorance. Several striking instances of each of these have come under my notice. Thus, in a new country house, where the drains had been properly planned and arranged, and it was supposed every precaution had been taken, the basement nevertheless became sodden with sewage. On taking up the drains, it was found that the pipes had merely been laid end-to-end, and not cemented together. This was an example of dishonesty. In another case, the drain-pipes had been made to slope the wrong way, insuring the perpetual accumulation of stagnating sewage. This was carelessness. A third case was that of a large public institution in which several cases of typhoid had originated, and I was asked to examine the water-supply and closets. The main cistern supplying the building was placed on the roof, and was, of course, covered by a lid. On lifting this, I found a distinct smell of sewer-gas; and I noticed a large pipe which opened a few inches above the surface of the water. On investigation, this was found to be a ventilating shaft constructed for the purpose of ventilating the main sewer of the building—no doubt put up with the best intentions many years ago, when the necessity of ventilating the drains first began to be insisted upon.

We may hope that such glaring examples are fast becoming things of the past, though I fear many of our architects are far behind the standard laid down 1800 years ago by Vitruvius, who demands of an architect not only that he shall be acquainted with the technicalities of his art, but shall have studied philosophy and acquired a knowledge of medicine.*

Probably one of the commonest causes of sporadic outbreaks of typhoid fever in large towns are water-closets, and the introduction into houses of this most necessary adjunct of civilisation has always been followed by an increase in its development. This has been notoriously the case in Edinburgh, where water-closets are of comparatively recent introduction; and I think we are justified in regarding Sir John Harrington, who in the reign of Queen Elizabeth invented water-closets, as being largely responsible for the spread of typhoid fever. The dangers of water-closets are twofold. 1. When the handle is pulled up, the contents of the pan necessarily displace the air in the soil-pipe and drain; and, unless (which is the exception) a proper ventilating apparatus has been adapted, some of this rushes up into the closet, carrying of course with it the typhoid poison, if this should happen to be present, and so very likely infecting the occupant. 2. The risk of contaminating the drinking-water. Even at the present time, the great majority of water-closets are so constructed that the waste-pipe of the supplying cistern, from which the drinking-water is often taken, goes down directly into the soil-pipe, and so—as in the institution I have just described—though not intentionally, forms a ventilating shaft to the drain. I have no doubt that this arrangement holds in two-thirds of the London houses, and consequently the drinking-water is habitually contaminated with sewer-gases. Fortunately, the system of drainage is now so admirably constructed that stagnation of sewage, which seems to be the most important factor in the development of the typhoid poison, does not often occur.

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* "Philosophos diligenter audiverit, medicinæ non sit ignarus"

It is manifest that a system of periodical inspection of the water-cisterns and water-closets is urgently required. The present water companies have the right, which they occasionally exercise, of inspecting the cisterns, but only for the purpose of seeing that the water is not allowed to run waste. But, if the water-supply were in the hands of a public body, nothing would be easier than to enlarge a little the scope of this inspection and to make it more regular; and I believe, if this were done, it would almost put a stop to the local and sporadic cases which occur in London. I except, of course, the annual outbreak among the upper and middle classes, who bring the disease back with them from the various health-resorts in this country and abroad, where they have spent their autumn holidays.

Another point of great practical importance in the etiology of the disease is the extraordinary dilution under which the poison may retain its potency. One remarkable instance of this I have described in the epidemic at Lausen. A still more remarkable example is furnished by the recent epidemic at Caterham and Redhill. This outbreak was clearly shown by Dr. Buchanan to have been caused by the contamination of the water of the Caterham Water Company by the alvine discharges of a single workman suffering from ambulant typhoid, who was engaged in the construction of a new adit. If any necessity arose for the workmen to relieve themselves during their spell of work below, which lasted from eight to twelve hours, and there should be any difficulty or delay in their being drawn up to the surface, it was arranged that they should use the buckets which were employed in raising the chalk. This man, it appears, had very copious diarrhœa, and had to relieve his bowels two or three times during each spell; but he positively denied ever having passed his motions in the adit without waiting for a bucket. Nevertheless, there were undoubted means by which his evacuations could have found their way into the water; for, as the buckets were drawn up, their oscillations caused them to strike against the sides of the shaft, and some of the contents would so be shaken out and fall over a stage into the water below. And he also stated that his motions were so liquid that the buckets, which were also used to lower materials used in the construction of the adit, must have been stained with them. Here, then, we have in all probability only some splashings of typhoid stools mixed with a very large body of water—a proportion of the most extreme minuteness—and yet the water so contaminated gave typhoid fever to 305 persons.

I think these two instances are sufficient of themselves to serve as a warning against trusting to irrigation and downward filtration as a means of purifying water, and also against the dictum that water containing less than a certain proportion of organic impurity is practically wholesome and fit for drinking, irrespective of its original source. It ought, I think, to be laid down as a rule of hygiene, that human excrements should under no circumstances be mixed with drinking-water, however completely they may be subsequently removed by filtration or rendered innocuous by oxidation. Of course, in the case of a city like London, this can only be looked upon as an ideal to be realised in some distant future; but with less than this we ought not to rest satisfied.

It is now an interesting question, What are the causes to which our immunity in London from the spread of typhoid fever by water is due? The Thames, from which we derive our drinking-water, is unquestionably contaminated not only with excrement, but also with the specific poison of typhoid fever. Until quite recently, many large towns, where typhoid fever is more or less endemic, discharged their sewage into it, and many places do so to this day; and yet I believe that, since the intake of the water companies has been removed above Teddington Lock, the water, as delivered from their mains, has never caused an outbreak. Where in London typhoid fever has been traced to the water, it has been due to its subsequent contamination in the cisterns of the consumers. With the evidence afforded by Lausen and Caterham before us, we can hardly ascribe this immunity to the mere dilution of the poison; neither can it be attributed to filtration; for we have seen that the very complete natural filtration of the Lausen water was inoperative, and it is notorious that the filtration of the London water companies is very defective. It is not sufficient even to remove the coarser particles in suspension; thus in times of flood the water is often more or less turbid, and, moreover, frequently contains living organisms. It is, therefore, quite impossible that the extremely subtle poison of typhoid would be separated. What degree of natural or artificial filtration is required to effect this is not known. It is probable that filters which act chemically on the water may do so. Dr. Gustav Bischoff, in a paper communicated last year to the Royal Society, showed that the germs of putrefaction were completely separated or rendered inert by filtration through spongy iron; and the same thing has been claimed for charcoal; but hitherto these modes of filtration have only been applied on a small scale, and it must be remembered that, unless a filter is kept clean and in good order, it only increases the risk of contamination. I think, then, that we must assume that, when the typhoid poison enters a large running body of water, where it is freely exposed to the air and various oxidising agencies, it is soon rendered inert; while, in close confined situations, it retains its activity for an indefinite time. This is perhaps a reason for regarding a large open body of water as a safer source of supply in a thickly populated country than wells and springs, in consequence of the ever increasing difficulty of preventing their accidental contamination.

These cases are also interesting, as many of them were attended by well-marked premonitory symptoms, the causes of which in all the contagious fevers are very obscure. One of these patients was attacked two days afterwards by headache, vomiting, and diarrhœa, from which he recovered, though he did not again feel quite well, and then on the sixteenth day he was again attacked by rigors and headache, and the disease now became developed. In a second case, violent diarrhœa and vomiting came on a few days afterwards, and again quite subsided before the commencement of the fever. Similar cases are not uncommon. I have recently had under my care a case in which the patient was attacked by diarrhœa, which only lasted a few days, though he continued to feel somewhat unwell; but it was not till after the lapse of a fortnight that he shivered and was definitely taken ill with typhoid. These cases would seem to indicate that the poison exercises a primary irritating action on the intestinal mucous membrane before its absorption; or possibly, where contaminated water is the medium of infection, other irritating substances may be present which cause the primary diarrhœa. Most probably, however, the primary diarrhœa is due to the typhoid poison.

On the whole, we must, I think, come to the conclusion that the variability of the latent period of typhoid fever, though it may be influenced by the manner in which the infection takes place, depends in most cases upon some unknown peculiarities of the patient himself. It is not probable that the amount or intensity of the poison can have any influence, as we see both in this and in other fevers that the period of incubation of the mild and of the severe cases is the same.

BIRKENHEAD.—The newly constituted borough of Birkenhead now contains a population estimated at 84,000. During 1878, 2,932 births and 1,656 deaths were recorded, equal to rates of 35.12 and 19.83 respectively. Of the gross mortality, the deaths of infants accounted for 724, of children and young persons for 114, of adults for 534, and of old people for 284. The proportion of deaths under one year to registered births was 134, or 19 less than that of England and Wales. Two persons were returned as upwards of a hundred years at the time of death. One was entered as a joiner's wife, and as having died of bronchitis at the age of 102; the other as a weaver's widow, dying of senile gangrene at the age of 101 years and 11 months. Of the registered deaths, 383 were ascribed to zymotic diseases, 242 to constitutional diseases, 674 to local diseases, 264 to developmental diseases, and 68 to violence. The more fatal zymotic diseases were measles and whooping-cough. Measles appeared in March, and was more or less prevalent during the remainder of the year. During the last six weeks, the mortality greatly increased, 32 out of the 72 fatal cases being registered in these six weeks. Whooping-cough began to be fatal in December 1877, and it continued prevalent up to nearly the end of the third quarter of 1878. With these exceptions, the borough was singularly free from zymotic diseases. Scarlatina and diphtheria were only fatal in a few isolated cases, and the deaths from diarrhœa were markedly below the average. The fever hospital, which, during the small-pox epidemic of 1877, rendered such invaluable service, continued to afford to the sanitary authority the means of isolation of infectious cases. "Every year brings new proof of the estimation in which it is held by the members of the medical profession, and of the good-will and confidence of those for whose benefit it was established." During the year, it received 45 patients, of whom 5 died. A word of praise is due to Mr. Vacher for his copious and valuable tables of statistics.

ABSTRACT OF LECTURES ON THE STRUCTURE AND FUNCTIONS OF THE VERTEBRATE SKELETON.

Delivered at the Royal College of Surgeons of England.

By W. K. PARKER, M.R.C.S.Eng., F.R.S.,
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Lecture VIII.

The birds are divided into three primary divisions or groups. Of these, the *Saururæ* is the oldest, and contains only one species, the archæopteryx. This bird possessed many reptilian characters; its tail was long and pointed, and the quills of the tail were obliquely set. It had two digits, with a claw on each, the metacarpals being free and distinct from each other, showing in this respect a marked difference from the birds now existing. The next group—the *Ratitæ*—of which several specimens still exist in the ostrich tribe and apteryx, possess flat sterna and rudimentary wings, and in most the number of toes are diminished, the ostrich having only two. The last group is the *Carinatæ*, which possess well developed wings, and the power of flight is in some, such as the frigate bird, remarkably strong.

The *Ratitæ* have undoubtedly existed for a long period, as they are of a low and ancient type. Many of the extinct forms were of great size, as, for example, the dinornis, which rivalled the giraffe in height, a character often indicative of low type and ancientness. Those birds possess no power of flight; the wings are rudimentary, and there is no glenoid cavity, or, when present, is only slightly indicated. In all *Ratitæ* the hind limbs are very strongly developed and muscular. The sense of sight is very strong. The size of these animals, especially of the extinct forms, seems to have been the mechanical cause of the wings not being developed so as to enable them to fly. Several of the birds of the carinate type now existing are probably descended from parents which at an earlier period were of much larger size. Corn-crakes were, till a short time ago, as large as turkeys, and even cassawaries, in New Zealand. This is the case, also, with other birds, as we find that doves larger than our gallinaceous poultry existed formerly in the Madascene Islands; but, in these latter, the keel of the sternum was diminished in size, and also the wings, so that the power of flight was impaired. In the chalk-formations, birds are found with teeth which have had in some instances sheathed sockets. These are relicts of the reptilian form retained in ancient birds. In recent birds, teeth are not found, but their homologue is present in the form of horny projections which are found in some. Claws are still found on the terminal processes of the manus in the ostrich, swan, goose, and many other birds. The metamorphosis which has taken place in the manus of the bird has been gradual; the outer digits have been suppressed in the first instance, leaving only the central ones, which have also become modified, till the manus attained the form best adapted for the requirements of the animal. The number of carpal bones has been also gradually reduced to two, thus enabling the creature to bend its manus rapidly, and giving great range of movement. The mechanism of the legs in birds is remarkable, the bird being the only animal which is able to stand without exertion on one leg. It has the power of fixing the tarso-metatarsal joint by means of the ankylosed tarsal bones, which act as wedges; of these, there are only two fused to the ends of the tibia and metacarpus. The metacarpals are mostly fused together, though they are partly divided into five in penguins; to those are attached three or four digits, each with three phalanges.

Lecture IX.

The mammalia in their upward development resemble the lower stages of animal life. The embryo has no supply of yelk on which to support itself; hence it has to receive its sustenance from without. The brain takes on a different range of development from that of other vertebrates. The fore-brain develops till it is so large that it covers the hind-brain and mid-brain. The corpus callosum is always present. The organs of sense are much more fully developed in mammals, but this does not entirely depend upon the height of any particular type; for instance, we find that many of the lower mammals have far stronger senses of hearing and smell than man, the highest, possesses. In frogs, there are no turbinals, and although they occur in birds, they are not the homologue of mammalian turbinals. The orbito-nasal nerve is the nerve in them which is sensitive to smell, but is only imperfectly so. In mammals, the olfactory bulbs are always well developed and distributed on the surfaces of the turbinals. The frontal, ethmoidal, and other sinuses, which are well developed in man, and well seen in the early development of the pig, are simply the remains of the nasal sacs of the lower animals which have projected backwards. The nose is formed in cartilage in the lower vertebrates, but in the mammals it developes into bone. The eye modifies the appearance of the skull by the way in which it is surrounded and protected. The ear-sac is developed as a separate capsule, which becomes fused with the sides of the skull, which afterwards ossify and become extremely hard. The lower jaw as well as the hyoid arch is included in the mammalian skull. In the modification of the extremities, the order of suppression is different from that in the birds; in mammals, the first digit to be suppressed is the thumb, and secondly, the little finger; suppression may take place till there is only one digit remaining, as in the horse, or it may stop when only the thumb and little finger are suppressed, as in the rhinoceros. The true vertebrate kingdom has been in existence for a long time, and has only by slow degrees attained to the perfection we find in its higher members. Formerly, the horse was a three-toed animal, and has passed through several stages before he attained the form he now has. This has been very beautifully shown by Professor Marsh in one of his recent works. Surrounding circumstances have had much to do with modification of form. Those forms which yielded more elastically to the surroundings have survived, while those which were more inelastic of adaptation have become extinct.

SURGICAL STATISTICS.

By JAMES SPENCE, F.R.S.E.,
Surgeon to the Queen in Scotland; Professor of Surgery to the University of Edinburgh; Senior Surgeon to the Royal Edinburgh Infirmary.

Professor Lister, in his reply to my communication of January 24th, begins by representing it as consisting of two elements; the one tending to disparage his character as a surgeon; the other, to diminish the effect of the statistics he had adduced in favour of antiseptic surgery. The first mentioned element I entirely repudiate. I stated, at the very commencement of my paper, that I had been reluctant to make any remarks on the subject, as hitherto any criticisms on Mr. Lister's system had been characterised as attacks. I regret exceedingly the querulous tone of Mr. Lister's reply, and the personal feeling it exhibits. I would dismiss it very briefly, by simple repudiation of the feeling he unjustly attributes to me, were it not that the same accusation of personal attack pervades the whole of Mr. Lister's remarks, and seems to divert his attention from the scientific and practical points at issue. I therefore desire to clear off these accusations of want of charity, etc., so as to deal distinctly with the true objects of my former communication.

It is difficult to deal with a general charge of this kind, and I must, therefore, take one or two examples of the spirit in which Mr. Lister views any remark of mine. If, referring to a statement of his own, I say it seems to be admitted that the antiseptic system is limited in its application, that is "something of a taunt". If, in all good faith, after stating why I had not felt at liberty to try Mr. Lister's dressing in excision of the breast, I ask what was Mr. Lister's success in such cases, the question seems to hint, "not obscurely", that his practice had not been successful! But Mr. Lister commits himself to graver accusation, which I cannot permit to pass so lightly. He says that I hint that he gives "false facts", and goes on to speak of his character for truthfulness being "filched" from him. The best reply to this accusation is to quote the passage in which these words occur. In speaking of Mr. Lister's statement, "*I say, if a case show new pathological facts, one individual such case is worth as much as a million* (the italics are mine)", I remark: "As to Mr. Lister's very peculiar views of the value of isolated facts, or supposed facts, he ought to remember the dictum attributed to John Hunter, that 'there are more false facts than false theories in medicine'. The difficulty is to decide how far the treatment used is the cause of the result." I then allude to a case of my own to show my meaning. According to Mr. Lister, if I say there is a risk of his forming deductions on insufficient data, I accuse him of untruthfulness. But I think I may safely leave my quotation to meet his accusation. I do not think Mr. Lister justified in such expressions as, "If Mr. Spence succeeds in showing his own superiority" and "my inferiority as a surgeon", "in my lame hands", etc.; as if I had used any expression to warrant such statements. In criticising the cases referred to by Mr. Lister in his speech, I make no remarks except on the information he himself gives, and such as I consider to be within the bounds of fair criticism. As to hinting at my own superiority, while I do not pretend to undervalue any attainments resulting from long practice and experience, I think those who know me will acquit me of boasting or self-assertion.

In proceeding to consider Mr. Lister's reply to the proper object of my former communication, I beg to recall the circumstance that produced it; viz., a leading article in the BRITISH MEDICAL JOURNAL challenging those who practised other methods to produce anything like similar results to those given by Mr. Lister in his speech at the "antiseptic discussion". In my reply to that challenge, I distinctly stated that I had no intention to enter on the general question of Professor Lister's system, as I had been, and was still, testing it in comparison with other methods. I limited myself: first, to show what was obtainable by simple treatment, by showing what had been obtained; second, to ask some explanation of statements made by Mr. Lister, and of some important omissions.

With the view of showing what had been obtained, I compared Mr. Lister's statistics of eighty major amputations during five and three-quarter years after he considered his system perfected, with sixty-three major amputations during three successive years when my method of treating stumps was very simple. Mr. Lister objects to this, that my statistics are not taken from the same period as his. Certainly not. He selects a period when his system was perfected; surely I have the same right to select a period when my treatment was simplest, as a contrast. Mr. Lister asks: "What is the reason for this selection? We can hardly suppose that Mr. Spence took his illustrations from the practice of many years ago, because he thought his method of treating wounds then superior to that which he employs at present." Had Mr. Lister read my communication carefully, he would scarcely have put the question in the form he does; for I state that I have returned to that simple method, slightly modified. Had I not thought it better than other methods I had also used, I would not have done so. The two methods I "at present" use are either Mr. Lister's antiseptic or the simple method, a description of which I append to this communication. As to Mr. Lister's remark about "good fortune", that might be said of any series of successful cases. He next remarks that his cases include primary amputations, whilst mine are for disease. I see that in my statistics there are three successful primary amputations at the shoulder; that is by oversight. I intended to mention only amputations for disease; for I object to amputations for injury, as not giving fair grounds for comparison. The nature and complication of the injury, the previous habits and health of the patient, the distance from which he has been brought, loss of blood, and mode of conveyance, differing in each case in nominally similar injuries, are all important factors which prevent equality of comparison; whereas amputations for diseases of similar character are much more easily comparable, and also serve to bring out important results as to the influence of certain morbid states on the mortality after operations. I take, therefore, Mr. Lister's sixty-four cases with five deaths, against sixty of my cases, with three deaths. Mr. Lister seems to complain that my cases are given in a tabular form, and catch the eye. I most sincerely wish his had been in a tabular form at first, as it would have saved me much trouble.

The next subject was the comparison of Mr. Lister's hip-joint amputations with mine; and here it is, I suppose, that he considers I disparage his surgery by objecting to the withdrawal of two of his cases as deaths from non-preventable causes. Without at all disparaging his surgery, I still object; and I consider that the proper plan is that which I take in regard to my twelve hip-joint cases; viz., to summarise the histories of the seven fatal cases, and let others judge of the result being preventable or otherwise.

Mr. Lister is perfectly at liberty to protest, and to hold his own views as to the place for amputation in malignant tumours of bone; but my experience has shown me that, in osteocephaloma, or in myeloid tumour affecting the shaft of a long bone, there is no safety for the patient in amputating through the continuity; for, even when the shaft above the tumour feels of natural thickness and form, the morbid material generally infiltrates the whole medullary canal. Mr. Lister's case is just another instance showing the risk of trusting to apparent limitation in malignant growths in the shaft of a bone. Of course I do not speak of condyloid growths, which in their earlier stages are more limited, and where I have frequently succesfully amputated at the middle of the thigh.

In a foot-note, Mr. Lister, referring to a remark I made about a shoulder-joint amputation of his, which I saw when secondary hæmorrhage had occurred, and which I understood had died, says, "Mr. Spence is mistaken in supposing that there was any other fatal case". It would have been as easy to say, "The case that Mr. Spence alludes to recovered"; for, as Mr. Lister puts it, some might suppose that no such case as that to which I allude had occurred.

Mr. Lister then sums up the comparison of my statistics with his, showing numerically that his results surpass mine. Nothing is easier, if he subtract some of his fatal cases as "non-preventable", whilst he criticises and hesitates about one of my cases of the thigh which died from albuminuria, and which I do not subtract, but allow to remain as a death following operation.

Mr. Lister refers to my general statistics and clinical reports. These cannot be fairly compared with the limited statistics he gives. My general statistics comprise upwards of 557 major amputations and 264 excisions of joints, together with clinical reports of my hospital practice over a long series of years. The clinical reports were not merely obtained from hospital journals and registers, but were drawn up and published at the dates of the reports by the Resident Surgeons, each of whom had seen and treated the cases included in his report, and was personally conversant with all the circumstances.

Such statistics, if properly studied, teach more than one lesson; they require to be pondered as well as numbered; but I have a right to expect them to be weighed by those who have independent practical experience in surgery—experience of more than one system; and who, from their knowledge of the varying fashions of treatment during the period embraced by the statistics, are capable of comparing my results with those of others during the same period. To such competent judges, I can fearlessly leave the results of my general statistics and clinical reports. So far, however, as regards the present controversy, I think my general statistics teach a very plain lesson; namely, that, when my treatment of wounds was simplest, then it was most successful, and that, just as I gradually return to that simple method, my results improve.

The next subject to which Mr. Lister refers is my statement that his practice was in the same hospital, and under the same hygienic conditions, as mine. Mr. Lister expresses his astonishment that I should not have known how very bad the hygienic conditions of his wards were. I only know that his predecessor, Professor Syme, used to speak of the wards which Mr. Lister afterwards occupied as almost perfect, and preferred to remain in them when the New Surgical Hospital was opened in 1853. From what Mr. Lister says, it would seem that the state of the wards of which he complains depended very much on his own action in permitting overcrowding. If a surgeon have wards allotted to him suitable, say, for fifty-five patients, and choose (contrary to the hospital rule) to cram in ten or twelve more patients, it is his own fault. I know the temptation, and in my case it was greater, because I had fewer beds, whilst for many years I had been accustomed to upwards of sixty, and had many recommended cases, owing to my long connection with the infirmary; but, except in any temporary emergency, I positively forbade crowding of the wards. As to the cleaning of the wards, that was biennial, not annual, and Mr. Lister could have had his wards cleaned as well as the other surgeons.

Mr. Lister next replies to one part of my observations regarding the excisions of the mamma. Mr. Lister explains that he enters into particulars, as my question seemed to hint that his practice had not been successful. I have already stated that he was wrong in this supposition. I asked the question, because some cases operated on in my wards by his method had not progressed favourably, and hence I had never ventured to try it myself. As it now appears, however, the results are not better than mine. Of his cases, in number thirty-eight, three died; in thirty-eight cases of mine, two died. Seven of his cases were removals of simple tumours, leaving the gland. In all my cases, the whole breast was removed, except in the recurrent cancerous mass from the axilla, where it had been removed previously.

Mr. Lister explains that, in one of his fatal cases, failure in the proper application of the spray during dressing led to the result. Mr. Lister seems to ignore constitutional causes in malignant disease leading to unfortunate complication, such as erythema or erysipelas; but the risk of failure from some accidental cause, even in his own practice, with skilled hospital assistance, should teach some of his followers to be more cautious in "guaranteeing" a successful termination to operations.

I would observe, however, that Mr. Lister has failed to offer any explanation of the principal question I put regarding excisions of the mamma, viz., "How are we to account for the escape of these (my successful cases), in which we have a large cut surface exposed to the atmosphere during the operation, and whilst arresting hæmorrhage, if the germs floating in the atmosphere be the causes of all the evils attending operations?"

The cases of operation for ununited fracture are not so very marvellous as I had been led to expect. In operations for ununited fractures of the leg, I have generally been able, by the subcutaneous method, to effect union without constitutional disturbance; and in those cases where I have cut down upon and pegged the bones, the patients have all done well. Those on the femur are undoubtedly the testing cases. In several of Mr. Lister's eight cases, we find the operation had to be repeated before union was accomplished; in one, it failed; and in one, amputation was resorted to in order to save life. In the only case I have met with and operated on, as stated in my paper, the case did well without special antiseptic precautions; but I do not draw deductions from one case, and, in such cases as resection of the femur for ununited fracture, I should not be inclined to neglect any means likely to preclude risk.

Mr. Lister seems to object to my saying that I considered his statement about the treatment of abscesses connected with diseased bones or joints as exaggerated, and likely to interfere with what I considered one of the best parts of the system. He asks, "Can Mr. Spence suppose," etc. Now the question is not what I suppose, but what Mr. Lister said; and I repeat that anyone who contrasts Mr. Lister's present explanation of the course of such cases with his previous statement, will see that there is a great difference. As to the question of the subsequent discharge not being purulent, that is a matter of opinion and observation. But the question as to the length of time required for the probable cure of such cases is a most important one as regards hospital management, and would almost suggest the necessity for special institutions for their treatment. There is one of Mr. Lister's statements in regard to opening abscesses and sinuses connected with diseased joints, which I cannot pass over. "Such cases", he says, "are indeed too common; and I would venture to say in all seriousness to Mr. Spence, that, for this unfortunate fact, teachers like himself are in a great measure responsible", etc. I would say to Mr. Lister in all seriousness, that, before he makes a charge of this kind, he ought to be sure that it is true. I never taught that to plunge a knife into an abscess connected with a joint, without due precautions, was proper practice. The precautions used might be different from Mr. Lister's, but, long before his system was known, the dangers were fully recognised, and special methods in dealing with such abscesses were recommended. Opening by various forms of exhausting apparatus, or with tubing under water, injecting iodine and water, opening freely to get rid of curdy pus, and then painting the whole pyogenic surface with tincture of iodine or chloride of zinc solution, were amongst these precautions. And in cases where abscesses existed, in knee-joint disease, the rule in my own practice, and that of other surgeons in the Royal Infirmary, was to avoid opening them before amputating. Fortunately, my teaching can be found in my published Lectures; and anyone, by referring to pages 25 to 28, may judge how far Mr. Lister is warranted in his statement regarding my teaching. This want of "a little charity towards a late colleague" reminds me that Mr. Lister has not replied to my remarks on his teaching regarding antiseptic suprapubic lithotomy, and the results of his practice.

NOTE.—The following is the simple method of dressing stumps referred to in the preceding communication.

Suppose an amputation of the thigh. After the operation is completed and the drainage-tube inserted, the stump is laid upon a Gooch's splint, padded and covered with gutta-percha tissue, and fastened to the splint by a turn of carbolised gauze bandage; the end of the stump and the drainage-tube should project a little beyond the end of the splint. The patient is then laid on a mattress, about one-third of which has been cut away on the side corresponding to the amputated limb. The stump is then swung from a cradle with the point dependent, and under it a plate containing a strong solution of carbolic acid or chloride of zinc receives the blood or other discharges as they fall from the wound. The cradle is covered with a veil of gauze.

Thus no textile fabric is in contact with the wound, and, as the stump is slung, all discharges drain away at once into the plate, and are there acted on by the antiseptic fluid. As no manipulation beyond lightly touching the cicatrix with a moist camel-hair pencil occasionally is required, perfect rest is ensured.

PRESENTATIONS.—Mr. Alfred S. Perkins of St. Sidwells, Exeter, upon resigning as Medical Officer to the "Loyal Rougemont" Lodge of Odd Fellows, has been presented with an inkstand of polished oak mounted with silver, inscribed "Presented to A. S. Perkins, Esq., as a mark of esteem from the members of the Loyal Rougemont Lodge, I.O.F., M.U. February 26th, 1880."—Mr. Frederick J. Parsons of Portland has been presented with an elegant clock, as a mark of esteem, by his patients and friends.

THE sum of £107 has already been subscribed towards a painted window to be placed in the Bampton parish church, and a monument in the old church-yard, as a memorial to the late Mr. Alexander Thom.

RESULTS OF SURGICAL TREATMENT, WITHOUT ANTISEPTICS, IN THE KILMARNOCK INFIRMARY.*

BY JOHN C. McVAIL, M.D., Kilmarnock.

THE important discussions lately published on antiseptic surgery have induced me to collect the chief statistical results of the simple or non-antiseptic treatment practised by Dr. John Borland in the Kilmarnock Infirmary. During the past three years, much fuller tabular statements than formerly have been issued in the annual reports; I therefore confine myself to that period.

The total surgical cases treated to a termination were 543, and Table I contains a list of the deaths that occurred.

TABLE I.

No.	Nature of case.	Time in Hospital, or after the Operation.	Notes.
1	Railway injury.	4 hours.	All moribund on admission.
2	Extensive burns.	9 hours.	
3	Internal injuries.	5 minutes.	
4	Smashed legs.	2 hours.	
5	Smashed legs.	3 hours.	
6	Fracture of pelvis, etc.	9 hours.	
7	Laceration of lungs from fractured ribs.	13 hours.	
8	Gangrene of feet and legs.	11 days.	Gangrene, caused by exposure to cold, in a tramp, with broken-down constitution.
9	Laceration of legs.	11 days.	Died of tetanus.
10	Disease of knee.	45 days.	A hectic emaciated subject, who lived almost entirely on stimulants. Knee quite disorganised, and discharging from numerous sinuses. A series of abscesses formed along the thigh, a new one appearing every two or three days. Never was fit for operation.
11	Syme's amputation.	41 days.	A strumous subject. Stump healed in about twenty-eight days. Patient was taking out-door exercise, and was about to be dismissed, when a very large abscess formed over the sacrum, in 48 hours, and death resulted from pyæmia.
12	Amputation of both legs.	7 days.	Aged 52. Died from gangrene of back (the result of a blow from an engine-buffer) and internal abdominal injuries.
13	Amputation of thigh.	3 days.	Aged 76. Internal injuries caused death.

This gives a death-rate of 2.33 per cent. But if we eliminate the seven cases under twenty-four hours in the wards, the following is the result.

In 1877	4 deaths in 171 cases, or 2.3 per cent.
In 1878	2 deaths in 167 cases, or 1.1 per cent.
In 1879	0 deaths in 199 cases, or 0.0 per cent.
Total	6 deaths in 537 cases, or 1.1 per cent.

Operations.—In the above 537 cases, 107 operations were performed, of various degrees of importance. The deaths were three—Nos. 11, 12, and 13 in the table. The rate is therefore 2.8 per cent. The following are the fifty principal cases. Those marked * are included, owing to joints having been opened—the elbow in two, and the wrist in one case.

TABLE II.

Operation.	No.	Deaths.
Amputation of thigh	11	1 (No. 13)
,, both legs	1	1 (No. 12)
,, leg	8	0
,, ankle (Syme)	5	1 (No. 11)
,, foot (Chopart, 2; Hey, 1)	3	0
,, arm	5	0
,, forearm	1	0
Excision of elbow	1	0
* ,, head of radius	1	0
,, mamma	2	0
,, cancer of back	1	0
,, cancer of upper jaw	1	0
,, epithelioma of arm	1	0
* ,, metacarpal bone	1	0
*Reduction of compound dislocation of elbow	1	0
Removal of sarcoma from head of tibia	1	0
Exposure and stretching of sciatic nerve	4	0
Ligature of superior circumflex artery of humerus	1	0
Extirpation of eyeball	1	0

Of these fifty cases, eleven were primary, with two deaths, and thirty-nine for disease, with one death.

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* Read before the Glasgow Medico-Chirurgical Society.

The *compound fractures* were eight in number, namely, ten of the thigh, six of the leg, and one of the forearm. All recovered.

Under the name *injuries* are included severe bruises, as well as wounds. On inquiry, however, I find that forty-two wounds, of varying severity, were treated. Of these, one died from tetanus (No. 9, Table I).

In endeavouring to compare these statistics with Mr. Lister's, I have been unable to obtain his total admissions and total death-rate while in Edinburgh. Placing the figures, however, alongside of those of Dr. Cameron of the Glasgow Royal Infirmary, recently referred to in the BRITISH MEDICAL JOURNAL, I find that his death-rate is 5.1 against Dr. Borland's 2.3 per cent.; and, omitting from Dr. Cameron's cases all deaths under forty-eight hours, his rate is 2.9; while Dr. Borland's, with deaths under twenty-four hours left out, is 1.1 per cent.

In the five years and three-quarters chosen by Mr. Lister, the mortality from operations was 4.4 per cent.; Dr. Borland's was 2.8. Mr. Lister had eighty major amputations, with nine deaths, or 11.25 per cent. Dr. Borland had thirty-four, with three deaths, or 8.8 per cent. The former had sixteen primary amputations, with four deaths; while the latter had eight, with two deaths, so that here the ratio is the same.

Taking major amputations for disease, Mr. Lister's are sixty-four, with five deaths, or 7.8 per cent. Dr. Borland's are twenty-six, with one death, or 3.8 per cent. Mr. Lister very properly excludes two of the five deaths on the ground of irrelevancy. Even allowing this deduction, the rate is in Dr. Borland's favour, and the two lists are very strictly comparable. It is true that, in the Kilmarnock Infirmary, there were no shoulder amputations; but, on the other hand, no part of the list is made up of one of the safest of the major amputations—that of the forearm. The tables are as follow.

TABLE III.

	Mr. Lister.				Dr. Borland.		
	No.	Recovered.	Died.		No.	Recovered.	Died.
Thigh ..	26	25	1	Thigh ..	9	9	0
Leg	5	5	0	Leg ..	7	7	0
Ankle ..	16	15	1	Ankle ..	5	4	1
Shoulder ..	1	0	1	Foot ..	3	3	0
Arm	6	6	0	Arm ..	2	2	0
Forearm ..	8	8	0	Forearm ..	0	0	0
Total ..	62	59	3	Total ..	26	25	1
	being 4.8 per cent.				being 3.8 per cent.		

But here, in addition to the two irrelevant deaths entirely omitted from Mr. Lister's table, a process of exclusion is brought to bear on the remaining three. Mr. Lister states that two "recovered from the amputation, but died of an independent cause"; and that, in the third case, "the cause of death was wholly independent of the operation". In the same way, I may say that Dr. Borland's case (No. 11, Table I) "recovered from the amputation, but died of an independent cause". This gives in both lists a clean bill of health. In fact, all who died, died cured. And what more can be looked for from any system of surgery? One thing more might be looked for—that the recovery which takes place in all cases be a rapid recovery. Here, unfortunately, I am not able to give the results of Mr. Lister's practice. The time between operation and dismissal in Dr. Borland's operations was the following. The cases are those which constitute Table III.

TABLE IV.

	Time in Days in each case separately.									Average Time.
Amputation of thigh ..	28	28	34	27	21	41	38	27	31	30.5 days.
„ leg	26	25	21	22	27	26	22			24.1 „
„ ankle ...	37	33	64	29						40.7 „
„ foot	32	51	43							42 „
„ arm	13	13								13 „

In a few of these cases, a spot about the size of a pea remained uncicatrised at the date of dismissal. In all others, the cicatrix was complete.

Injuries.—On comparing results in this class, I find that Mr. Lister has seventy-two cases (including compound fractures, wounds of joints, and other severe wounds), with four deaths, or 5.7 per cent. Dr. Borland treated eight compound fractures, with no deaths, and forty-two wounds, with one death (from tetanus)—being a total mortality of 2 per cent. Did one know how many of Mr. Lister's four deaths were from compound fractures, and how many from wounds, the comparison would be more satisfactory, as in a number of Dr. Borland's cases the wounds were not severe, and "severity" is very much a matter of opinion. But, in order to increase the mortality from 2 to 5.7 per cent., thirty-three of the forty-two wounds would require to be struck off. And I am not aware that simple dressing has any causal connection with tetanus, from which the solitary death occurred.

We come now to the important subject of hospital diseases. Here, if anywhere, the antiseptic method should triumph. Mr. Lister has six deaths from these diseases. His major operations were 725, and the percentage is therefore .82. But there is no reason why the percentage should be calculated on the major operations. Compound fractures and wounds of all kinds may be followed by blood-poisoning. Therefore, adding the injuries to the total operations, we get six deaths in 917 cases, or .65 per cent. Dr. Borland has one death in 161 cases, or .62 per cent. In the Kilmarnock Infirmary, sixty-one abscesses were treated. If these be included, the rate is reduced to .45 per cent. But, as I have no list of Mr. Lister's abscesses, a comparison cannot be made on this point. But, on Mr. Lister's six deaths, the process of exclusion is again brought to bear. The major operations are divided into antiseptic and septic. The former were 553, with two deaths. The latter were 292, with four deaths; regarding which, Mr. Lister remarks, "the deaths were eight times as numerous. That seems to me very instructive." And it certainly looks bad for the "septic"* treatment. But, as Mr. Lister also says, "cases should be pondered, not numbered". And the result of pondering is as follows. The two deaths in the antiseptic list occurred after removing the breast. The four "septic" were (1) amputation of the penis, (2) a plastic operation on the nose, (3) excision of the tongue, and (4) the opening of a small abscess of the neck. Now, it is obvious that, under any system of treatment, excision of the mamma is much less likely to be followed by blood-poisoning than the first three of the septic cases. In fact, of all operations, the three are among the most liable to be followed by hospital diseases. And as the list of antiseptic cases may be presumed not to contain any such, and the septic list may include a number which recovered, the two lists are simply not comparable. But the fourth septic case is the opening of a small abscess in the neck. Mr. Lister takes credit for calling all operations resulting in death "major" operations. Therefore the comparatively small list of septic operations is saddled with a death which occurred after opening a small abscess in the neck. And it is to be borne in mind that this death took place in wards where the septic cases were sure to enjoy all the advantages which, Mr. Lister says, accrue to septic surgeons whose practice is conducted in the same hospitals where the spray treatment is carried on. "If they do these things in the green tree, what shall be done in the dry?" In other words, what might be looked for in the Kilmarnock Infirmary, where there is no benign influence of a neighbouring Listerite to ameliorate the terrible state of affairs produced by old-fashioned surgery? Surely something worse than a mortality from blood-poisoning of less than a half per cent. in cases liable to hospital diseases.

Turning to the antiseptic operations, we find that Mr. Lister explains one of the two deaths after excision of the mamma by the fact that he observed the spray not playing on the axilla during the removal of a drainage-tube. To one who has, over and over again, seen the raw surface of an amputated thigh exposed freely to the air of a small operating theatre, separated only by the width of a narrow passage from wards occupied by septic cases of all kinds, and who has seen the patient leaving the hospital entirely cured three or four weeks afterwards, it is difficult to imagine that the momentary absence of carbolic spray could result in such sudden and fatal erysipelas. The explanation is, however, quite consistent with the germ-theory, and no fault can be found with it on that score. But it at once raises the question, Is this the only case in which the spray failed for one moment to play on some corner of the wound-surfaces in these 553 operations? Besides, there are the minor operations, and the seventy-seven injuries. When one recollects how long these cases were in the wards, how often they may have been dressed, and how long each surface remained uncovered at every dressing, it seems almost certain that, in some cases, at some moment or moments in the course of treatment, the spray would be diverted from its proper direction, and the cases thus placed on a par with the excision of the mamma. The accident did take place in one case, and was observed. May it not have taken place unobserved in many cases? If so, seeing that the death in question is attributed to septic causes, should the cures be set down to antiseptic treatment? It is quite impossible, of course, to say how many such occurred, or even that any occurred; but it is equally impossible to say that there were none, and the doubt vitiates, to some extent, the value of the whole statistics.

But, in regard to hospital diseases, and, in fact, to these statistics in general, I may be met by the criticism that no fair comparison can be made between the results of a small hospital like the Kilmarnock

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* Used throughout this paper as meaniug "simple" or "non-antiseptic."

Infirmary, and those of such institutions as the Glasgow or Edinburgh Royal Infirmaries. To this argument, I will allow Mr. Lister himself to reply. He says (in the discussion at St. Thomas's Hospital), regarding Mr. Savory's statistics: "......We cannot regard these statistics, excellent as they are, as statistics of a hospital where no antiseptic treatment is adopted.......Even if Mr. Savory had used no antiseptic means whatever, he would, nevertheless, have benefited by the antiseptic practice of his colleagues." Further on, he says: "......The effect of strict antiseptic treatment by three surgeons, and non-antiseptic by the fourth, is simply to convert a large hospital into a small one, with reference to the question of hospital disease." Now, it is an obvious deduction that, if the benefits to the septic wards are so great as to make them practically similar to a small hospital, the ward or wards of any one of the antiseptic surgeons must enjoy even greater advantages. Hence, on the whole, the Kilmarnock figures are very fairly comparable with Dr. Cameron's. And if the not very great amount of antiseptic treatment in St. Bartholomew's were of so much benefit to Mr. Savory, the greater amount in the Edinburgh Infirmary would be of still greater benefit to Mr. Lister's wards, and to the septic cases treated in them. Therefore, Dr. Borland's .45 per cent. of blood-poisoning is obtained in, perhaps, as unfavourable surrounding conditions as Mr. Lister's 1.3 per cent.—three times that of Dr. Borland—in the 292 septic operations. In fact, the allegations of antiseptic surgery are so great that, instead of septic surgeons requiring to produce long lists of the most "tremendous" operations, the burden of proof lies with those who practise the new treatment. They ought to be able to show not merely equal, nor even slightly better results, but statistics as much superior to those of simple surgery as the claims of the new system are superior to those of the old.

I may state that the Kilmarnock Fever Hospital and Infirmary is capable of containing 120 beds. The main building is arranged for 106 beds. It is a three-storeyed structure. The upper storey contains the fever-wards; in the mid flat, ordinary medical cases are treated; and on the ground flat is the surgical department. The number of cubic feet to each bed is a little over 800. The surgical wards are small, containing from six to ten beds each; and, when patients are few, one or two of the wards are kept closed, so that the inmates do not get full advantage of the extra air-space.

In conclusion, I agree with the opinion that the value of statistics may very easily be overestimated. But that they have a value, and a considerable value, cannot be denied. And the fact that the discussion of the rival merits of the two systems of surgery has lately taken a statistical form, is a sufficient reason for publishing an account of the work done in the Kilmarnock Hospital by an old surgeon, working according to the old methods.

THERAPEUTICAL EXPERIENCES WITH THE DIGESTIVE FERMENTS.

By F. ARNOLD LEES, L.R.C.P., M.R.C.S., F.L.S.;

WITH A REPORT OF EXPERIMENTS,

By GEORGE BROWNEN, F.C.S.

At the present time, when the physiological *rôles* and therapeutic values of diastase, pepsine, and pancreatine, are being traversed afresh on new bases of use, by some of the leaders of the profession, the report by Mr. Brownen, with which I shall conclude my remarks, can hardly fail to be interesting. The experiments which the report relates—undertaken by Messrs. Savory and Moore for my information and satisfaction more especially—I believe to be of no small value, as tending to cast doubt, at the very least, upon the at-present-accepted theories in regard to salivary and pancreatic digestion in presence of acid; and upon the assumed necessity for the administration of an alkali, such as bicarbonate of soda, with a dose of pancreatine—when intended to digest fatty and starchy matter in the upper bowel after passing the pylorus—for the purpose, or with the intention rather, of guarding it from destruction in its transit through the stomach. I am not denying, of course, that nature provides a neutral or slightly alkaline secretion, after the chyme has crossed the pyloric portal; but I hold that, so far from imitating nature by giving soda with a dose of pancreatine, we only succeed in retarding epigastric digestion of albumen, gluten, or casein.

The contrariety of opinion expressed by different observers, with respect to the efficacy or inutility of pepsine "wines", pepsine powders, "lactopeptine", "ingluvin", etc., in the vomiting often connected with the earlier months of pregnancy, first led me to inquire whether or not more than was generally supposed depended upon the preparation used. The digestive potency of the market varieties clearly differed widely. Professor Tuson demonstrated this, and established the superiority of Bullock's pepsina porci, in 1870; but, of late years, many new preparations have been put before the public as well as the profession; some of them compounds of more than one digestive ferment, and others derived from the gizzard of the fowl—popularly supposed to have a digestive apparatus capable of dissolving anything. With the view of reconciling, if it should so hap, these conflicting statements, and (at first) for my own information entirely, I determined to ascertain their relative values by submitting each one to tests of artificial digestion. My simple experiments were made without the slightest bias in favour of one maker or another, and under equal conditions as to temperature during the process, and the task set each preparation.

At first, I experimented with twelve "makes" only; but later, I have had experience of ten other more recently introduced preparations.

The fact that comparisons are generally said to be odious and invidious makes me somewhat unwilling to give the distinctive names; and yet I do not know that any injustice is likely to result from so doing, since the "makes" I have examined are all well known, and may be taken to represent something more than favourably the host of other (unexamined) preparations in the market. The price, too, at which they can be sold to remunerate the maker differs widely, and should, I think, not be altogether lost sight of in one's final choice; for no one, I suppose, expects for an instant that pepsine in the cake, or pepsine *B. P.*, which can be made and sold at about three shillings the ounce, is nearly so energetic as pepsina porci at twelve shillings the ounce. If it proved to possess one quarter the potency, that would be quite as much as could be expected of it. Again: uniformity in strength, if that be any more than a minimum, cannot be guaranteed, since much more than is generally supposed depends, I believe, upon the intensity of hunger felt by the animal previously to death. The length of fast enjoined upon the animal should doubtless be exactly such as ensures a maximum of activity as to gastric secretion: to kill a beast four hours or two days after its last meal would be equally a mistake. And yet the manufacture of digestive ferments must have considerably improved since Professor Tuson's experiments in 1870; for only one of the twenty-two preparations I examined proved practically devoid of digestive power. Again: there seems little room for doubt that preparations of pepsine (in dry, powdery form especially) deteriorate with keeping, however carefully they may be preserved from atmospheric influences. Fluid preparations remain active much better and longer, for some reason which, however, it is difficult to explain; although, in all the alcoholic ones I have seen, there is a tendency towards turbidity and deposit. Chloride of sodium and glycerine seem the best preservatives. On the other hand, pancreatic preparations are said to increase in activity for some time—an increase which, so far as I can speak from a limited acquaintance, appears to be coincident with the formation of lactic or sarcolactic acid.

The twenty-two preparations examined were as follows.

Of *Pepsine*.—In powder, six: Pepsine, *Brit. Pharm.*, 3s. per oz.; Boudault's pepsine, 4s. per oz.; "ingluvin" (Warner's), 4s. 6d. per oz.; saccharated pepsina porci (Wyeth's), about 8s. per oz.; Morson's pepsina porci, 8s. per oz.; Bullock's pepsina porci, 12s. per oz. In fluid form, seven: "Pepsin-Essenz" (Corbyn's), 3s. for five ounces; liquor pepticus (Burgoyne's), 6s. per ℔; liquor pepticus (Benger's), 10s. 6d. per ℔; pepsine wine (Morson's), 5s. per ℔; acid glycerine of pepsine (Bullock's), 12s. 6d. per ℔; saline essence of pepsin (Savory's), 10s. 6d. per ℔; and vinum pepsinæ (Burgoyne), 3s. 8d. per ℔.

Of *Pancreatine*.—In powder, two makes; Savory's, about 7s. per oz.; and another 3s. per oz. In fluid form, three: Pancreatine wine (Savory); saline essence of pancreatine (Savory); and liquor pancreaticus (Benger's), the latter about equal in price.

Of combination preparations, three: Lactopeptine (Richards's), 4s. 6d. per oz.; peptonic tablets (Wyeth), about 10s. 6d. per oz.; and in fluid form, "peptocolos" (Richardson), costing about 7s. per ℔.

In regard to each of the *pepsines* enumerated above, the point I set myself to ascertain was the quantity of the preparation required to completely dissolve one hundred grains of albumen, in the form of thinly sliced hard boiled white of egg, the substance recommended in the *British Pharmacopœia* as affording the easiest observed and estimated test of the activity of its pepsin. Two grains of the officinal product are stated to be able to dissolve one hundred grains of albumen, digested for four hours at 98° Fahr. in an ounce of water with five minims of hydrochloric acid.

In each of my pepsine experiments, I likewise used one ounce of water, acidulated according to the *Pharmacopœia*, and digested the albumen where necessary (for some of the more active preparations dissolved it in less time) for four hours. I, however, kept up by water-bath a temperature of 100° F., somewhat higher than the *Pharmacopœia* directs, as being more likely to bring out quickly whatever digestive energy the "make" used might possess. The heat in the stomach, too, during animal digestion never falls so low, I believe, as 98°; and a temperature of two degrees higher could be but an error on the right side, favouring fermentation of the digestive kind rather than the acetous or putrescent.

Commencing with the three powder pepsines which head my list, I found little to choose between them, save that the maximum dose recommended by the makers of the third (ten grains) much more correctly indicates its relative potency than that ordered of pepsin *B. P.* (five grains). None of them came up to the required pharmacopœial standard; and, for my part, I must say that I doubt very much whether one in twenty samples of the pepsine sold as "*B. P.*" will do so. Three, from different houses, with which I successively experimented, failed to do so. In one case six grains, in another nine, in another eleven, were required to satisfactorily deal with one hundred grains of albumen. Were I, therefore, unfortunately restricted to the use of pepsine *B. P.*, in the future, to secure the digestion of a sensibly sufficient amount of nutriment, it will not surprise any one to learn that I should administer it in at least drachm-doses. And this is, I doubt not, the experience of the majority who have not given up its use altogether, disappointed at the unsatisfactory results to be got from the insufficient doses ordinarily employed.

The three makes of pepsina porci next on my list are not so disappointing, and yet one of them (Wyeth's), purporting to be a concentrated and pure (saccharated) preparation, states upon the label of the sample-bottle that *ten* grains will digest three hundred (or more) grains of coagulated albumen, *i. e.*, not as much as the officinal pepsine, the test for which it honestly enough does not even profess to attain. The price, however, at which all these pepsines from the pig can be sold is much more than double that of pepsine, *B. P.;* and in the case of the most active of them all (Bullock's), which alone satisfactorily surpasses the officinal test, the cost is three times as great. The other pepsina porci is good; but in my opinion the average dose of all of them requires to be restated at from five to ten grains for the best, down to from fifteen to thirty grains of the least active of the three.

Of the liquid preparations of pepsine, it were wearying to detail the comparative values *seriatim.* The cheapest proved undoubtedly the least powerful, although how far the presence of alcohol (12 to 18 per cent.) in some of the wines modified the result I am not prepared to say; probably to some extent it retarded the solution of the albumen, as, for instance, when four to six times the specified dose (6 to 8 drachms) of the wine had to be added to the ounce of water to secure the satisfactory solution of 100 grains of albumen. Of the vinous preparations, I found "pepsin-essenz" to be the most energetic; but none of them answered the test so satisfactorily as the glycerinal and saline extracts: viz., Bullock's acid glycerine of pepsine and Savory's saline essence. The latter did not prove quite so active as the former; but, as I shall presently state, for adult administration I found it preferable. Liquor pepticus (Benger), however—of which I have recently examined a sample—I found to be likewise a most satisfactory preparation so far as digestive energy is concerned.

The five preparations of *pancreatine* were, of course, treated in a different manner. Here it seemed desirable to ascertain their relative potency, in regard both of fat-emulsification and starch-transformation. Although the pancreatic (like the intestinal) juice may be alkaline when first secreted, there is no room for doubt that it will emulsify fat and dextrinise starch in the presence of acid. Dr. Dobell long ago gravely questioned its alkalinity, however, remarking that the change which fat underwent from admixture with it was in no degree a saponification. Hence, in experimenting on the five samples of pancreatine mentioned—all the fluid ones gave acid reactions with blue litmus paper—I neither used acid, nor added any alkali to the water and fat used. I did not find emulsification frustrated by the omission. The fat used was water-washed fresh butter, half an ounce, kept agitated at 100° Fahr. for as long as seemed necessary (up to three hours) with half an ounce of water. Of the five samples, the "saline essence" of Messrs. Savory proved to be a trifle more powerful than the bitterish liquor pancreaticus (Benger), which, as well as the saline essence, gave an acid reaction previously to use—in each case a fluid drachm, or a little over, proving sufficient for complete emulsification of the half ounce of fat. The "wine" was not nearly so powerful. The two pancreatine powders differed widely, Savory's being the best; but even in that sample, 45 grains were needed to emulsify the 240 grains of fat; and in the other "make" (much cheaper, however) 120 grains were required. These results disappointed me, but seemed to show that, bulk for bulk, pancreatine is not so active an agent as pepsine, or else that the mode of preparation and preservation has not yet reached such a high standard of perfection. I believe there is no glycerole or acid glycerine of pancreatine in the market; but, further on, Mr. Brownen's report mentions such an extract, the capabilities of which were found to be double anything I have observed.

With pancreatines as with pepsines, I believe the average dose much understated. I give double or even treble the quantities usually ordered. I wonder how much of the customary ten or fifteen grains often perfunctorily given in diseases associated with the malassimilation of fat, with the idea that its powers will remain in abeyance until the duodenum is reached, passes the pylorus unexhausted. It will, truly, convert such starch or fat-globules as it comes into contact with in the œsophagus or stomach into sugar or peptone; but how far will ten or fifteen grains go? If given by the mouth, either soon or three hours after food, it is, I think, clearly advisable to give sufficient to leave a presumable excess beyond what may be exhausted in the stomach; but how much more certain (and therefore scientific) a plan it is to peptonise prior to administration such fat as we wish to be absorbed, I need not say. The idea is new only so far as concerns its application to milk, milk-gruel, etc.; *i.e.*, to those simple nutritious aliments hitherto considered the most readily digestible of all, and therefore least needing peptonisation. With the more nauseous fats and oils, as instanced by "pancreatic emulsion", "hydroleine", and pancreatised cod-oil, it has long been done. But, for my own part, I must say that not until Dr. Roberts's able paper appeared was I aware that in peptonising soups, broths, milk-gruel, milk-posset, etc., with pepsine alone, or pepsine and pancreatine combined—a practice which I have pursued wherever it seemed desirable for at least four years—there was anything startlingly novel or sufficiently out-of-the-way to call for detailed description as a new plan of treatment. It is rather, I should have imagined, a procedure obviously expedient, that common sense (which the family adviser has constantly to exercise with kaleidoscopic variation in the sick-room) must have suggested and tried many times ere Dr. Roberts formulated it so felicitously for the profession at large. Nay, since the digestive ferments were isolated and sufficiently perfected in preparation for them to rank amongst materia medica at all, to have restricted their use to drug-like doses given by the mouth, and not to have used them on occasion for predigestion of food, would have seemed to be missing their grand use, and, when one thinks of it, would have been almost as inexcusable a *lâche* as that of an intelligent cook who, whilst appreciating the importance of the rupture of starch-granules by heat, etc., yet neglected to boil her rice or pearl-barley long enough.

With respect to the three combination-preparations—lactopeptine, peptonic tablets, and peptocolos—whose digestive energies I tested, I need say little. All of them proved fairly active, so far as they go—which, however, if bulk and dose be considered, is but a little way; and their use, in the hands of the physician who studies the meaning of symptoms and applies his remedies scientifically, is consequently restricted to ordinary or obscure cases of dyspepsia, when the diagnosis as to the special tract or function at fault has not been made very conclusively or clearly, and the desire is (consciously or not) to double-shot the curative weapon. Something of the kind is no doubt the secret of their popularity; but, as physiologically scientific agents, they must rank in the same category as liquor Donovanni, chlorodyne, Warburg's tincture, etc.—mixtures doubtless efficacious enough in certain senses, but compounded upon a principle of "If one miss, the other may hit", and the maskers, at best, of slipshod diagnosis. Out of the stomach, "peptocolos" seemed to possess the greatest power of digesting fibrine of lean beef and emulsifying fat; but, when given in half-ounce doses—quite as little as is necessary for appreciable results—the sherry wine with which it is prepared is apt to upset the stomach, producing so-called "acidity" and "heartburn". I have twice tried it upon myself, and on each occasion it has spoilt a good meal;* and I am inclined to reason that, if this intended help to digestion will do so in a healthy individual atop of a wholesome meal of soup, fish, joint, and dessert, it is unfit for many cases of disordered stomach. But I suspect that, in fact, in probably two-thirds of the cases of apepsia and bradypepsia one sees, it is not the gastric glands that have "struck work", so much as a form of dilatation (with arrest of the rotary motion essential to easy digestion) and over-abundant secretion of glairy mucus. The catarrhal nerve-storms from which the epigastrium suffers or in which it partakes, are exceedingly common amongst a large class of the commercial or business public.

[*To be continued.*]

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* The lighter "pepsin-essenz" hock will not do this, but it contains no fat-digester.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the preliminary examination in Arts, etc., for the diploma of Member and Fellow of the College, which has lately been brought to a close, there were 387 candidates, viz., 106 for the fellowship and 281 for the membership.

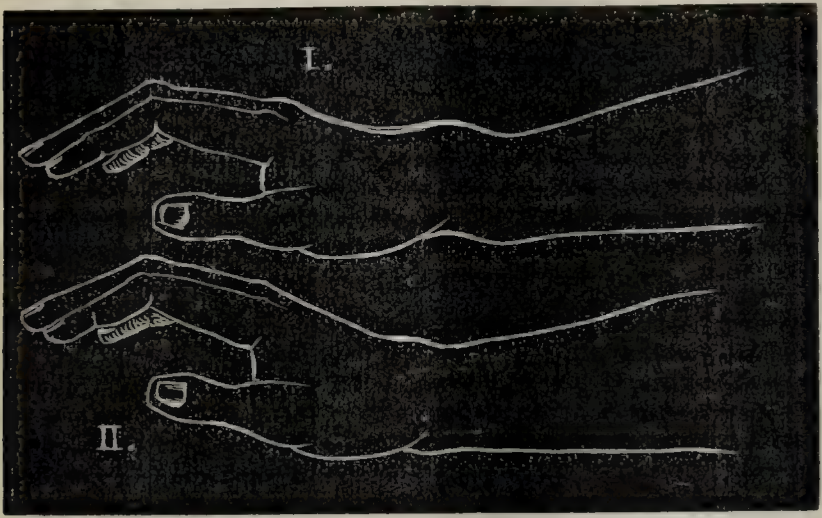
SURGICAL MEMORANDA.

DISLOCATION AT THE WRIST-JOINT.

THE following case has been under my notice.

Seventeen years ago, the patient fell down some rough rocks fifty feet. His wrist soon became white, cold, and paralysed (?); to these symptoms succeeded those of inflammation, attended with severe pain which prevented the patient from sleeping for two or three nights, in spite of large doses of opiates. The wrist became subsequently stiff and enlarged, and liable to severe inflammatory attacks upon slight provocation, either from much use or from cold and damp.

When I first examined him, on January 30th, 1880, the radial side of the carpus was displaced backwards: the scaphoid was displaced backwards considerably more than the rest of the carpus, so that the wrist appeared as in Fig. 1. The lower end of the radius projected inwards, the styloid process being very prominent; pressure upon the displaced scaphoid caused much pain; the use of the extensors of the thumb and fingers caused the deformity to become more apparent; the use of the extensors of the thumb caused much pain over the metacarpal bone, which I attributed to the fact that they did not act in their normal direction.



The treatment consisted of traction of the hand, with considerable but gradual force, and pressure upon the scaphoid. In a few minutes, the scaphoid receded, and the wrist assumed a perfectly normal appearance. Holding the limb in this position, I bandaged it to a straight splint. In an hour and a half, I removed the splint, and found that the scaphoid had to some extent resumed its former abnormal position, but that the whole hand was now in a straight line with the forearm (see Fig. 2). The patient confirmed this fact by observing independently "that the projection of bone (styloid process of radius) had disappeared." Bandages, liniments, and manipulations were employed for the next few days, and it was intended to reduce the bone again as at the first operation; but, upon the seventh day of treatment, the bone receded almost completely into a normal position.

On March 1st, the wrist was straight: there were a slight swelling in the region of the scaphoid, and a thickened state of the tissues round the sheaths of the tendons. Extension and flexion were less restricted, and the joint felt much more comfortable. Writing was accomplished with greater freedom, and could be continued for a considerable time longer than had been the case hitherto ever since the injury occurred. The mobility and power of the wrist were improving daily.

I am indebted to Mr. W. Balkwill for his assistance in this case.

E. NOBLE SMITH, Queen Anne Street.

MR. FURNEAUX JORDAN'S CASE OF LITHOTOMY.

I HAVE read with much interest the case of lithotomy detailed by Mr. Jordan in the BRITISH MEDICAL JOURNAL for January 24th. It appears that his experience of his new method embraces five cases, three of whom were boys. Of the two adults operated on, one died. It may be laid down as a rule that, whatever be the method of lithotomy practised on boys, the patients will nearly always recover, provided only that the surgeon abstain from piercing the posterior wall of the bladder. Hence it would, I think, be premature to draw any deduction from the few cases related by Mr. Jordan. The alleged difficulty of entering the bladder in boys is one created by the surgeon, who, if he attempt, to use Sir W. Gull's expression, "to squeeze a quart pot into a pint one", will infallibly fail. If, on the other hand, he make an opening sufficiently free to allow his forefinger to glide into the bladder with ease, he will encounter no difficulty. Unfortunately, surgeons as a rule use, when operating on boys, a narrower bladed knife to what they do when cutting adults, entirely forgetting that they require in both to introduce the same sized instrument: the left forefinger. An account of the difficulties and dangers connected with lithotomy in boys will be found in my article on Lithotomy in the *British and Foreign Medico-Chirurgical Review* for July 1867. As I have now cut twenty-two boys by the lateral method, all of whom recovered, and never experienced any difficulty in the operation, I have come to the conclusion that the lateral method needs no improvement or modification. I use only two instruments when operating on boys—a rectangular staff and a knife with a short broad blade. I extract the stone with my finger.

W. F. TEEVAN, B.A., F.R.C.S.

CLINICAL MEMORANDA.

A CASE OF PYÆMIA.

THE case brought forward by Dr. Goodhart at the Clinical Society (BRITISH MEDICAL JOURNAL, January 24th, p. 29) (which, despite the difficulty of judging, I think to have been one of pyæmia) brings to mind one that I met with last year. About the beginning of March, I was called to see a young girl, not quite fourteen, who had previously been in good health, and at service in a farmhouse of the poorer sort in a mountainous region. She had been taken alarmingly ill the day before, and was brought home to a fairly clean cabin, with a swift stream flowing a few yards in front of it. I found her with face flushed, eyes very bright, heart rapid, but without murmur; temperature 103°; crying out and complaining of pain in many places, notably the right groin, which she said could not bear to be touched, but which I, a short time afterwards, thoroughly examined, without causing pain or finding any cause for it. The skin was natural in colour all over the body and limbs. For many reasons, I looked on this as a case of hysteria, and gave bromide of potassium and fœtid spirit of ammonia; and an aperient of compound jalap powder next day, as the bowels were confined; but being called again on the third or fourth day, I found the temperature 104.5°; the tongue raw, red in part; the pupils more dilated; and the left foot and leg swollen, dusky red, and brawny. I cannot say if it was on this or my next visit, two days afterwards, that I found the right groin in a similar condition. The bowels were now very loose; the girl almost unmanageable, crying out that there was pain in every joint. I gave two-grain doses of quinine three times a-day, and full doses of tincture of perchloride of iron in mixture, and Dover's powder at bedtime. Two days later, the brawny swelling extended from the labium round to the anus. A chain of yellow points lay parallel to Poupart's ligament, while blebs of fluid studded the buttock and part of the thigh on that (the right) side. The right elbow was also red, swollen, and studded with yellow points of pus. I made free incisions here and in the groin to relieve tension and pain, which they did to a great extent, and continued the poultices, which had been used since my second visit, except to the left leg, which I had wrapped in cotton-wool. The temperature was now 105°. I was giving, in addition to the quinine, etc., whisky and water every three hours, with ether and aromatic spirit of ammonia frequently. She died about the tenth day of the illness. There was no *post mortem* examination, and inquiries elicited nothing to account for the attack, which I think was pyæmia, as were also those mentioned at the Clinical Society.

JOHN F. O'RYAN, L.R.C.P.&S.Ed., etc.

OBSTETRIC MEMORANDA.

A SUBSTITUTE FOR ERGOT.

I TRIED, for the first time, Weit's elastic ball-plug in a case of *ante partum* hæmorrhage, with feeble pains between long intervals. The woman had been in this state for many hours. Upon introducing the plug, the effect seemed at first encouraging; hæmorrhage ceased, and the pains at once improved in power and frequency; but more bleeding was subsequently reported to me, always during a pain. I resolved to remove the plug, and was disappointed to find that it still remained in the collapsed state necessary for its introduction. It had not become inflated, as usual in the open air. The circular fibres of the vagina prevented its expansion. I again inserted the ball, and upon inflating it by blowing up the elastic tube, the woman uttered a shrill sound, evidently keenly feeling the effects. She jerked herself each time this was done. I noticed escape of air through the tube whenever I finished my attempt to inflate the ball. The pains, too, increased, and during one of these the ball was forcibly ejected. As the hæmorrhage was only slight, I did not again attempt to introduce it. Labour soon terminated. Till within the last hour, the child's head was so high that I could not feel it. In this case, the use of the elastic air-ball seemed to be for increasing the pains of labour when ergot was contraindicated. Indeed, it appears to be an excellent substitute for ergot. If so, it constitutes a valuable means for the purpose.

Samuel W. Smith, M.D.St.And.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. THOMAS'S HOSPITAL.

ANEURISM OF FEMORAL ARTERY CURED BY COMPRESSION: SUBSEQUENT DEATH FROM RUPTURE OF AN AORTIC ANEURISM.

(Under the care of Mr. H. H. Clutton.)

A. C., aged 34, was admitted on June 26th, 1879, with an aneurism of the left femoral artery. About a month previously, whilst attempting to raise a fallen horse, he received the whole weight of the animal as it again slipped on his flexed thigh, which was placed beneath its body. A few days afterwards, he noticed a swelling in his thigh, which had, during the week preceding his admission, much increased in size. In 1869, he had been an in-patient in the Radcliffe Infirmary, Oxford, for iritis, and a general eruption over his trunk and extremities. He at last confessed to having had a sore on his penis some months previously. In April 1879, he had had several pieces of bone removed from his lower jaw; and there were still some more to remove on admission into St. Thomas's Hospital.

The aneurism in Scarpa's triangle was very large, the left thigh measuring two inches and a half longer than the right, when the tape was drawn over the centre of the swelling. The coats also seemed very thin, and little or no clot could be felt. The femoral artery at the groin was larger, and its coats apparently much thicker, than on the opposite side of the body; a rasping *bruit* could here, also, be felt on the slightest pressure. Although the aneurism did not quite reach Poupart's ligament, it was quite evident from the foregoing symptoms that the artery above was seriously diseased. Dr. Sharkey examined his heart, and found that there was a slight murmur to be detected at the base. There was, however, no marked hypertrophy or other evidence of cardiac mischief. As the artery could be easily controlled by pressure above Poupart's ligament, Mr. Clutton determined to try the treatment by Esmarch's bandage below the aneurism, and instrumental compression above.

On July 11th, Esmarch's bandage was wound spirally up the leg and thigh as high as the lower margin of the swelling. Petit's tourniquet was then employed above, and placed as far as possible away from the aneurism in the iliac fossa, compressing the iliac artery against the brim of the pelvis. The bandage was removed at the end of an hour, as the patient could bear it no longer (anæsthetics were not employed). On slightly raising the tourniquet, the aneurism beat as forcibly as before; the tourniquet was, however, continued for a few hours longer, but no improvement could be detected.

On July 15th, Esmarch's bandage was again applied for an hour, and the tourniquet continued for nine hours after the bandage had been removed; the aneurism was then found to be solid. Digital pressure below Poupart's ligament was then carried on by relays of dressers, as the groin was rather sore from instrumental compression. Pulsation returned, when pressure was omitted for any length of time, till thirty-six hours after the commencement of the treatment, when, pulsation not having been observed for some hours, the pressure was discontinued and not again employed.

The aneurism continued to shrink in size till he left the hospital, when the thigh measured two inches less in circumference than it did immediately after the operation. But it was noticed that, within a few days after its apparent consolidation, the aneurism contained fluid, and fluctuated; this fluctuation was perceptible throughout the greatest part of the tumour, and continued to the last. He left the hospital on August 26th, and died suddenly on September 4th.

His death was peculiarly sudden and symptomatic of the cause. He appeared remarkably well and active, so much so that he could with difficulty be prevented from following his occupation as a waterman. He had had no symptom to indicate the necessity of any precautions, which we had nevertheless tried to instil into his mind. He was sitting in a chair talking to his wife about coming up to the hospital, when she observed that he had "fainted". She ran for assistance, and, on her return, found him dead in his chair.

Mr. Marshall, the dresser of the case, made a *post mortem* examination with some difficulty in the patient's house. At the base of the heart was found the cause of the sudden death. The pericardium was distended with blood, and at the base of the aorta was a second small aneurism just behind one of the sinuses of Valsalva; this had given way into the pericardium by a rent half an inch long.

Remarks by Mr. Clutton.—It would be interesting to know what proportion of deaths after rapid cure of an aneurism with Esmarch's bandage have been met with in which rupture of a second aneurism was the cause of death; for the pressure thrown upon the rest of the arterial system by the compression of a whole limb and the consequent emptying of all its vessels must be very great. Mr. Wagstaffe had a similar case, which was reported in the *Pathological Transactions*, vol. xxix. His case was one of popliteal aneurism, which had been cured by Esmarch's bandage. The patient died suddenly four months afterwards, from an aortic aneurism which had opened into the pericardium. In my case, the aneurism was femoral, and consequently necessitated a pressure higher than that for popliteal aneurism, and a complete emptying of all its vessels as high as the apex of Scarpa's triangle. The aneurism was an exceedingly large one, and so gave greater hopes of cure by this rapid method. I was therefore induced to try a second time, and this was successful. But may not the increased pressure thus thrown upon the aorta and base of heart have overstretched an already degenerated tissue—a strain, too, to which he was twice submitted? The increased blood-pressure exerted upon the base of the heart by throwing into the general circulation the blood contained in three-fourths of the lower extremity must indeed be great. And one cannot help thinking that the recent attempts to prolong the application of Esmarch's bandage for much longer periods even than one hour, by means of anæsthetics, are not without their risks to the larger vessels of the trunk. Time will show whether this accident is to be looked for after such rapid cure as that effected by Esmarch's bandage, or whether the few cases recorded are merely to be classed as rare instances of an unfortunate complication.

There was another curious fact noticeable in this case. The aneurism, although apparently solid at the time the pulsation ceased, very soon again became fluid; and, after its removal from the body, the sac was found to be almost entirely occupied by a recent (*post mortem*) clot, very little indeed being decolorised in the peripheral parts of the sac. But the femoral artery, from which it sprang, was filled with a thrombus partially decolorised and adherent to the walls of the vessel. If the thrombus in the vessel had become absorbed, the aneurism would undoubtedly have again pulsated; for the sac during life must have been filled, even after its cure, with fluid blood, cut off, however, from the general circulation by the thrombosed femoral artery.

Population of Sweden.—The report for 1878 on the statistics of the population of Sweden has been published by the Central Statistical Bureau of that kingdom. The population, at the close of 1878, amounted to 4,531,863, being an increase for the year of 1.06 per cent. About 15 per cent. of the whole population now reside in towns, there being a steady increase in that direction since 1830. The great numerical excess of the female population has been for many years decreasing; at present, the ratio is about 1,055 women for every 1,000 men. The excess is less in the northern provinces. The number of marriages contracted during the year (29,151) is something below the average, but this can be easily accounted for by the industrial depression of the times. As usual, nearly half of the marriages (44.55 per cent.) were contracted during the last three months of the year. The total number of children born during the year was 138,385, of whom 2.83 were dead. As to sex, there were 1,062 boys born for every 1,000 girls. The number of illegitimate children born was 9.84 of the entire number. The mortality for the year shows the very low figure of 1.81 per cent., although there were severe epidemics of scarlet fever and diphtheria. The total number of deaths (excluding children born dead) was 81,418. The number of emigrants during the year was 9,032, against only 7,610 in 1877. The number of emigrants during each of the five years from 1868 to 1873 was never under 13,000, and in one year rose to 39,000. The number of foreigners who settled during the year in Sweden was 2,841. As usual, America was the chief attraction for intending emigrants; but emigration to Australia is steadily growing in popular favour.

REPORTS OF SOCIETIES.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, FEBRUARY 4TH, 1880.

JOHN WIGHT, M.D. (in the absence of the President), in the Chair.

Pessary for Prolapsus Uteri.—Dr. HALL (Aberdeen) exhibited a new form of pessary for use in bad cases of prolapsus uteri. It consisted mainly of a ring and stem pessary with thigh-supports; all formed of wire and covered with India-rubber. The advantages claimed for it were, that, there being no abdominal belt, there was no pressure on the contents of the pelvis; and, there being no perineal band and pad, the apparatus could be worn constantly.

Bacteria.—Dr. J. C. EWART read a paper on bacteria, illustrated with lithographic sketches. He began by referring to the discussion on antiseptic surgery lately held at the meetings of the South London District of the Metropolitan Counties Branch of the British Medical Association, and since carried on in the JOURNAL. He considered that this discussion had caused antiseptic surgery to assume a more practical aspect, and had made it evident that London would soon reach the same conclusions regarding antisepticism as had been arrived at in other places. There were four groups of bacteria which he would introduce. 1. *Micrococcus.*—This resembled yeast somewhat in appearance and mode of growth at first. The cell then became dumbbell shaped, and divided into two cells within one capsule, each of which at last came to have a separate capsule. In some cases, the process of growth might be so rapid as to leave no time for the separation of the parts as above, and then chains were formed, instead of cells in separate capsules. Often a period of rest occurred, and then there was thrown out gummy, sticky matter (cellulose) forming with a cluster of separate cells and capsules in it a "zooglœa". After a time, the end-cells of this body began to move, and the process of growth again began, vital movements taking place in this situation. 2. *Bacterium.*—Like micrococcus, this arose from spores, and could not be distinguished from the latter until the characteristic appearance of the bacterium appeared, viz., a short rod, blunt at the ends. There were different species of bacteria found. They reproduced themselves by dividing, and formed chains by fission or filaments with spores in them. The spores and rods formed "glœa", like the micrococcus. 3. *Bacillus.*—This had the same history as bacterium, and the bacilli were found as spores and rods. The rods then produced more rods, separate the one from the other, or there was a long rod with spores in it, or there were perhaps only spores without any rod, this latter having been dissolved and melted away. As in micrococcus, a "glœa" might be formed here also with spores or rods, or both. The rods were tailed, and could move. 4. *Spirillum.*—Spirilla were composed of corkscrew rods, and arose from spores, which became bodies shaped somewhat like a comma (,); and these comma-shaped bodies, becoming more and more corkscrew-shaped, and being furnished with cilia, had the power of moving, and like the others sometimes formed "glœa". As to the effects of different conditions on the germs mentioned, it was observed that both great heat and great cold were equally fatal to germs such as those of the yeast plant. If these were boiled, they were destroyed. Drying would not injure them, as they might remain quite dry for a long time, and then grow at once on being placed in more favourable circumstances. Micrococci were affected much in the same way as the torula. Bacteria (common term) had the rods destroyed by heat, but their spores were not destroyed by a dry heat up to 120° C. (248° Fahr.); and even the fluid must be at 100° (212° Fahr.) for some minutes before the cellulose was destroyed and the spores were killed. If a pressure of twelve atmospheres were used, the spores were destroyed and the reagents too. Bacilli and spirilla were affected in the same manner as bacteria. In regard to the pathological relations of these germs, yeast was known to break up sugar into carbonic acid and alcohol; and micrococci likely acted somewhat in the same way. If micrococci were introduced into a wound, inflammation was set up from by-products in the course of their growth, just as carbonic acid and alcohol were by-products of yeast-growth; the germs were innocuous themselves. The bacterium termo which caused putrefaction was very important as a disease-producer, from its setting free fluids and gases which had a poisonous influence on living organisms, and causing inflammation, etc., by these, which were by-products; the bacterium itself being harmless, as had been proved when, these by-products having been all removed by filtering through plaster-of-Paris, the bacterium was introduced without effect into the bodies of animals experimented on. The bacterium termo could not live in healthy tissues; and, when introduced into healthy blood, it was eliminated by the kidneys or acted on by the corpuscles or blood-plasma. Experiments made by crushing the testicles of a horse, and then introducing bacteria with fatal effect from pyæmia, had proved their deadly effects when a part was not healthy, and other experiments had proved that, where no injury and the tissues healthy, bacteria could do no mischief. When, however, another of these forms, viz., bacillus anthracis, was introduced, even into healthy tissues, it produced disease. This germ caused the disease now well known as "splenic fever" in cattle, and morphologically the same as regards bacteria as the horse-plague in Africa. Why there was this difference between these two germs in their mode of action was unknown, but the fact remained that such was the case; and curiously enough, these very germs which found their normal habitat in healthy issues, died out if they were introduced into putrid fluids. When bacillus anthracis was introduced into healthy animals, all the forces of these animals were employed to get rid of the germ, though often without effect. The white blood-corpuscles attacked them, and the kidneys tried to throw them off. Some of the animals experimented on invariably died; this was the case with mice; dogs were able as a rule to throw off the bacilli through the kidneys; fowls were not influenced by the introduction of bacillus anthracis, the high temperature perhaps preventing the development of the germ in birds, and enabling them to throw off the intruder. That this was the probable explanation of the immunity of birds seemed clear from the fact, that fowls kept constantly in cold water so as to reduce their temperature permanently, became liable to the attack of bacillus, and fatally affected by it. In amphibia, the white corpuscles, like amœbæ, took the spores and held them till they were broken up and destroyed. As to how the bacillus anthracis killed, it was not directly or mechanically, and it was not by numbers. As the bacilli grew, they broke up the organic matter, and by-products thereby resulting acted on the brain, producing paralysis of the cerebral centre. The bacillus of leprosy (Hansen) and the bacillus of malaria (Klebs) were considered by some authorities as having their specific characters doubtful; the bacilli of malaria were said to be segmented, and two or three spores were noted by Klebs; but some held that his conclusions were not justified by observation. The bacillus of pig-typhoid (not unlike the bacillus anthracis) had been developed by Klein in the guinea-pig from spores, with the result of producing pig-typhoid disease. Spirillum, by its growth, produced the only disease certainly known to be caused in human beings by these germs, viz., "relapsing fever". The germs increased till the fever reached its height, and then the spirilla disappeared, apparently as did bacilli in the fowl, from excessive temperature. As, however, spores as well as corkscrew-shaped bodies were produced in the course of the fever, and as these spores were not killed by the heat which killed the other forms of spirilla, the fever again relapsed, the spores developing as before into rods and filaments. Thus the attacks might be repeated, and would be till the spores were either all killed by the excessive temperature, or all the spores had become rods or filaments, and thus easily killed. The question of how the different germs found their way into the system was very important. If bacteria were, as had been said, capable of producing putrefaction, and splenic and other fevers, and if they did not originate in the body *de novo*, how did they come there? How did they find their way into the system? It was very unlikely to be by the lung; for empyema had no organisms, and the mucus of the lungs did not allow the spores to pass. It was not by the skin, for they were frequently found in the entrance to the sweat-glands and in other places, but unless the surface was abraded or the system unhealthy, no evil resulted. The alimentary canal did not carry them into the system, for the bacillus anthracis had been given to mice in their food without effect, being simply evacuated. The germs did not pass from the mother to the fœtus *in utero*. If, however, there were a cut or an abraded surface of skin or mucous membrane anywhere, the event was different; the animals experimented on were killed, or otherwise injuriously affected. It was fortunate for experimenters themselves that no effects followed the accidental swallowing of these germs, for they were much exposed to their influence, and the rods, filaments, and spores had been detected in their excreta without having inflicted any injury on them. Let, however, while experimenting with specific germs, the skin or mucous membrane become abraded or diseased, and the consequences might be an attack of enteric fever or diarrhœa, or some other disease produced by the growth of germs. Bacteria did not exist in healthy blood, but it was more than likely they existed when the system was below par. Operations undertaken when the body was in that state were specially obnoxious to their attacks. Mr. John Wood had raised the questions in the BRITISH MEDICAL JOURNAL of December 20th, 1879, viz.: 1. How, if bacteria were so very terrible, 999 cases of wounds out of 1,000 did well; 2. How a patient could die by pyæmia or septicæmia self-poisoned, without external wound at all, the source of infection being a deep-seated abscess far removed from contact with the air; 3. How bacteria could exist in abscesses originating inwardly, and yet no blood-poisoning ensue; 4. How wounds of the face-cavities healed so quickly and so well, although bacteria in numbers were found in the fur on the tongue and the mucus on the surfaces of these cavities. It might be replied that all bacteria did not produce blood-poisoning, but only some of them, the micrococci for instance only irritating; and that bacteria had not the same chance of developing or growing when there was, as in the face, a copious blood-supply, and large lymphatics to renew the tissues. At present, the subject was so entirely in its infancy, it was impossible to do much more than speak with great diffidence. Some of the bacilli were very like each other, and as yet could not be distinguished; but they seemed to be able to produce different diseases, and must therefore be different, though these differences were undistinguishable by us; indeed there could be no doubt as to their being different, for one could live only in healthy tissues, and another perished if not in putrid fluids.—After the reading of the paper, Professor Ewart, assisted by Dr. A. Ogston and others, exhibited a number of specimens of the different forms of bacteria which had been mentioned. Dr. Ewart exhibited also an apparatus for cultivating bacteria.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THURSDAY, FEBRUARY 12TH, 1880.

JAMES JOHNSTON, M.B., President, in the Chair.

Extra-uterine Pregnancy.—Mr. LAWSON TAIT exhibited the preparation from a case of pregnancy of the right broad ligament in which he had removed by abdominal section a living child at full term, on February 1st. The mother died of exhaustion, the operation having probably been too long delayed; but the child was living, and was thriving. The operation was performed in exactly the same way as was described in the publication of Mr. Tait's previous case.

Antiseptics in Herniotomy.—Mr. SAMPSON GAMGEE presented a man on whom he had operated for strangulated inguinal hernia. Under an absorbent gauze and cotton pad, the wound healed, and the patient left his bed in a week. Mr. Gamgee stated that he had at the same time under treatment an equally successful case of rapid healing similarly treated in a man, aged 75, operated on for strangulated femoral hernia. The sac was opened in both cases.

Biliary Calculi.—Dr. A. BOSTOCK HILL gave an account of some biliary calculi passed by a pony, and shown at a previous meeting, and explained their chemical composition and probable mode of formation.

Ovarian Tumour.—Mr. H. R. KER showed a multilocular ovarian tumour which he had removed from a patient the previous week; it weighed altogether 25 lbs. The woman was thirty-seven years old, and had borne seven children. The operation was done by an incision of six inches and a half antiseptically; anterior adhesions only being met with. The pedicle was tied in two parts with a catgut ligature, and cut through by the actual cautery, and the wound dressed with absorbent gauze and cotton. The patient was five months pregnant, and miscarried. She had, however, made a good recovery.

Cystic Tumour of Kidney: Removal.—Dr. SAVAGE showed a specimen of part of a cystic tumour of the kidney which he had removed by abdominal section. The patient, a woman aged 47, was married, and had a family; the growth was of twelve months' duration. The diagnosis was confirmed by the subsequent operation, which was done by an incision two inches above and two below the umbilicus. A wire clamp was placed round as much of the tumour as could be reached after previous tapping, and cut away on the twenty-third day. The patient had since done well, a small urinary fistula remaining.

Preparation of Eyeball in Glycerine Jelly.—Mr. PRIESTLEY SMITH showed a preparation of the half of an eyeball mounted in glycerine jelly. The patient was a gunsmith, who had met with an accident from a piece of percussion-cap; violent inflammation, followed with sympathetic inflammation of the sound eye, necessitating the removal of the injured one. The peculiarity of the case was the course taken by the foreign body, which had passed through the globe and lodged outside. The patient made a good recovery.

Operating and Gynæcological Chairs.—Mr. McILLROY showed two chairs for operating and gynæcological purposes. He explained their mechanism, and stated that they combined all the recent improvements that could be devised to render them complete for the performance of operations in any position of the patient.

Ophthalmic Notes.—Mr. J. VOSE SOLOMON read a paper on Ophthalmic Notes of Interest to the Family Doctor.

Pleurisy in Children.—Dr. CARTER read a paper on the diagnosis and treatment of pleurisy in children. He drew attention to the difficulties which frequently surround its diagnosis by reason of absent friction-sounds and frequent presence of bronchial and tubular breathing, bronchophony or pectoriloquy, and hollow or metallic adventitious sounds. In discussing the treatment, great importance was attached to counterirritation during the decline of the initial fever; to the closure of the wound immediately after the first performance of paracentesis (unless there were some special reason to the contrary); and to the beneficial effects of the excision of part of a lower rib in chronic and intractable cases, as illustrated by the practice at the Birmingham Hospital for Children.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 18TH, 1880.

DAVID LITTLE, M.D., President, in the Chair.

Occlusion of the Vagina.—Mr. POOLEY (Rochdale) exhibited a girl three years of age, the subject of an occluded vagina, with absence of labia minora. The girl's mother was said to have been similarly malformed when a child.

Goître causing Death by Pressure upon the Œsophagus.—Dr. MULES showed a specimen of "left lateral goître" from an elderly unmarried woman, which, after undergoing cystic and osseous degeneration in the bulk of the tumour, began to push out a thin lateral lobe between the trachea and the œsophagus, secondary to the absorption of a large uterine fibroid. The symptoms were hardly noticeable dysphagia for a few weeks, and then sudden complete closure of the œsophagus, for which condition no relief could be obtained, the general health of the patient precluding all operative interference. The patient died of starvation fifteen days after the obstruction of the œsophagus. The diagnosis was verified in all particulars by the necropsy.

Sarcocele.—Mr. BOUTFLOWER exhibited a specimen of sarcocele which he had recently removed from a healthy man aged 40. The tumour weighed two pounds, and the tunica vaginalis was completely adherent to it. The cord was not thickened, nor were the inguinal glands enlarged. The tumour was of sixteen months' growth; there was no history of injury or of syphilis. Although the tumour on section resembled medullary cancer in appearance, Mr. Boutflower was inclined to believe that it was not malignant. The microscopical appearances were those of small-celled sarcoma.

Arterio-venous Aneurism.—Mr. BRADLEY showed a specimen of arterio-venous aneurism. The patient from whom the specimen was obtained was a man aged 56, who had his thigh amputated for gunshot wound many years before. On admission to the infirmary, he had an elongated pulsating tumour at the lower part of Scarpa's triangle. A continuous thrill could be felt as far as the end of the stump. Although compression was attempted, the tumour continued to increase in size. Ligature of the iliac artery was performed, a catgut ligature being used, which, however, slipped; and six hours afterwards, pulsation was again present. A small amount of hæmorrhage occurred; and death ensued from peritonitis. Mr. Bradley suggested that, in future use of catgut, two ligatures should be used, as a single one was liable to give way. *Post mortem*, a saccular fusiform aneurism of the femoral artery was found, having a communication with the vein, which was dilated to a circumference of about four inches. The aneurism had probably been formed at the time of the gunshot injury.

Citrate of Caffeine.—Dr. LEECH read a paper on the therapeutic uses of citrate of caffeine. His remarks were chiefly devoted to its diuretic action, and he showed, by tabulating the amount of urine passed under the influence of different drugs, and apart from the influence of drugs, that caffeine has a powerful effect in increasing the action of the kidneys in some pathological conditions. He found it most useful in dropsy dependent on heart-disease; but in some obscure cases of ascites apparently due to peritoneal changes it had seemed to be of much service.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, FEBRUARY 28TH, 1880.

E. H. BENNETT, M.D., President, in the Chair.

Complete Luxation of Spinal Column: Division of Spinal Cord and Abdominal Aorta.—Dr. W. THOMSON showed a group of specimens from the body of a boy aged 10, who was driven over in the street, the wheel of a heavily laden hay-cart passing across the small of his back. He lived six or eight minutes after the accident. The last dorsal vertebra was observed to be very prominent. The abdominal cavity contained much blood, and an extensive hæmorrhage had evidently taken place towards the right meso-colon. The abdominal aorta was completely severed. The right kidney was torn, and a portion of it was quite detached. There was complete dislocation of the spinal column. The spinous processes of the last dorsal and the first lumbar vertebræ were crushed, these vertebræ being entirely separated, and the spinal cord being cut or torn across.

Traumatic Perinephritis.—The PRESIDENT brought forward a case in illustration of the ulterior results of wound of the kidneys. On November 8th, 1879, a woman aged 60 fell from and with a ladder from a height of not more than six feet. Great collapse and irritability of the stomach ensued. There was an extremely oblique fracture of the lower end of the left femur. The left humerus was also broken close to the shoulder-joint. The right index finger was smashed. Two days after the accident, there was copious hæmorrhage from the bladder. On November 13th, the pulse and temperature rose and remained high, the thermometer marking 99 to 100 deg. in the mornings, and 101 to 102 deg. in the evenings. Some symptoms of cystitis appeared—the urine being alkaline and purulent. Vague abdominal pain was complained of on both sides. On February 4th, there were symptoms like those of ileus, which were supposed to be connected with perinephritic abscess. After death, much black pigment was found lying over the ileum, jejunum, etc. This deposit was probably due to the escape of blood effused at the time of the accident in November; it was, in fact, altered blood-pigment. There was no wound of the bladder. Some phosphatic calculi were found in the left ureter and kidney. An abscess of great size lay on the front of the left psoas muscle, and communicated with the hilus of the corresponding kidney. The right kidney and liver were glued together by recent lymph. There was pyelitis, and some calculi lay free in the pelvis of the kidney. An old Colles's fracture of the right radius also existed. It was interesting, as it exhibited the phenomena of comminution of the lower fragment, described in a paper read by Dr. Bennett before the British Medical Association at Cork in August 1879 (*Vide* BRITISH MEDICAL JOURNAL, August 30th, 1879, p. 322).

REVIEWS AND NOTICES.

CHIRURGIE OCULAIRE. Par L. DE WECKER. Leçons recueillies et redigées par le Dr. MASSELON. Paris: Octave Doin. 1879.

THE title of this work is somewhat misleading, as, in many respects, it is rather a series of clinical essays than a systematic treatise on ocular surgery. The author, as we learn from the preface, intended it mainly as a guide to practitioners of general surgery as opposed to specialists. Nevertheless, we venture to think that it is likely to prove far more useful to the latter class of readers; and this because it presupposes an acquaintance with ophthalmic methods and ophthalmic literature, such as few general surgeons can be supposed to possess. Many, if not the majority, of the operative procedures described and recommended are such as probably only those in large special practice will ever have the opportunity to carry out. In spite of this, however, the book, taken as a whole, is a thoroughly good one. If the space which the author has allowed himself for the treatment of so wide a subject as ocular surgery be small, he has, at any rate, made the most of what was at his disposal. He has scrupulously avoided all historical padding, which is all the more praiseworthy as he is evidently well read in the literature of his subject. He has also judiciously either omitted or curtailed all descriptions and criticisms of operations or instruments, which may be considered either as obsolete or as having been definitely condemned by the verdict of experience. Then he dismisses, in a few words, without note or comment, the radically bad operations of couching; of drainage as once practised by himself; of iriddesis; together with many of the complicated and seldom required procedures of blepharoplasty. All really important subjects are, on the other hand, treated with commendable fulness. The historical sketch prefixed to the account of the various cataract operations is a model of clearness and condensation of style. To the pioneers in the field of modern ophthalmic surgery ample justice is then done, and the brilliant and classical operation of Daviel receives its just meed of praise. The author devotes several pages to an account of his own method of extraction, which he considers, and, we think, not altogether without reason, to be an improvement on von Gräfe's. The statistics he adduces are remarkably favourable; but, as they stand in his pages, they lack that fulness of detail and scientific precision which would alone make them really useful to an inquiring reader. They are given in altogether too vague and loose a form to be of any practical utility, save as showing the large amount of success which careful and skilful operating may be made to command. The lectures in which the author treats of the diseases of the iris and their treatment; of sclerotomy; of affections of the orbit; of the muscles; and perhaps more particularly of the lacrymal appendices, are all of unusual excellence. Everywhere the traces of a master's hand are visible. The precepts of experience, rather than theoretical deductions, guide the author's pen in all he writes. Throughout, he gives us his own views fully and fearlessly, and speaks with the *prestige* of a ripe experience. A tone of originality and independence of thought pervades every page, adding not only to the interest, but also to the permanent value, of the work as a contribution to modern ophthalmology.

In a few points, indeed, we think the author's teaching is scarcely in accordance with the experience of some of the best ophthalmologists in this country. Thus he condemns, in a very wholesale manner, all suction-instruments, including his own, and considers their use to be fraught with difficulty and danger. But, as every English surgeon knows, aspiration is invaluable as a means of saving time; and has given, in the hands of Messrs. Bowman, Hulke, Teale, and others, very brilliant results. Whether a von Gräfe's knife or the common lance-shaped one is the best to perform iridectomy, will probably always remain a matter of personal choice. A good operator will no doubt feel equally at home with either instrument, while a heavy and unskilled hand is capable of doing quite as much damage with one as with the other. The author, however, maintains the superiority of the straight knife on all occasions; but we agree with him at least only so far as regards those cases in which the anterior chamber is unusually shallow. We cannot, however, accept with equal complacency his suggestion of administering pilocarpine hypodermically, in order to hasten absorption of a lens. This, at least in the case of children, might easily lead to unpleasant consequences. The operation he suggests for trichiasis appears decidedly inferior to that of Jaesch and Arlt, which it is intended to supersede; while Szymanowski's well-known and ingenious method for cicatricial ectropion scarcely receives the consideration it deserves. The author apparently holds that the advancement of a muscle should, in many cases, be practised without division of its opponent; in other words, he would supersede tenotomy by muscular advancement. This certainly is neither more nor less than substituting a difficult, painful, and, even in the best hands, somewhat uncertain operation, for one that is easy, almost painless, and practically sure in its results. Again: we find, not without a certain amount of astonishment, that he both counsels and himself practises enucleation without anæsthetics. This is the more surprising, as he informs his readers that he believes that the quadruple tenotomy, followed as it is by luxation of the eyeball, to say nothing of the conjunctival incision and the final section of the optic nerve, must be decidedly painful.

These blemishes are, however, after all only on the surface, and detract but little from the real excellencies of the work before us. It supplies, and, on the whole, supplies satisfactorily, a want that has long existed in ophthalmic literature. Coming as it does from the pen of such a widely known and gifted ophthalmic surgeon as the author has long ago proved himself to be, it appeals to a larger audience than the one he usually addresses in his lectures, and has more than a mere passing interest. It is a work that will live, as representing, not unworthily, modern ophthalmic surgery.

A few words of praise are also due to Dr. Masselon for the manner in which he has performed his task as editor. The arrangement adopted is both convenient and practical, while the style is lucid and readable. The text is illustrated, but not encumbered, with some excellent woodcuts; and there is a remarkable immunity from those errors in the spelling of proper names which disfigure many otherwise excellent French manuals.

In conclusion, we can very strongly recommend this book to our readers. It is one of the best works on its special subject with which we are acquainted, and is not likely soon to be superseded. It is full of valuable suggestions and practical hints; and, though not perfect, is fully up to the high standard of excellence which the author has long taught us to look for in all that comes from his pen.

THE SPECTROSCOPE IN MEDICINE. By CHARLES A. MACMUNN, B.A., M.D.Univ.Dub. London: J. and A. Churchill. 1880.

PROFESSIONAL readers owe a debt of gratitude to Dr. MacMunn for having brought within their easy reach a summary of the principal facts relating to the uses and employment of the spectroscope in physiology and in medicine. Hitherto this instrument has found only a limited application in the hands of experts for the purposes of medico-legal inquiries, but it promises to become in the future an adjunct to clinical and pathological investigation, of as much importance in minute chemical investigations as the microscope is in minute anatomy.

The author has been for some time well known to those interested in this special department of scientific inquiry as a devoted and laborious spectroscopic observer, and the present volume contains evidence of considerable powers of independent research. After describing the principles of construction of the spectroscope, and the methods of using various instruments required, he gives an account of the principal physiological absorption spectra of blood, bile, urine, etc. With reference to pathology, the spectroscope enables us to distinguish blood from the bladder or urethra from blood from the kidney; blood from the stomach from blood from the lungs; in certain ovarian and parovarian cysts, Dr. MacMunn has discovered the presence of a kind of hæmatin which, though not a constant constituent of these fluids, appears, so far as we know at present, to be peculiar to them.

The medico-legal question of the detection of blood-stains demands and receives full attention; the descriptions of methods under this head are most minute and careful. The author describes a substance in the bile of the mouse which he has not isolated, but which gives the spectrum of urobilin, the principal pigment of urine, and thereby affords strong confirmation to the general opinion that the urinary colouring matters are derived in some way from the bile-pigments. In an appendix, there is added a very simple and easy method of reducing spectroscopic readings to wave-lengths, by means of graphical interpolation.

We do not anticipate that the spectroscope will come very rapidly into general use, and we have some sympathy with those who are disposed to sigh over the multiplication of instruments, the application of which demands much time and patience, too often for very scanty results; but we hope that the publication of this book will lead to a more extended use of this means of investigation in our chief hospitals and pathological laboratories, so that its value may be noted on a larger scale.

In concluding this brief notice, we think it only fair to draw attention to the fact that the author has not enjoyed the advantages of a hospital appointment, of a public laboratory, or even the comparative leisure of consulting practice, but that these investigations have been carried on, and this work completed, in the scanty moments snatched from general practice and with the limited resources of private means. Much good work is done in this country by men so situated; but much more might be expected, did science receive only a moderate recognition at the hands of the State or of our wealthy corporations.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW UTERINE DOUCHE.

It is often a matter of great importance to be able to thoroughly wash out the vagina or uterus whilst the patient is lying in bed; but to her the performance is usually a very disagreeable one, even when done by the medical attendant himself, from the difficulty in preventing the escaping fluid from wetting the bed, and from the almost unavoidable exposure of her person in adjusting or removing the receptacle employed; and, if the operation be delegated to the hands of an untrained nurse, the patient generally complains of the pain inflicted in addition. I have had a douche made for me by Messrs. Maw, Son, and Thompson, which completely removes these difficulties, and is, at the same time, so simple that it can be used successfully by the most unskilful of nurses. It is an India-rubber tube, ten inches long, 1.25 inches in diameter, and 0.3 inch thick, terminated by a thin polished cone of vulcanite, and accompanied by a slender injecting tube, two inches longer, which fits over the jet of a Higginson's syringe. After being dipped in warm soap and water, it can be passed with the utmost facility whilst the patient is lying on her left side in the ordinary obstetrical position, even when the labia are swollen and tender; and it is long enough to reach a basin placed outside the bedclothes. The injecting-tube can then be painlessly introduced as far as may be necessary, and a second basin being placed beside the other filled with warm water, Condy's fluid, etc., the washing away of clots, fœtid discharges, and so on, can be carried out; or, if required, a lotion may be retained as long as we please by raising the end of the larger tube; and in both cases, without a drop of the fluid escaping between it and the labia. The only precaution to be taken is to press the edge of the basin close to the nates when finally withdrawing the tube.

In a case of epithelioma of the os uteri, attended with a most offensive discharge, this instrument proved of the greatest comfort and value to the patient. It was used by an ordinary village nurse, without the least fuss or trouble, for frequent washing with diluted Condy's fluid and the subsequent retention of an opiate lotion, and at once did away with the alternatives of intolerable pain and stench or an uncomfortably wetted bed. I have used it, also, several times in the prolonged injection of warm water in cases of rigid os uteri, and for that of hot water—most successfully—in one of *post partum* hæmorrhage. But it is for the purpose of routine washing of the vagina with disinfectants after parturition that it will be found, I believe, most useful.

G. F. Masterman, L.K.Q.C.P., M.R.C.S.E.

Ixworth, Suffolk.

AN IMPROVED UTEROMETER.

The special character by which the instrument, of which Fig. 1 is a drawing, is rendered an improvement on others having the same object, is that the sliding bar which is attached to the flange is made to work *inside* instead of *outside* the instrument, thus diminishing its bulk and rendering it more facile in use. The shield is set at the normal length of the uterus, any deviation from which is shown by an index on the proximate extremity. The manufacturers of this instrument are Messrs. Salt and Son of Birmingham.

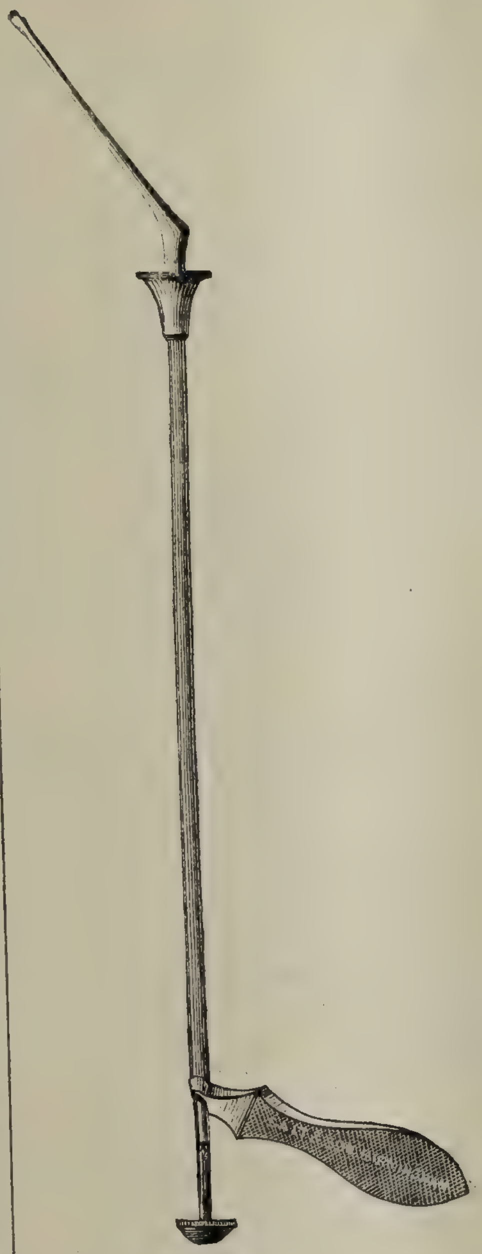


Fig. 1.

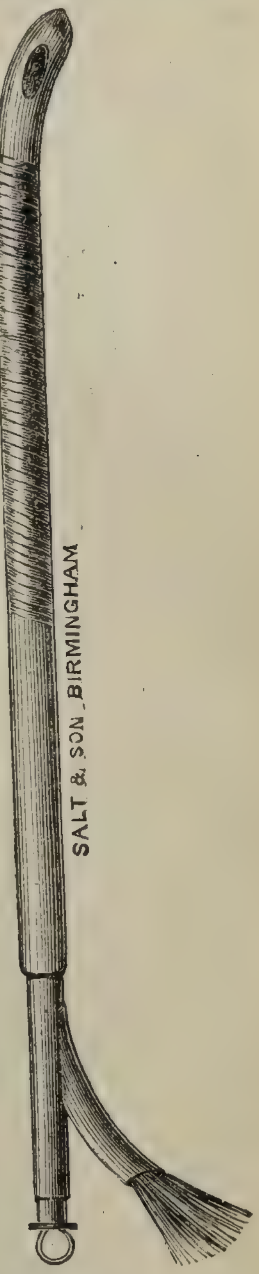


Fig. 2.

NEW FLEXIBLE SILVER FEMALE CATHETER.

This catheter, as represented by the sketch (Fig. 2), has been found very useful, combining, as it does, the flexibility of the elastic catheter with the durability of the silver one. The surface is perfectly smooth, and the size convenient for the ordinary pocket-case. Each catheter is made of sterling silver strongly gilt, and is provided with a sliding tube for increase of length, and a syphon arranged in the usual manner to permit or arrest the flow of urine at the will of the operator.

Royal College of Surgeons.—At an ordinary meeting of the Council on the 11th instant, James Henry Gramshaw, M.D. St. Andrews, and L.S.A., of Gravesend, was elected a fellow of the College, his diploma of membership bearing date December 2nd, 1842.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 20TH, 1880.

THE CLINICAL VALUE OF OUT-PATIENT PRACTICE.

AMONG the discussions that have arisen, from time to time, as to the conduct of the out-patient departments of our hospitals, perhaps too little has been said as to their value as a field of scientific investigation and clinical training. The post of assistant-physician, with the charge of out-patients, has been considered too much as a piece of drudgery that has to be gone through, rather than as a good opportunity, affording scientific experience to the physician and good clinical teaching to the pupils of the school. It is to be hoped that the old days of overcrowded out-patient rooms are gone by. Good clinical work was next to impossible when patients were seen at the rate of sixty the hour, and when it was the exception for a diagnosis to be made and written down. In many hospitals, the arrangements are now such as to allow the careful and detailed examination of the individual patients, and the chance of forming a correct diagnosis.

Numerous published essays, contributions to the medical societies, and the reports of hospital practice published in these columns, abundantly prove the opportunities for good work afforded by the care of out-patients; in this manner, much valuable information has been collected concerning heart-disease, phthisis, brain-disease, syphilis, etc., such as would not have been readily collected in any other way in equal quantity. Some diseases are almost solely met with among out-patients as being inadmissible for in-patient treatment; among such may be mentioned phthisis, epilepsy, and disordered conditions of pregnancy. The causation, clinical history, and progress of these conditions may well be studied among out-patients. Some functional conditions—such as hysteria, neuralgia, neurosis, headache, anæmia—may best be studied among those still filling their place among the ordinary surroundings in the social life of labour. The influence of climatic changes upon the various classes of disease becomes very noticeable in the routine of out-patient practice, in the periodicity in the flux of pulmonary cases in the winter, infantile diarrhœa in the summer, the aged and the children being principally affected by the alterations of temperature.

Patients are necessarily frequently transferred from the wards to the out-patient department; particularly is this the case with chronic nervous disease and heart cases; the opportunity is thus afforded of studying their life-history, and samples of chronic disease are always present for clinical demonstration. With regard to children's diseases, whooping-cough, rickets, chronic diarrhœa, the effects of ill-feeding, are perhaps best studied while the child is living with its mother under the conditions which produced the disease.

A large number of miscellaneous cases passing under observation afford many points for interesting observation: *e.g.*, conditions of pigmentation of the face during pregnancy, cases of illusions without insanity, the signs and pathology of senile decay, the ultimate effects of rickets upon the system, etc.; and such facilities, if intelligently used, help greatly to sharpen the faculties of the observer, and may afford a collection of facts of great value in argument upon pathological conditions.

When the arrangements of the hospital allow the physician to admit all urgent cases to the wards, a large supply of important cases is seen to pass through his hands, thereby affording ample opportunity for teaching, and facilities for subsequently confirming or correcting the diagnosis first made. No clinique has a greater reputation for high-class scientific work, and getting good results therefrom, than the Moorfields Ophthalmic Hospital; and its practice, except in operation cases, is almost entirely among out-patients. We would urge, then, the value of the out-patient department as a field for scientific study and good clinical teaching; and would use this purpose as an additional argument why the general arrangements and nursing of such a clinique should receive more attention than they have done in the past.

If good work is to be carried on by the physician in the out-patient consulting-room, the arrangements and management must be as carefully attended to as that of the in-patient wards. It is essential that the rooms should be light, warm, and well ventilated; the waiting-rooms should be distant from the consulting-rooms, that the latter may be quiet. A nurse in the waiting-room, to regulate the movements and admission of the patients, and another in the consulting-room to get the patients ready and in order for physical examination, take such temperatures as are required, and otherwise look after the patients, are always wanted; and in a large department it might be well that a sister, as in a ward, should superintend the nurses.

THE PATHOLOGY OF MAMMARY EPITHELIAL TUMOURS.

THE papers recently read before the Royal Medical and Chirurgical Society, on cancer of the breast and the peculiar diseased condition of the nipple, first pointed out by Sir James Paget as connected with that disease, have raised some interesting questions regarding cancers in general, and more especially regarding epithelial growths in the mamma. Dr. Thin has stated that, of the four tumours which he examined, all were examples of what he calls duct-cancer; and this duct-cancer he believes to be the same disease pathologically as that described as adenoma mammæ, or chronic mammary tumour. If this view be correct, there are facts that need explanation, for the elucidation of which more extended observations are evidently required. Cases of chronic mammary tumour or adenoma, notoriously, in a great number of instances, last a long time without producing much local or general disturbance, a course which contrasts with the history of the cases which supplied materials for Dr. Thin's investigations. The cancer of the breast associated with Paget's disease of the nipple is without doubt a cancer that formidably threatens life.

It is now many years since Mr. Birkett called attention to the existence in the mamma of epithelial growths, which are distinguishable from scirrhous cancer of the organ, and pointed out clearly their salient features. So far back as in the second volume of the *Transactions of the Pathological Society*, he has described a case which recurred seven years after operation, the growth being found to consist of "acini or terminal vesicles of gland-tissue, very large, and distended with epithelium". The appearance thus described by Mr. Birkett is very frequently seen in these tumours, and is perhaps their most striking characteristic. The attention of observers has, however, perhaps been too exclusively fixed on this resemblance to gland-elements in the newly formed epithelium, changes in the connective tissue intimately connected with them being less accurately appreciated.

The concurrent testimony of the most experienced modern observers goes to confirm the doctrine that there are two distinct kinds of epithelial growth in the mamma. In one form, frequently recognised as scirrhus, the growth tends to diffuse itself rapidly through the connective tissue of the breast, and absorption by the lymphatics is the rule. In the other form, the epithelial growth is found in circular groups or clusters, surrounded by connective tissue, into which it has usually a comparatively slight tendency to penetrate; and around the circular cell-groups a distinct limiting membrana propria is often found—a fact to which German observers are prone to attach much importance. Dr. Thin, however, states that the membrana propria is not invariably present, and regards it as a new formation, frequently but not invariably found around the cell-masses. In scirrhous cancer the membrana propria seems never to be found.

The division of epithelial growths of the mamma into two classes, each distinguished by a special mode of development, governed by certain fundamental laws, and the tracing of each class to a distinct epithelium as the starting-point of the disease, are extensions of the doctrine first demonstrated by Thiersch for epithelioma of the lip, that cancerous epithelium is always a product of a pre-existing epithelium. The cancers of the mamma seem to afford an instructive illustration of that law. In the breast, there are two kinds of epithelium—the columnar epithelium of the ducts, and the secreting epithelium of the acini. One of the points insisted on by Dr. Thin is that the two varieties of cancer derive their distinctive qualities from these two kinds of epithelium.

The peculiarity of duct-cancer, it is stated, is the formation of rounded columns of cells, which sometimes form perfect epithelial tubes — a process that in its rough outline seems to resemble a futile attempt at a new formation of gland-tissue. But, in this instance, the attempted formation is abortive; instead of a glandular we have a columnar epithelium; and rounded masses of cells, which frequently break down in the centre and produce certain characteristic effects on the surrounding connective tissue, are the only result.

A point of clinical interest is that tumours which, under the name of adenoma or chronic mammary tumour, have been regarded as non-malignant, do, in a certain number of instances, run a comparatively rapid course, and produce death. Waldeyer applied to these growths the term "carcinoma", and recognised their connection with the galactophorous ducts. Many cases of rapidly growing tumours have been probably confounded with scirrhous cancer. The much-quoted case reported by Pitha and Billroth supports this suggestion. The tumour was diagnosed and operated on as a case of common carcinoma, and it was only after careful histological examination that its true nature was ascertained, and that it was pronounced to be an "adenoma". Labbé and Coyne relate the case of a woman aged 67, in whose breast a painless tumour, of the size of an almond, remained stationary for thirty-four years. It then began to grow, and, after two years' continued active growth, it was removed. It had all the essential characters of a duct-cancer, and not those of scirrhus. The same authors report another case, in which a woman had a tumour that developed immediately under the nipple when she was between thirty and forty years of age. It remained small for thirteen years; then it began to grow, and in two years the skin ulcerated. Removal was followed by reappearance of the disease; this time accompanied by glandular affection of the axilla. There was no ulceration for two years; and, at the end of three years, the woman died. Histologically, the tumour was identical with the growths variously designated adenoma, chronic mammary tumour, or duct-cancer. The tumours connected with Paget's disease of the nipple were described, in the paper read before the Royal Medical and Chirurgical Society, as identical in structure with the so-called adenoma; and additional evidence thus appears to be forthcoming, to show that this usually comparatively innocent growth may sometimes run a malignant course. We infer that it also further illustrates the impossibility, so far as our knowledge at present goes, of always determining the nature of a tumour without microscopical examination.

Whether these tumours should retain the designations by which they have been hitherto known in England, is a question that is open to discussion. The term *adenoma* is apt to mislead, inasmuch as the new growth forms no secreting structure, and does not even originate in the pre-existing secreting elements of the gland. The term *chronic mammary tumour*, or *chronic mammary glandular tumour*, perhaps, fails to convey an idea of the relative importance of the epithelial elements of the growth, and their occasional destructive effects. On the other hand, many surgeons will consider it inappropriate to apply the term *duct-cancer* to a growth that usually remains localised for many years without constitutional infection. But the progress of pathological knowledge has taught us the necessity of taking into account the anatomical structure of all tumours in questions of nomenclature. It is now universally admitted that every cancer consists of a growth of epithelium in the wrong place. But not every abnormal growth of epithelium is of necessity a cancer. To constitute a carcinomatous growth, the epithelial elements must exercise a destructive influence on the healthy connective tissue—an abnormal growth of connective tissue (the so-called stroma) usually taking place. This destructive effect of the morbid epithelium is not exactly the same in degree in any two cases of cancerous epithelial growth, even when the variety of epithelium affected is the same in both. Still more marked is this difference when different kinds of epithelium are involved in the morbid action. But the kind of diseased influence is the same. In one variety, the destruction of vascular tissue may be rapid, and the protecting effect of a barrier of newly formed connective elements almost *nil;* in another, the first destruction of the connective tissue immediately adjacent to the epithelium may, so far as the safety of the patient is concerned, be compensated by a strong barrier of membrana propria and fibrous tissue. The latter result is what frequently takes place in the formation of so-called adenomata, although not always to the same degree.

Judged by these tests, the chronic mammary tumour is a cancer. The growing epithelial tubes and columns not only displace, but destroy, the surrounding bundles of connective tissue (a process that can be well seen by an examination of specimens treated with osmic acid), and, as the columns fuse into the large spherical masses characteristic of the developed disease, the connective tissue between them is completely destroyed. Still, in most cases, the destructive effect on the vascular tissues cannot be compared to that exercised by the cancers that take their origin from the secreting epithelium. Frequently the epithelial masses are surrounded by a barrier of newly formed connective tissue, and, if Dr. Thin be correct, not unfrequently by the creation of a newly formed membrana propria.

The effect on the connective tissue varies very much in different instances. In many cases, it is comparatively slight and leads to a capsular formation; sometimes, the newly formed tissue is incompletely developed as regards quality, but largely developed (compared with the epithelium) as regards quantity, and we have then the tumour which is described by Billroth as adeno-sarcoma. In some specimens, all these changes are found to constitute different stages of development in the same tumour. In other and rarer tumours, the destructive effects on the connective tissue are, in some parts of the growth, greatly in excess of any new formation of that element; and there is then a tumour that clinically is apt to be mistaken by the surgeon for scirrhus, and which differs as much from the small chronic mammary tumour as a small superficial rodent cancer does from the severe forms of that disease.

Assuming that the tumours of the breast associated with Paget's disease of the nipple are anatomically of this variety, the cause of the apparently large ratio of malignant types amongst those as yet reported forms an interesting subject of speculation; but at present it is one regarding which we can only speculate. Whether a growth, that springs from a morbid action connected with the more highly differentiated columnar epithelium of the large ducts, is more malignant than one that springs from the epithelium of the smaller ducts; or, whether mere proximity to the surface and consequent irritation of the diseased epithelium, in its earlier stages, endows the unknown cancerous agent with greater virulence, are questions that can as yet only be answered by hypothesis.

THE RELATIONSHIP OF ANATOMY TO THE FINE ARTS.

A LECTURE, bearing this title, has recently been delivered by Mr. Messenger Bradley, before the Royal Institution of Manchester, at the invitation of the Council of the Manchester Academy of Fine Arts. It is now published in the form of a pamphlet, with a preface, wherein Mr. Bradley strongly advocates the encouragement of artistic anatomy in the great city of the north. The author refers to the Philadelphia Art Schools as examples worthy of imitation. Here thirty lectures are delivered annually by Dr. Keen on anatomy in art, including twelve on the muscles, with demonstrations of the effects of electricity in setting any muscle of the face in action at the experimenter's will—a method first employed by Dr. Duchenne de Boulogne, and immortalised, we may fairly say, in Darwin's *Expression of the Emotions*. The American schools are described in the last volume of *Scribner's Illustrated Monthly*, a magazine which, by the way, shares with *St. Nicholas* the honour of being adorned with some of the most admirable specimens of wood-engraving ever brought before the public.

Mr. Bradley, of course, considers anatomy and art from the most exalted point of view. Just as the former is not, as the author, we know, must admit, a toll to be paid at the turnpikes of examination, so art is not, he informs us, to be taken frivolously, as is too much the case in England; it should not be reckoned, he rightly asserts, as "on a par with an æsthetic upholstery or a refined millinery, or at best as pandering to the proud possession of an ignorant plutocracy". This is quite true; but the Swinburnian alliteration at the end of this sentence points to an evil that has, we think, been exaggerated. Midas is not necessarily a man of bad taste. His untutored feelings towards art tend to counteract the extraordinary technical vagaries of certain eclectic artists. He most assuredly buys a few of their productions "because it is the thing"; but his purchases mostly consist of real landscapes like nature, of *actualités* by or after Frith, and of studies of beauty representing handsome and healthy women, not suffering from hysterical "intensity", or phthisis, anæmia, or any other æsthetic malady.

Mr. Bradley begins, however, by paying a high tribute to the best-known exponent of the new school; for, first in the list of English artists who are good anatomists, he places Mr. Burne Jones. Then follow Rossetti, Poynter, Maddox Brown, Millais, Watts, Leighton, Calderon, and Shields. These, he thinks, go far towards exhausting the number of modern British painters who understand the human form; and he significantly reminds us that most of them were educated abroad. Michael Angelo, as Bell has recorded, was so conscientious that he sketched joints, bones, and ligaments before clothing them with the similitude of flesh; and many modern artists sketch both bones and flesh with great care in commencing to paint a perfectly draped human figure. The Greeks produced the most unrivalled specimens of artistic anatomy, yet they did not dissect. Their knowledge of the surface of the body was rendered perfect by the observation of their gymnastic exercises, and by studying the graceful gliding motion of their dancers, who were never abrupt nor violent in their movements. Mr. Bradley shows that, in spite of their excellence in painting and sculpture, they would have gained by a more precise knowledge of anatomy. In the greatest statues of antiquity, the relative positions of the subclavian fossæ are altered, the digitations of the *serratus magnus* are given incorrectly, the plane of the lower ribs is altered, the deltoid triangle generally made too square, and the muscles of the forearm wrongly represented. If the Greeks were not perfect, how much more necessary is the correct study of anatomy to British artists, who are not supposed to be as deeply endowed with æsthetic instinct as were the Athenians and their neighbours. The study of the model alone is not sufficient; indeed, it develops a wooden style, and the human form is represented in a state of general cramp. This is not to be wondered at, since the model (an Englishman in an humble social status) is not invariably graceful in his movements; and, after remaining for a quarter of an hour in conventional attitudes, the outlines of his subcutaneous muscles will not be favourable for representation on canvas or marble.

Mr. Bradley then describes the distinctive features of man, of the child, and the adult; of the savage and the European; and other matters well known to the medical and scientific public. He next discusses rules of proportion, and prefers Professor Zeising's law. "If the division of a whole, made up of unequal parts, appear proportional, the smaller part must be in the same proportion to the larger that the larger is to the whole; or, in other words, the whole must be to the larger part in the same ratio as the larger is to the lesser." In the Apollo Belvedere, taking the entire body as 1,000, the lower half is 618.033, the upper 381.966. As to the upper extremity, it should, by this law, bear the same proportion to the forearm that the forearm does to the upper arm; this is verified by the fact that the whole arm being 437.694, the forearm, with the hand, measures 270.509, and the upper arm 167.184. These, and other ideal proportions, are given at length in tables as an appendix. Mr. Bradley, on the principle carried out in the Philadelphia schools, discusses muscular action and the anatomy of expression, after Bell and Darwin. In conclusion, he advocates the study of anatomy by painters and sculptors, as "a sort of artistic conscience, which tells the painter when, and where, and how he errs; and also enables him easily and faithfully to copy nature". Mr. Bradley believes that art should be multiplied till art-education becomes the proper possession of the people. When that is the case, the works of the elect will be all the more appreciated; and artistic quackery will not so readily be able to impose on a no longer ignorant public.

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DR. PAGET, Regius Professor of Physic, has been appointed a delegate to represent the University of Cambridge in relation to the International Medical Congress which it is proposed to hold in London in 1881.

THE Medical State Inquiry Committee of Holland has issued its official report for the year 1878. From this it appears that, out of a population of 3,924,792, there had been 90,735 deaths from various causes. The chief or most numerous causes of death were those attending lung disease. With a number of 97,328 vaccinations officially reported, there were eleven deaths from small-pox.

JUDGMENT has been given in the Court of Appeal in the case of the Pharmaceutical Society of Great Britain *versus* the London and Provincial Supply Association, in which the question was raised whether the defendants' society could carry on a store for the sale of drugs without contravening the Pharmacy Act. The Court reversed the decision given in the Queen's Bench Division in favour of the plaintiffs, but consented, if required, to grant time to enable the Pharmaceutical Society to appeal to the House of Lords.

WITH reference to the subject of the amalgamation of the British and the India Medical Services, a Calcutta paper understands that a proposal has been made by the present Surgeon-General, Indian Medical Department, to separate the Army from the Civil Medical Department; and that, in the event of the proposal being sanctioned by the Home Government, Dr. Beatson will probably remain in charge of the Civil Medical Department until the tenure of his office expires in November next.

ZYMOTIC DISEASES IN ENGLISH TOWNS.

THE annual death-rate from the seven principal zymotic diseases last week averaged 3.2 per 1,000 in the twenty largest English towns, and ranged from 1.5 in Brighton, to 5.9 and 9.0 in Hull and Plymouth. Measles showed the largest proportional excess in Plymouth, Hull, and Nottingham; scarlet fever in Sunderland and Bradford; and whooping-cough in Salford, London, and Manchester. Of the 17 deaths referred to diphtheria in the twenty towns, 13 were recorded in London. Small-pox caused 13 more deaths in London, but not one in any of the nineteen large provincial towns.

A VEGETARIAN RESTAURANT.

A RESTAURANT of the above description has lately been started in Farringdon Road, near the Metropolitan Railway Station, in which most wholesome and nutritious meals are supplied at a low rate. The quantity of animal food consumed by people generally is much more than is required, and there is too little vegetable used. Our English restaurants lack greatly the delightfully prepared vegetables to be found universally in French restaurants. We have tasted several of the dishes provided at this new restaurant, such as white beans, macaroni, savoury pie, and others; and found them to be most excellent. The low rate at which vegetable diet can be obtained, in comparison to animal diet, should be a further consideration.

A STEP IN THE RIGHT DIRECTION.

At a meeting of the Governors of the Liverpool Dispensaries held a short time ago, a report was handed in by the Committee recommending a much needed medical reform. It has of late years been found difficult to secure the punctual services of the honorary medical staff. This has arisen from various causes, connected probably with the kind of work, and from its not leading to any higher post, such as a hospital surgeoncy. After careful consideration, the Committee resolved to recommend to the Governors that the medical officers should receive a pecuniary recognition of their services. They recommended that the number of medical officers be reduced from eighteen to twelve, and that four of them be attached to each dispensary, each giving his attendance weekly, instead of six medical officers with two attendances each per week. In acknowledgment of their attendance, each honorary officer shall receive an honorarium not exceeding the rate of £40 *per annum.* Of course, this sum is no remuneration for the duties of the officer; but it is a *quid pro quo*, by which the principle of some remuneration to medical men for the loss of time and money which they sustain by their connection with medical charities is admitted. This is a step for which the Committee deserve great credit, and one which we trust will be not only adopted by the Governors, but also taken by other medical charities throughout the kingdom. The Liverpool Dispensaries are to a certain extent self-supporting, the sum of from £800 to £900 being raised by the pence subscribed by the patients. If other medical charities would adopt a similar course—namely, requiring the patients to pay a small fee—the granting of an honorarium to the medical officers would perhaps become much more general, as a fund could be formed from which the medical officers might be paid without drawing upon the income received from subscribers and donors.

LECTURERS WHO CAN LECTURE.

The following paragraph is interesting as showing how they do things in Chicago, where tradition is less strong and adaptibility of means to the end more directly and easily held in view than in some elder cities. It is apparently considered that it is a highly important function of a lecturer to lecture—a proposition which is, of course, not always admitted in some universities, hospitals, and schools in England—and in Chicago pains are taken not only to ascertain that he can lecture, but that he does not compare unfavourably in respect of this prime function of his office with other aspirants for the post. Thus we read:

> The *concours* for the lectureship on gynæcology in Rush College (Chicago) spring course has occupied the two evenings of January 6th and 7th. There were six contestants; Dr. E. B. Ellis, of Galesburg, Illinois, who lectured on abscess of the vulvo-vaginal glands; Dr. D. T. Nelson, of Chicago, who lectured on sympathetic disturbances; Dr. W. L. Ransom, of Roscoe, Illinois, who lectured on membranous dysmenorrhœa; Dr. D. C. Camp, of Chicago, lecturing on peritonitis; Dr. A. J. Stone, of St. Paul, Minnesota, lecturing on sarcoma uteri; and Dr. R. Stansbury Sutton, of Pittsburgh, who discussed the subject of dermoid cysts. The choice clearly lay between Drs. Nelson, Stone, and Sutton. Dr. Stone desired, if elected, to remain a resident of St. Paul. The college authorities would not consent to the appointment of a man who would not be a resident of Chicago. The place was offered to Dr. Sutton, on condition that he came to Chicago to reside.

The process is terribly primitive and downright; and London students—not to speak of any others—might wish, for their own sakes, since they are obliged to attend so many hundred lectures a year, that some such test were in vogue here, which is hardly likely to be the case until our schools undergo some form of rejuvenescence. The body of students who should demand that their lecturer should be a person who has studied and succeeded in mastering the art of exposition, and who had proved his natural and acquired aptitudes for the post, would be regarded by their regents very much as Oliver Twist was looked at when indicated by the beadle as the boy who had asked for more. It is only in cities so "organised" as Paris, or so very young as Chicago, that a *concours* is required for the office of teacher and lecturer. In London, at least, students are kept well in their place; they *must* attend the lectures, and all the lectures, and none but the lecturer nominated, or they will never get their certificates signed; and, as the lecturer is sure of his class within moderate limits, whether he be audible or inaudible, whether he recite a text-book or indulge in the inordinate development of a taste for monologue or for crotchet, it is natural that there is in our London schools a large amount of inefficient lecturing, and much room for that stirring breath of reform which a system of *concours* would blow in upon the schools.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

Professor Flower will bring his course of lectures on the Comparative Anatomy of Man to a close this day, Friday, in the theatre of the Royal College of Surgeons. Professor Hutchinson will commence his course of six lectures some time in June next, when he will deliver four lectures on some of the surgical bearings of Gout and Rheumatism, and two lectures on the Etiology of True Leprosy. On the conclusion of these, Professor Butlin will follow with three lectures on the Relations of Sarcoma to Carcinoma. Mr. B. T. Lowne will conclude the series with three lectures on the Development of Sensory Organs.

SMALL-POX IN LONDON.

With reference to Mr. Sclater-Booth's answer to Dr. Lyon Playfair in the House of Commons, on the 15th instant, we have to remark that, nearly a year ago, he made the same statement as to the arrangements which he was making to see if improvements could not be made in the vaccination service of the metropolis, and he is apparently still engaged in making these arrangements. Meanwhile, small-pox keeps flickering up every two or three months, and shows no signs of disappearance. There can be no doubt that Mr. Sclater-Booth is right in ascribing the larger proportion of unvaccinated children in the metropolis than elsewhere to the shifting character of the poorer population; but there is a reason for this. It is notorious that the staff of metropolitan vaccination-officers is inadequate for the ever increasing multitude of births in London. This was, indeed, admitted, and a reform strongly urged in a paper by the late Medical Officer of the Local Government Board, which we published in these columns two years ago. With a larger staff, greater promptitude in looking up cases at the expiration of the legal period of exemption could be ensured, and, consequent upon this promptitude, a large reduction in the number of children who now escape vaccination through the removal of their parents before they can be reached by the vaccination-officer.

ANTIVIVISECTION IN NEW YORK.

The Legislature of the State of New York has had before it a Bill for the prohibition of vivisection—meaning thereby experiments on animals for medical and scientific investigation. A number of medical societies and associations in the State have presented the following protest.

> "We, the members of the New York Academy of Medicine; of the Medical Society of the County of New York; of the New York Medical and Surgical Society; of the New York Pathological Society; of the Albany Academy of Medicine; of the Buffalo Medical Association; of the Rochester Medical Society; of the Brooklyn Anatomical and Surgical Society; of the Elmira Academy of Medicine; and of the Medical Society of the State of New York, representing all the county medical societies in the State, beg leave respectfully to express our strenuous opposition to the proposed enactment, as contrary to the interests of the State and an enlightened policy of legislation.
>
> "Experiments upon animals have the same value for investigation and discovery in medicine as those in physics and chemistry for the corresponding branches of natural science; they have been, in point of fact, a most valuable aid in medical research, and have often led to important discoveries upon which depends our knowledge of the human body in health and disease; they have made us acquainted with the functions of the internal organs and the action of their different parts; they have brought to light a variety of methods and procedures for saving or prolonging life; they have been instrumental in the modification and improvement of important surgical operations; they have detected the cause and mode of transmission of contagious and infectious disorders; and they have been the means of introducing new and useful applications of medicinal remedies. They are not performed in such a way as to cause the infliction of unnecessary physical pain, suffering, or death upon the brute creation, but with due regard to its alleviation or prevention by every appropriate means. Their results, in increased

knowledge of the living body and facilities for successful treatment and cure, in veterinary medicine, are of benefit to great numbers of the domestic animals, and are, therefore, of importance in increasing and preserving the animal wealth of the State.

"The clause in the existing law which recognises the propriety and usefulness of such experiments, and expressly protects them from interference, was adopted by the Legislature in the session of 1867, after full and deliberate consideration. We regard it as a prudent, just, and humane legal provision; we offer our earnest protest against the present Bill, which is intended to nullify its operation; and we confidently hope that no such unwise enactment will receive the countenance of the Legislature of the State of New York."

A similar representation has been made to the Legislature by the various teaching and licensing bodies in the State; viz., the Faculty of the College of Physicians and Surgeons, Medical Department of Columbia College; the University of the City of New York, Medical Department; the Bellevue Hospital Medical College; the Albany Medical College; the Medical Department of the University of Buffalo; the Long Island College Hospital; and the College of Medicine, Medical Department of Syracuse University.

THE PROTECTION OF LIFE.

THE following resolution, which might with advantage be acted upon in this country, was recently adopted at a meeting of the New York Police Commissioners. "That the Board of Police hereby give notice that it will entertain applications in writing from private citizens or public officials having control of buildings or places where large numbers of adults or children are employed, or are in the habit of assembling, to connect the station-house in the police precinct wherein the same may be situated, for the purpose of calling for immediate police aid in case of personal danger arising from panic or fright caused by an alarm of fire or from any other cause in said building or places; the connection by telegraph to be made, maintained, and its operations conducted, under the direction and supervision of the Superintendent of Telegraph of the Police Department, and at the expense of the parties making the same, and to continue during the pleasure of the Board of Police."

NIGHT MEDICAL SERVICE.

AT the meeting of the New York Academy of Medicine, on February 3rd, a paper by Dr. Henri Nachtel of Paris, on the system of night medical service carried out in that city, was read. Dr. J. W. S. Gourley said that the plan appeared to be so good that steps should be taken to secure its adoption in New York. It would, he believed, be a benefit to the public and to the profession. He moved a vote of thanks to Dr. Nachtel, and the appointment by the Chairman of three members of the Academy to investigate the question of night medical service as it exists in Europe, and report at an early date as to its practicability in the city of New York. The President appointed a committee, consisting of Drs. Gourley, Janeway, and Bronson; and to these the name of the President (Dr. Fordyce Barker) was added.

AN ORIGINAL FORM OF PRESCRIPTION.

THERE has been much controversy from time to time as to the propriety o a patient using again a prescription, after the occasion for which the medical attendant gave it and received his fee. Such a question would be hardly likely to arise in the case of a very large form of prescription, of which the *National* gives the following account. According to that journal, a medical man of Chalons being sent for to a case in a neighbouring village, forgot to take his memorandum-book with him. Apparently, elementary education is not enforced in that part of the world; for, when the doctor asked for pen, ink, and paper to write a prescription, nothing of the kind was forthcoming, nor could writing materials of any description whatever be obtained in the neighbourhood. Tired of waiting, the doctor seized a piece of charcoal, and wrote a prescription on the barn-door of the farm where the patient lived. The relations, however, of the sick man naturally found themselves unable to read what had been ordered for his benefit, and thus another difficulty arose. At last, the bright idea struck them of taking the door off the hinges, and sending it bodily to the druggist. This was accordingly done, and the pharmacist in the neighbourhood was considerably astonished by the apparition of a cart stopping at his establishment, laden with a huge door. It was impossible to take this novel form of prescription into the shop; so, realising the situation, he propped it up on the pavement, read the formula, and returned the door with the medicine ordered, of course taking proper precautions that, should the *ordonnance* require repetition, he would not again need to see the original prescription.

THE WESTMINSTER HOSPITAL.

A DINNER, in aid of the funds of this institution, took place at Willis's Rooms on the evening of Saturday, March 13th. His Royal Highness the Prince of Wales presided; and a large company of noblemen and gentlemen were present, including Lord Elcho, Lord R. Grosvenor, Lord Campbell, Sir R. Alcock, Sir H. Rawlinson, the Dean of Westminster, Lord Suffield, etc. In proposing "Success to the Westminster Hospital", His Royal Highness referred to the fact that the hospital was one of eleven in London which had for their object not only the relief of the sick poor, but the benefit of the community at large, and the training of medical men and nurses. A few years ago, the sum of £17,000 was expended on the improvement of the hospital. Among other improvements, day-wards for convalescent patients, detached wards for immediate isolation of infectious cases, and new dormitories for nurses, had been built. The balance was obtained by the sale of capital, and it was more especially to make this disposal of capital good that His Royal Highness made the present appeal. The necessary improvements were not complete, and the out-patient department, in particular, required attention. The rooms were too small and too dark. The medical school buildings were inconvenient and too small, and a larger surgery for the treatment of street accidents, and more accommodation for resident officers and nurses, were required. To carry out the improvements in question, it would be necessary to buy a small site near the hospital. This, of course, would require a large sum, and His Royal Highness appealed to those who were disposed to be charitable to liberally come forward in aid of the institution. Dean Stanley, in returning thanks, as one of vice-presidents of the hospital, spoke in highly eulogistic terms of the zeal and ability with which the medical staff connected with the hospital discharged their duties. A liberal amount of subscriptions was the result of the appeal, including a donation of twenty guineas from the Queen and one of one hundred guineas from the Prince of Wales. Of the large sum of nearly £3,000, which was collected, £1,000 was contributed by the lecturers of the school, on the understanding that a site in the immediate neighbourhood of the hospital should be purchased, upon which to erect new and more suitable outpatient rooms, as well as to provide extra space for the increasing number of students in the medical school.

THE INDIAN MEDICAL SERVICE.

IT is unfortunately but too seldom that our profession, when struggling against injustice, receives sympathy or assistance from lay papers. We note, therefore, with much pleasure, that *Allen's Indian Mail* has heartily espoused the cause of the Indian medical officers. The new and unfair scheme of reorganisation to which we referred at length in our last issue has been assailed by our contemporary in a vigorous and able leader.

BERIBERI IN BRAZIL.

THE prevalence of beriberi in Brazil has for several years attracted much attention among the members of the medical profession in that empire. In November last, a committee, consisting of Dr. d'Almeida Couto, Dr. R. A. Monteiro, Dr. D. C. Tourinho, Dr. J. L. Paterson, and Dr. da Silva Lima, was appointed by the Government to inquire into the nature, causes, treatment, and means of prevention of the disease in Bahia. The *Gazeta Medica da Bahia* for December contains a copy of the circular, to which are appended twenty questions, issued by the committee. A committee with the same object has also been appointed for the province of Maranhão. The disease is very prevalent in other provinces, especially Ceara and Parahyba.

GLANDERS IN KENSINGTON.

A QUESTION was asked in the House of Commons, on Monday last, on the subject of the alleged prevalence of glanders among horses in the parish of Kensington, a statement having gone forth that one hundred and sixteen horses had died of this disease during the last six months. Lord George Hamilton stated, in his reply, that these numbers were not due to any spread of the disease, but to increased activity on the part of the "local authority" (the Metropolitan Board of Works) in condemning infected animals. He added that the carcases had been properly disinfected and disposed of. So far as we can ascertain, it would appear that the numbers above given are excessive, as no fewer than forty-four out of the one hundred and sixteen horses referred to as having been slaughtered were the property of an omnibus proprietor whose stables are in another parish. Of the remainder, twenty-six belonged to two persons described as omnibus and cab proprietors, thus leaving only forty-six cases to be spread over the entire parish during a period of six months; and it need hardly be pointed out that the equine population of a parish like Kensington, which, independently of private stables, has nearly one hundred and fifty mewses within its boundaries, must be very considerable. Whether the mortality from glanders in this parish is at all above the average of other parishes we are unable to learn; but we have no doubt that the action of horse-owners, especially omnibus and cab proprietors, in reporting cases of glanders, has been rendered more prompt, and that the zeal of the veterinary inspector has been quickened by the exposure brought about last year by the medical officer of health in respect of the outbreak of glanders in the human subject at a stable in Colville Mews. Two deaths, it may be remembered, took place; and very heavy penalties were inflicted on the proprietor of the stables for omitting to report the occurrence of the disease amongst his horses. Numerous other prosecutions followed, and a state of things throughout the metropolis was revealed which had scarcely been suspected, and of which probably we have not yet heard the last. It was pointed out at that time by Dr. Dudfield, that the requirements of the regulations of the Privy Council Veterinary Department with respect to the disposal of the carcases of glandered horses were entirely disregarded by the local authorities; and it appears to be the case still, that the carcases are neither buried nor destroyed, but, after a pretence of disinfection, are dealt with like any other carcases; *i. e.*, the skins go to the fellmonger, the flesh to the cats'-meat man, and the fat—no one seems exactly to know whither.

KING'S COLLEGE HOSPITAL.

MR. W. WATSON CHEYNE, F.R.C.S., who has for a considerable time held the post of Surgical Registrar at King's College Hospital, was appointed Assistant-Surgeon and Demonstrator of Surgery to that hospital on Monday last, in succession to Dr. Gerald Yeo, who has resigned those offices in order that he may devote himself entirely to Physiology, of which he is the Professor in King's College.

A CHIEF JUSTICE'S ADVICE TO EXPERTS.

CHIEF JUSTICE CLINTON, in addressing the Buffalo Medical Association, took the opportunity of commenting on the duties and responsibilities of medical witnesses and experts. His remarks, which were given in the *Buffalo Medical and Surgical Journal* of January 1st, were very just and appropriate. "The testimony", he says, "of physicians, surgeons, and chemists, as experts, is often indispensable to the administration of justice. When true, and properly delivered, it is a sure shield of innocence and detection of guilt." It is well known that, in this country, a medical witness has no privilege to keep back any statements made by his patient to him during the treatment of a case. However it may legally affect the patient or others, a medical witness, if asked the question, is bound to reveal all that he knows. The same rule applies to numbers of the medical profession in the United States Courts; but, according to the Chief Justice, it has been recently somewhat relaxed in favour of medical men; and in the Revised Statutes there is the following enactment. "A person duly authorised to practise physic or surgery shall not be allowed to disclose any information which he has acquired in attending a patient in a professional capacity, and which was necessary to enable him to attend in that capacity." (Code 832.) Some such rule is required in our own courts. The privilege now granted to a solicitor and client should be equally extended to a medical witness and his patient. But it is chiefly in reference to the delivery of evidence by experts in court, that we desire to call the attention of our readers. The Chief Justice thus addressed the Association. "As to the delivery of testimony by you as experts, I have very little to say that might not just as properly be said to a witness who is called to testify only as to the facts of the case. The difference rests in this; the expert, as such, is asked only for his opinion upon the facts. He may be asked his opinion upon a hypothetical state of facts, and required to give reasons for the opinion he expresses. The cross-examiner is allowed great latitude, and, I am sorry to say, not unfrequently abuses it. But if the witness will only remember the worth and dignity of his profession, and that he is there simply to speak truth, as a servitor of justice, no arts or sneers of counsel can disturb him. Calm and self-possessed, he will answer every question, direct or cross, fully, and in the plainest and most lucid language in which the meaning of the answer can be conveyed to the jury. To such an answer he will add nothing, unless it be a necessary explanation. He will not air his learning before the court, nor have any the least contention with counsel. The court will, if need be, protect him from the abuse of lawyers. Such a witness will retire from the stand as calmly as he went upon it, approved by his own conscience, and respected by the court, the jury, and the bar." We can add nothing to this summary of the duties of medical experts in giving evidence. It comprises in a few words all that is required of a medical witness to place him in a good position with the court and the public.

MR. GEORGE VINCENT.

BY the death of Mr. George Vincent, which took place on Monday last, the BRITISH MEDICAL JOURNAL has lost a well proved and faithful servant. Mr. Vincent's connection with the JOURNAL commenced when it was first published in London, in the beginning of 1853. He was then selected by Mr. Richards, the late printer of the JOURNAL, for the duties of chief of the staff of compositors; and, having ably performed those duties for many years, he was again appointed to the same post on the removal of the business of the Association to the present offices. During this long period of twenty-seven years, Mr. Vincent not only performed the special duties of his calling in a most complete and satisfactory manner, but, in addition to being apt to comprehend and to carry out the instructions given him by the editors, he was always willing to place at the disposal of the JOURNAL such aid and advice as his technical experience and intelligent observation enabled him to afford. Successive editors have not only found in him an excellent skilled workman and trustworthy servant; but they—and all others connected with the Association with whom he has come into contact—have held him in high esteem for his quiet and obliging manner, his honourable and conscientious performance of duty, and his readiness on all occasions to do whatever was within his power for the interests of the Association. The General Manager informs us that he has at various times received much valuable aid from Mr. Vincent; especially at the time of the removal to the new offices, when the suggestions which his practical knowledge enabled him to give were of very great serivce. A long continued and intimate observation of Mr. Vincent's conduct fully justifies us in saying that the zeal and fidelity with which he discharged his duties could not be surpassed. His loss is sincerely deplored by every one connected with the management of the JOURNAL. The illness which resulted in his death—an affection of the brain—was of a fortnight's duration.

PAINFUL POINTS.

FRENCH physicians attach much more importance to the diagnostic value of precisely localised painful points than is customary in English clinical teaching, and the habit of seeking such diagnostic aid is very widely spread abroad. Dr. Vidal, in the *Progrès Médical*, No. 28, 1879, gives his reasons for alleging that, in ulcer of the stomach, the patient has commonly a painful spot over the spinous process of the sixth dorsal vertebra, and that, in affections of the liver, there is a painful spot at the spinous process of the fourth dorsal vertebra. In perityphlitis, patients often complain of a painful point at the junction of the second and third dorsal vertebræ on the left side.

DEATH OF MR THOMAS BELL, F.R.S.

MR. THOMAS BELL died at his residence in Selborne, on the 13th instant, at the age of eighty-seven. He followed for many years the profession of a dentist, and held for some time the office of Dental Surgeon and Lecturer on Dental Anatomy at Guy's Hospital, as well as that of Examiner in Dental Surgery at the Royal College of Surgeons of England. He was also eminent as a naturalist, and was for many years Professor of Zoology in King's College. He was a Fellow, and for some time Secretary, of the Royal Society, and had held the office of President of the Linnæan Society. Besides a treatise on the Anatomy and Diseases of the Teeth, he was the author of histories of *British Quadrupeds* and of *British Reptiles*. Three or four years ago, he brought out an edition of Gilbert White's *Natural History of Selborne*. He had resided in Mr. White's house, The Wakes, since his retirement from practice eighteen years ago.

COTTAGE HOSPITALS.

THESE useful institutions continue to increase and multiply at a rate which has already caused many a county infirmary to feel their influence. This influence is shown by the yearly diminution in the number of accidents and severe medical cases admitted from the country districts. It cannot be doubted that this absorption by cottage hospitals of the acute and accident cases will eventually produce a great change in the English hospital system. At the present time, the majority of the county hospitals, unless situated in manufacturing towns, admit a large proportion of chronic cases as in-patients each year, and this tendency will increase year by year. In these circumstances, it behoves the managers of the town hospitals so situated to consider if any and what alterations should be made in their rules to meet the altered circumstances. As the number of cottage hospitals increases, they will not only absorb the patients, but much of the voluntary income of the county infirmary. If the falling off in the in-patients is to be met by the admission of a large proportion of chronic cases, how is the diminished income to be made good? The cottage hospitals, by the system of patients' payments, realise an income of £10,000 *per annum*, and this sum is increasing. It will be desirable, therefore, for the managers of county infirmaries to follow the example thus set them, and, by insisting upon a payment adequate to the circumstances of each patient, to provide for the falling off in subscriptions. Chronic cases should all be paid for, and we commend the subject to the careful consideration of those interested.

STATISTICS OF PLACENTA PRÆVIA.

DR. ENOCH KING, in a recently published *brochure*, gives the statistics of placenta prævia collected from the practice of the physicians in the State of Indiana. Dr. King presents a table of 112 cases as the result of the general practice of the profession, and the methods which have been most successful in saving life, as distinguished from the statistics showing the special experience of highly-skilled experts, such as Robert Barnes, provided with all suitable apparatus. Of the 112 cases of placenta prævia, 31 died and 81 recovered; and of the children, 59 were dead and 53 living. In 58 cases, version was the principal treatment adopted, and resulted in saving 41 women and 29 children; and in 15, where the tampon appeared to have been the chief reliance, there were 13 women and 9 children saved. In 7 cases, where noted, the hand was passed through the placenta, saving 4 women and 3 children; and in 12 at the side of the placenta, under which plan 10 women and 7 children were saved. In 29 cases, where delivery took place at from 6½ to 8½ months, there were but 6 deaths in the mothers, although 18 children were dead. In 11 cases, the placenta was entirely detached, as recommended by Drs. Kinder Wood, Simpson, and Radford, and 9 women were saved, with but 2 children. In 9 cases, in which ergot was mainly relied upon, there were 5 recoveries and 4 deaths. In 7 cases, the women were left to nature, and 4 recovered, with 2 children saved. In 97 cases, the hæmorrhage was profuse in 62, moderate in 30, and small in 5. In 106 cases, the presentation was partial in 28, and complete in 78. Dr. King's table corroborates the statement of Dr. Trask, that the largest number of cases is found in second pregnancies, thus disagreeing with those who allege that the condition is most frequent in women who have borne several children.

RARE PARASITES OF THE HUMAN SKIN.

THE following interesting case, recorded by Professor H. Fischer in the *Deutsche Med. Wochenschrift*, October 25th, 1879, is compared by Dr. Napier with one communicated to the *Glasgow Medical Journal* in 1879, p. 222, by Dr. Dove M'Calman. The patient, an old lady, consulted Dr. Fischer for a peculiar skin-eruption of six months' standing, partly vesicular and partly squamous, closely resembling scabies, distributed over nearly the whole of the body, but most marked on the forearm, legs, and back. She brought with her a little box full of limbs and other portions of an insect, which she stated she had scratched out of a number of small bladder-like elevations which had appeared on the skin at various parts of the body; the formation of these vesicles was attended by unbearable and persistent itching. The insects were usually alive when taken out, and soon took wing and flew off. The patient was a well educated and non-hysterical lady, and her extraordinary story was fully corroborated by her husband and relations; she was nevertheless placed under the care of her son-in-law, Dr. Theodor, for closer and more prolonged observation. The latter gentleman reported that he had repeatedly watched the whole process, and that the description given of it by the patient was in all points correct; he also forwarded a perfect female insect which had been extracted from the skin while he himself looked on. The insect was identified by Dr. G. Joseph as belonging to the Draconidæ (Hymenoptera), it was 0.6 *centimètre* (¼ inch) long, and possessed two very long feelers and a sting measuring 0.5 *millimètre* (0.02 inch). Professor Fischer purposes giving a fuller description of it and its eggs, and a more detailed account of the whole case, when he has had the patient for a longer time under observation. The various remedies employed have so far produced no effect on the disease. Hymenoptera have been found as parasites in caterpillars and in rodent animals, but have not hitherto been noticed in the human subject.

THE BLOOD IN ANÆMIA.

AT a recent meeting of the Paris Academy of Sciences, M. Hayem read a paper on the anatomical characters of blood peculiar to intense and extreme anæmia. In what he calls *aglobulie intense* (the richness in red corpuscles varying from 2,000,000 to 800,000), he notes that crystals form in the dried blood, like those of dried lymph; and in the fresh blood, he finds white corpuscles with coloured contents, and still retaining amœboid contractility (such are also found in lymph). In *aglobulie extrême* (800,000 to 450,000 red corpuscles), there are elements like the red nucleated corpuscles of oviparous animals. In all cases, the white corpuscles are much more numerous and smaller than in normal blood. In anæmia, then, the blood approaches in character to lymph.

MEDICAL PSYCHOLOGY IN THE UNITED STATES.

IN the annual report of the Northern Hospital for the Insane for the State of Wisconsin, which we have just received, Dr. Walter Kempster travels over a wide field in tracing out the relations between modern social conditions and tendencies and the causation of insanity, and expatiates on the advantages of physiological instruction in nurseries and schools and of a well-balanced mental training, as safeguards against the incursions of mental disease. He intimates that a large number of the patients falling under his observation present unmistakable characteristics of race-deterioration. Scrofula is exceedingly prevalent amongst them, and this form of degeneration he traces to the circumstances of life of many of those who seek homes in the New World. They live, he says, in small cabins built upon the ground, and never thoroughly ventilated, all sanitary conditions being totally disregarded, and they feed on a coarse, poorly cooked vegetable diet, their food being swallowed without mastication. Thus their physical health is broken down, and mental derangement often follows. Dr. Kempster is evidently a thoughtful man, and his report contains much interesting matter; but his literary style might be chastened with advantage. His metaphors, of which he is very fond, are sometimes mixed to the point of hopeless conglomeration. Then what would an English Committee of Visiting Justices think if addressed in this fashion? "No amount of penitential anguish can efface from the tablets of a sin-scarred brain the marks of a broken and disordered life. The scar left by the thunderbolt of intemperance, which has lacerated the delicate brain-structure, is not banished by a few repentant sighs; it seams and furrows the mental organisation with non-eradicable wounds, and generation after generation scarcely afford opportunity to rid one of the inheritance." Dr. Kempster's model is readily recognised, but his transatlantic imitation borders on caricature, and may perhaps serve an useful purpose by indicating the dangers of a florid and ornate style of writing on medical subjects. Strength is not incompatible with picturesqueness; but in medical literature clearness and precision are what ought to be chiefly aimed at.

SCOTLAND.

REPRESENTATION OF THE SCOTTISH UNIVERSITIES.

Dr. J. A. Campbell, LL.D., has issued his address to the members of the General Councils of the Universities of Glasgow and Aberdeen as the Conservative candidate. Mr. Asher has been nominated as the Liberal candidate for these universities. The Lord Advocate, who is the sitting member, has been made a Judge Appellate, and consequently retires.—The Right Hon. Lyon Playfair and Mr. E. R. Bickersteth have issued their addresses to the members of the Universities of Edinburgh and St. Andrew's.

EDINBURGH ROYAL MATERNITY HOSPITAL.

The report of the new hospital, which was opened on May 1st, 1879, when, as will be remembered, a sum of £2,100 was handed over to the building fund by Sir James Simpson's Memorial Committee, has just been issued. The hospital has thus nearly completed its first year under its new title of the "Edinburgh Royal Maternity and Simpson Memorial Hospital". During the past year, 206 patients have been admitted into the hospital, and 464 poor women have been attended at their own homes.

PROVIDENT DISPENSARIES AND PUBLIC HEALTH.

At a recent meeting of the Glasgow Philosophical Society, Mr. James Mactear in the Chair, Dr. Christie, the medical officer of health for the burgh of Hillhead, read a paper upon "Provident Dispensaries as a means of promoting the Public Health". The reader, while not overlooking the other advantages of the provident system, enlarged chiefly upon its value in the prevention and early treatment of disease. If the entire working-class population could be brought under medical supervision, he thought much might be done towards arresting the spread of epidemic diseases. Sanitary inspectors and medical officers of health alone could not do this. But if they were aided by a widespread system of provident dispensaries, something effectual might be done. The registration of disease would then be a possibility, and what were now regarded as the day-dreams of sanitarians would gradually assume the substantial form of realities. Dr. Glaisher and Dr. Lothian concurred, in the main, in Dr. Christie's remarks. The chairman said he looked at the matter as an employer of labour. His firm employed considerably over two thousand men, and it was a rule that no man was employed unless he became a member of a provident dispensary. The weekly payment was small, but many of the men grudged it; yet, for that weekly payment, they received both attendance and medicine in case of illness. He feared there would be no method of carrying out this provident dispensary scheme which did not to some extent depend upon compulsion, and that, he was afraid, was a very difficult thing to obtain. He believed that, before many years were past, the Government would have to face the question.

UNIVERSITY OF EDINBURGH.

The University of Edinburgh has just been made the subject of a munificent bequest by the late Dr. Andrew Vans Dunlop, of 18, Rutland Square, Edinburgh. He has left it the residue of his estate, amounting to about £50,000. Of this sum, £30,000 will, it is understood, be paid to the University authorities; while the remaining £20,000, which is life-rented by a relative of Dr. Dunlop, will ultimately accrue to the University. With regard to the purpose for which the money is left, there is instruction in the will that £3,000 be added to the general fund of the University; and the remainder of the £50,000 is to be employed in founding sixteen "Vans Dunlop Scholarships", of the annual value of £100 each, tenable for three years. It is also provided by the will that the first six scholarships created shall be for students of medicine, while the others are to be equally divided amongst students of the classes of chemistry, English literature, classics, political economy, logic and moral philosophy, natural philosophy, mathematics, natural history, and engineering. These scholarships in medicine will be the most splendid encouragements that that hitherto poorly endowed faculty can offer to earnest students of medicine.

ODONTO-CHIRURGICAL SOCIETY.

The annual meeting of the Odonto-Chirurgical Society was held, in the Edinburgh Dental Hospital, on Saturday. After business matters had been discussed and arranged, the members listened to a communication on comparative dental anatomy by Mr. George Leslie, assistant to Professor Sir Wyville Thomson. Mr. Leslie illustrated the points of his lecture by means of a number of skulls of the lower animals. He received a hearty vote of thanks for his paper. Afterwards, the Society discussed certain subjects more especially pertaining to their speciality.

CLINICAL SURGERY IN EDINBURGH UNIVERSITY.

Dr. Thomas Keith has intimated to the University Court, Edinburgh, his inability to accept a reappointment to the office of Examiner in Clinical Surgery to the University. The Court will fill up the vacancy on April 12th.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS.

The report of the Registrar-General on the health of the eight principal Scotch towns for the month of February shows that there were 2,349 deaths; of these, 1,139 were males and 1,210 females; this number is 531 below the average for the last ten years, and 257 below the number registered during the same month last year. The death-rates in the different towns were as follows per 1,000. Greenock, 18; Edinburgh, 20; Leith and Aberdeen, 21; Glasgow, 22; Dundee, 25; Perth, 29; and Paisley, 31. Of the total deaths, 1,052, equal to 45 per cent., were of children under five years of age; Aberdeen was the lowest with 37 per cent., and Leith the highest with 50 per cent. Zymotic diseases caused 351 deaths, equal to 15 per cent. of the entire mortality. Whooping-cough was, as usual, the most fatal of these diseases, and in Aberdeen caused 11 per cent. of the deaths there; there were 55 deaths from measles and 39 from scarlatina. Of 21 deaths from fever, 4 were tabulated as typhus, 14 as enteric, and 3 as simple continued fever. Apoplexy caused 43 deaths; paralysis, 50; cardiac diseases, 114; hydrocephalus, 52; and premature birth debility, 56. Inflammatory diseases of the respiratory organs other than phthisis, whooping-cough, or croup, caused 657 deaths, or 28 per cent. of all the deaths; while phthisis alone caused 261 deaths, or 11.2 per cent. One male and six females were over ninety years of age, the eldest, a male, being ninety-three. There were registered during the month the births of 3,258 children, of whom 1,712 were males and 1,546 females; illegitimate births constituted 8.2 per cent. of the whole. The mean barometric pressure was less by 0.278 inch; the mean temperature greater by 3.7°; the mean humidity greater by 1; the rain-depth in inches less by 0.49 inch; and the wind-pressure greater by 1.09 lbs. than during the average of the corresponding month during the 23 preceding years. The high temperature is the most noticeable feature in the meteorological returns; the highest mean temperature was at Leith, and the lowest at Greenock.

IRELAND.

Mr. Arthur H. Benson, Assistant-Surgeon to St. Mark's Ophthalmic Hospital, has been appointed Lecturer on Ophthalmic Surgery in the Ledwich School of Medicine, in the place of the late Mr. Rainsford.

SMALL-POX IN BELFAST.

At a recent meeting of the Belfast Board of Guardians, Dr. J. Seaton Reid reported the admission of two additional cases of small-pox. One of the patients had, it appears, visited the house from which the first small-pox case had been sent. The small-pox ward for males being now full, an additional ward has been prepared for the reception of any further cases that may be required.

EPIDEMIC OF FEVER IN HARE ISLAND.

A short time since, we recorded an epidemic of measles of a malignant nature which occurred in Cape Clear Island, Cork; and we have now to announce another outbreak of a contagious affection in Hare Island, which lies not far distant from Cape Clear. This took place last week, and, from information of a trustworthy character, we learn that the affection is continued fever of a low type, and that there are at present twenty-nine cases of fever on the island. But one death has occurred, that of a man whose case was complicated with pneumonia; and Dr. Robinson, the medical officer, does not think the number will be increased. Although the inhabitants are in a very wretched condition, famine does not appear to have anything to do with the outbreak; but the sanitary surroundings are of the worst character. Badly fed, an almost total want of bed-clothing, living in squalid houses which were overcrowded and insufficiently ventilated, they present a most deplorable spectacle; but, owing to the vigilant steps taken by Dr. Robinson of Skibbereen, who obtained blankets from private sources, and out-door relief from the guardians (who indeed have carried out all the suggestions of their medical officer), and by the other measures adopted, it seems probable that the outbreak will shortly subside.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

An election from among the Fellows of the College of an examiner to examine candidates for the Fellowship and Letters Testimonial of the College, in room of the late Mr. W. H. O'Leary, M.P., will be held on the 1st proximo. There are several candidates for the appointment. The election is made by a third part—seven members—of the Council, who are chosen by ballot from all the members of Council present on the day of the election.

HEALTH OF PROVINCIAL TOWN DISTRICTS.

The average annual death-rate for the week ending March 6th was: in Cork, 41.3; Dundalk, 41.6; and in Lurgan, 47.1 per 1,000 inhabitants. Seven deaths from scarlatina were recorded in Cork, being two less than in the preceding week; and five deaths registered in Belfast were due to whooping-cough, being equal to the number in the week previous. No death from small-pox took place during the week.

KILMAINHAM PRISON.

Mr. William Carte, Physician to the Royal Hospital at Kilmainham—the Dublin Chelsea Hospital—has been appointed by His Grace the Lord-Lieutenant medical officer to this institution. From his experience both as a military and a civil medical officer, and from the proximity of his residence to the gaol, Mr. Carte's appointment is a most suitable one. Dr. Fitzgibbon, however, who has been acting medical officer during the past nine months, appears to have been treated with very scant courtesy in the matter. It was natural to suppose that, having performed his duties—as has been officially attested—to the satisfaction of the Prisons Board, he would have been recommended to his Grace for the permanent appointment. However, Dr. Fitzgibbon got no further information of the fact that he was going to be superseded, beyond an official letter informing him of Mr. Carte's appointment, and that his (Dr. Fitzgibbon's) services were not required from that day.

HEALTH OF CORK.

Dr. Wall, Medical Superintendent Officer for Health, in his report for February, states that the deaths amounted to 209, a number slightly exceeding the births, and being equal to an annual death-rate of 34.21 per 1,000 inhabitants. Forty-three deaths were due to infectious diseases; and it appears from the figures that no decided diminution has yet taken place in the recent comparatively high rate of mortality—a circumstance due, it is believed, to the persistent prevalence of measles and scarlatina, both of which affections, it would seem, have been almost invariably rife throughout Great Britain during the entire winter.

DEATH FROM A DISINFECTANT.

A death under somewhat peculiar circumstances, which was made the subject of a coroner's inquest, took place in Dublin last week. It appeared that a medical order had been obtained by the sanitary authorities for the disinfection of a room occupied by a man, fifty-one years of age, who had been for some time confined to bed by illness, and who was also of weak intellect. The men employed to disinfect the room arrived at it during the absence of the man's sister, who resided with him. They brought him out of the room into the hall, and left him standing there while they disinfected the room. On leaving it, they cautioned him not to re-enter the apartment for six hours, and he promised he would not do so. No sooner had the men gone away, however, than he returned to it. Immediately after, he was seen standing at the door suffocating, and in a few moments expired. Dr. Egan deposed that death resulted from the inhalation of chlorine gas.

THE STEEVENS' HOSPITAL MEDICAL SCHOOL.

Dr. Robert McDonnell, F.R.S., has resigned his connection as Lecturer on Anatomy with this school; and his resignation will, we hear, be followed by that of Mr. Colles, Lecturer on Surgery, and of Mr. E. Hamilton, Lecturer on Physiology. The result of these resignations will be, that the medical school of Steevens' Hospital will cease to exist. In the interests of the students attending the school, arrangements have, however, we believe, been made to carry on the school until the completion of the ensuing summer session. As the circumstances which have led to this collapse are now public, we may briefly recapitulate them. Both of the two physicianships to the hospital recently became vacant. As regards the candidates for these vacancies, we have already referred to them in the Journal (February 14th, p. 258); it will now suffice to say that one of the three candidates who had been for over ten years intimately connected with the hospital and the school, was unanimously recommended to the governors by the medical staff for one of the vacancies. This gentleman was not appointed, although from his seniority, acquirements, and position as a lecturer and teacher in the school, he was considered by the staff—and we may add, also, by the students—to be the most fitted in every way of the three actual candidates. The well-considered recommendation of the medical staff was thus ignored by the governors without ostensible reason, and in a manner, too, directly calculated to injure the school in connection with the hospital by not carrying out the recommendation of the Royal Commission of 1856, by which it was advised that teachers in the school should be elected on the medical staff of the hospital according to the precedence of their appointments. Such action on the part of the governors was, it seems to us, most ill-advised. They neglected the advice of those most competent to give an interested opinion on the matter, and have given the *coup-de-grâce* to a school for the maintenance of which they receive a Government grant. The hospital itself is likely to suffer much from the withdrawal of the students. As a clinical institution it will fail; and it is notorious that, in the absence of students, the work of a large surgical and medical hospital, such as Steevens', cannot be efficiently done.

THE SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

THE second public sitting of this Committee was held on Tuesday, March 9th, when the following members were present: the Right Hon. W. N. Massey (in the Chair), Colonel Alexander, Mr. Cavendish Bentinck, Mr. Burt, Sir Harcourt Johnstone, Mr. Kavanagh, Mr. O'Shaughnessy, General Shute, Mr. Stansfeld, and Mr. John Tremayne.

The examination of Dr. Nevins of Liverpool was continued by Col. Alexander. Many of the questions asked had reference to the points noticed in last week's JOURNAL. Dr. Nevins stated that he wished to modify the opinion he expressed at the previous sitting to the effect that syphilis is the only serious venereal disease as regards after-consequences; he considered that "gonorrhœa involves after-consequences to the man in the form of stricture, which is a very serious after-consequence. That answer I should desire to modify, and it should stand thus: 'The only serious form involving after-consequences to his posterity'."

With respect to Dr. Nevins's statement that there has been exaggeration both as to the extent and severity of the various forms of venereal disease, and that the severity of syphilis has diminished of late years, in support of which, he quoted the late Professor Syme and others. Colonel Alexander read a portion of the report of the Medical Committee of 1865: "The liver is more frequently the seat of the disease, and then affords, by the indelible cicatrices on its surface, an evidence of the nature of the malady from which the person may long have suffered; the brain and its membranes are also liable to be attacked by constitutional syphilis, giving rise to mania, epilepsy, paralysis, and many other fatal diseases; the lungs, too, are frequently affected, although the cause is probably much overlooked, as the form of consumption which is known to follow so often in the train of syphilis has been regarded merely as tubercular, and a result of the debilitating effects of syphilitic disease. A large number of cases of abortion and of still-births arise from the children being affected with syphilitic taint". In the twenty-fifth volume of the Registrar-General's Returns, also, it was stated that the registered deaths from syphilis during twenty-six years, 1848-73, were 31,860. The registered deaths from that disease increased during the whole period. These statistical facts Dr. Nevins met by saying that much of the increase was due to the present fashion of attributing every kind of disease to syphilis. Mr. Simon's well-known report, in which he estimated that true syphilis did not exceed in London three and a half per cent. of the total sickness was then referred to, and Colonel Alexander pointed out that, even if that low estimate were correct, it would give 52,500 persons suffering from a disease which maintains its contagious character for months, and sometimes even for years.

A letter also was addressed in 1871, to Mr. Bruce, then Home Secretary, by a large number of eminent members of the medical profession, among whom were Sir Thomas Watson, Sir William Jenner, and Sir James Paget, setting forth the deteriorating influence exercised by syphilis on the public health, and asking that nothing should be done to weaken the beneficial sanitary operation of the Acts, which could at that time be shown to have reduced the more serious form of disease by more than one half in the districts subject to their operation.

Returning to the Army, and to the diminution in the number of admissions to hospital during the five years immediately preceding the passing of the first Act (1864), Dr. Nevins stated that the diminution was, in his opinion, due to the introduction by Lord Herbert's Committee of many improvements into the Army, both with respect to the sanitary arrangements and to what might be called moral and intellectual improvement among soldiers. He had not been able to ascertain any other cause. The gradual reduction of the number of troops from 83,386 in 1860 to 59,758 in 1866, during which years recruiting was to a great extent discontinued, did not, in Dr. Nevins's opinion, account for the fall in the number of cases of venereal disease, although it is well known that recruits furnish a large proportion of such cases. Besides, when the Army is reduced, the bad characters, who are most liable to contract disease, are those who are selected for discharge. Again, when the strength of the Army was gradually increased from 59,758 in 1866, which was the minimum year, to the maximum of 85,722 in 1872, although there was a rise in the number of cases of venereal disease at the unprotected stations after 1867, and a fall in those under the Acts, still Dr. Nevins said he could not see any connection between the diminution of disease and the influence of the Acts.

It is not necessary to follow Dr. Nevins further at the present time. It will be sufficient to mention that, during the whole course of his long examination, he did not bring forward any facts or arguments whatever which really tend to lessen the value of the evidence given before the Committee last session, when the immense benefit that has resulted, both with regard to the soldiers and to the prostitutes, in the districts where the Acts are in operation, was abundantly proved.

At the conclusion of Dr. Nevins's examination, the Committee finally adjourned, having determined, owing to the impending dissolution of Parliament, not to proceed further with the inquiry.

PARIS HOSPITAL TEACHING.

AN occasional correspondent writes to us as follows.

I have visited two *cliniques* which have recently been opened. One is for the treatment of mental diseases; and there, although it may appear strange, they are now for the first time clinically taught in Paris. The students who formerly wished to study mental diseases were obliged to ask, either from the Assistance Publique or from the Préfecture de la Seine, a special authorisation order to attend the hospital where these diseases were treated. Two or three years since, Dr. Ball was appointed Professor of the Chair of Mental Diseases; but, in consequence of administrative difficulties, it was impossible for him to find wards in a hospital for mental diseases where he could give his clinical instruction. He had a large number of beds as physician to the Hôpital Laennec, but difficulties were in the way of his using his wards at this hospital for the special clinical course of which he was the professor. At last, owing to the exertions of Dr. Ball, and to those of some of the members of the municipal corporation of Paris, some of Dr. Magnan's wards at the Asile St. Anne were appropriated, and a small piece of ground was given to the Faculty by the Prefecture, so that Dr. Ball was at last enabled, at the beginning of 1880, to begin his course. His wards receive male patients only. It is, however, to be earnestly hoped that Dr. Ball will soon have at his disposal women's wards; but there will be great difficulties. Thanks to the kindness of Dr. Chambard, *chef de Laboratoire*, I visited the wards, the laboratory, and all the departments in connection with Dr. Ball's clinical teaching. There are one hundred and fifty beds, spread about in large wards, occupied by the less serious cases. There are also small wards, containing from two to four beds each, to receive patents in a more serious condition. There are also a room for out-patients; a lecture-theatre; day-wards for the patients; a large garden; and a small detached block, containing three cells for the patients who are too unmanageable or dangerous. On the ground given by the Prefecture have been built a dead-house, a *post mortem* room, and a laboratory for carrying on histological and physiological research. The laboratory is furnished with every apparatus really necessary for carrying on the researches for which it is destined. The director, M. Chambard, former house-surgeon and tutor in M. Ranvier's laboratory at the Collége de France, deserves praise for having made such good use of the very small sum placed at his disposal for the benefit of the laboratory. Dr. Ball has also, as assistants, a *chef de clinique*, a clinical and a laboratory assistant. On Tuesdays, there are consultations for out-patients; and the relations of the patients who are mentally affected come to give information concerning the sufferers. On Thursday, in the amphitheatre, Dr. Ball has the patients examined by the students in turn. Each pupil makes a diagnosis, on which Dr. Ball comments, giving the reason for his approval or dissent. On Sundays, he gives a lecture. On the other days, the *chef de clinique* generally goes the rounds and examines the patients. I was fortunate enough to visit the wards one Thursday, and hear Dr. Ball's clinical teaching; and, judging from the manner in which the patients are questioned, I think Dr. Ball's habit of obliging the students to study the patients must be fruitful in excellent results.

The second *clinique* is for diseases of children. A few months ago, Dr. Parrot was appointed clinical professor. His wards are at the Hôpital des Enfants. At this hospital are treated children who are deserted by their parents and brought up by State charity (*assistance publique*); also those who have parents unable to take care of them, either from ill-health, or because they are undergoing a term of imprisonment. Dr. Parrot has about two hundred beds. At the present time, a new wing to the hospital is being built, and will contain a laboratory and a lecture-theatre. While these are in process of construction, a temporary laboratory and lecture-room composed of wooden planks have been run up. Dr. Martin is at the head of the laboratory: this is not yet thoroughly organised, but will be very soon, the requisite sum of money having been placed at his disposal. Dr. Parrot, as is well known, is an indefatigable worker. All the notes of cases he dictates himself; he also performs all the *post mortem* examinations. Very few students go round with him: this is owing to the fact that his wards belong to a hospital formerly little known; but it is to be hoped that they will soon find their way to it, and profit by M. Parrot's clinical teaching, and by the practical instruction given in the laboratory.

DR. FARR'S TESTIMONIAL.

THE EARL OF DERBY presided, on Wednesday afternoon last, at a preliminary meeting of the General Committee, which has been formed for the purpose of raising a testimonial fund, for presentation to Dr. William Farr, F.R.S., on the occasion of his retirement from the Registrar General's Office, after more than forty years of indefatigable labour in the service of public health and sanitary science. The meeting was held in the Library of the Registrar General's Office by permission of the Registrar General, and an Executive Committee, which is not to exceed ten in number, was empowered to take such measures as may appear necessary or desirable in order to secure the success of the object in view. Mr. R. Biddulph Martin, of 68, Lombard Street, E.C., having previously signified his consent, was appointed Honorary Treasurer of the Fund; and Mr. Noel A. Humphreys, of the Registrar General's Office, Somerset House, Honorary Secretary to the Committee. It is understood that it would afford the greatest satisfaction and gratification to Dr. Farr, if the Testimonial Fund were devoted to supplementing the very slender provision which he has been enabled to make for his family; this course will, therefore, probably be adopted. It was stated at the meeting that Dr. Farr's official salary during his more than forty years service, scarcely averaged more than £700 *per annum*, and that it did not amount to £1000 until 1874. A subscription list, which was started at the meeting, will shortly be published; and, in the mean time, any of Dr. Farr's friends or admirers who are willing to join the Committee, or to promote the success of the Testimonial Fund in any other way, are requested to communicate with the Honorary Secretary.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT the meeting of the Committee, which will be held at the College next Monday, it will be proposed for the second time to enact the regulations for candidates for the College Licence. We understand that it is intended to nominate Sir William Jenner as the next President. The present president has held office for four years. There is no fixed period of tenure of office, some of the past Presidents having held the post for three, others for four, and others for five years.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR SPECIAL CORRESPONDENT.]

The Health of Paris.—Proposed Abolition of Bed-curtains in Hospitals.—Small-pox and Vaccination.—An Epidemic of Lice.—A Singular Incident.—Poisonous Tin-foil.—Chromate of Lead.—Academy of Medicine.—Function of the Eustachian Tube in Hearing.—Apparatus for Lowering Temperature.

THE public health of Paris has considerably improved since the setting-in of fine weather, though the mortality is still above the average for the corresponding period of the previous years. Small-pox and typhoid fever are on the decline, but the mortality from the latter affection is still very great. If, however, it have diminished in numbers, the disease seems to have increased in intensity, as it has become rapidly fatal; and it has been remarked in several cases that death has taken place not from excessive temperature (hyperthermia), but rather the reverse condition (hypothermia), the thermometer descending as low as 35° and 34° Cent. (95° and 93.2° Fahr.); and, in a clinical lecture on the subject, Professor Sée suggested that the sudden lowering of the temperature was probably due to internal hæmorrhage, as, indeed, he was able to verify in some of the cases under his observation at the Hôtel-Dieu.

At the instigation of some of the medical members of the Municipal Council of Paris, it is in contemplation to do away with the curtains which surround the beds of the patients in the hospitals, as being sources of contagion; and, at a recent meeting of the Medical Society, a discussion on the subject took place, in which some of the members pointed out the advantages of curtains, while others condemned them *in toto*. There is no doubt that curtains are useful in their way, but they ought not to be allowed to become sources of danger; and, in order to obviate this, it would be necessary to renew them frequently, which in a large hospital would involve considerable expense. There is a growing disposition to do away with hospitals altogether, and to have the patients treated in their own homes; but this subject has been often discussed, and the impracticability of the scheme is evident, at least as regards large and crowded cities.

If epidemics be deadly weapons, they are sometimes useful in arousing the public from their apathy, and in inducing them to adopt the necessary means for warding them off. The prophylactic measures against typhoid fever are as yet but little known, at any rate with any certainty; but the same cannot be said of vaccination, which is the antidote *par excellence* of the variolous poison; and during the epidemic of small-pox, which I trust is dying out, the panic was, as usual, so great, that vaccination and revaccination, "animal" and "human", are being resorted to by persons of all ages and of both sexes. Public lectures are delivered on all sides; and, while one lecturer extols animal vaccination as being free from the risks of human vaccination, another points out the superiority of the latter over the former, which is condemned as being practised with a weakened or spurious virus, and consequently inefficacious as a preservative against the disease for which it is reputed an antidote.

One of the strangest epidemics of which I have heard is that of lice. In one of the schools just outside Paris, a number of the children were infested with these loathsome parasites, and the medical inspector directed that the children so affected were to be sent to their homes, to prevent propagation; but, the parents having protested against this "arbitrary" measure, the children were allowed to return to the school. The malady soon spread among the other children of the school, and from them to those of two other schools in the neighbourhood. Among the lower orders in France, and, I believe, in other countries, there exists a popular prejudice in favour of these parasites. Their presence is considered a sign of health, and medical advice is seldom or never resorted to for their removal.

A very singular incident lately occurred at a court of assizes at Paris during the trial of a man who was charged with murder. While the advocate was pleading the prisoner's cause, the latter suddenly called out, "I am blind, I am blind; I cannot see". This naturally created a sensation in the court. The proceedings were immediately suspended. A medical man was called in, and he substantiated the statement of the prisoner. The latter was accordingly removed, and the trial was put off for another session. What the nature of the affection was has not transpired.

Tin-foil is very extensively used in commerce for the purpose of preserving the different substances which it envelops. In this state, the foil is perfectly harmless; but, whether to facilitate its manufacture or to reduce its cost, it is alloyed with other substances, particularly lead, in which case the envelope becomes a source of poisoning when used for covering alimentary substances; and as this fraudulent practice is extending to an alarming degree, the Prefect of Police has issued a circular embodying tests for the detection of the fraud. One proposed by M. Bobierre consists of applying a small drop of concentrated acetic acid to the tin-foil, and then a drop of a solution of the iodide of potassium to the same spot. In two or three minutes, a yellow spot (iodide of lead) will be observed if the foil contain lead. Another procedure due to M. Charles Kopp is still simpler; it consists of dropping on the suspected leaf a little concentrated sulphuric acid. Almost immediately, the spot becomes white if the metal be pure, and black if it contain lead.

Another dangerous practice consists in steeping in a solution of the chromate of lead the cotton-wicks used by smokers for lighting their pipe; but the danger is not confined to smokers. The men employed in the manufacture of these wicks are subject to lead-poisoning by the absorption through the air-passages, the digestive tube, and the skin, of the particles of the chromate of lead floating in the atmosphere of the workshop. Manufacturers have been warned of the danger, and recommended to substitute for the chromate of lead the oxide of manganese proposed by a chemist named Monier, who obtains this substance by dipping the wicks into a solution of the permanganate of potash, or impregnating them with the sulphate of manganese, which is then decomposed by caustic soda.

At a recent meeting of the Academy of Medicine, Dr. Constantin Paul was by a great majority elected member of that body, to fill a vacancy in the Section of Therapeutics and Medical Natural History. The choice could hardly have been better, as Dr. Constantin Paul is well known for his works in that particular branch.

At the same meeting, Dr. Edouard Fournié read an interesting paper on the part played by the Eustachian tube in the physiology of hearing. Contrary to the generally admitted opinion, M. Fournié, after a series of experiments, has been led to conclude that the Eustachian tube is constantly open. The muscles attached to it, far from being dilators, act the part of constrictors, which close the tube during certain movements, such as those of mastication and speaking. On the other hand, the renewal of the air in the cavity of the tympanum is produced by a sort of respiration in which the constrictor muscles perform the office of expirators, whilst the elasticity of the cartilage of the tube supplies the place of the expirator muscles.

Dr. Dumontpallier then submitted an apparatus which he has devised for lowering the temperature in certain cases of fever and other hyperthermic conditions. The advantages claimed for the apparatus is the faculty of reducing the temperature in a more scientific way than is obtained with baths, and is attended with less danger and inconvenience than when the latter are employed. In his experiments at La Pitié Hospital, Dr. Dumontpallier has with his apparatus succeeded in reducing the temperature in fevers by one or two degrees in the space of one hour or an hour and a half; but he requires a greater number of cases before he can pronounce as to the therapeutic value of refrigeration in the above conditions.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE REIGATE COTTAGE HOSPITAL.

THIS is one of the best constructed and most crisply administered of all the more recent cottage hospitals. With an income of £1,250 it relieved 177 poor patients during the year 1879. Nearly fifty operations were performed, including several amputations, two cases of colotomy, and one of ovariotomy. In the case of an old lady aged 80, who was admitted with a fracture of both tibia and fibula, so good a recovery was made, that she walked out of the hospital without assistance in less than two months from the date of the accident. This case says much for the advantages of country air and small healthy hospitals, and for that reason it is one of great interest. The whole of the internal and sanitary arrangements of the system of ventilation are excellent. The Reigate Hospital should be visited by everyone who desires to see one of the best specimens of this class of institutions.

THE ROYAL VICTORIA DISPENSARY, NORTHAMPTON.

THIS institution occupies such an unique position, that those who advocate the provident system of medical relief look forward to the publication of its annual report with no small interest. The report for 1879 states that there had been no decrease in the amount received from the free members; on the contrary, the total amount received was rather larger than in the preceding year, but the increase was not so great as usual. The diminished earnings of the working classes would account for their not being able to give the same degree of support to the institution which they had previously done. The total sum received from the free members during the year was £2,540 9s. 2d., of which amount £280 0s. 11d. was carried to the honorary fund. Many of the old friends of the institution had died off; others had, from various causes, withdrawn their subscriptions. Side by side with the decrease of income, there was a steady increase of expenditure. It had been found necessary to have additional assistance in the office, and those of the officers who had been many years in the service of the institution had required and deserved an addition to their salaries. With reference to the gradually increasing debt, the committee suggested that a portion of the expenditure now charged to the honorary fund should be defrayed out of the free members' fund. They would, however, rejoice if the governors would make an effort to obtain increased subscriptions, and so prevent the necessity of there being any departure from the policy which has hitherto prevailed. The amount divided between the medical officers during the year was as follows. Dr. Barr, £1,066 1s. 6d.; Mr. Moxon, £536 13s. 7d.; Mr. Evans, £334 16s. 4d.; total, £1,937 11s. 5d. The committee recommended the governors to appoint one additional medical officer. After some discussion, Mr. L. F. Cogan was elected an additional medical officer. Though the committee may consider that the report is less satisfactory than it has been during the last few years, to the public it will appear that a dispensary which can divide £1,937 among its three medical officers must be in a very prosperous condition.

A NEW POOR-LAW DISPENSARY IN PLYMOUTH.

AT a recent special meeting of the Plymouth Board of Guardians, it was determined to open a Poor-Law Dispensary, in order to give increased facilities for supplying medical relief. The proposal was based upon the report of a special committee who had inquired into the working of such dispensaries in other towns, and who estimated that the annual expense would be about £210. But it was not carried without much discussion and some opposition. It appears, however, to have been the opinion of the majority that the medical officers already did as much as could reasonably be expected of them, that by the establishment of a Dispensary, the wants of the sick poor would be better supplied, and that in the long run it would pay. In the end, the recommendations embodied in the report were adopted by eight votes against six.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING of the above district will be held at Dartford on Tuesday, March 23rd; JOHN M. BURTON, Esq., in the Chair.

Dr. Armstrong will introduce a discussion on Rheumatism.

A. HALLOWES, *Honorary Secretary.*

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.

A MEETING will be held at the Bush Hotel, Farnham, on Thursday, March 25th, at 4 P.M.; S. G. SLOMAN, Esq., in the Chair.

Business.—1. Dr. Brushfield: A paper on Medical Certificates of Lunacy.

2. Mr. T. M. Butler: Three Cases of Intussusception.

3. Dr. Pearse: A paper on the Disorders of the First Dentition, and their Treatment.

4. Mr. S. Sloman: A Case.

A. ARTHUR NAPPER, *Honorary Secretary.*

Broad Oak, Cranleigh, March 12th, 1880.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT MEETINGS.

THE meeting notified in last week's JOURNAL to take place at Brighton on the 31st instant, is unavoidably postponed until Tuesday, the 6th of April.

THOMAS TROLLOPE, M.D., *Hon. District Secretary.*

9, Maze Hill, St. Leonard's-on-Sea, March 1880.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE next meeting of this district will take place at the Ship Hotel, Faversham, on Thursday, March 25th, at three o'clock. Dr. GANGE will take the Chair.

Dinner will be provided at five o'clock. Charge 6s. 6d., exclusive of wines.

The following papers will be read.

1. Dr. Bowles: Some Irregular Forms of Pneumonia.
2. Mr. E. Garraway: A remarkable Case.
3. Mr. W. Knight Treves: The Dose of Iodide of Potassium.

WM. KNIGHT TREVES, F.R.C.S., *Hon. Sec.*

Margate, March 16th, 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE next ordinary meeting of this Branch will be held at Aberdare on Thursday, April 22nd. Gentlemen desirous of reading papers, etc., are requested to send titles without delay to one of the honorary secretaries.

ALFRED SHEEN, M.D.
J. HANCOCKE WATHEN. } *Honorary Secretaries.*

March 16th, 1880.

THAMES VALLEY BRANCH.

THE next meeting of this Branch will be held at the Griffin Hotel, Kingston, on Thursday, March 25th, at 6 P.M.

Dr. Langdon Down will read a paper on Some Causes of Idiocy.

The dinner will take place after the meeting, at 7 P.M.

FREDERICK J. WADD, *Honorary Secretary.*

Richmond, Surrey, March 4th, 1880.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fourth ordinary meeting of this Branch was held at the Museum and Library, Bristol, on Wednesday, March 10th; J. BEDDOE, M.D., President, in the Chair. There were present also fifty-six members and two visitors.

New Members.—Dr. Coombs of Castle Cary, and Mr. W. F. Carter of Percy Hall, Bedminster, were elected members of the Association and of this Branch.

Papers.—The following were read.

1. Dr. Aust Lawrence read the second part of his paper on Disorders of Micturition in Women. Dr. Greig Smith, Dr. J. G. Swayne, Dr. Cole, and Mr. W. N. Clarke made some remarks upon the subject.

2. Mr. Dobson read a paper entitled Cases illustrating the Difficulties in diagnosing Abdominal Tumours in Women. Dr. Greig Smith and Dr. J. G. Swayne joined in the discussion which followed.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, March 11th.

Metropolitan Water Companies.—MR. CROSS, in answer to Mr. GOSCHEN, said there was no doubt that the Metropolis Valuation Act was passed for the purpose of getting the proper valuation in the metropolis for special purposes named in the Act, and there was no doubt that the Act had been taken advantage of by the companies for raising their rent considerably. The rents were not determined by that statute, but by the companies' own Acts. In the particular case of the Southwark and Vauxhall Water Company, who were applying for further powers, he would take care that, when their Bill was discussed, there should be no additional rents. If he found any company taking action for the purpose of raising their rents, in order to enhance the price of the shares, he should pay no attention to it.

Indian Medical Service.—In answer to Sir T. BAZLEY, Mr. E. STANHOPE said: My noble friend the Secretary of State has received several memorials asking for a modification of the recent order which abolishes the grade of surgeon-general and reduces the number of deputy surgeons-general. They are now under the consideration of the Secretary of State in Council.

Monday, March 15th.

Small-Pox in London.—Dr. PLAYFAIR asked the President of the Local Government Board whether he had observed that small-pox was increasing in the metropolis, though not in the other large towns of the kingdom; and if he were satisfied that the arrangements for public vaccination were efficiently carried out in the various districts of London.—Mr. SCLATER-BOOTH: I am aware that at the beginning of the year there was an increased prevalence of small-pox in the metropolis—not a very severe increase, and confined for the most part to four or five parishes. During the last four weeks, the returns from the asylum hospitals show the number of patients to have been stationary. The report of Dr. Bridges, recently circulated, on the last two small-pox epidemics, illustrates the question. The vaccination arrangements for the metropolis work well and give satisfaction, though it cannot be said that the metropolis is so efficiently vaccinated as the rest of the kingdom, in consequence of the fluctuating character of much of its population. The right hon. gentlemen will find this subject specially noticed in the recent reports of the Local Government Board.

Superannuation of Poor-Law Officers.—In reply to Sir T. LAWRENCE, Mr. SCLATER-BOOTH said, I have been furnished by the Tenterden Guardians with their reasons for declining to grant a superannuation to Mr. Terry, their medical officer. I cannot say their reasons are satisfactory to me, because they are to the effect that the Guardians disapprove the principle of such superannuations, especially when the whole time of the officer has not been engaged in the public service, whereas the law expressly authorises superannuations to be given under those circumstances. On the other hand, I am not prepared to say that the Guardians have failed to exercise a right judgment in this case without more information than I possess, because the real question would generally be what proportion or relation the salary and public service of a medical officer has borne to his whole professional emolument and duties.

Glandered Horses.—Sir W. FRASER asked Lord G. Hamilton whether his attention had been drawn to a statement made on March 3rd, in the Kensington Vestry, to the effect that one hundred and sixteen glandered horses had been slaughtered in that parish during the last six months.—Lord G. HAMILTON said sixty cases of glanders and fifty of farcy have been returned in the period named. No facilities exist in the metropolis for burying carcases. The local authority, under licence from the Privy Council, cause the carcasses to be disinfected and removed under charge of one of their officers to a "knacker's" (approved by the Privy Council), where they are destroyed by boiling. The increase in the number is probably due not so much to any increase in the disease as to greater activity on the part of the local authority in prosecuting persons under the Contagious Diseases (Animals) Act for not giving notice of disease.

The Contagious Diseases Acts.—Replying to Mr. SULLIVAN, Colonel LOYD LINDSAY said that as far as the authorities at the War Office were aware, the Contagious Diseases Acts had not been enforced beyond the fifteen miles radius from Queenstown. If, however, the hon. member had information to the contrary effect, and would let him know, due inquiry should be made on the subject.

Experiments on Living Animals.—The return of experiments on living animals, presented on March 12th, was ordered to be printed.

The Census.—The Census Bills for England and Wales, Scotland, and Ireland, were withdrawn.

Tuesday, March 16th.

Cruelty to Animals Bill—The order for the second reading of the Bill was read and discharged, and the Bill was withdrawn.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

VACCINATION.—Dr. M. Coote, public vaccinator of Nos. 2 and 3 Districts of the Ashby-de-la-Zouch Union, has been awarded a Government grant of £11 12s. for efficient vaccination.

THE Newtownards Guardians have reduced the salaries of Dr. Parke, medical officer of the Workhouse, and of the dispensary medical officers of their Union, by fifteen per cent.

SCARLATINA AMONGST COLLIERS.

WE have lately devoted much space to official reports on the subject of the diffusion of scarlatina, having been gratified to observe the increasing attention that the Medical Department of the Government is paying to epidemics of this terribly fatal disorder. We have not, however, yet considered the circumstances of the prevalence of scarlatina amongst colliers and in colliery villages; and there may be advantage in our grouping together two reports, one by Mr. W. H. Power on the Easington district, Yorkshire, and another by Dr. Franklin Parsons on Bedlington (Northumberland), with the view of showing how it comes about that scarlatina gets so terrible a hold on colliery populations. It is to be regretted that a general inquiry into the causes of the origin or spread of this disease has not been made by the Government Medical Staff, instead of the subject being approached in the present fragmentary manner of dealing with individual outbreaks. An attempt was made some years ago by Mr. Simon to make such an investigation, and it was entrusted to the able hands of Dr. Buchanan, the present medical officer of the Local Government Board. But for various reasons the inquiry was never carried into effect, and in the words of Mr. Simon, "it seems probable that the progress of the investigation must mainly depend on opportunities which the Department may accidentally find, or which the friendly co-operation of local officers of health and of private medical practitioners may afford, for studying in detail, and at the earliest possible moment, such outbreaks of scarlatina as shall appear exceptional in any of their circumstances, and particularly those where the outbreak may seem imputable to any other cause than contagion". It would seem therefore eminently desirable that any investigator, finding himself in the presence of an outbreak of scarlatina of the kind referred to by Mr. Simon, should put himself into association with the central medical authorities, with the view of helping to clear up the obscurity which shrouds the conditions which determine the spread and intensity of scarlatina.

The Easington Registration District has for a long period suffered heavily from scarlatina. From this cause alone its annual death-rate for the ten years 1851-60 attained 15 per 10,000 of the population, and for the next decade reached 21 per 10,000—a mean rate for the whole period more than double that of England and Wales. Since 1870, scarlatina, continuously present in the district, has twice attained epidemic prevalence. In 1873-74-75 it caused 193 deaths. The recent epidemic commenced early in 1877, in which year it caused 81 deaths; a mortality on the estimated population of 26 per 10,000. In 1878, 91 deaths resulted from it. During 1879, the fatality of the disease somewhat declined, but up to June 30th, there had been 26 deaths. Throughout the epidemic, the incidence of fatal scarlatina was almost wholly on the colliery villages. With the exception of one, which suffered severely in 1874, none escaped, and in some of them the disease exhibited an appalling persistency and fatality. As to the number of non-fatal cases occurring in the whole district, no complete record has been kept; but such as exists respecting certain villages give about ten attacks to each death. Upon this estimate there have occurred in the district in two and a half years 2,000 cases of scarlatina. The persons attacked have been almost entirely young children, principally five years of age. This speciality of incidence appears to have been much more marked than is common with scarlatina in England; indeed it is almost an article of faith with the colliery people that grown-up persons are not attacked. Of the 198 deaths, no fewer than 192 were under ten, and 134 were under five years of age.

As to the source of the epidemic and the precise method whereby each of the colliery villages became invaded, nothing could be learnt, but no difficulty was met with in obtaining abundant evidence as to the existence of means whereby scarlatina infection, when once introduced into one of the colliery villages, might readily extend. Commonly, no sooner does a case of illness occur, than friends and neighbours (including children) collect in the invaded dwelling, and as the sufferer is almost invariably established as soon as ill in the common dwelling-room of the family, whether there be an upstairs room or not, the fullest opportunity for the spread of infection is afforded. Possibly the attitude thus assumed by the colliers toward infection such as that of scarlatina may be due in some measure to a dim perception of the truth, that disease of this sort, if it attack a young child without killing it, is less likely to attack that child as he grows up. The collier class, seeing scarlatina habitually attack their children within a year or two of birth, have come to look on it as a thing of course pertaining to childhood, just as cutting teeth may be. Hence an utter disregard of the commonest precautions against infection, and even a disposition to court it.

The report of Dr. Parsons on the prevnlence of scarlatina at Bedlington is not so full as that of Mr. Power on Easington, but it leads to the same conclusion. In a population estimated at 15,000, there were in 1879 no fewer than 89 deaths from scarlatina. The district is never free from scarlet fever for long together, but in 1878 it would seem to have reached a minimum, only two deaths having been registered from it. No death from this cause occurred during the first four months of 1879, but at the end of April the disease appears to have been imported from Newcastle. It was however difficult to ascertain anything satisfactorily about the mode in which the outbreak commenced, owing partly to several of the families earliest attacked having removed out of the district, so that they could not be found, and partly to the circumstances attending the beginning of the outbreak having passed out of the minds of people of a class who are not usually accustomed to trace cause and effect in the occurrence of disease. After its introduction, scarlatina quickly became epidemic in the district, thirteen deaths being registered in May, seven in June, ten in July, ten in August, eight in September, fourteen in October, twenty in November, and seven in December. Here, as in other colliery districts, the people are very careless about the spread of infection, commonly going about to gossip in neighbours' houses where cases of infectious sickness exist; and the downstairs room is customarily used as a bedroom in cases of sickness, which must tend to promote the spread of infection, since all persons coming to the house must come into the room where the sick person is lying. The Medical Officer of Health for the district states that it is notorious that people in mining districts (and Bedlington is no exception to the rule) live as much in their neighbours' houses as they do in their own. Friends are invited from all quarters to funerals, the house of mourning is converted into a house of feasting, and thus contagion is spread far and near. Evidently more stringent powers are wanted in such districts for dealing with infection; and the provision of an infectious hospital, with large powers of compulsory removal, would seem to be a *sine quâ non* for the stamping out of epidemics like those abovementioned.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Birmingham.—In the fourteen weeks ended the 3rd of January last, the total number of births registered in Birmingham was 4,807. In the fourth quarters of 1877 and 1878, the numbers were respectively 3,727 and 3,880. The deaths registered in the quarter amounted to 2,371, against 2,594 in the autumn quarter of 1878, and 2,284 in the corresponding period of 1877. The death-rate was 22.64 per 1,000, as compared with rates of 24.21 and 27.08 in the autumn quarters of 1877 and 1878 respectively. This considerable fall in the death-rate on the fourth quarters of the two previous years was entirely due to a diminution in the mortality from zymotic diseases, more particularly from scarlet fever. In the autumn quarter of 1878, the scarlet-fever epidemic was at its height, and was accountable for 17 per cent. of the deaths from all causes. Diseases of the respiratory organs were somewhat more fatal than in the corresponding period of 1878. The seven principal zymotic diseases caused in the quarter 368 deaths, equal to an annual death-rate of 3.5 per 1,000 persons living. In the corresponding quarters of 1877 and 1878, the rates were respectively 4.7 and 6.6. Measles proved the most destructive of the zymotics, 97 deaths having having been certified from this cause, against only 10 in the autumn quarter of last year. Diarrhœa stood next in order of fatality, with 80 deaths, or 12 more than the number registered in the corresponding period of 1878. Whooping-cough resulted in 76 deaths, as compared with 57 deaths in the fourth quarter of last year; while scarlet fever, which in the autumn quarter of 1878 caused no fewer than 436 deaths, last quarter terminated fatally in only 57 cases. Diphtheria was certified as the cause of death in 30 instances, against 28 in the corresponding period of the previous year. From fever 28 persons died, against 36 in the fourth quarter of 1878; and from small-pox none, against 3 in the same period. Not a single case of small-pox came to the medical officer's knowledge during the quarter. Forty-seven cases of scarlet fever were admitted to the borough hospital during the quarter. In the autumn quarter of 1878, as many as 248 patients were treated, of whom 238 suffered from scarlet fever and 7 from small-pox.

Mid-Cheshire.—Mr. Fox's report for 1878 on this district is the first that he has presented since his removal from Cockermouth to Lymm. It is, on the whole, somewhat disappointing, as containing no information on many subjects about which details might have been expected. Thus very little is said as to the sanitary improvements of the year, and nothing as to the actual state of affairs in the district at the year's end. To Mr. Fox's personal action in the supervision of his district no reference whatever is made. The report, indeed, consists almost entirely of observations on the mortality-figures of the year; and this not with regard to the area as a whole, but with regard to each particular district by itself alone. The result is hardly satisfactory. How far certain diseases were fatal in the district can, indeed, be found by laborious comparison of the diffuse tables appended to each report; but, as to the circumstances of the different outbreaks and the means taken for their repression, nothing whatever can be learnt. Doubtless Mr. Fox has been sufficiently energetic in attempting to stamp out the diseases; but it would be preferable to have this action placed on formal record. It would appear that during the year there was a good deal of scarlatina in the district, especially at Sandbach, Winsford, and Northwich, where 17, 32, and 43 deaths respectively occurred from this disease. The death-rates of the districts ranged from 15.5 at Lymm to 31.4 at Middlewich, the latter mortality being chiefly due to the prevalence of lung-complaints. Some of the districts suffered very greatly from phthisis: a matter to which we have already drawn attention (Journal, vol. ii, 1879, p. 745). It would seem, however, as though the certificates may not always have been given with sufficient care. Thus one death was registered from consumption in an infant of a few months, and another in a venerable patriarch of eighty-four. Another veteran of eighty-two is said to have died from feeble action of the heart. Such deaths are, of course, old-age deaths, and should not be set down so as to swell the total deaths from accidental or preventable complaints. In the whole area, there were 4,895 births and 2,782 deaths during the year, giving rates of 37.6 and 21.3 respectively. The zymotic death-rate was 3.29; that from phthisis, 1.84; and that from other diseases of the lungs, 3.31. The percentage to total deaths of births of infants under one year of age was 24.6, and of persons over sixty years of age 29.5.

Kensington.—Dr. Dudfield's eminent labours as Health-Officer for Kensington need no comment, and his reports are no less conspicuous for their excellence than his actual work in the district. The last detailed report that has been issued is that for 1878; but as the figures for 1879 have also been published, it may be convenient to compare the two years together. The death-rate in 1878 was 20.3, and, in 1879, 19.1 per 1,000, against 17.3 in 1877. The deaths registered in 1879 were fewer by 128 than in 1878. The number of zymotic deaths, which in 1877 were only 339, were no fewer than 573 in 1878, but had fallen to 347 in 1879, or 150 below the corrected average. The increase of these maladies in 1878 was not due to the prevalence of the more serious diseases of the class, but to the unusual fatality from whooping-cough and diarrhœa, which were the cause of 185 and 181 deaths respectively. These diseases were also by far the most fatal of the zymotic class in 1879. The infantile mortality was high in 1878, the deaths under five years of age being 1,429, equal to 31 per cent. on births registered. In 1879, these figures were lowered to 1,211, or 25.3 per cent. on registered births. Diseases of the respiratory organs were fatal in 1879 to 1,083 persons, or 41 more than in 1878, in which year the deaths from these diseases exceeded those in 1877 by 142. The deaths from chest-diseases last year were, therefore, excessive, the immediate cause of the increased mortality being cold ungenial weather; and they were equal to 36.2 per cent. of total deaths. Heart-diseases were fatal in 1879 in 152 cases, as against 202 in 1878, and 137 in 1877. The number of violent deaths was, in 1878, 63, and, in 1879, 61. Dr. Dudfield's remarks on the figures of 1879 are not, of course, yet available; but those for 1878 are of the most interesting and instructive kind. In addition, Dr. Dudfield goes at length into the various matters of local sanitary interest during the year, as, *e.g.*, inquests and their necessity, glanders, slaughter-houses, cow-sheds, dairies, and milk-shops; the removal of dust, stable manure and offensive matter, mortuary (which unfortunately is still unprovided) disinfection, registration of "lodging-houses", and water-supply; and gives, besides, valuable comments on the Fulham Hospital, hospital-accommodation for non-paupers, disqualification by medical relief, the spread of infectious diseases, and other cognate subjects.

POOR-LAW MEDICAL APPOINTMENTS.

BRIDGFORD, Charles T., L.K.Q.C.P., appointed Medical Officer to the Bray Dispensary District, *vice* T. L. Whistler, M.B., resigned.

BURMAN, Charles C., L.R.C.P.Ed., appointed Medical Officer to the Workhouse and West District of the Belford Union, *vice* James Miller, M.D., resigned.

FRAZER, Archibald, M.D., appointed Medical Officer to the Drumkeeran District of the Manorhamilton Union, *vice* T. M. Nash, M.D., resigned.

*KIRKMAN, J. Miller, L.R.C.P.Ed., appointed Medical Officer to Nos. 1 and 2 Districts of the Cricklade and Wootton Bassett Union, *vice* T. R. B. Parker, M.D., resigned.

LLOYD, Thomas L., L.R.C.P., appointed Medical Officer to the Fifth District of the Drayton Union, *vice* E. T. Prior, M.R.C.S.Eng., resigned.

NORTHEY, Gilbert W., M.R.C.S., appointed Medical Officer to the Whitchurch and South Lidford District of the Tavistock Union, *vice* W. C. Northey, M.R.C.S., resigned.

SCOTT, William E., F.R.C.P.Ed., appointed Medical Officer to the Second and Eleventh District of the Lincoln Union, *vice* T. M. Wilkinson, L.R.C.P.Ed., resigned.

SCOTT, W. G., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator to the Second and Eleventh Districts of the Lincoln Union, *vice* T. M. Wilkinson, L.R.C.P.Ed., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE. — Surgeons-Major Hamilton Mitchell, Edward Acton Gibbon, and William Millar are granted retired pay, with the honorary rank of Brigade-Surgeon.

NAVAL MEDICAL SERVICE.—The following appointments have been made:—Deputy Inspector-General, James N. Dick, to the *President*; Fleet-Surgeon, W. D. Longfield, to the *Indus*; Staff-Surgeons, M. Magill, M.D., to the *Valorous*; T. Conry, to the *Flora*, for service at Ascension; Surgeons, W. Algeo, to the *Woodlark*; C. W. Magrane, to the *Flora*, for service at Ascension.—The undermentioned gentlemen have been entered as Surgeons in Her Majesty's Fleet, with seniority of October 1st, 1879: G. Kirker, M.D.; T. D. Gimlette; W. Tait, M.B.; J. Crowley, M.D.; G. H. S. J. Bankier, M.D.; J. A. McMann, B.A., M.B.; J. Brunt; and M. M. R. Mackenzie.

FRIENDLY SOCIETIES AND THE ROYAL NAVY.—The Lords of the Admiralty having received a memorial from a society of Odd Fellows at Woolwich, pointing out the inconvenience occasioned by the refusal of naval surgeons to give certificates of sickness and recovery to members of the society when on board Her Majesty's ships, have given directions that, when applied to, medical officers of the Royal Navy may in future certify to the secretaries of established friendly societies the nature of the illness from which any officer or man being a member of such society is suffering.

INDIAN MEDICAL SERVICE.—The following is a list of candidates who, having gone through a course of instruction at the Army Medical School, were successful at the examination in London on March 8th, 1880.

	Marks.		Marks.
1. G. W. P. Dennys	4964	9. A. C. Thompson	4368
2. J. W. W. Macnamara	4920	10. F. Burness	4326
3. H. O. Stuart	4768	11. G. J. Ward	4294
4. J. C. Marsden	4552	12. F. C. Reeves	4153
5. J. Sykes	4503	13. J. L. Poynder	4012
6. J. M. D. Stewart	4450	14. J. Hoey	3831
7. J. F. Tuohy	4393	15. A. G. Collington	3755
8. A. R. Campbell	4375	16. C. A. Daubney	3628

THE QUALIFICATIONS OF NAVAL MEDICAL OFFICERS.

SIR,—In your JOURNAL of January 31st, I notice, in the suggestions on the present condition of the Naval Medical Service, the following remark: "In promotion to the inspectorial grades and appointments of trust, the professional qualifications of the naval medical officer should be taken into consideration." Your correspondent then goes on to state that the Deputy Inspectors-General at Malta, Chatham, Haslar, and Plymouth, are merely Licentiates of the Dublin College of Surgeons—implying that for this reason they are unequal to the responsibilities of their high offices and ought to have been passed over. Here are a numbe rof gentlemen who have borne the heat and burden of the day, several, if not all of them, of distinguished service, told that they are not sufficiently qualified for promotion to the higher grades. I should be one of the last to depreciate the attainment of the highest qualifications, but surely no reasonable man would go to the length of advocating that "the specific measure of a man's fitness" should be his diplomas. Medical officers, on entering the service, are all on an equal footing, and their subsequent advancement should ever depend on circumstances entirely independent of the technical value of their diplomas.—I am, your obedient servant,

February 12th, 1880. L.R.C.P.E., L.F.P.S.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 11th, 1880.

Deane, Edwin, Wincanton.
Puddicombe, William Noble, Purcells, Edgware.
Studer, Benjamin, Linthal, Alsace.

The following gentlemen also on the same day passed their primary professional examination.

Cooper, William Astley, London Hospital.
Harvey, Frederick William, London Hospital.
Head, Philip Alexander Dewar, London Hospital.
Williams, William Rees, St. George's Hospital.

UNIVERSITY OF CAMBRIDGE.—At a Congregation held on March 11th, the undermentioned degrees were conferred.

Doctor of Medicine.—William Edward Ramsden Wood, Caius College.
Bachelor of Medicine.—Henry Howard, non-collegiate.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, January 5th, 6th, 7th, and 8th, the following candidates were successful.

For the Licence to Practise Medicine.—James Henry Parkinson, William Robert Minchin Young.

For the Licence to Practise Midwifery.—James Henry Parkinson.

At the usual monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, March 8th, 9th, 10th, and 11th, the following candidates were successful.

For the Licence to Practise Medicine.—Kyran Thomas Buggy, Charles Hayden Cox.

For the Licence to Practise Midwifery.—John Battersby, Kyran Thomas Buggy, Charles Hayden Cox, Arthur Richard Frederick Exham, Alexander Silcock.

Since February 6th, the following licentiates have been approved for admission as members of the College in accordance with the terms of the supplemental charter of December 12th, 1878.

*John Henry Wilson, 1851, Liverpool; *William Shaw Duckett, 1860, Dublin; James Brady, 1860, Dublin; *Denis Ignatius M'Veagh, 1860, Coventry; *Samuel Henry O'Brien Banks, 1866, Surgeon-Major A.M.D., Bombay; Chas. George Lyster, 1867, Kilkenny; *John Stone, 1870, Surgeon R.N.; William Stoker, 1873, Dublin; Joseph Eaton, 1874, Glendalough; *Raglan Wykeham Barnes, 1875, Netley, Surgeon A.M.D.; Effingham Carroll MacDowel, 1875, Sligo; *Arthur Alma Johnston, 1875, Bombay; *Frances Elizabeth Hoggan, 1877, London.

The licentiates in the foregoing list who have an asterisk placed before their names have taken the prescribed declaration, and have been duly enrolled as members of the College. The figures placed after the names indicate the year in which the licence of the College was obtained.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BALROTHERY UNION—Medical Officer for Kilsallaghan Dispensary District. Salary, £125 per annum, with £20 6s. 8d. as Medical Officer of Health, registration and vaccination fees. Election on 27th instant.

BELLINGHAM UNION—Medical Officer to the First District and Workhouse. Salary, £32 per annum.

BRAMLEY UNION—Medical Officer and Public Vaccinator. Applications, with testimonials, on or before March 20th.

CARMARTHEN INFIRMARY—House-Surgeon. Salary, £125 per annum, with lodging, fire, and washing. Applications to the Secretary on or before March 31st.

FAVERSHAM UNION RURAL SANITARY AUTHORITY—Medical Officer of Health. Salary, £150 per annum. Applications, with testimonials, on or before March 23rd.

*FRENCH HOSPITAL AND DISPENSARY.—Resident Medical Officer. Salary, £60 per annum, with board, furnished apartments, and attendance.

GREAT NORTHERN HOSPITAL, Caledonian Road—Junior Resident Medical Officer. No salary but board and residence in the hospital. Applications, with copies of testimonials, to the Secretary up to April 1st.

GREENOCK INFIRMARY—Oculist to the Out-Door Patients. Applications no later than March 31st.

*HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications, with testimonials, on or before March 20th.

*INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT—A vacancy in the Honorary Medical Visiting Staff. Election on April 15th.

MANCHESTER TOWNSHIP—Medical Officer of the Industrial Schools at Swinton.

*METROPOLITAN FREE HOSPITAL—Assistant Physician. Honorarium of twenty-five guineas per annum. Applications on or before March 27th.

NORTH STAFFORDSHIRE INFIRMARY, HARTSHILL, STOKE-ON-TRENT—House-Physician. Salary, £100 per annum, increasing £10 a-year at the discretion of the Committee, with board, furnished apartments, and washing. Applications, with testimonials, to the Secretary not later than March 24th.

PRESCOT UNION—Medical Officer and Public Vaccinator to the Huyton District. Salary, £15 per annum. Vaccination fees extra. Applications before 10 A.M. March 22nd.

*QUEEN CHARLOTTE LYING-IN HOSPITAL, London—Resident Medical Officer. Salary, £60 per annum, with board and lodging in the hospital. Applications, with copies of testimonials, to the Secretary before April 5th.

ST. BARTHOLOMEW'S HOSPITAL, Chatham—Assistant House-Surgeon. Salary, £80 per annum, with board, washing, etc. Applications on or before March 22nd.

ST. LEONARD'S PARISH, Shoreditch—Resident Assistant Medical Officer for the Workhouse and Infirmary. Salary, £100 per annum, with board, furnished apartments, and washing. Applications not later than March 22nd.

SALFORD UNION—Resident Assistant Medical Officer to the Workhouse. Salary, £180 per annum, with furnished apartments in the workhouse. Applications, with testimonials, on or before March 22nd.

ST. AUSTELL UNION—Medical Officer to Second and Seventh District.

SUDBURY UNION—Medical Officer for the Fourth District. Salary, £62 per annum. Applications, with testimonials, on or before March 29th.

SURREY DISPENSARY—Assistant Dispenser. Salary, £60 per annum. Applications, with testimonials, on or before March 23rd.

*THE GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Physician for Out-patients. Applications, with testimonials, on or before March 31st.

*TORBAY HOSPITAL AND DISPENSARY, Torquay.—House-Surgeon. Salary, £100 per annum, with board, lodgings, and attendance. Applications on or before the 29th instant.

*TOWNSHIP OF TOXTETH PARK, Liverpool—Assistant Resident Medical Officer to Workhouse and Infirmary. Salary, £100 per annum, with rations and separate apartments. Applications on or before the 24th instant.

*WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon. Applications, with testimonials, to the Secretary on or before March 22nd.

*WESTMINSTER HOSPITAL—Medical Registrar. Salary, £40 per annum. Applications before March 30th.

UNIVERSITY COLLEGE HOSPITAL—Third Assistant Physician. Applications on or before March 29th.

*UNIVERSITY OF EDINBURGH—Additional Examiner to the Clinical Surgery Department. Applications, with testimonials, to the Secretary not later than April 5th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

* GABBETT, H. S., M.D., elected Assistant Physician to the Royal Hospital for Diseases of the Chest.

* HUTCHINSON, Jonathan, Esq., F.R.C..S., elected Consulting Surgeon to the Royal Hospital for Diseases of the Chest.

WHITE, W. H., M.D., elected Assistant Physician to the Royal Hospital for Diseases of the Chest.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

BANHAM.—On March 12th, at Mount View, Glossop Road, Sheffield, the wife of H. Trench Banham, M.A., M.B., of a son.

MARRIAGE.

HIGHET—THOMPSON.—At St. John's Church, Workington, on the 16th instant, by the Rev. J. J. Thornley, M.A., John Highet, of Workington, Surgeon, to Clara, second daughter of Wm. Thompson, Esq., of Newlands, Workington.

DEATHS.

BELL, Thomas, F.R.S., at the Wakes, Selborne, Hants, aged 87, on March 13th.

DAVIES, Edward, M.R.C.S.Eng., J.P. for the counties of Glamorgan and Brecknock, aged 77, on March 11th.

GOOLDEN, Richard H., M.D., F.R.C.P., of the Sussex Gardens, Hyde Park, aged 69, on March 10th.

LEGGATT, Alfred, F.R.C.S., at 13, William Street, Lowndes Square, suddenly, on March 15th.

MITCHELL.—Margaret Mayo (May), only child of Harrison Mitchell, M.D., Wigton, Cumberland, aged four and a half years, on March 10th.

DONATION.—We understand that Mr. Francis Wise of Cork has presented the handsome sum of £5,000 to the Home for Protestant Incurables in that city. A portion of this gift, viz., £3,000, goes towards the endowment fund, upon certain conditions as to rights of nomination to three beds in the Home; while the remainder is intended for the building fund. The Home requires about £3,000 more to complete it, and, when finished, will be one of the finest institutions of the kind.

DR. R. RADLEY LEADER is a candidate for the vacant coronership of the Kanturk, Millstreet, and Mallow District; and Dr. Cagney for the East Riding District, county Cork.

THE RADCLIFFE TRAVELLING FELLOWSHIP in the University of Oxford has been awarded to Mr. William Wansbrough Jones, B.A. Oxon., B.Sc.Lond., student of St. Thomas's Hospital. Mr. Jones was educated at New Kingswood School, Bath, and Clifton College, and was elected to a Demyship at Magdalen College, Oxford, in October, 1873. He graduated in first class honours in the School of Natural Science, in June, 1876, and has since gained several scholarships and prizes at St. Thomas's.

PUBLIC HEALTH.—During last week, being the tenth week of this year, 3,667 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 22 deaths annually in every 1,000 persons living. The annual death-rate was 18 in Edinburgh, 26 in Glasgow, and 36 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Portsmouth 16, Brighton 18, Sheffield 19, Wolverhampton 19, London 21, Bradford 21, Bristol 21, Newcastle-upon-Tyne 21, Leeds 22, Birmingham 22, Salford 22, Liverpool 23, Oldham 23, Nottingham 23, Hull 24, Leicester 25, Sunderland 25, Norwich 25, Manchester 26, and again the highest rate 31 in Plymouth. In London, 1,442 deaths were registered, being 324 below the average. The annual death-rate was 20.5 per 1,000, a lower rate than has prevailed in any week since the middle of October last. The 1,142 deaths included 13 from small-pox, 15 from measles, 51 from scarlet fever, 13 from diphtheria, 112 from whooping-cough, 19 from different forms of fever, and 14 from diarrhœa, being altogether 237 zymotic deaths, which were 7 above the average, and were equal to an annual rate of 3.4 per 1,000. The fatal cases of whooping-cough, which had been 135 and 155 in the two preceding weeks, declined again last week to 112, but exceeded the corrected weekly average by 40. The 51 deaths from scarlet fever were 15 above the average. The deaths referred to diseases of the respiratory organs, which had steadily declined from 1,557 to 390 in the five preceding weeks, further declined to 315 last week, and were 147 below the average; 191 resulted from bronchitis, and 83 from pneumonia. Different forms of violence caused 46 deaths; 38 were the result of negligence or accident, including 11 from fractures and contusions, 4 from burns and scalds, 4 from drowning, 3 from poison, and 11 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 46.3°, and 5.6° above the average. The direction of the wind was variable, and the horizontal movement of the air averaged 8.5 miles per hour, which was 5.2° below the average in the corresponding week of sixteen years. Rain fell on Sunday to the amount of 0.07 of an inch. The duration of registered bright sunshine in the week was equal to 40 per cent. of its possible duration. The recorded amount of ozone showed an excess on Sunday, Monday, and Friday.

METROPOLITAN AND NATIONAL NURSES' ASSOCIATION.—The fourth annual meeting of this association was lately held. The report stated that the nursing-staff numbered twenty-five, and during the year four ladies had been trained for district nursing work. Three courses of lectures had been delivered at the Central Home to nurse probationers: on Hygiene, by Dr. Cheadle; on Physiology, by Dr. Heywood Smith; and on Anatomy, by Mr. Warington Haward. The number of cases attended was 3,530, being upwards of 1,000 more than last year. The balance at the bank, however, was smaller than last year, and an appeal was made for increased subscriptions required by the growing expenditure. Lord Shaftesbury moved the adoption of the report, commending the objects of the society, and saying that in alleviating and curing sickness something more than medicine was required. Mr. Thomas Hughes, Q.C., seconded, remarking he had read nothing more pathetic than the instances of relief given to suffering mentioned in the report. The report was adopted; and a resolution was passed pledging the meeting to support the institution and extend its benefits.

BEQUESTS.—Mr. George Scorer, late of 101, Piccadilly, has bequeathed to St. George's Hospital, the Consumption Hospital at Brompton, the London Hospital, the Westminster Hospital, the Charing Cross Hospital, £200 each; to the Children's Hospital, Great Ormond Street, £50; to the Royal National Hospital for Consumption, Ventnor, and to St. Mary's Hospital, Paddington, £100 each; to the Cancer Hospital, and the City of London Hospital for Diseases of the Chest, £250 each. The will also contains bequests of £1,050 each to St. George's Hospital, the Consumption Hospital, the London Hospital, the Westminster Hospital, and the Charing Cross Hospital, upon trust to invest the same in Three per Cent. Consols, and apply the dividends between fifteen patients of each of such hospitals annually on leaving the same—such patients to be nominated by the executive authority of each hospital.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.— Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Threat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.: Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. F. de Havilland Hall, "A Case of Combined Renal and Hepatic Colic"; Mr. Samuel Benson, "A Case of Genu Valgum cured by Mechanical Means"; Dr. C. R. Drysdale, "Cerebro-Spinal Syphilis".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Pavy, "On the Estimation of Uric Acid by its Reducing Action upon the Ammoniated Cupric Test". After the paper, Sir Henry Thompson will exhibit and demonstrate the Nietze-Leiter Endoscope on the living subject.

WEDNESDAY.—Hunterian Society, 8 P.M. Mr. Waren Tay, "Sterno-mastoid Tumours"; Dr. Little, "A Rare Form of Wry-Neck, and certain Pathological Changes of the Face resulting from the Deformity".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

We cannot undertake to return Manuscripts not used.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

The Relations of Small-pox and Cow-pox.

Sir,—With reference to the controversy on the above subject, would you kindly allow me space to record a circumstance that occurred here twelve months ago? Vaccine-matter being scarce, it was proposed by a member of the profession to procure a calf, have it inoculated with small-pox virus, and with the resulting matter to vaccinate the patients. Before doing so, however, the Local Government Board was communicated with, and the guardians received in reply a letter, from which the following is an extract.

"The Board desire to observe that it is not clear from the resolution whether the proposal is to inoculate the calf with small-pox virus or with vaccine-lymph taken from the human subject, but in neither case can the Local Government Board approve of the resolution adopted by the guardians. Small-pox virus taken from a calf would communicate that disease to a human subject, and be thereby a fertile source of propagating the disease, and would, moreover, render the operation liable to prosecution under the fourth section of the 31 and 32 Vict., chap. 87. If the proposition were to vaccinate a calf with lymph taken from a human subject, the Board have to state it has long since been ascertained that the animal lymph for vaccination purposes must, in the first instance, be obtained from a cow in which the disease has spontaneously arisen."

I believe that the genuine vaccine-disease is *sui generis*, and that lymph therefrom is the only safe prophylactic against small-pox.—I am, sir, yours truly,

Galway, March 3rd, 1880. P. M. Rice, L.R.C.S.I.

Sick Clubs and their Medical Officers.

A Disgusted Club Doctor suggests a deputation to the Grand Lodges of the Manchester Unity of Odd Fellows, Foresters, etc. (the time of whose meetings is close at hand), to discuss with them the various grievances and abuses which have crept into the "lodges". They might be persuaded to issue recommendations to each of the "lodges", which certainly would do no harm, and possibly much good. There are many sensible men who know club-doctors are underpaid. He has often heard the remark, "I know you don't get overmuch out o' t' club"; but these men are silenced in the lodge; and so matters go on, the best friends of the doctor (the poorer and really deserving, but illiterate members) never attending the lodge meetings save to pay contributions, while the tradesmen stick to office and rule all the rest. Our correspondent approves of the suggestion made by "One of a Contented Firm", though he does not know how it would be received. He has to attend, as club patients, eight farmers, sixteen publicans, twenty-two tradesmen, and four "retired" gentlemen.

Quid pro Quo writes: I am alive to the fact that a stand against the clubs in large towns, as L.R.C.P. says, would be of little avail, but I see nothing to prevent country practitioners from demanding an increase of pay per member, and declining to continue the work unless granted. In country districts, clubs are not sufficiently supplied with members, and are too widely scattered to allow amalgamation as in towns, with one medical officer to attend the whole. The suggestion offered by "Concordia Crescimus", to write to the large societies, viz., Foresters and Odd Fellows, would have little or no effect. All societies are averse to granting increased pay. If we wish for the increase, we must take the matter into our own hands (they have had it long enough in theirs), and enforce our right for more satisfactory remuneration. If in each district one practitioner would take upon himself to represent the matter to his colleagues, I think that they would all agree to hold out for additional pay. The plan was tried not many years since in a town of thirty thousand inhabitants, and the object was gained. Country practitioners have the advantage over town practitioners, in not running the risk of the various societies amalgamating and engaging one surgeon to attend all. "Club Doctor" says that it is useless to ask ten shillings or even five shillings per member. My reply is that if we cannot get more than five shillings per member, we are better off without them. It seems to me that medical men have themselves to blame for the wretched pay they receive for their work, and a great majority have not the pluck to "ask for more". "Veritas" suggests that a society should be formed to inquire into the opinion of the profession on this matter; and I shall be very happy to see steps taken at an early date.

Masonic Charities.

Amongst the candidates at the April election of the Royal Masonic Institution for Boys is Sydney W. F. Richardson, aged 9, son of the late Mr. Benjamin Richardson, surgeon, of Glaisdale, near Whitby, P.M. of Cleveland Lodge, North Yorkshire Province. The candidate is one of six boys, left fatherless and motherless, the youngest aged 12 months, and the eldest thirteen years. Mr. Handyside, surgeon, of Stokesley, Yorkshire, will gladly receive proxies.

Mr. George Clifton of Leicester appeals to those readers of the Journal who are subscribing members of Masonic charities on behalf of Mr. Henry Douglass, M.R.C.S., L.S.A., of Wymondham, near Melton Mowbray, an old member and P.M. of the Rutland Lodge, Melton, and past grand junior deacon of the Province. Through serious illness and losses, and adverse circumstances, he has been compelled to abandon his professional calling, and is now reduced to great poverty. During the last two years, he has been totally unable to earn a livelihood; and having no source of income whatever, he solicits any votes for any of the charities which can be exchanged, so that he can be elected at the forthcoming May election in the Royal Masonic Benevolent Institution for Aged Freemasons. His case is strongly recommended by most of the leading Masons of the Province. Proxies will be thankfully received by W. Brother Rev. W. Langley, Narborough Rectory, Leicester; or George Clifton, Surgeon, 53, London Road, Leicester.

Mr. B. Baker.—The Metropolitan Provident Dispensary Association has only just put forth its scheme of operations. It is probable that some time will elapse before anything further is done. When dispensaries are about to be opened, the staff of each institution will no doubt be elected from the medical men practising in the immediate neighbourhood. When the proper time comes, we presume that advertisements will be inserted in the newspapers and candidates invited to offer themselves in the usual way. But at present nothing can be done to secure these appointments.

Medical Register of Europe.

Sir,—Can you or any of your readers tell me whether a *Medical Register* was published before 1779? I have got an imperfect one of 1780; but, as the title-page is gone, I do not know how many were published before it.—Yours faithfully,

Sheffield. Arthur Jackson.

The mode in which the Zulus administer enemata is original. The patient is placed on his head, and the small end of a cow-horn is passed into the anus. Two pints of sea-water are then poured into the rectum through the cow-horn.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN FEBRUARY 1880.

THE following are the returns made by Dr. C. Meymott Tidy to the Society of Medical Officers of Health.

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter.	Nitrogen	Ammonia.		Hardness. (Clark's Scale.)	
			As Nitrates,&c.	Saline.	Organic	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction ..	23.51	0.0122	0.195	0.000	0.0075	15.9	3.8
West Middlesex..	22.87	0.0204	0.180	0.000	0.007	15.9	3.8
Southwark and Vauxhall	22.53	0.0612	0.165	0.001	0.012	15.0	3.8
Chelsea..........	23.49	0.0378	0.180	0.001	0.008	15.6	4.2
Lambeth	23.22	0.0163	0.180	0.000	0.008	15.4	4.0
Other Companies.							
Kent	33.74	0.0082	0.420	0.000	0.002	20.6	6.3
New River	23.14	0.0041	0.195	0.000	0.005	15.4	3.5
East London	23.06	0.0326	0.180	0.0015	0.010	16.0	4.2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc. is determined by a standard solution of permanganate of potash acting for three hours. The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in that of the Southwark and Vauxhall and the East London Companies.

AN APPEAL.

THE following sums have been received towards the "appeal" published in the JOURNAL of February 21st, 1880, in behalf of the widow and three children of the late Dr. Harry Molony of Kilrush, Co. Clare. Further subscriptions, which are earnestly requested in aid of the fund, will be thankfully received and acknowledged by George F. Duffey, M.D., 30, Fitzwilliam Place, Dublin; C. E. Fitzgerald, M.D., 27, Upper Merrion Street, Dublin; or by H. T. Land, Esq., Treasurer, Provincial Bank, Kilrush, co. Clare.

	£	s.	d.
Per H. T. Land, Esq., Kilrush:			
H. R. Swanzy, F.R.C.S.I., Dublin	5	5	0
C. E. Fitzgerald, M.D., Dublin	20	0	0
John Griffin, M.D., Kilkee	1	1	0
John F. Counihan, L.R.C.S.I., Kilrush	1	0	0
Henry Fitzgibbon, M.D., Dublin	5	0	0
Henry H. Head, M.D., Dublin	1	0	0
Edward Kough, M.B., Monkstown	5	0	0
George F. Duffey, M.D., Dublin	3	3	0
J. T. Banks, M.D., Dublin	5	0	0
R. R. Gelston, M.D., Limerick	1	0	0
R. P. Gelston, L.K.Q.C.P., Clonmel..	0	10	0
Gerald F. Yeo, M.D., London	200	0	0
B. Madigan, L.K.Q.C.P., Kilrush	1	0	0
John F. Rowan, L.K.Q.C.P., Kilkee	1	0	0
Per George F. Duffey, M.D.:			
Henry Stear, M.R.C.S., Saffron Walden, Essex ..	2	2	0
"A Brother Professional"	1	1	0
J. W. Moore, M.D., Dublin	1	1	0
Surgeon-Major Reynolds, V.C., A.M.D.	1	0	0
J. Hawtrey Benson, M.D., Dublin	0	10	0
T. W. Grimshaw, M.D., Registrar-General	1	1	0
R. Bryden, M.R.C.S., Uffculme, Devon	0	2	6
E. H. Bennett, M.D., Dublin	5	5	0
A. H. McClintock, M.D., Dublin	2	2	0
Alfred Hudson, M.D., Dublin	5	0	0
"A Friend", per Dr. Hudson	10	0	0
Agmon Vesey, M.B., Rostrevor	1	1	0
Walter G. Smith, M.D., Dublin	1	1	0
Lombe Atthill, M.D., Dublin	1	0	0
John M. Purser, M.D., Dublin	3	3	0
W. J. Wheeler, M.D., Dublin	5	5	0
J. Magee Finny, M.D., Dublin	1	0	0
G. W. L'Estrange, Esq., Dublin	1	0	0
Mrs. L'Estrange, per G. W. L'Estrange	0	10	0
Mrs. Babington, per G. W. L'Estrange	0	10	0
Per C. E. Fitzgerald, M.D.:			
The Hon. Baron and Mrs. Fitzgerald	5	0	0
Robert McDonnell, M.D., Dublin	5	5	0
Surgeon-Major Sandford Moore, A.M.D.	3	0	0

SIR TREVOR LAWRENCE, Bart., M.P.—This gentleman, who, in conjunction with Sir Henry Peek, Bart., seeks re-election to his seat in Parliament as representing Mid-Surrey in the Conservative interest, is the only son of the late Sir William Lawrence, Bart.

A QUESTION OF DIAGNOSIS.

SIR,—X. M.'s case may have been one of herpes zoster occurring unusually low down. I would inquire of him whether the patch of eczema was in the course of a superficial nerve.—Yours faithfully,

S. H.

C.—Our correspondent should submit the matter to the Council of the local Branch of the Association.

VOLUNTEER SURGEONS.

SIR,—I understand that there is an examination open to volunteer surgeons. If such be the case, I should be glad if any of your readers could inform me when and where the examination is held, what are the best text-books, etc.—I am, yours faithfully,

March 15th, 1880. A VOLUNTEER SURGEON.

NOTICE TO ADVERTISERS. — Advertisements for insertion in the BRITISH MEDICAL JOURNAL should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

THE RELATIONS OF DENTISTRY TO SURGERY.

SIR,—Mr. Cattlin, in the address which appeared in the JOURNAL for March 6th, made use of my name in connection with the Dentists' Act in a manner which leaves me but little choice as to a reply. I hope you will allow me, by the relation of facts, to rebut the charges which I think Mr. Cattlin would have hesitated to lay at my door, had he known all the circumstances attending the passing of the Dentists' Act.

I will first take the allegation of "hasty legislation". Prior to its introduction by Sir John Lubbock, a draft of the Dentists' Bill was sent (November 2nd, 1877) to and approved by the Royal Colleges of Surgeons of England and of Ireland, and the Faculty of Physicians and Surgeons of Glasgow. The Royal College of Surgeons of Edinburgh approved the Bill, subject to certain amendments, many of which were made; and the College has acted upon the powers given by the Act. The Bill was submitted in November 1877 to the President and members of the Medical Council, which subsequently, in considering the dental sections of the Lord President's Medical Bill, recommended that certain clauses from the Dental Bill should take the place of one or other of the dental clauses of the Government Bill. On June 8th, 1878, the Parliamentary Bills Committee of the British Medical Association, after hearing advocates for and against the Bill, resolved "that this Committee approves the Dental Practitioners' Bill as now amended". Eleven hundred and fifty dental practitioners petitioned Parliament to pass the Dentists' Bill. Included in the foregoing number were seventy qualified medical practitioners practising dental surgery. Subsequently, sixty-eight qualified surgeons or physicians practising dental surgery memorialised individually the members of the House of Commons in support of the "Dental Practitioners' Bill, which has been considered with very great care", etc. The Bill, when in Parliament, was more than once printed in each of the dental journals. The views of a committee of the Association of Surgeons practising Dental Surgery were not less extensively circulated. Surely, after this amount of consideration and subsequent approval by the surgical corporations and other medical bodies, and by the dentists themselves, the passing of the Act cannot be justly described as the result of "hasty legislation".

Then Mr. Cattlin says that "the Dentists' Register separated dentistry from surgery". Before the passing of the Dentists' Act, not one dental practitioner in five—or, as it would now appear, scarcely one in ten—had received any medical education or had any connection with the medical profession. Dentistry was an outlying and uncontrolled branch of general surgery. The Dentists' Act places the dentist absolutely under the control of the medical authorities. His education, his examination, and his registration, one and all, are governed by the General Medical Council and the surgical corporations; and if the conjoint scheme come into operation, it will, by the terms of the Dentists' Act, apply equally to the education of medical and of dental practitioners.

The next point urged by Mr. Cattlin is that a person should be a surgeon first and then a dentist. The paragraph in which this opinion is embodied is too long for verbal quotation. It may be put in other words—That the education of the dental surgeon shall exceed by two years the education of the general surgeon. For it has been conclusively shown that the medical and the dental curricula cannot rightly be included in the same four years. Almost all the dental practitioners who have been publicly engaged in teaching dental surgery, to the number of fifty (twenty-nine of whom held registrable medical qualifications), signed a memorial to the Medical Council, declaring "that, in our opinion, the requirements of the dental curriculum originated by the Royal College of Surgeons of England are not in any respect in excess of the educational necessities of the dental practitioner". This curriculum, in its nature three-fifths medical and two-fifths dental or special, has been approved by the Medical Council and is adopted by the four surgical corporations which grant dental qualifications. It requires that of the four years to be devoted to professional studies two shall be given to dental hospital practice; practically, that the mornings of two years shall be devoted to one part of the required technical knowledge—the acquirement, under competent teachers, of manipulative skill in operating upon the teeth, etc., and it cannot be rightly contended by competent practitioners that less time will suffice. It is admitted on all hands that the four years allotted to medical education, if well employed, are not more than sufficient for the attainment of the knowledge requisite to competence; and if this time be not well employed, failure must be the result at the examination-table, even to the extent of a fourth, sometimes a third, of the candidates for diplomas. How, then, can another subject which takes two years of special study for its acquirement, be thrust into the more than occupied four years of medical education? If it be thus thrust in, the general or the special education must be neglected; and to use the words of the President of Harvard University, when treating of the acquirement of a medical and a dental diploma within the same three years, "one or other of the degrees is lowered to a deplorable extent".

Now, is it reasonable to require of the dental practitioner a higher degree of professional education than is required of the medical practitioner? Yet this condition would be enforced if the two qualifications are to be honestly gained. Would it be possible to enforce this unreasonable educational cost in time and money upon each of those who will be required to fill up the life-waste of the existing three or four thousand dental practitioners? Surely not. We have nothing to do with the exceptional few who are favoured by unusual talent or pecuniary resources. If too little be asked of them, they can distinguish themselves by adding more. The necessary medical and dental knowledge must be required of the rank and file, and the dental licentiateship provides this, concerning which qualification I may be allowed to quote from Professor Erichsen's admirable address on dental education, wherein he says (*British Journal of Dental Surgery*, August 1879): "The examination which is required by the College of Surgeons embraces all those scientific and practical subjects which it is necessary for the dentist to know; and although many dentists go beyond this, and take the membership and even the fellowship of the College of Surgeons, I can scarcely look upon such an extension of professional study as being necessary to the great body of your profession. In fact, in order to obtain the membership of the College of Surgeons, it would be necessary for the dental student to acquire an amount of technical surgical knowledge which he knows will be useless, and which he intends to throw aside, and to forget as soon as he possibly can after he has obtained the diploma for which alone he has sought to acquire it. I think, therefore, that the L.D.S. diploma may be considered amply sufficient as a guarantee of the professional position and competence of any man who holds it."

In truth, the person licensed to practise dental surgery is and must ever be the dental surgeon; and if he add to his licentiateship a general qualification, he will be the surgeon and dentist. The one term indicates a special surgical education, the other a general surgical qualification to which a special qualification has been added. The distinction between the two titles is clear and sufficient. Bearing in mind that the question of title with a full knowledge of the subject has been twice considered and determined by the General Medical Council, once by the Parliamentary Bills Committee of the British Medical Association, by Parliament when the Dentists' Bill was in Committee, and by the surgical corporations in the wording of their respective dental diplomas, I would ask, Is it, in the supposed interest of a limited number of persons, wise to prolong a struggle for the purpose of declaring that a person licensed to practise dental surgery, is not, when in the practice of his calling, a dental surgeon?

Mr. Cattlin's objection to registration seems by no means general, for a very large number of those dentists who hold medical qualifications appear in the columns of the *Dentists' Register*, sometimes associated with the words "in practice with surgery, or medicine"; sometimes without this distinctive notification.

I have no concern with Mr. Cattlin's dream-born scheme of a new edition of dental reform. My purpose has been to show that the course pursued by the party with which I have acted, has been from first to last (throughout a period of over twenty years) consistent with common sense, common justice, and the interests of the public; and that it has been actively supported by the great majority of those dental practitioners—with and without medical qualification—who have taken any part for or against the consolidation of our calling into a recognised branch of the medical profession; furthermore, that, in preference to adopting any fanciful scheme of professional grandeur, a measure was attempted capable of being carried into effect. In the draft of our Bill, the lines of the Medical Act of 1858 were followed in respect to both education and registration, and amendments were introduced by the Government rendering the Dentists' Act conformable with any future Medical Act. If, as alleged by Mr. Cattlin, harm has been done to some of my professional brethren by the course I have followed, the injury has certainly been self-inflicted, and is the inevitable consequence of their unwillingness to accept the ruling of competent and independent tribunals, and of the great majority of their fellow practitioners.

I regret having occupied so much valuable space upon this time-worn and very thread-bare subject, but I could not, in justice to those I have represented, or to myself, remain silent under so grave an accusation as that preferred against me by my old friend Mr. Cattlin.—I remain, your obedient servant, JOHN TOMES.

Caterham, March 9th, 1880.

AN EMETIC FOR INFANTS.

DR. S. W. SMITH (Pershore) writes:—I beg leave to record that half a teaspoonful of glycerine acts as a simple and efficient emetic for infants. Perhaps some of your readers can confirm this by future experience.

SPASMODIC CONTRACTION OF THE STERNO-MASTOID MUSCLE.

SIR,—Spasmodic contraction of the sterno-mastoid muscle is one of the most troublesome affections met with in orthopædic surgery. The cause is often very obscure; it sometimes originates in irritation of the nerve-centres, such as injury to the spine, etc. I am inclined to think, from a careful study of the many recorded cases, and from personal experience, that the accessory portion of the spinal accessory is generally chiefly at fault. Dr. Little has cured recent cases with bromide of potassium, and others with perchloride of mercury, giving at the same time aloes to relieve the bowels. These remedies, however, appear (and Dr. Little agrees with this opinion) to be useful only when the affection depends upon hepatic congestion, the majority of cases requiring tonics and a generous diet. If the spasms become very severe, division of the clavicular origin of the muscle, and perhaps of the sternal also, is necessary to relieve the patient; and this treatment sometimes effects a cure (Stromeyer and Bauer). Mr. Campbell De Morgan cured a bad case by excision of a portion of the nerve. Bauer performed the same operation, but without success.

In Dr. Cross's case, I should prescribe a drachm of compound syrup of phosphate of iron to be taken twice daily, and the following liniment to be used several times a-day: ℞ Linimenti aconiti ʒij; linimenti belladonnæ ʒj; linimenti opii ʒj; linimenti saponis ʒj; aquæ q.s. ad ℥j. If, in a fortnight or three weeks, the affection should be still gaining ground, I should attempt pressure upon some part of the neck in the manner described by Dr. Heaton; this failing, I should divide the muscle. If the relief from this operation proved only temporary, I should cut down and stretch the nerve; and this proving unsuccessful, I should then excise a portion of the nerve; and lastly, if all these remedies failed, I should divide the muscle as often as necessary to keep the patient free from spasm. This latter treatment is, of course, only to be adopted when the spasm is confined to the sterno-mastoid, and other muscles—such as the scaleni—are free.—I am, etc., E. NOBLE SMITH.

Queen Anne Street, March 15th, 1880.

SIR,—The case to which you direct Dr. Cross's attention in the JOURNAL of March 13th, as having been reported by Dr. Heaton of Leeds, is now under my care in the Kendal Hospital, the rotatory movements of the head having again returned with their former severity. In due course, I hope to publish a further clinical history of the case.—I remain, etc.,

GUSTAVUS HARTRIDGE, F.R.C.S.Eng., L.R.C.P.Lond.

Kendal, March 16th, 1880.

CONSIDERATIONS CONCERNING MEDICAL REFORM.

SIR,—The leading article on this subject in the JOURNAL of March 6th assumes that the medical and surgical degrees of the Scotch universities are as easily obtained as the diplomas of the College and Hall in England. Such is not the case, nor will anyone who, like myself, has passed through both ordeals assert it to be so. The Colleges of Physicians and Surgeons of Edinburgh and Glasgow fairly represent the corresponding examining bodies here, but the Universities of Edinburgh, Glasgow, and Aberdeen require a much higher standard. The practical instruction of students in hospital work is, by force of unexampled opportunities, doubtless better in London than elsewhere, but the amount of theoretical knowledge required from Scotch graduates is such as fairly to entitle them to distinction. The fact that at least thirteen separate papers are placed before the candidate at the various examinations (amounting in all to five), to be followed by a very sufficient oral in the subject of each, while to this are added clinical examinations and a thesis, may well make it clear to every unprejudiced mind that the tests imposed are far more severe than those enforced by the Colleges. The usual proportion of rejections is hardly less than fifty per cent., and among these unfortunates are to be found many a M.R.C.S.Eng. and L.S.A., who have fallen victims to the prevalent error that Scotch degrees are easily obtained. Study of the *Medical Directory* will prove that numerous students at the Universities of Edinburgh and Aberdeen never attain a degree, but are fain to content themselves with the L.R.C.P. and L.R.C.S.Ed.

Yours, etc., M.R.C.S.Eng. 1859, M.B.Aberd., 1877.

INTRAPROFESSIONAL OBLIGATIONS.

SIR,—Fifty-four years ago, I became entitled to practise medicine, and am now in my seventy-eighth year. Fifteen years I spent in a town in the West of England, and was hospital physician during a portion of that time. A grandchild of mine had just returned to a lady's school in the same town, when she discovered a spot on his head which she knew to be ringworm. On hearing this, I wrote a note to a medical friend of many years' acquaintance to ask him if he would kindly call and see the boy, and drop me a line to say whether he ought to be sent home, and he would much oblige me. After seeing the boy, he asked for and received his "fee", £1 1s. This surprised me very much, so I wrote to say I thought, after so long an acquaintance, I might have asked so small a favour. He wrote justifying himself by saying that he merely followed the practice of the profession, to which I replied that in the whole course of my professional life I never met a man to act so, and that up to the present moment my experience tells me, such practice is not the rule of the profession. A country physician of high professional standing attended one of my family in a dangerous illness for three months, and spurned the idea of remuneration, though he received a "present". The same occurred with an eminent London surgeon and myself; he operated five times, and sent me clean out of London. I could multiply cases of similar acts of kindness, but I merely allude to the above to show the practice is not general, at least with the heads of the profession.

If I am not taking too great a liberty, being an early member of the Association and subscriber, I shall feel obliged by an opinion on the case.—Faithfully yours, W. C. BEATTY, M.D., F.K.Q.C.P.I.

Crofton Villa, Leamington, March 13th, 1880.

⁂ It is not in accordance with the generally recognised custom of the medical profession, to take payment from a medical man for attendance on a member of his family.

KOUMISS.

SIR,—In reference to Mr. Power's letter respecting koumiss, etc., in your last issue, we think it right—not so much on our own behalf as on that of the medical profession at large—to state that our charge for koumiss, prepared under Dr. Jagielski's formula, to public institutions and to persons certified to be necessitous barely covers the cost of manufacture. This was independently stated by Dr. Sutherland in a letter addressed to the BRITISH MEDICAL JOURNAL of 15th November last.

We abstain from any comparison between our koumiss and the recipe for "metamorphic milk", as given by Mr. Power; but if both these preparations be equally efficacious, we could wish that our process were also equally inexpensive.—We are, sir, your obedient servants, E. CHAPMAN & Co.

10, Duke Street, Portland Place, W., March 10th, 1880.

THE IMPROVED "AUDIPHONE".

SIR,—In this week's JOURNAL, it is announced that Dr. Thomas of Philadelphia has improved the *audiphone*. Could he not improve the instrument still more by changing its name into one less offensive to educated ears? To tack together a Latin verb and a Greek noun is against all sound etymology.—Your obedient servant, J. DIXON.

March 15th, 1880.

A DOUBTFUL MEMBER.—Fifty guineas would be a fair and reasonable charge for the services rendered on the occasion referred to.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. L. Denson, Chester; Dr. W. Knox, Glasgow; Dr. G. F. Masterman, Ixworth; Mr. Arthur Kempe, Exeter; Dr. J. W. Moore, Dublin; Mr. Edward Thompson, Omagh; Enquirer; Dr. W. V. Lush, Weymouth; Mr. Ingram Keir, Melksham; Mr. E. Noble Smith, London; Dr. M. Coote, Ashby-de-la-Zouch; Mr. T. E. Amyot, Diss; Our Paris Correspondent; Mr. G. Carrick Steet, London; Mr. J. W. Allan, New Wandsworth; M. Felix Duval, Paris; Alpha; Dr. Mackenzie, Glossop; Mr. Briscoe, Oxford; Dr. Stanley Haynes, Malvern; Mr. Austin, London; Mr. A. Cooper, London; Mr. P. Addis, Iver; Mr. G. Clifton, Leicester; Mr. W. H. Wright, Derby; Our Dublin Correspondent; Mr. J. E. Collingwood, Corby; Mr. E. Crowne, Tottenham; Mr. G. F. Hodgson, Brighton; Mr. G. Hartridge, Kendal; Mr. Samuel Robinson, Skibbereen; Mr. W. K. Treves, Margate; Dr. E. Holland, London; Mr. James Spence, Edinburgh; Dr. Sheen, Cardiff; Mr. George Meadows, Hastings; Messrs. G. Street and Co., London; Mr. A. H. Benson, Dublin; Dr. Styrap, Shrewsbury; Mr. P. H. Bird, London; Dr. Fairlie Clarke, Southborough; Mr. J. C. Richardson, Leamington; Dr. C. E. Glascott, Manchester; Mr. J. Dixon, Dorking; Dr. J. Donaldson, London; Dr. W. W. Campbell, Liverpool; Mr. A. Jackson, Sheffield; Mr. J. D. Kelly, Mullingar; Mr. W. P. Mears, Newcastle-on-Tyne; Mr. F. W. Lowndes, Liverpool; Mr. E. L. Freer, Birmingham; Mr. J. Archer, Birmingham; Dr. T. M. Madden, Dublin; Dr. W. Rutherford, Edinburgh; Dr. Gowers, London; Our Edinburgh Correspondeut; etc.

BOOKS, ETC., RECEIVED.

Storia della Medicini in Roma al Tempo dei Re e della Republica. Per Dottor Giuseppe Pinto. Roma: Artero e Comp. 1879.

Cancer of the Rectum. By W. H. Cripps, F.R.C.S. London: J. and A. Churchill. 1880.

A Manual of Minor Surgery and Bandaging. By Christopher Heath, F.R.C.S. Sixth edition. London: J. and A. Churchill. 1880.

Contributions to Cardiac Pathology. By John Cockle, A.M., M.D. London: Baillière, Tindall, and Cox. 1880.

THE GULSTONIAN LECTURES
ON EPILEPSY.

Delivered before the Royal College of Physicians of London.

By W. R. GOWERS, M.D., F.R.C.P.,
Senior Assistant-Physician to University College Hospital; Physician to the National Hospital for the Paralysed and Epileptic.

LECTURE III.

Mr. President and Gentlemen,—The aid which, during the last twenty years, the microscope has afforded in the investigation of the morbid anatomy of diseases of the nervous system has thrown little, if any, light on the pathology of idiopathic epilepsy. Neither the observations of Schrœder van der Kolk on the size of the vessels of the medulla oblongata, nor the changes which have been described by Meynert in the cornu Ammonis, can, I think, be accepted as having any real significance. In the cases which I have had an opportunity of examining, the cornu Ammonis has presented no pathological change; while in two cases in which I have met with disease of this structure, the patients had never suffered from convulsion. In considering, therefore, the pathology of epilepsy, we must seek for other evidence than that afforded by the pathological anatomy of the idiopathic disease, and draw our inferences from the morbid changes in organic disease attended by convulsion, and from the facts furnished by experiment and by the clinical study of the disease.

It may, in the first place, be assumed as not needing proof that the muscular spasm which constitutes the most conspicuous feature of the attack is due to the sudden violent action of nerve-cells—*i.e.*, to the "discharge" of grey matter; and that the sensations which the patient experiences before losing consciousness are due, directly or indirectly, to the same cause—to the commencement of the discharge. To prevent misconception, I may say that the word "discharge" is used in the sense in which it has been employed by Dr. Hughlings Jackson and others, as a short expression for the sudden liberation of nerve-force, without any theory as to the form of physical or vital force thus liberated.

Premising this, the subject of the pathology of epilepsy resolves itself, in the main, into four questions: What is the seat of the discharge which thus produces the symptoms of the fit? Is the seat of the discharge the seat of the disease? How far does such discharge explain all the symptoms of the attacks? What is the nature of the morbid change which causes the discharge? Perhaps to no one of these questions can a conclusive answer be given. Nevertheless, these are facts which indicate the direction in which an answer is to be sought, and, what is equally important, the direction in which we must not seek it too exclusively.

What is the seat of the primary discharge? What grey matter is it which thus suddenly stimulates the nerve-fibres and the muscles? It is hardly necessary to remark that the spinal cord acts only as a conductor, and that the over-acting grey matter is to be sought for above it, within the skull. Regarding the encephalic masses, we have two classes of facts. First, there exist in the medulla oblongata, adjacent to the centres which regulate the respiratory movements and the state of the vessels, structures capable of giving rise by their action to general convulsions, the "convulsive centre" of Nothnagel. On the other hand, of all regional diseases of the brain, lesions of the convolutions stand incomparably first as a cause of convulsions; and experiment also demonstrates that irritation of the cortex, in the motor region, has the same effect. The teaching of experiment, then, is that both the cortex and the medulla may originate convulsions. The teaching of pathology is, as Dr. Wilks long ago insisted, that epileptiform convulsions have, in most cases, their origin at the surface of the brain. It may be doubted, however, whether the pathological facts alone, or in conjunction with experiment, quite warrant the conclusion that epilepsy is a disease of the convolutions. Dr. Burdon Sanderson's researches make it probable that the convulsions which occur when the surface is irritated may depend on the discharge of motor centres more deeply seated, though connected with, and excitable from, the surface-regions. So far as pathology and experiment go, these deeper structures, at the level of the corpus striatum, or perhaps lower still, may be the parts which discharge in epilepsy. The fact that lesions in certain regions of the convolutions cause convulsions beginning in certain parts, as the arm or the leg, is not incompatible with this view, since discharges beginning in the lower centres may have quite the same definite forms as when they are excited from the surface. Physiological considerations make it probable that the arrangement of represented movements in the lower centres is on the same plan as in the higher. Nor does the affection of consciousness afford valid ground for the assumption that epilepsy is a disease of the cortex, since those who believe that the discharge originates in the medulla find an explanation of the loss of consciousness by assuming an extension of the discharge to the vaso-motor centre, causing arterial spasm throughout the brain. Even if we admit for a moment that there is no proof of arterial spasm, and that the over-action of motor grey matter is the only certain element in the convulsion, such over-action may disturb the centres above as well as the centres below; and, as Dr. Robertson of Glasgow has suggested, the loss of consciousness may be the effect of an upward discharge, just as the muscular spasm is the effect of the downward discharge. Thus, neither pathology nor experiment enables us to exclude the lower encephalic centres as the seat of the primary discharge in epilepsy; and, in the light of all known pathological and experimental facts, the latest writer of a systematic account of the disease, Nothnagel, can see no reason to modify the conclusion that the primary seat of the discharge—the seat of the disease—is the convulsive centre in the medulla oblongata.

Pathology and experiment, then, fail to take us further towards a definite conclusion, but from clinical observation we may gain other important information. At this point, the study of the modes of onset of convulsions becomes of the highest value. The commencement in the limbs helps us but little, because, as I have said, movements in the lower centres are probably differentiated, if not as much, yet on the same plan as in the convolutions. But it is different with the auræ referred to the special senses, or consisting in mental processes. We have seen that, of all the fits which begin so deliberately as to allow the patients to be conscious of the onset, a special-sense warning is present in a fifth—that is, the discharge, as far as we can ascertain, commences in a special-sense centre. But these centres are certainly situated within the hemispheres, above the pons, and far above the "convulsive centre". Hence the conclusion seems inevitable that the discharge in such cases originates in the hemispheres. It is equally clear that an attack which begins with an intellectual aura, an idea, cannot commence with a discharge in the medulla oblongata. Such an attack we can only conceive as commencing in the highest of all the cerebral centres, that which constitutes, to use the phrase made current by Spencer and Jackson, the anatomical substratum of intellectual processes.

We may therefore conclude that the teaching of pathology, if inconclusive alone, is right in its indications, and that, in at least a large number of epileptic attacks, the process of the fit commences in the cerebral hemispheres, and that in many it commences in high centres. If this be true, the question arises, Are we not justified in regarding all fits as due to changes in the hemispheres? Are there any facts to indicate that the lower centres of the pons Varolii and medulla oblongata are ever the primary seat of the discharge in idiopathic epilepsy?

It is certain that convulsions may arise from these lower centres, since they may still be produced in animals after the removal of the cerebral hemispheres. Moreover, in man, convulsions are caused, in rare cases, by diseases of the pons and medulla. But the clinical facts to suggest that they ever commence in this situation in idiopathic epilepsy are, it must be confessed, scanty. Does the study of modes of onset help us in this particular? There is one group of auræ which may be regarded as supporting the view that the fits which they initiate take origin in the medulla. I refer to those which I have grouped as the pneumogastric auræ, consisting in epigastric sensations rising to the throat, choking, dyspnœa, palpitation. We know that the pneumogastric nucleus and respiratory centres are in close proximity to, and connection with, the convulsive centre, and it is readily conceivable that a commencing discharge in this situation may lead to disturbance of the respiratory and pneumogastric centres before it causes general convulsions. But on this point other facts must be taken into consideration. The phenomena of conscious sensation make it certain that the whole body is represented in the cerebral hemispheres. It is conceivable that, when a discharge originates in certain parts of the hemispheres, the central structures connected with the vagus, or representing the respiratory processes, may be the seat of the first discharge, or may, at least, be the most sensitive to the commencing disturbance, and be the channel through which the consciousness is first impressed. We must remember, as we saw in the first lecture, and as Dr. Hughlings Jackson has pointed out, that these central representatives of the vagus are the most readily disturbed in emotion, such as fear. Thus the early affection of these centres, which we have just considered to be possible in a discharge originating in the medulla, is equally possible in a discharge originating higher up. Much weight cannot, therefore, be placed on the pneumogastric aura, as evidence that the discharge originates in the medulla. This conclusion is supported by cases which show that this aura is sometimes felt in attacks which certainly commence in the hemispheres. As was stated in the last lecture, this pneumogastric aura may be associated with special sense warnings even of high elaboration, and an instance of this is the case which I related at length.

We are probably not justified in concluding that attacks never arise in the medulla. The extremely varied character of auræ, referred as they are to every part of the organism, shows that the discharge may commence in any part of a very wide region, perhaps the whole of the brain in which sensori-motor processes are represented. The cases are, however, very few which afford any clinical evidence that the discharge commences in the medulla. It is possible that, in cases of reflex convulsions, the process occurs in this situation. Almost the only example of idiopathic epilepsy which has come under my notice, in which the symptoms suggested that the discharge originated in the medulla, was a patient of my colleague Dr. Ramskill, who kindly permits me to mention the case. A lad, fourteen years of age, had been subject to epileptic attacks for two years, when he gradually lost all power in his arms and legs, and even his neck was weak. In this condition, passive movements of the trunk, slight flexion of the spine, invariably caused a severe epileptic fit, attended by loss of consciousness. Under treatment, especially ice to the neck, he steadily improved, and passive movement would no longer cause a fit, but for a long time slight attacks occurred whenever, after being still, he exerted himself. Although there was no epileptogenic zone, the attacks remind us of Brown-Séquard's epileptic guinea-pigs, in which the convulsions certainly did not originate above the pons.

The conclusion, then, is that the convulsions in idiopathic epilepsy may, as Dr. Hughlings Jackson has urged, be due to the discharge of any of the grey matter of the encephalon, which subserves sensori-motor processes. This brings us, however to the second question, Is the seat of the primary discharge the seat of the disease? If, by such discharge, all the symptoms can be accounted for, we have no need to go further, and the theory that any other pathological process underlies the phenomena must rest upon its independent evidence. To learn, therefore, whether the seat of the discharge can be regarded as the seat of the disease, we must consider, first, whether there are any symptoms for which the discharge of grey matter, which causes the aura and the convulsion, cannot account; and, secondly, whether there is direct evidence of any other pathological process.

It has been supposed that the motor discharge, especially if it occur in a low centre, will not account for the loss of consciousness. We may doubt whether this assumption is justifiable with regard to any part of the brain, even to the medulla oblongata. Any small lesion of the brain, in almost any part, will cause transient loss of consciousness. All parts of the brain are intimately connected; the whole must be sensitive to a change in any one part. The maintenance of consciousness is its highest function, the first to be interfered with by any disturbance, such as results from a discharge. If the discharge originate in some cases in the lower centres, its upward effect may, as already suggested, cause a disturbance in the highest centres with which consciousness is incompatible. For the attacks characterised by loss of consciousness only, the theory held by Dr. Hughlings Jackson, that they consist in a discharge in or affecting the highest centres only, seems an adequate explanation; and it is rendered probable by the fact that such attacks are often attended by sensations of a highly specialised character. In the case of the lower centres, it seems possible that a *slight* discharge in some situations may affect the centres above, and not the centres below—may impair consciousness, and not cause convulsion.

Thus it seems unnecessary, for the explanation of loss of consciousness, to assume the occurrence of any other pathological process than the discharge which causes the convulsive phenomena. As far as I am aware, the only other symptom which may be held to indicate that there is more than this discharge is the pallor of face which is sometimes conspicuous. But the peripheral vaso-motor nerves are known to be influenced, in a very ready way, by the stimulation of other nerve-structures. That pallor of face may *result* from cerebral action is proved by the effect of emotion, whatever may be the mechanism by which that effect is produced. An injury to the brain of a frog will cause the arteries even of the foot to contract. Hence it is readily intelligible, and even probable, that pallor of face may be an *effect* of the discharge which causes convulsion.

If, then, it be unnecessary, in order to explain all the symptoms of attacks of epilepsy, to go beyond the discharge of which we have certain evidence, we must ask what direct evidence there is of the occurrence of any other morbid process. According to current theory, another element plays an important part in producing the phenomena of attacks —vaso-motor spasm. It has been held that the discharge itself, though originating in the hemispheres, is due to vaso-motor spasm affecting particular arteries, and exciting the action by causing local cerebral anæmia. This view, which regards epilepsy as simply a disease of the vaso-motor centre in the medulla, is now held by few. It is unnecessary to discuss it separately, since the evidence on which it rests will be considered in speaking of the second view, much more widely held, that, although the convulsion depends on the discharge of motor centres, the loss of consciousness is due to arterial spasm. A third theory of vaso-motor influence is that put forward by Dr. Hughlings Jackson, that the local discharge in the brain excites, at the spot, arterial contraction, and that this determines the *spread* of the discharge.

What, then, is the direct evidence that vaso-motor spasm in the brain causes loss of consciousness, or any of the symptoms of the attacks? The evidence may be put, if somewhat baldly, yet I think accurately, thus. Epileptic attacks are accompanied, at the onset, by pallor of face. Pallor—that is, anæmia—of face is evidence of anæmia of brain. Anæmia of brain will cause loss of consciousness and general convulsions. Therefore, loss of consciousness in epilepsy is due to anæmia of brain, the result of vaso-motor spasm; and, some would add, the convulsions themselves are due to the same cause.

The gaps between several of the steps of this reasoning will doubtless seem to many of you, as they do to me, considerable. But the first two statements are themselves of doubtful truth. I pointed out, in the last lecture, that epileptic attacks are often accompanied by no pallor of face, and this is true most conspicuously of many attacks of *petit mal.* I am convinced of this from my own observation, and I think I may quote in support of this the statement of Dr. Radcliffe, that the initial pallor is "often difficult to catch". Further, the assumption that pallor—*i.e.*, vaso-motor spasm—of the face is necessary evidence of vaso-motor spasm in the brain seems scarcely justifiable. Surface-vessels have no necessary correspondence in their condition with those of deeper structures. We do not infer that the brain is congested whenever the face blushes, and why should we assume that the brain becomes anæmic whenever the face becomes pale? We have seen that it is conceivable, and even probable, that the discharge in the brain may cause a reflex contraction of the peripheral vessels. In cases in which the pallor of face is apparently the result of cardiac failure, it is probable that this is the effect of the commencing discharge, and not its cause. Convulsion is not part of the ordinary phenomena of cardiac syncope. On the other hand, as the discharge often impresses the consciousness first through the pneumogastric centres, it is probable that it may, in such cases, influence the periphery first by the same channel. That such cardiac failure is not the ordinary cause of loss of consciousness in epilepsy, a very small amount of clinical observation will demonstrate, since such loss of consciousness may occur without either failure of the pulse or pallor of the face.

Thus, between the fact that profound anæmia of the brain and medulla oblongata will cause both loss of consciousness and convulsion, and the theory that these are commonly so caused in epilepsy, there is a gulf over which no bridge has yet been placed. No connecting facts have been adduced which are not susceptible of other and better explanations. It is a gulf, moreover, which is widened by every addition to our knowledge of the clinical history of the disease.

One vaso-motor theory remains for discussion—that which assumes that a local discharge on the brain excites, at the spot, reflex vaso-motor spasm, and that this determines the spread of the discharge. This theory, I would venture to suggest, is scarcely warranted by known facts, or needed to explain them. It is unneeded, because the anatomical relations of known centres already afford us the means of explaining many facts in the progress of auræ, and justify us in the belief that the explanation of the others, still mysterious, will be found in the relations of the unknown centres, and especially, as stated in the last lecture, of those which subserve sensation. The theory seems scarcely warranted, because in all organs, as far as we know, functional activity causes reflex dilatation, not contraction, of their vessels; and the experiments of Ferrier have proved that this is as true in the brain as elsewhere.

One other point on the current theory of epilepsy may be briefly noticed—that which refers the final clonic spasm to a cause different from that which excites the initial tonic spasm. The clonic spasm is ascribed to the irritation of the medulla by the venous blood. It was, however, pointed out in the first lecture that there is no abrupt transition from the one form of spasm to the other. The clonic spasm is developed by interruptions in the tonic spasm; and as the fit ceases, the muscular contractions do not become slighter, but less frequent. The clonic stage certainly corresponds to the cyanosis which results from interference with respiration, but if we recognise the continuity of the tonic and clonic spasm, we can hardly attribute the two to totally different causes. Observation of fits suggests, I think, that the venous congestion does produce the clonic spasm, not, however, by direct excitation, but by interrupting and ultimately arresting the spasm which before existed. I think that the fixation of the chest in an epileptic fit simply does in an intense manner that which we do in a slighter manner when we arrest a hysterical convulsion by closing the mouth and nose. There is nothing inconsistent in a certain degree of anoxæmia arresting spasm, and a more profound degree, as in actual asphyxia, exciting it. Analogous difference is seen in the action of many stimuli. The view that the tonic spasm is only clonic spasm compressed, that the clonic spasm is only the tonic spasm spread out, is supported by the fact that in attacks which begin slowly, the slight initial spasm is almost always clonic, and as the discharge spreads and becomes more intense, the spasm becomes tonic. In partial epileptiform seizures, the spasm is usually clonic throughout.

The conclusion, then, is that all the phenomena of the fits of idiopathic epilepsy may be explained by the discharge of grey matter; that the hypothesis of vascular spasm is as unneeded as it is unproved; that there are no facts to warrant us in seeking the seat of the disease elsewhere than in the grey matter in which the discharge commences; that this is in most cases within the cerebral hemispheres, although possibly, in some instances, lower down in the medulla oblongata; that epilepsy is thus a disease of grey matter, and has not any uniform seat. It is a disease of tissue, not of structure.

[*To be continued.*]

INTRODUCTION

TO A

DISCUSSION ON INTRA-UTERINE MEDICATION.*

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TEN years ago, at the meeting of the Association at Leeds in 1869, I read a paper in this Section "On the Treatment of Chronic Uterine Catarrh". Its object was to show that, in a large class of cases of uterine disease, characterised by those general symptoms which are familiar to the gynæcologist as accompanying morbid conditions of the uterine organs, especially when there was much catarrhal discharge from the os uteri and evidence of inflammation of the interior of the cervix, it was a matter of supreme importance that our treatment should not be limited, as was too often the case, to the vaginal portion of the cervix only, but that topical applications of a suitable character should be made to the deeper seated parts of the uterus beyond the external os, in which the disease was often primarily situated, and of which the inflamed, abraded, and granular cervix was, in a large number of cases, merely the external manifestation. I then described to the Section the method of intra-uterine medication which I practised, and which I more fully detailed in a series of lectures on "Intra-uterine Medication in the treatment of Chronic Uterine Catarrh", published in the *Lancet* in 1873. I venture to mention these facts, since they show that my attention has long been directed to this important and still comparatively unstudied branch of gynæcological practice, and afford, perhaps, some explanation of the honour that has been done me by entrusting to me the opening of a discussion on "Intra-uterine Medication".

There are few subjects connected with the diseases peculiar to women of more interest and importance; and this for two reasons. First, there is no kind of treatment which, properly conducted, is of more value. This is a statement of the truth of which but little experience is required to satisfy ourselves of, since all who have successfully carried it out must know of many patients who have by this means been effectually cured of sufferings which may have lasted unrelieved for years in spite of long-continued general treatment, and which rendered life a burden and a misery. Secondly (and this is even of more consequence), like all methods of powerful efficiency, it is rather a double-edged weapon. Capable of infinite good, it may also, when injudiciously, improperly, and unskilfully used, do infinite harm. Amongst the various cycles of fashion in uterine disease, there was a time, which many here doubtless remember, when practitioners talked of little else than ulceration of the neck of the womb, and when the speculum and the stick of caustic had a wide-spread use, happily now only a tradition. If, as I fear must be admitted, large numbers of practitioners, in the laudable desire of at least finding out something wrong, and using some remedy, applied nitrate of silver to the exterior of the cervix in hundreds of cases in which it was not needed, although they did not do any good, at least they probably did no great harm. Strong advocate though I be of intra-uterine medication, I earnestly hope it may never become a fashionable treatment, or that any will adopt it unless they have made an earnest study of its indications and mode of application. I shudder to think of the consequences to that long-suffering organ the uterus, if it ever become a routine practice to medicate its cavity indiscriminately. I would, therefore, seriously impress on my hearers the importance of not resorting to the practice we are about to discuss, unless they have fully satisfied themselves that the case is suitable for it, and until they have acquired a certain amount of manipulative skill in the treatment of uterine disease; and I can, at the same time, assure them, for such is my strong conviction from no small experience in intra-uterine medication, that, when these essentials have been seen to, there is no class of case which will give more satisfaction both to them and to their patients.

The limited time allotted to me preclude any attempt at discussing in detail either the symptoms or the pathology of the morbid states in which intra-uterine medication is indicated. To do so in any satisfactory way would involve a long dissertation which, were I even permitted to make the attempt, I dare not inflict on my hearers. To make the matter a little more clear, however, to those who have not made a special study of the subject, I must beg leave to mention, in the simplest and most elementary way, the conditions of the uterus which call for or admit of intra-uterine medication. If I appear to make dogmatic assertions on disputed points of either pathology or practice, I will beg you to believe that it is only because time will not allow me either to enter into arguments in their favour, or to bring forward proofs of their correctness.

In order to understand the reasons why, as I believe, topical applications in various morbid states of the uterus require, to be efficient, to be applied to the deeper seated parts beyond the external os uteri, it is necessary to bear in mind the anatomical structure of the lining membrane of the uterus and cervix. You will remember that the mucous membrane of the uterus is thickly studded with minute orifices, not more than one-thirtieth of a line in width, the openings of the utricular glands, which are small *culs-de-sac* of structureless membrane lined with epithelium, having their blind extremities in the submucous tissue. These complex structures are always more or less in a state of active change, being thrown off in the form of *débris* at each menstrual epoch, and re-formed by the proliferation of the cells of the muscular and connective tissues. The mucous membrane lining the cervix is even more complex in its arrangements. It is covered with a series of prominent folds or ridges, which collectively are known by the name of the *arbor vitæ;* and these, more especially on the lower half of the cervix and on its external surface, are studded with innumerable white papillæ, each containing a vascular loop. All over the interior of the cervix, both on the ridges of its mucous membrane and between their folds, are a very large number of mucous follicles, which secrete a thick, tenacious, and alkaline mucus, which is generally found filling the cervical cavity. Here, then, it will surely be admitted, are structural elements of sufficient complexity to lead us to expect that they are likely to be the seat of pathological alterations of no slight importance. Unfortunately we are met with this difficulty, that we are compelled to base our study of them more on the observation of symptoms and the results of treatment, than on carefully recorded pathological facts derived from accurate *post mortem* examination of the structures themselves in a state of disease.

The diseases we are considering, although they give rise to much suffering and ill-health, are never fatal, so that opportunities for *post mortem* investigation do not arise; and the study of gynæcology is too much in its infancy to have enabled those who pursue it to avail themselves of the rare opportunities that may occur. Still, symptomatology and treatment are not without a real value; and, failing more scientific methods, we are surely justified in learning what we can from them. Modern writers on gynæcology have given very elaborate divisions of the various forms of inflammatory affection of the endometrium, which, I am afraid, the state of our pathological knowledge hardly justifies; such, for example, as cervical as distinguished from corporeal endometritis, chronic hyperplastic endometritis, hæmorrhagic endometritis, fundal endometritis, cystic metritis, and the like. Satisfactory as it would be to be sure that all these conditions actually exist as distinct and recognisable forms of disease, distinguishable one from the other, I believe that the less ambitious plan of simply describing the cases as we meet them in practice, without too strictly binding ourselves to a theory of their pathology, is, in the present state of our knowledge, the wisest course to pursue. By no one has this been better done than by the distinguished gynæcologist who at present holds the office of Master of the Rotunda Hospital, whose very practical work I would strongly recommend to the study of those who are interested in the question. Although I venture to differ from Dr. Lombe Atthill in some of the methods of intra-uterine medication which he prefers, I am sure that I cannot improve on his description of the conditions in which it is indicated, which is obviously the result of much careful study and accurate clinical observation. These differ considerably, as he points out, I am convinced with perfect justice, as they are met with after pregnancy or in abortion, or in the sterile and unmarried.

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* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

The former are the most common, and are certainly the most amenable to treatment. In this, as in most forms of uterine disease, symptoms will have developed gradually after a labour or abortion, and may very generally be traced directly to imperfect involution of the uterus, brought on, very probably, by want of due rest or other imprudence. In most of the cases coming under observation, the patient seeks advice after long-continued ill-health, and the failure of tonic remedies and general treatment, so that the disease has become thoroughly established and chronic. Nor are there of necessity such well-marked local symptoms as obviously to direct attention to the uterine organs as the source of mischief. It is rarely that the general health will not have suffered materially; there are debility, loss of appetite, inability to take exercise, and prostration on the slightest fatigue, with the existence of pronounced sympathetic disturbance, such as various forms of neuralgia, flatulent distension, and other dyspeptic symptoms, some of which are often extremely distressing, and may throw the practitioner off his guard by diverting his attention from the true *fons et origo mali*. This is, of course, mere truism to those familiar with the protean disturbances which disease of the uterine organ is apt to produce. Still it will bear insisting on, since the absence of pronounced local symptoms is so often considered to be sufficient to put local disease out of court. Generally, however, careful inquiry will show that local phenomena are not absent, and often they are very distinct. They are of the kind common to very various forms of uterine disease,—bearing down, backache, pain on exertion, and often complete inability to take any kind of exercise; profuse leucorrhœal discharge; disorders of menstruation, more often menorrhagia than any other, frequently to such an extent as to produce much debility, and not rarely associated with dysmenorrhœa; irritability of bladder and frequent micturition; constipation; these and others of the same class, variously modified and combined, will very generally be found.

On vaginal examination, in the more common cases occurring in multiparæ, the local signs are very well marked and distinct. The uterus is generally large, boggy, and tender; and, more often than not, we are able to detect some error of position, either a retroflexion or anteflexion, one or other of these displacements being a very frequent complication. The cervix itself is increased in size, the margin of the os is irregular, and its canal often so patulous that the examining finger may be inserted into it, and the hypertrophied ridges of the arbor vitæ distinctly felt. On exposing the cervix by the speculum, it will often be observed to be of a florid red colour, and covered with granular abrasion, resulting from the removal of the epithelium, and the exposure of the hypertrophied villi covering its surface. This sometimes exists to a very marked amount, the part bleeding on being touched; and this, it may be observed, is the so-called ulceration or abrasion which has been the subject of much discussion and controversy. From the os uteri, the characteristic mucous discharge may be observed to exude in great abundance, varying in appearance according to the nature of the case, most frequently being transparent and gelatinous, like white of egg, at other times yellowish and puriform, and, it may be, streaked with blood. On passing the sound, the cervical canal is almost always found to be abnormally patulous, and the passage of the instrument is frequently attended with slight hæmorrhage. The patent condition of the cervical canal is very characteristic, and is of great importance in facilitating intra-uterine medication, inasmuch as it readily allows the passage of the probe, etc.

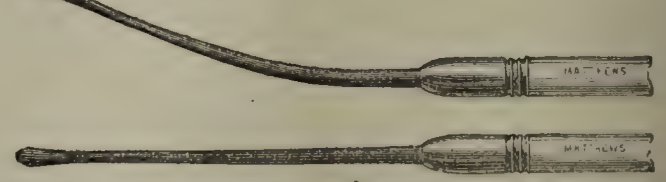
In the other class of cases already alluded to, the local phenomena are by no means so distinct, and may very easily be overlooked. The chief local sign is the viscid tenacious mucus which pours abundantly from the small contracted os. The cervix itself need not exhibit any sign of disease, being neither hypertrophied nor abraded, although it is often conical and elongated. The body of the uterus is not necessarily tender nor enlarged, although there is very generally a marked flexion, most often an anteflexion.

It will be observed that, in the foregoing observations, I have said little as to the pathological changes to be observed in the mucous membrane, or as to the precise parts which are affected; and this I have done intentionally, since I do not believe that the state of our knowledge justifies any positive assertion on these points. Even the granular condition of the endometrium which is frequently described in severe cases of metrorrhagia, although it very probably exists, has not, so far as I know, been demonstrated by reliable microscopic examination. I think it likely enough, as most writers on the subject assert, that, in the majority of cases, the disease commences in the cervix, but it is certain that it soon extends by continuity of tissue, and involves the lining membrane of the body of the uterus as well. Moreover, the question is more of theoretical than of practical interest, since no forms of intra-uterine medication at our disposal can be readily limited at will to one part of the endometrium, but must generally be applied equally to all portions of the mucous membrane beyond the external os uteri.

I proceed, therefore, to consider the more practical part of the subject before us, viz.: Can we by any topical applications to the endometrium hope to remedy the condition of things I have described? How can it best be done? And what are the dangers and drawbacks, if any, to the treatment?

The most obvious plan which suggests itself is the injection of medicated fluids into the uterine cavity, a practice which has been abundantly experimented on from the time of Hippocrates downwards. Those who are interested in the matter will find a very complete historical summary of all that has been done with regard to the subject in Thomas's *Treatise on the Disease of Women*, chiefly condensed from an article on Chronic Metritis by Dr. Cohnheim of Berlin. Without entering into details, it may suffice to say that there is overwhelming evidence to prove that intra-uterine injections are so dangerous, that they are clearly not justifiable as an ordinary method of treatment. Not only are there many cases on record in which they have been followed by severe inflammation and even death, but, short of such serious results, their use has been commonly attended by very grave symptoms, apparently of uterine colic, intense cramp-like pain, prostration, rapid and feeble pulse, and faintness. These symptoms are probably due to retention of the injected fluids in the uterine cavity, either in consequence of occlusion of the canal of the cervix by the pipe of the syringe, or from a concomitant flexion. It has been suggested, and the practice is still adopted by some authorities, that, previously to the use of intra-uterine injections, the cervix should be dilated by sponge or laminaria tents, so as to give a free exit to the fluids. To my mind, dilatation of the cervix is at all times a serious proceeding, never to be lightly undertaken. Any method of treatment involving so grave a preliminary, especially since to be of service it must be repeated frequently at short intervals, is obviously altogether inapplicable for ordinary use. Without farther comment, I may, therefore, say that such injections should, under no circumstances, be used as a means of intra-uterine medication. Various procedures have been employed for the purpose of applying caustic or alterative medicaments to the interior of the uterus, either in the form of ointments, or of solid substances which melt in the uterine cavity, and spread themselves over its lining membrane. Many instruments have been invented for this purpose, by some of which a piece of solid nitrate of silver or some other substance is pushed into the uterine cavity and left there (a method of treatment strongly recommended by Courty of Montpelier); by others, a medicated plasma or ointments is similarly introduced. Sticks or crayons of various substances, such as sulphate of zinc, alum, and the like, are by some inserted into the cervical canal, and allowed to melt. I have made many experiments with these plans, and have long discarded them, believing them to be far more troublesome to use, more painful to the patient, and less efficacious than the method of applying the chosen medicament to the uterine cavity in a fluid form, and swabbing its mucous membrane freely with it, which I shall now briefly describe.

For this purpose, I use small probes of flexible metal, roughened with emery paper, two inches and a half in length, and attached to a wooden handle. (See Figure.) Before operating, three or four of these are covered with a thin film of cotton-wool. A small piece of cotton is flattened between the palms of the hands; the probe is dipped in water to make the cotton adhere, and, by a little practice, the cotton is wrapped round it so



firmly that it cannot be stripped off by any ordinary force, and so smoothly and evenly as scarcely to add to the bulk of the probe. The patient is placed on her left side, and the cervix exposed by a full-sized Ferguson's glass-speculum, which answers better, I think, than either the duck-billed or glass-speculum, as it embraces and steadies the cervix. Before commencing, it is advisable to pass the sound at least once, to ascertain the direction of the uterine cavity, and the probes must be bent to accommodate themselves to it. With one or two of the mounted probes, the cervical and uterine cavities are thoroughly swabbed out, so as to clear them as much as possible of the discharges which might otherwise prevent the medicaments used from reaching the mucous membrane efficiently. If the discharge be very tenacious and adherent, it may be advisable to moisten the cotton with water or glycerine to facilitate its removal. Another probe is then dipped into the solution to be used, and the cavity is thoroughly swabbed with it. In the majority of cases of endometritis, there is no difficulty whatever in passing the probes, since the cervical canal is abnormally patulous, and they enter with the greatest ease. Indeed, increasing contraction of the cervical canal, and consequent difficulty in passing the probes, is frequently a sign of improvement. Dr. Atthill, in the cases in which he applies fuming nitric acid to the uterine cavity, presently to be considered, uses a small vulcanite speculum, which he passes into the canal of the cervix, and through which the probe is introduced. I believe, however, that the use of this unnecessarily complicates the procedure, and that it has no great practical advantage.

Such is the plan of intra-uterine medication I myself adopt; and I now proceed to say a few words as to the agents used and the time for using them. Before doing so, I would wish to make a preliminary observation of great importance, which is that, even in cases otherwise eminently adapted for intra-uterine medication, it is often a matter of moment to prepare the uterus for it by certain preliminary treatment. This is of peculiar importance in cases in which there is appreciable tenderness of the organ on examination, indicating some degree of active congestion. A few days, or even a week or two, devoted to relieving this will be well spent. No agent is so useful for this purpose as the nightly application of a tampon of cotton-wool well soaked in glycerine, an invaluable addition to our resources in the treatment of uterine disease, and one which has the advantage of being capable of being employed by the patient herself. Frequent hot water douches, acupuncture, or the application of one or two leeches to the cervix, are also often useful preliminary measures.

A great variety of substances have been employed. Amongst these may be mentioned nitrate of silver in solution, tincture of iodine, chromic acid, carbolic acid, solutions of the sulphate of zinc or of copper, the acid nitrate of mercury, and fuming nitric acid. After many experiments, I have arrived at the conclusion that the safest and most reliable agents are tincture of iodine, and a mixture of equal parts of crystalline carbolic acid and glycerine, the latter being that which I generally use. I conceive that what we require in most cases is not a solution which will cauterise and, if sufficiently strong, destroy the tissues to which it is applied, but one which will so modify the circulation as to cause a healthy reparative action in the diseased structures. Hence some of the substances I have enumerated above are too powerful for ordinary use, and, in fact, do more than is required. No better evidence of this is needed than the case recorded by Mr. Wigglesworth in the *Obstetrical Journal* for January 1879, in which the application of fuming nitric acid was followed by cicatricial contraction and complete occlusion of the os, and subsequent very serious results. Now, carbolic acid has the advantage of being a powerful alterative, causing shrinking and mummifying of the tissues when applied in a concentrated form, but never producing an eschar. It is therefore free from all risk of producing cicatricial contraction. When I first commenced the practice of intra-uterine medication, I was in the habit of employing it once, or sometimes twice, a week, without reference to the menstrual period. I soon found that, when used too near the period, it was very apt to bring it on prematurely, and sometimes profusely. I therefore now limit its use to the first ten days after menstruation; and I find, as a rule, that two applications, at the interval of three or four days, are quite as effectual as a larger number, and much less irksome to the patient. It is probable that they have a better effect at this time, since the superficial layer of the endometrium, shed during menstruation, has not yet been reformed, so that the alterative action of the remedy more directly affects the deeper layer of the mucous membrane. In the more common cases, occurring after parturition, in which the cervical canal is patulous, such a course of treatment, systematically carried on after three or four successive periods, will generally prove effectual in relieving the patient from her sufferings. In the rarer cases in a nulliparous patient, with a conical cervix and contracted os, much greater difficulty is experienced, and the result is frequently disappointing. The amelioration is often only temporary, and, after a time, the symptoms are apt to recur as severely as ever. It has been pointed out, especially by Thomas and Lombe Atthill, that the reason of this is, to quote Dr. Atthill, "that the conical cervix and contracted canal, coupled with anteflexion, prevent the menstrual discharge and viscid secretions of the diseased lining membrane from obtaining easy exit. The first step, then, towards effecting a cure is to ensure the free escape of the contents of the uterus. There is but one way of effecting this—the cervix must be divided." This, of course, renders the case much more complex; and, as I am always unwilling to be over-active in treatment, it was long before I could bring myself to believe that this procedure might be necessary. I have, however, seen such beneficial results follow in cases in which the more ordinary method had been long and carefully tried, that I am constrained to admit that division of the cervix is, in some cases, absolutely indicated. The full consideration of this subject is, however, of too much importance to admit of being treated in a cursory manner, and I merely allude to it in passing.

I have hitherto said nothing of general treatment; not because I underrate it, but because my special object, at present, is to consider the local management of such cases. Suitable constitutional measures, varying according to the exigencies of each individual case, are of the greatest moment, and will always materially facilitate the cure.

So, again, any complications, more especially the flexions which are frequently met with, should receive careful attention. It is totally impossible for me to endorse the theory of my friend Dr. Graily Hewitt, that endometritis is simply a secondary result of uterine flexion (*Diseases of Women*, 3rd edit., p. 41); but I do not differ essentially from him in my estimate of the beneficial results to be obtained from the judicious use of mechanical appliances when the uterus is distorted, which can be used *pari passu* with intra-uterine medication. What I maintain is, that those who rely too exclusively on one or other deprive their patients of an important aid to recovery, and that the truly scientific method is to get the maximum of benefit from both combined.

I have alluded very briefly to the employment of fuming nitric acid. The use of this agent originated in this country; it has been strongly advocated by the Dublin school of gynæcologists; it has been as strongly protested against by others, who have probably given the matter but little thought, and who have no practical knowledge of its effects; and, therefore, I feel that I ought to state my own opinion with regard to it. The suggestion that fuming nitric acid should be freely applied to the interior of the uterus, at first almost horrified by its boldness, and the most disastrous consequences were predicted. The fact that such men as Kidd, Atthill, and many others testified to its safety and utility, of itself was sufficient, to my mind at least, to ensure for the proposal the most respectful consideration, and I have not been backward in giving it a fair trial. My conclusions as to its use I will briefly state to the Association. In endometritis with profuse catarrhal discharge, I believe that nitric acid is in no way superior to milder and safer remedies; and, although I have used it in a sufficient number of cases to justify my forming an opinion on the point, I have not satisfied myself that it possesses any advantages which counterbalance the bad effect which may possibly follow the application of so powerful an escharotic. It seems to me to be open to the objection I have already indicated, that it is apt to do too much; that it tends to destroy the tissues to which it is applied, while, in fact, our aim ought to be to modify vital action, not to produce an eschar. In cases of severe and otherwise intractable menorrhagia, in which nitric acid has been chiefly used, it stands on a different footing. In them, it is assumed, and I believe with considerable probability, that the entire lining membrane of the uterus is in a thickened, rough, and granular condition; and here the destruction of its lining membrane may have a distinctly beneficial effect. The evidence produced on this point by our Dublin colleagues seems to me too strong to resist; and, indeed, my own experience, so far as it goes, is distinctly favourable. I have seen many cases of otherwise intractable menorrhagia completely and rapidly cured by a single application of nitric acid to the uterine cavity. It must not be forgotten, however, that there is a distinct risk of producing occlusion of the cervical canal. It is true that in no case coming under my own observation have I seen the slightest ill-effects following the use of this agent. Still, the one I have cited from Mr. Wigglesworth is, of itself, sufficient to prove that the risk is not entirely imaginary. I am not sure that preliminary dilatation of the cervix is essential. I have often used it without this being done, and with the best results. I have never, however, applied nitric acid unless I had satisfied myself that the cervical canal was abnormally patulous, so that some degree of contraction would be of little consequence; and, unless this were the case, I should prefer to dispense with this plan of treatment. I am by no means sure, moreover, that the application of nitric acid possesses any advantages in cases of the kind over the use of the dull wire curette, as recommended by Thomas, Mundé, and others; a simple means of removing any granulations of the mucous membrane which is painless, requires no preliminary dilatation of the cervix, and is oftentimes very effectual.

Before concluding, it is necessary to consider whether intra-uterine medication is attended by any risks which might outweigh the good effects to be derived from it. If roughly and injudiciously used, I can fancy that intra-uterine, like any other form of uterine treatment so carried out, might produce serious inflammatory mischief. When judiciously applied in suitable cases, I am satisfied that no risk of the kind is run. I have been daily practising intra-uterine medication for many years, and I have only in one case seen any trouble of the kind. Every gynæcologist is, however, aware that even the simple passage of the uterine sound may, now and again, produce a like effect; and certainly the possibility of this is no argument against the use of that instrument. Practically, the only bad effect that is at all likely to occur is the occasional production of a hæmorrhagic discharge. This most commonly happens either when the treatment is first commenced, presumably because the mucous lining of the uterus is then most likely to resent any mechanical interference, or when the application is made too near the expected advent of menstruation. The discharge, however, never lasts beyond a day or two, and never leads to any serious trouble.

Mr. Wigglesworth, in the paper already alluded to, has stated his fear that intra-uterine medication might produce sterility, by destroying the uterine mucous membrane. If there were any foundation for this (and Mr. Wigglesworth brings forward no cases in support of his theory), it would, of course, be a very strong argument against the practice. As a matter of fact, however, I am satisfied that the apprehension is quite groundless. So far from this being the case, I have long been in the habit of considering the cure of chronic endometritis by intra-uterine medication as one of the most certain means of removing acquired sterility. I have seen so many cases of the kind that, as I stated in a short paper on "Intra-uterine Medication and Sterility", published in the *Obstetrical Journal* of February last: "It has been a matter of every-day experience with me to meet with many cases of chronic endometritis, with subinvolution, after a labour, perhaps years before, in which intra-uterine medication has been followed so rapidly by impregnation as to leave no doubt of the result being due to the removal of the cause which led to the sterility. So commonly have I found pregnancy follow the cure of these conditions, that I have over and over again remarked to patients, who have expressed themselves as rather aggrieved at finding themselves in the family way, that I had come to look upon pregnancy as the nearly certain result and proof of a satisfactory cure." It may suffice to dispose of this theory if I state that, since writing that paper, only a few months ago, I have had no fewer than five cases in my own private practice in which pregnancy has rapidly followed the use of intra-uterine medication in patients who had been long sterile, in one case eleven years, in another seven, having elapsed since the last pregnancy.

In conclusion, I feel that an apology is due to the Association for the very superficial, and therefore necessarily imperfect, way in which the short space of time at my disposal has rendered it necessary for me to treat this important subject. I trust, however, that enough has been said to elicit from others their opinion and experience on a topic of great and increasing practical interest.

ON INTRA-UTERINE MEDICATION.*

By EDWARD JOHN TILT, M.D.,
Past President of the Obstetrical Society of London.

As we have been left to interpret the scope of the subject of discussion, I do not suppose we are asked to discuss the well understood treatment of cervical diseases, nor to consider whatever kind of treatment the inside of the womb may require for cancer or other diseases; and I shall limit my remarks to the treatment of the several varieties of internal metritis.

These varieties are characterised anatomically by great congestion of the mucous membrane lining the body of the womb, by more or less distension of its blood-vessels, by softening or ulceration of tissue; lesions giving rise to purulent, mucopurulent, or sanious discharges. The mucous membrane may be also found roughened by the enlargement of its utricular glands; they may be so enlarged as to look like fungoid bodies, and they were called "fongosités utérines" by Recamier, who recognised in them a not uncommon cause of frequent loss of blood. Admitting that, without some morbid ovarian influence, there is no membranous dysmenorrhœa, that disease cannot well be detached from internal metritis, to which it often leads; for I have found a history of membranes having been habitually passed, in ten out of fifty cases of internal metritis, long before they came under my care.

Intra-uterine medication may be doubtless required for the cure of the above-mentioned diseases, but very seldom indeed; and that is the object of a first remark. There may be severe internal metritis while the cervix is comparatively healthy, but as a rule there is a considerable amount of cervicitis whenever internal metritis is sufficiently severe to make one think of intra-uterine medication; and I have no hesitation in asserting that this is unjustifiable, until the cervix has been restored to health. Here is a kind of case that I have often had to treat. The cervix is two or three times its average size, harder than usual, and covered with a dusky red mucous membrane. The lips are more or less ulcerated, and the epithelial desquamation extends to the whole length of the cervical canal. The body of the womb is too large, painful on pressure, and, about every two or three months, there is a gradual increase of pelvic bearing-down pains, and then violent forcing pains suddenly expel from the body of the womb about half a teacupful of pus, which is sometimes spoken of as the bursting of an internal abscess. I find that, if the inflammation of the cervix be rightly treated, this forcible expulsion of pus from the womb occurs less frequently, and ceases altogether when the cervix is thoroughly cured. I also find that what remains of pain and enlargement of the womb generally subsides if the patient take moderate care of herself at all times, and great care at menstrual periods, during the following year or two. I thus cured, without intra-uterine medication, fifty well-marked cases of internal metritis, that I carefully studied for my work on *Uterine Inflammation;* and, if I be not mistaken, the same principles had already guided Dr. H. Bennet, and he also found that internal metritis generally yielded to the thorough cure of inflammation of the cervix.

Such, then, is the safe and rational mode of treating the vast majority of cases of internal metritis; and intra-uterine medication should be reserved for very exceptional cases of the following forms of disease.

1. Incoercible blood-loss, resisting milder remedies and menacing life;
2. When internal metritis menaces life or reason, rather by the intensity of its reaction on the system, than by the amount of purulent discharge; for insanity may be sometimes fairly attributed to an impairment of brain-tissue, due to long protracted internal metritis;
3. When, independently of ovaritis, internal metritis leads to an aggravated combination of dysmenorrhœa and menorrhagia menacing life or reason;
4. Membranous dysmenorrhœa of exceptional severity;
5. Habitual abortion, independent of syphilis and ovaritis, and seemingly caused by some morbid condition of the lining membrane of the body of the womb.

It is now admitted, as an essential preliminary of all intra-uterine medication, that it is indispensable to establish a free passage through the cervix for all fluids injected into the womb or by it secreted; and I have found the dilatation of the whole cervical canal by laminaria-bougies, a day or two before menstruation, to diminish greatly the pain and blood-loss attendant on membranous dysmenorrhœa and the uterine irritation that follow the expulsion of the membrane.

With regard to treatment, when internal metritis is leading to death by blood-loss, I recommend the injection of the undiluted tincture of iodine; for, by doing so, I have repeatedly checked flooding, and also uterine exfoliation in membranous dysmenorrhœa. Tincture of iodine commends itself by antiseptic as well as by hæmostatic properties, and by the fact of its having been found trustworthy, for the purpose under consideration, by Drs. Savage, Routh, Fordyce Barker, and Emmet. I have only heard of its use having been followed by one fatal issue, in Dr. Gaillard Thomas's hands; I am not aware of its having led to any pelvic disease of a serious nature; and a manageable amount of acute metritis is the worst result I have observed in my own practice. Similar immunity from serious results cannot be recorded of the injection of a solution of nitrate of silver in cases of internal metritis. The plan has often led to death, and still more frequently to pelvic peritonitis, from which patients have recovered with difficulty. I am struck by the fact, that the liability to serious disease after using intra-uterine injections is not proportional to the energy of the fluid injected, for formidable accidents have followed the injection of glycerine and of plain water. For that reason, when internal metritis has necessitated intra-uterine medication, I have sometimes had recourse to the solid nitrate of silver, and I have dropped into the womb about five or six grains of it, by means of Simpson's "porte-caustique"; thus returning to what Recamier did fifty years ago. I have seen this followed by acute peritonitis; and, as there are cases on record where death has ensued, I am ready to welcome a better plan of treatment. I trust our meeting at Cork will enable us to settle this best plan of treating such cases, for we are now able to compare notes with many distinguished representatives of the Irish school of gynæcology. Our President was the first who had the courage to swab a greatly enlarged uterine cavity with fuming nitric acid, and Dr. Lombe Atthill has recommended this plan in the cases under discussion. I ask these gentlemen to tell us, how often they have thus used this seemingly dangerous plan of treatment, and to say by what accidents it has been followed, fatal or otherwise, so as to enable us to judge whether we are justified in following their example.

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* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

INTRA-UTERINE MEDICATION BY IODISED PHENOL.*

By ROBERT BATTEY, M.D., Fellow of the American Gynæcological Society, etc.

EIGHT years ago, I was impressed with the opinion that the results obtained from intra-uterine medication by argentic nitrate and other escharotic remedies, as was then the custom in America, were very unsatisfactory. In my own practice, it was a common observation, that scanty menstruation of a permanent and intractable character followed upon the treatment, due apparently to a cicatricial condition of the endometrium left behind. In not a few cases, stenosis of the os had to be remedied, and in some instances recurred time and again. In a few cases, entire occlusion of the os occurred, and retained menses had to be evacuated.

In casting about for eligible substitutes, the iodine tincture and carbolic acid presented themselves, and were successively tried, both separately and in combination, but the results thus obtained were meagre and unsatisfactory. Theoretically, iodine appeared to offer decided advantages, not only as a local stimulant to the uterus, but, in consequence of its ready absorption, as a local and general alterative also, but the officinal tincture proved too feeble in power to secure satisfactory results, and the stronger preparation of Dr. Churchill of Dublin was to me then unknown.

The thought of employing carbolic acid as a solvent for iodine suggested itself, and experiment developed a knowledge of the remarkable solubility of the latter in the liquefied acid. At first, one drachm, then two, three, and four drachms of iodine, was found to be soluble in an ounce of the acid. The last, and strongest, solution proved to be decidedly escharotic in its action upon the tissues, and especially upon heterologous growths of low vitality, and has been much used by the writer for attacking uterine cancer, and more particularly to supplement the curette. The standard solution employed in intra-uterine medication consists of one part by weight of iodine dissolved in four parts of liquefied carbolic acid, and to this solution I have given the name iodised phenol.

Iodised phenol is believed to be simply a concentrated solution of iodine in carbolic acid, and not in a proper sense a chemical compound. It is black in colour, syrupy in consistency, and possesses in marked degree the pungent odour of iodine, which is rapidly given off when it is heated.

Since its introduction into my practice, the iodised phenol for intra-uterine medication has been employed by me to the almost entire exclusion of other remedies. In February 1877, it was brought to the notice of the profession in America through the columns of the *American Practitioner*, and is to-day very much employed, but more especially in the southern states. The recital of cases to illustrate its uses would be inconsistent with the brevity which should characterise the present writing, and hence it is proposed to present in general terms only the method of its application and the results obtained from its use.

At first, it was employed in a state of more or less dilution with glycerine; but, more recently, it has been used only in its full strength, being the energy of the application, regulated by the quantity employed and the extent to which it is carried into the uterine cavity.

The instrument employed in making the application may be one of the many forms of applicators, so-called, or any uterine probe or sound which will easily enter the canal. It is my habit, and I specially prefer, to use a rather slender and elastic hard India-rubber probe, made slightly tapering, and with a blunt, not bulbous, point. The elasticity of this probe allows it to yield rapidly to pressure, to change its course, to follow easily the canal of the cervix, and to enter the uterine cavity proper, and this in spite even of a moderate flexion or version of the uterus. From the cotton-factory is obtained cotton-wool in the form of an untwisted rope or roll, the fibres of the cotton being perfectly straight, and lying parallel to each other. It is technically known to the cotton-spinners as "the lap", and can be purchased of the best quality at our factories for eightpence to tenpence sterling per pound. It is admirably suited for general gynæcological uses.

Mode of Application.—Having selected six or eight of the elastic probes, I break off from the cotton "lap" four or five inches, and with my fingers separate or split it into several fasciculi of such size as, when wound upon the probes, will enlarge them to the thickness desired. The end of a probe is now moistened slightly, and the fasciculus of cotton wound spirally upon it. The cotton-armed probe is now dipped into the iodised phenol, any redundancy is allowed to drip away, and the probe is passed into the uterus with a slow spiral movement as it advances. At first, the probe is introduced but a short distance, and immediately withdrawn, and the case rests here to test the tolerance of the uterus for the remedy. At subsequent stages, the probe may be carried to the fundus, and followed immediately by a second, and even by a third or fourth, if well borne. The remainder of the wrapped probes are employed for wiping off the cervix or vaginal wall any of the phenol that may have touched these tissues. The energy of the application is regulated by the size of the wrapping, the depth to which the probe is passed, and the number of medicated probes used. When a very decided impression is to be made, a backward turn is given to the probe in its withdrawal, so as to leave the saturated cotton in the uterus, there to remain twenty-four hours, or even until it is spontaneously expelled. The application is renewed every four to fourteen days, according to the energy of the treatment.

I have abandoned the use of sponge-tents in connection with the treatment set forth. When dilatation is required, the cotton-wrapped probe is employed, and the cotton left as a soft tent in the canal. The dilating power of this is notably less than of sponge, but nearly equal to sea-tangle, and, it is believed, entirely safe. The results are the following.

1. A perfect removal of all cervical mucus, which is promptly coagulated, and comes away closely adhering to the cotton. The probes subsequently passed bring the remedy directly in contact with the diseased membrane.
2. Always comparative, and usually entire, freedom from pain. This is a marked feature of the method, and in striking contrast with former experience. Carbolic acid is a local anæsthetic, and so numbs sensibility as to make the energetic application of iodine for the most part entirely devoid of pain.
3. The iodine is so rapidly absorbed by the uterus, that the patient remarks its metallic taste in the mouth and throat, ordinarily in five or ten minutes after the application.
4. Softening and more or less dilatation of the cervix and os.
5. There is temporary arrest of leucorrhœa, followed by
6. Watery discharge, sometimes bloody.
7. There is exfoliation of the superficial layer of the mucous membrane, which comes away in shreds, sometimes entire, and resembles glove-kid.
8. Abrasions of the os promptly heal.
9. Indurations of the uterus disappear.
10. Leucorrhœa is permanently arrested.
11. Villosities of the endometrium are removed without resort to the curette.
12. Subinvolution of the uterus disappears.
13. The menses become regular and healthy; menorrhagia and scanty menstruation, as well as dysmenorrhœa, are remedied.
14. The appetite and digestion improve, and this, in many instances, without the use of medicines.
15. So thoroughly is the system impregnated with iodine, that alteratives by the stomach are not used.
16. The form of the cervix and os is often completely changed; a large puffy cervix, with patulous slit-like os, becomes even virginal in type after long use of the remedy.
17. Stenosis has not followed the treatment in any case noted.
18. Barrenness of nine to fourteen years' duration has been removed in several instances.

REMARKS.—Rapid, and at the same time satisfactory, cure of chronic uterine ailments, such as are contemplated in this paper, is not attainable by any method of treatment known to me. It is not proposed that rapid cures can be made by the means herein set forth; on the contrary, the long standing and obstinate cases, such as usually fall into my hands, require many months for satisfactory cure.

BEQUEST.—The *New York Medical Record* states that the late Mrs. Emma Strecker has left 10,000 dollars each to the German Hospital and St. Luke's Hospital in New York; and about 250,000 dollars to be divided among sixteen charitable institutions, medical and others. The will is, however, contested.

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* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

AN INSTRUMENT FOR INTRA-UTERINE MEDICATION.

By J. W. MILLER, M.D., Dundee.

Dr. Lombe Atthill, in his communication to the Journal of December 13th, on intra-uterine medication, makes an observation which induces me to send a short description of an instrument which, for some years, I have found very useful in overcoming the inconvenience to which he alludes, namely, that, in the introduction of the probe armed with cotton-wool soaked in carbolic acid or other fluid, much of that fluid is wiped off before the instrument reaches the part upon which it is desired to act. To avoid this, I at first used an ordinary flexible catheter with a piece cut off its extremity, but this was not well suited for repeated use. I therefore requested Mr. Young (Edinburgh) to make this instrument for me, which is a modification of the late Sir James Simpson's porte-caustique. It is a silver cannula, eleven inches long, of the calibre of a No. 6 catheter, bent at an obtuse angle three inches from its extremity, and having a knob on its convexity two inches and three-quarters from its extremity like that on an uterine sound. It has a stilette two inches and a half longer, the projecting portion slightly roughened, terminating in a round knob, which, when the stilette is drawn in, closes the end of the cannula, facilitating its introduction, and confining the fluid with which the cotton-wool on the stilette is soaked. The stilette has also a sort of wedge-shaped collar, two inches and a half from its extremity, to enable it to be drawn back into the cannula before the instrument is withdrawn from the uterus. The wool should not be wrapped on the stilette too tightly; and in drawing the stilette with the soaked wool into the cannula, it should be guided in with the fingers, so as not to allow wool and fluid to be scraped off on the end of the cannula. The button-extremity of the stilette now completely closing the end of the cannula, the instrument can be passed up to the uterine cavity without the fluid coming into contact with any part of the passages. After reaching the fundus, the cannula is retracted on the stilette (not the latter pushed forward), and the fluid then comes into free contact with the mucous membrane. Another advantage of the instrument is that it may be employed without the aid of the speculum. It may be also used for the introduction of an ointment or powder, by drawing the button-like extremity of the stilette into the cannula so as to leave a space into which either of these may be packed. For convenience, the instrument might be named an "intra-uterine medicator".

THE THERAPEUTIC VALUE OF THE HYPOPHOSPHITES (IRON, SODA, LIME, AND MAGNESIA) COMBINED SOLUBLE TONIC FOR CHILDREN, Etc.

By FREDERICK CHURCHILL, M.D., F.R.C.S.,
Surgeon to the Victoria Hospital for Children, etc.

With the exception perhaps of cod-liver oil, no remedy has of late years been so largely used as "chemical food". Dr. Parrish of Philadelphia first introduced this preparation in the form of a syrup, and it is generally made in this country according to his well-known formula. I have used it both in private and in hospital practice with a certain amount of success; but we know that phosphates in the form of tricalcic phosphate (which is the base of Parrish's preparation) are only assimilable when the digestive functions are in order, and then only to a very limited extent. Moreover, the continued administration of large quantities of sugar is not conducive to the ordinary degree of gastric perfection. The phosphates at all times, from their very intractable nature, must undergo considerable metamorphosis under the action of the gastric juice before being converted into assimilable lactates. It has occurred to me that we might succeed in making a preparation somewhat similar in composition and properties, but which would be an actual solution of the salts of the hypophosphites, prepared according to a definite process of chemical manipulation, *instead of being merely a suspension of salts in syrup*, and having phosphorus in a higher and more active state of combination.

The delicate salts denominated *hypophosphites* have been employed separately and with success by medical men of eminence in cases to which I will presently allude. The term *hypo*, meaning less or a deficiency of oxygen, has led many to infer that on this account the therapeutic effect would be less marked than in cases where the phosphates are employed. Moreover, preparations of the hypophosphites have not been favourably received by the profession, on account of the very empirical way in which they have been flaunted before the eyes of the public, and the unwarrantably sanguine expectations concerning their therapeutic value. Notwithstanding such objections, I find that authentic preparations of the hypophosphites are now articles of manufacture for which there is a constant and increasing demand.

Hypothetically convinced of the superiority of these salts as compared with the phosphates, I endeavoured to obtain the most important of them in a compound form which should be palatable and yet practically free from sugar. With the assistance of the Pharmacist to the Victoria Hospital for Children (Mr. J. Laker Macmillan), I obtained a preparation meeting my expectations in every way—a permanent palatable solution suitable for children of all ages, capable of being given either alone or in combination with a light wine. I herewith subjoin a formula giving the percentage composition:

Liquor Ferri Hypophosphitis Compositus.

	Grs. in 100 Minims.
Ferrous Hypophosphite ($Fe\,O\,PH_2\,O_3+6H_2\,O$)	2.77
Calcium Hypophosphite ($Ca_2\,PH_2\,O_2$)	3.5
Sodium Hypophosphite ($Na\,H_2\,PO_2+H_2\,O$)	3.5
Magnesium Hypophosphite ($Mg\,PH_2\,O_2+6H_2\,O$)	1.99
Hypophosphorous (Acid $H_3\,PO_2$)	1.66
Water	86.58
	100.00

One fluid drachm is equal to—

Ferrous Hypophosphite	1.6	6.7 grs. of the mixed salts.
Calcium Hypophosphite	2.	
Sodium Hypophosphite	2.	
Magnesium Hypophosphite	1.1	

This liquor, associated with British raisin wine or Hungarian Carlowitz, as supplied by Max Greger, in the proportion of one of the liquor to three of the wine, may be given in half-ounce doses to children about ten years of age. It contains, according to the above formula, 6.7 grains. I prefer giving the solution in about ten-drop doses to young children. Carlowitz as a vehicle is more suitable for adults; its value being enhanced by the fact that it contains naturally two per *mille* of iron phosphate. It is therefore best adapted as a vehicle for the administration of the liquor when given as a nervine tonic in general debility, especially in cases of exhaustion from excessive strain upon the nervous system. Raisin wine is very suitable for young children. It contains just sufficient grape-sugar to favour the assimilation of the hypophosphites and to retain them in solution. It is also much cheaper, and this is of importance in hospital practice. Several other wines were experimented on during the search for a suitable menstruum. Those above mentioned were chosen as being least antagonistic to the hypophosphites, chiefly on account of the small percentage of ethylic alcohol. I find that the hypophosphites will not remain in solution when alcohol is in excess. The fact of the wines chosen being poor in alcohol is, I think, an additional recommendation.

I have purposely omitted potash from my formula for several reasons, and have given prominence to lime and soda, because these two bodies exist largely in human milk as phosphates. They are also present to a considerable extent in the albuminous and fibrinous elements of the blood and in the blood-corpuscles; and also in the secretory fluids.

Professor Church, in his recent lectures on the Chemistry of Foods, at South Kensington, says: "It is important to remember that the mineral constituents of milk are rich in phosphates. Besides the phosphates of lime and magnesia, there is also phosphate of iron, which supplies most of the iron contained in food, and the whole of that required by infants."

Magnesium hypophosphite is used instead of potash, because it is an element of vital importance in the ossification of young cartilage, and is also an important factor in the constitution of the secretory fluids. In the therapeutic application of these salts—viz., the hypophosphites—iron has not hitherto been given that prominence which its obvious importance demands. It appears to have been thought by some that the alkaline and earthy hypophosphites are superior to any of the ordinary hæmatogens. In my formula for the compound liquor, iron is one of the most important constituents. We find that iron exists as phosphate in the blood to the extent of .189 per *mille* of the albuminous portion, and 1.354 per *mille* of the blood-corpuscles (Jolly, *Comptes Rendus*, vol. lxxxviii, 756-759).

I ascribe much of the benefit resulting from the use of this preparation to the presence of ferric hypophosphite, and particularly in that large class of cases constantly to be found in hospital practice, where, from poverty of blood and wasting diseases, anæmia is the one prominent symptom. I am permitted to say that my colleagues at the hospital and other medical friends who have made use of this preparation have found it a valuable remedy. It is much to be preferred to that unsatisfactory and imperfect preparation called steel wine. In cases of rickets, its effects are very marked in the gradual solidification of the bones. I have employed it thus as a substitute for chemical food in several hundred trials, extending over a period of nearly two years.

I might have cited at length some of the typical cases benefited by this method of treatment, and have given relative weights both before and after treatment, but I prefer to await the verdict of my professional brethren giving the result of more matured and unbiassed observations.

The hypophosphite of potash was not experimented on for many reasons. Dr. Thorowgood had found it far too energetic in its action to admit of my including it in a remedy intended as an agreeable dietetic for feeble children. In his paper on this subject in the *Practitioner* for July 1869, Dr. Thorowgood considered that great mischief had resulted from the incautious administration of this drug to persons affected with tubercular disease of the lung. As a gradual tonic and restorer of failing nerve-force, he prefers the hypophosphite of soda or of lime; and either of these he considers will answer the purpose better than the administration of pure phosphorus internally. Mr. Taylor (*Lancet*, November 30th, December 7th, and December 14th, 1861) says that the soda hypophosphite is best adapted for blood-disorders; those of potash, lime, and ammonia for diseases of structure and of the secretory organs; these being the most soluble of all the oxides of phosphorus, they are consequently at once admitted into the circulation. The chemical change after absorption has not yet been determined. My impression is, that the salts become deoxidised, being converted in part into phosphates and leaving a residue of phosphorus and the basic salts. There is no doubt that we have in this preparation all the therapeutic properties of phosphorus, without the danger attending the administration of crude phosphorus.

One of my colleagues, Dr. Venn, has found the soda hypophosphite efficacious in chronic bronchitis. It seems to promote free expectoration of tenacious mucus. He generally combines with it the soda carbonate, spirit of ether, and glycerine.

Dr. Thorowgood says that, in cases of serious depression and torpor, with occasional shooting neuralgic pains, and where there are numbness and deadness of the limbs arising from feeble circulation, the salts of the hypophosphites are useful. Where anæmia is present, he recommends the addition of the citrate of iron, or of the syrup of the hypophosphite of iron. The compound wine, prepared according to the formula I have suggested, has been found particularly useful in these cases of paresis and what is called "creeping paralysis".

Dr. Hayes Jackson relates how he recovered from a severe attack of neuralgia in the back and thigh of six months' duration by taking drachm doses of soda hypophosphite in beef-tea thrice daily (*vide* BRITISH MEDICAL JOURNAL, March 4th, 1865). In the remittent fevers of childhood, Dr. Purdon employed the hypophosphites with marked success. They seem to fulfil, he says, all the required indications in causing sleep, relieving thirst, cleansing the tongue, increasing the appetite, and arresting any resisting intestinal disorder, in a much shorter time than can be obtained by any other remedies (*Glasgow Medical Journal*, November 1863).

The following formula is suitable for an infant, the dose being increased according to age. ℞ Sodæ hypophosphitis gr. vi; calcis hypophosph., potassæ hypophosph., āā gr. iv; glycerini ʒij; aquæ ℥j. Dose, forty minims thrice daily in a little water.

This mixture would have to be made up when required, as the hypophosphites deposit after a time when suspended in glycerine. The compound liquor, prepared according to my formula, is nearly five times the strength of the above, and consequently admits of a large dose being given in a small bulk. It contains a better selection of salts, and is much enhanced in value as a general tonic by reason of containing the hypo-salt of iron. It is, moreover, a stable solution; and, with the exception of a slight chalybeate flavour, may be said to be tasteless. A few drops on a lump of sugar, dissolved in the mouth, are agreeable and refreshing. It may be administered in milk or beef-tea unknown to the patient.

In tabes mesenterica, Dr. Purdon has found that the hypophosphites act slowly, but surely. He considers that they act by dissolving the tuberculous matter deposited in the folds of the mesentery and mesenteric glands, possibly by causing disintegration of the fibrine.

Dr. Thorowgood employed the hypophosphites in two cases of psoriasis with marked benefit. At the Victoria Hospital, the compound wine has been employed in similar cases as a tonic and alterative, the local disease being overcome by the use of chrysophanic acid ointment. In debility resulting from prolonged lactation, in some forms of dyspepsia, in anæmia and leucorrhœal discharges, in leucocythæmia, in myalgia, and in muscular pains simulating inflammation, Mr. Taylor has used the hypophosphites with considerable benefit.

The compound wine of the hypophosphites has proved valuable as a dietetic in repairing the waste brought about by neglect, improper food, and other well-known conditions antagonistic to health. It has also given vigour and strength to nursing mothers, imparting the necessary elements to their milk for the production of bone and sinew; besides preventing, in many cases, that draining of the system brought about by the after-effects of epidemics, bad feeding, and ill-ventilated dwellings. A very common factor in the primary causation of diseases of young life is the prevailing ignorance of mothers in bringing up "by hand". Partly from ignorance and partly from enforced poverty, mothers will endeavour to keep their children alive on bread-sop, because unable to afford them a sufficiency of cow's milk.

The importance of carefully checking any tendency to excessive lactation will be seen at once if we but roughly calculate the still large proportion of infants brought up on breast-milk. The early months of a child's life are the most critical. All its future wellbeing depends upon careful nursing and proper nourishment. If skilful analytical examination of dairy-milk be needful, all mothers prolonging the lactation period for eighteen months or two years might with advantage be compelled to submit to qualitative analysis of their breast-milk. Indeed, at all times such analysis would prove a powerful factor in enabling the physician to trace the origin of many diseases common to young life. Is it too much to ask that some method be found of unyoking the necks of these heavily burdened mothers? As with vaccination, so with lactation, let the parents be compelled to consider the interests of their children as paramount to their own convenience. To neglect all hygienic principles is only to foster disease, which saps the foundation of young life, and darkens the pages of our national history by swelling the lists of the incurable and insane.

When I notice the daily influx into our households of mythical compounds called "food for infants", "condensed milk", etc., all obviously useless and injurious, because deprived of that oleaginous character so essential for the proper assimilation and for the growth of the young infant, I am tempted to ask, How is it that such substances are allowed to creep into the market without protest—many of them being palmed on the public under the well-known sign manual of a famous analytical chemist? Is it not enough that physicians have to combat with the conflicting and complicated symptoms produced by the immoderate use of villainous soothing syrups, teething powders, and other quack nostrums, that such must be augmented by the use of vile food-stuffs? Such *laissez faire* toleration of existing evils, because to check them would be interfering with the liberty of the subject, trajects the mind of the sanitarian to the antipodes of freedom; viz., to those realms of savagery where the halt, the infirm, the diseased, and the dying are exterminated, rather than continue a burden to the State.

For the administration of phosphorus, there is not, I am certain, a more efficient or safer medium than the hypophosphites.

Sodic hypophosphite contains 29.3 per cent. of phosphorus in an assimilable form, whereas trisodic phosphate contains only 7.9 per cent. of phosphorus in a probably inert state. Calcic hypophosphite contains 21.3 per cent. of available phosphorus. Tricalcic phosphate contains 20 per cent., of which little can be available. This in itself is sufficient evidence to warrant the conclusion as to the superior therapeutic value of the combined hypophosphites.

Messrs. Savory and Moore and Mr. Squire of London prepare and keep the wine and liquor always in stock.

THERAPEUTICAL EXPERIENCES WITH THE DIGESTIVE FERMENTS.

BY F. ARNOLD LEES, L.R.C.P., M.R.C.S., F.L.S.;

WITH A REPORT OF EXPERIMENTS,

BY GEORGE BROWNEN, F.C.S.[*]

THE ailments in which I have used the three strongest preparations of pepsine and pancreatine—viz., Savory's saline essence of pepsine and of pancreatine, and Bullock's acid glycerine of pepsina porci—with a success never previously obtained with any others, have been so various, that it may be not unsuggestive if I enumerate some of the principal.

1. In most forms of *debility*, such as we find in convalescence from febrile and inflammatory disease, the digestive organs are weak; and here, although the power to digest a small quantity of food is not wanting, the pepsine and pancreatic essences cannot fail to hasten considerably the slow laying on of tissue by improving nutrition and securing the assimilation of a much larger quantity of food than could be taken without them. For four years or more, it has been my custom to order intermediary peptonised meals, such as a breakfast-cupful of beef-tea or chicken-broth, or mock-turtle soup, with which

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[*] Continued from page 439.

about half an hour to an hour previously (whilst kept warm on the hob) two or three teaspoonfuls of saline essence of pepsine and one of pancreatic essence have been mixed. The soup is hardly appreciably altered in taste, and sits well upon the stomach. For the afternoon meal, milk-gruel treated with a drachm of each of the two essences, or pure milk which has undergone boiling for a minute or two, and then, after partially cooling down, has been vigorously shaken in a bottle with a drachm of each essence and drunk foaming, has been used by me with advantage.

2. In *abdominal phthisis* and other diseases associated with wasting and malassimilation of fat, whether nausea be present or not, I have for a long time found the improvised koumiss mentioned above—pancreatised and pepsinised milk, taken in occasional draughts after thorough agitation and whilst still frothy—of inestimable service. I have never recommended the addition of any alkali to the milk, but have found it best to order only so much milk to be boiled, peptonised, and agitated, as can be drunk within the hour; since, if kept longer, it acquires a sourish disagreeable taste.

3. In various forms of *vomiting from irritable stomach*, such, for example, as that which is occasionally troublesome in phthisis, I know of no remedy so seldom disappointing as Savory's saline essence, either given neat and followed in a few minutes by meat-juice or milk and soda-water, or given along with concentrated albuminous fluids, such as Southall's soluble meat or Brand's jelly-like essences, unless it be koumiss; and in two cases—later stages of phthisis—where even that was rejected when given by itself, I have found it stay down and pass on when administered with pepsine and pancreatic essence (two drachms of the former, one drachm of the latter). Why these essences should be so peculiarly grateful to an irritable stomach, I do not clearly understand; but so I have found them.

4. In *Infantile* and *childhood's ailments*, whether grave or trivial, especially when vomiting is severe, I have found Bullock's acid glycerine of pepsine of inestimable value. It is taken by the little patients more readily than the salty essences; and I am quite confident that I have repeatedly saved life, by preventing slow starvation, by its use alone, in the vomiting of so-called infantile remittent fever, infantile tuberculosis, tubercular meningitis, and those forms of infantile atrophy with diarrhœa dependent upon disagreement of milk-foods. In such cases, I have had unexpectedly favourable results far oftener than failures, by cutting off milk altogether for a short time, and substituting meat-juice with the peptic glycerine, and cream with a twentieth part of its weight of pancreatine mixed up with it. There need be no fear of giving too much, I think. I have found an ounce of the acid glycerine in the twenty-four hours not a whit too much; since, I take it, where there is infantile diarrhœa from malassimilation, the great point is to leave nothing, or next to nothing, for the intestinal tract to do, save absorb.

Of course, in tabes mesenterica and some other forms of abdominal disease, where the tubercular deposit in the absorbent glands has gone so far as to obstruct the passage of chyle by strangling the lacteal tubes, then peptic and pancreatic preparations, be they ever so active, will fail to cure; but even then the cases are very few in which for a time active digestive ferments, given plentifully with appropriate foods, will not produce appreciable amendment.

5. In the reflex *vomiting connected with pregnancy*, everything depends upon the preparation of pepsine used—such, at least, is my experience—in an especially great degree. Possibly this may be because the action of the remedy, if at all favourable, is easily appraisable: another way, perhaps, of saying that where the stomach-spasm, which leads to the rejection of food, is solely and truly reflex, and dependent upon spasm of the os and cervix uteri, then no preparation of pepsine can possibly succeed at all, since it is quite impotent to affect the source of the sympathetic irritation.

On the view, therefore, that, in the more inveterate cases of vomiting in pregnancy, something beyond the mere administration of a food-digester is necessary, I have several times with signal success tried the following methods. Where the retching is so great that the act of swallowing is difficult, or anything gulped down is almost instantly returned, I first of all give an inhalation of three to five minims of amyl nitrite (either with or without a little chloroform), and then, before the relaxing effect of this has passed, administer cold some concentrated albuminous or fibrinous food (such as Brand's essence), with two or even three spoonfuls of the saline essence of pepsine. This is very rarely rejected at once, seldom under half an hour, generally not at all. When it is not retained for any length of time, I try again; at each trial, the food will be kept down for a longer period than on the preceding occasion. Occasionally, when the patient could retain fluids for a minute or two, I have varied the above procedure by giving one drop of the amyl nitrite on a little sugar, by the mouth, followed by ten grains of chloral-hydrate, with ten minims of succus belladonnæ, in as little iced water or soda-water as possible. This sometimes—as often as not—remains down long enough to overcome the spasm. Not unfrequently the patient expresses herself conscious of the epigastric relaxation, saying something "has given way", or, "There! that's down now; that'll stay"; in which cases nutriment of a light nutritious character, *plus* plenty of peptic or pancreatic essence, whether it be peptonised previously or added to the milk-gruel, egg-flip, beef-tea, or other article, at the moment of taking, will nearly always be retained. Of course, the sickness will return in the course of the day or the next morning; but if, by such manœuvres, a single meal in the day can be made to pass the pylorus, it is so much clear gain.

6. In many forms of *dyspepsia*, the value of the digestive ferments is well known and unquestioned; and yet, even in cases of this large class, pepsine and pancreatine have fallen into an undeserved disuse—very many practitioners all over the country thinking little of them and very seldom using them. The price and the instability of them militate against their being kept and regularly renewed in the country practitioner's surgery. And yet, I know of no three preparations in all the *Pharmacopœia* the trial of which will so seldom disappoint, as Savory's two saline essences and Bullock's acid glycerine of pepsine. If we give them a fairly extended trial in place of the bismuth, nux vomica, and hydrocyanic acid, generally lavished on dyspeptics, the dispenser's hands would be upon the bottle containing the essences at least as often as on any other. A very little discrimination, and some rudimentary notions as to the chemistry of gaseous evolution within the body, will, in a large class of cases, decide whether digestion of starch, or fibrin, or fat is at fault—whether diastase, or pepsine, or pancreatine needs to be administered (coupled with suitable foods and muscular exercise), and the treatment of the difficult digestion resolves itself into the simplest problem, to be worked out upon the safest and plainest line: *rest* for the irritated or depauperated and overburdened glands or organ that has "struck work" one way or another, rest and relief from duty—which the steady administration of peptonised bland foods alone can give;—and in time, without local anodynes or teasing stimulants, pain will subside, ulcers heal, and functions in abeyance reassert themselves. Not that it is possible to avoid the use of drugs altogether, of course (hyposulphite of soda in a certain well-marked class of cases, for example); and yet, I suppose, there is no organ of the body for whose diseases so many drugs have been recommended, and for which so few are really necessary; and of these (*e. g.*, nux vomica), some are without doubt best introduced into the system hypodermically. I have no wish to dogmatise, however; the object of these remarks is simply to give to the trial of peptic principles and peptonised foods, on extended bases, such small stimulus as the experience of one individual can furnish.

In the various forms of dyspepsia—epigastric, duodenal, and jejunal—one fairly clear indication as to which of the digestive ferments is more particularly called for is, I have found, sufficiently seldom inquired for and profited by. I allude to the odour of the flatus, pretty sure to be passed in excess of the normal (even if much be retained) whenever decomposition of the ingesta takes place. In their decomposition, the purely starchy elements of food evolve only carbonic acid gas—the natural atmosphere (so to say) of the intestinal tract—which is well nigh odourless; whilst all nitrogenised elements undergoing decomposition evolve the stinking sulphuretted hydrogen. When the gas is fœtid, one may be sure nitrogenous aliment has escaped chymification, either from insufficiency of the gastric ferment, or from an excess of food; and, in such cases, fair doses of the pepsine essence, with or without a little hyposulphite of soda, are almost specific. On the contrary, when there is eructation or passage *per anum* of much odourless gas, the administration of ptyalin and pancreatic essence, or good malt-extract and saline essence of pancreatine, with all meals composed mainly of farinaceous food, will prove an unfailing remedy. By commercial men (whether from a habit of taking their morning meal hurriedly, or from loss of salivary secretion from smoking, I am not able always to determine) I am repeatedly told that breakfast disagrees, producing eructation of gas, heartburn, etc., much more frequently than any other meal, and in direct proportion to what they term its simplicity—a point to them so surprising as to lead to its special mention. More interesting, however, as showing the value of variety, and the power of one food to assist the digestion of another, is the assertion of their experience with which they constantly meet a recommendation to live plainly—to try oatmeal porridge with milk, for instance, in place of tea and bread and butter—viz., that if they make their breakfast include a mutton-chop, or fried eggs and bacon, it then "agrees famously", and they are no longer troubled with indigestion of starch, even though they dispose of a considerable quantity of bread. In such cases as these, when it seems wisest, for other reasons, to disallow much meat-food, the saline pancreatic essence has again proved in my hands invaluable.

In the vomiting of dilated stomach nothing, in my experience, seems to paralyse the vermiform movements of the epigastric muscle-fibres, and prolong the sickness by intensifying the stagnation (which of itself induces nausea) of masses of food in the stomach, more successfully than alkalies and sedatives. If, for such a line of treatment, the sharp saline essences of pepsine and pancreatine be substituted, and given in largish doses (ʒiii to ʒvi) *neat*, if food be in the stomach; or with concentrated food small in bulk, if vomiting have relieved the stomach of all its contents to the point of producing regurgitation and upthrowing of bile-stained mucus; the retching will be rapidly quieted, and the stomach stimulated to contraction and due rotation of the food, in the most satisfactory manner.

Likewise in those forms of gastric and duodenal catarrhs, with sick headache, often styled "biliousness", the acid and saline essences of pepsine and pancreatine are markedly beneficial. The great feature of such cases is the large quantity of glairy mucus poured out by the membranes, which, since it opposes a barrier to osmosis, more especially prevents the absorption of sugar. An abnormal amount of what is formed passes into the duodenum; whereas, in healthy digestion, most of the sugar is at once taken up by the clean membrane of the œsophagus and lesser curve of the stomach. In these catarrhal states, acidulous saline essence of pancreatine is of signal service; the unaltered starch and unabsorbed sugar are prevented, apparently, from undergoing acetous fermentation, the outflow of mucus is lessened, and the passage of the contents of the stomach through the pylorus is expedited. This seems a much more rational treatment than the administration of soda with astringent bitters, since it does not delay in any degree the chymification of the gravy soups and savoury albuminous fluids, which in such cases are generally the first aliments to sit easily on the epigastric mucous membrane.

The report prepared for me by Mr. G. Brownen is as follows. Its merits speak for themselves, and show, as I venture to think, that the speculations in which I have indulged, as to the way in which the saline essences may act when taken into the stomach, are not altogether unwarranted, even though future and more perfect investigation should tend to establish their comparative falsity.

[*To be continued.*]

THE TREATMENT OF OZÆNA.

By W. PUGIN THORNTON, M.R.C.S.Eng.,
Surgeon to the St. Marylebone General Dispensary.

MUCH having been said lately on the treatment of ozæna, I herewith send notes of some consecutive cases, all of which have been treated with a nasal spray, and with a fairly successful result, judging from the time that has elapsed since they were under my treatment. Had cases III and V been able to devote more time to treatment, the result in each case would have been, I feel convinced, speaking from late experience, entirely satisfactory. The spray consists of the following:

℞ Sodæ carbonatis, sodæ biboratis, āā ʒij; liquoris sodæ chlorinatæ ʒss—ʒii; glycerini ℥j; aquam ad ℥viij.

It is applied cold by means of a hand-ball spray-apparatus.

CASE I.—In the spring of 1877, a Sister of Mercy consulted me in reference to great pain about the bridge of the nose and down the left side, extending over the cheek. The left eye also had become weak. There was much throbbing in the nostrils, and a burning sensation as though a gathering were forming, but which did not take place; and the nose became so tender that a handkerchief could not be used. Whenever the Sister was fatigued, or had been exposed to cold winds, the pain in the nostrils increased to such an extent as to keep her awake through the night. Often there was bleeding from the nose, and occasionally a clear fluid without smell would pass. The skin over the bridge and sides of the nose was always of a bright red colour, which was, more noticeable when the internal discomfort was greater. She had been ordered an application to the throat, and, amongst other remedies, to sniff powdered borax up the nose. This organic condition had lasted for over two years. From March 1877 to the end of June, she was more or less under my care, and the only remedy I employed was the spray above mentioned. From that time to the present, there has been no return of the disorder, the redness of the skin has disappeared, nor has the Sister suffered from any inconvenience in her nose.

CASE II.—Miss —, aged 19, had scarlet fever in 1872. From that time she was subject to an offensive discharge, so copious that it saturated three or four handkerchiefs a day; at the same time, she suffered from deafness. This discharge was most severe during wet weather, less so during the summer months, especially if she were by the seaside, when it sometimes disappeared altogether. For two years, she had used inhalations of camphor, benzoin, etc., alternating with nasal douches containing permanganate of potash, carbolic acid, salt, and other ingredients. During this treatment, the deafness left her; but the discharge still continued. She visited me at first daily, then every other day, from November 26th to December 20th, 1877. I saw her again eleven times during January and February of 1878. From that time till now, the discharge has ceased.

CASE III.—Mr. — was operated upon eighteen years ago for a polypus in the left nostril, a piece of bone coming away with the polypus. A tow-tent dipped in a "caustic solution" was carried in the nostril for some weeks after the operation. Two years after this treatment, Mr. — complained of much inconvenience in both nostrils, and a discharge commenced. The interior of the nose became painful, especially in that part whence the bone had been removed. "Casts" of mucus formed in the nostril, remaining about three days in damp, and a week in dry weather. The pain was great when these casts came away, keeping Mr. — awake throughout the night. A breath of air even would increase the discomfort much, so that (to use his own words) he was afraid to breathe through his nostrils. The discharge had a disagreeable smell, and blood was occasionally noticed in it. Mr. — had consulted, amongst others, M. Ricord, though he had never contracted syphilis, and had tried many remedies. I treated him daily from the 22nd of March, 1878, to the 31st with the spray alone, and again from the 4th to the 11th of April. His condition then improved, and the discharge ceased. A feeling of discomfort still remains in the upper part of the left nostril, but in a much less degree than formerly; and for this the spray is occasionally used. He finds benefit from passing the summer by the seaside, and from drawing up the salt water into his nostrils when bathing.

CASE IV.—Henry —, a sailor, aged 30, was a patient at the St. Marylebone General Dispensary in January 1878. He stated that early in the autumn of 1877 he had a severe pain over the right eye, lasting some days. This pain was followed by a discharge from the nostrils, offensive, and occasionally tinged with blood. On January 23rd, he came to the Dispensary, and was ordered to use daily a nasal douche containing permanganate of potash, and to take iodide of potassium with liquor hydrargyri perchloridi three times a day. This treatment was carried out till February 25th, when, little improvement having taken place, the spray was substituted for the douche, and he was given green iodide pills in the place of the mixture. He continued this treatment until April 3rd, when he was discharged, his nose being cured. He was told to continue taking the pills whilst at sea.

CASE V.—Mr. —, a Swedish gentleman, aged 28, suffered from ozæna since his childhood. The discharge was offensive, and sufficient to saturate two or three pocket-handkerchiefs a day. It was the same in summer as in winter, but in cold damp weather it increased. After meals, the desire to clear the nostrils was always greater than at other times. He did not remember having ever been free from treatment. From 1870 to 1872, he was twice a week, and hardly without intermission, seen by a Swedish physician, who used sprays, inhalations, and made applications to the interior of the nose with a brush, but without procuring any amelioration in his patient's condition. Mr. — came to me first on February 27th, 1877, visiting me every other day to the 6th April. He was, at the end of that time, free from the discharge, but there remained a feeling of tenderness in the nostrils. In November he returned, informing me that when the warm weather ceased he had a partial return of the discharge. After eight applications of the spray, the discharge almost ceased, and, as he could no longer remain under my immediate care, I ordered him to carry out a plan of treatment at his home. On April 2nd, 1878, Mr. — again called upon me. The discharge was slightly present, but without any smell accompanying it. After ten applications, he ceased coming, being almost cured, except that the feeling of tenderness remained to a slight extent. Some months ago, he paid me a visit; the ozænic condition being hardly appreciable.

CASE VI.—A clerk in the General Post Office, five or six years ago, caught an ordinary cold, and from that time the discharge never disappeared. The interior of his nose used to feel half closed, and was very irritable in windy weather. Passing from a hot to a cold temperature brought on an attack of sneezing, as many as twenty fits of sneezing occurring without intermission. On waking in the morning, this patient began to sneeze; and never for some years had a day passed, whether in summer or winter, without this occurring. On one occasion, during warm weather, to show how readily an attack was brought on, he was standing over a grating looking into a shop window, when a current of cold air came up through the grating, and he then immediately sneezed twenty times. After these attacks, the discharge for a short time was increased, and often became thick and of a yellow colour. Traces of blood were sometimes to be found in it; but there was never any smell noticed. At the commencement of 1876, he attended St. Mary's Hospital, and for some months was given iodide of potassium, as he had contracted a chancre fifteen years previously. He had never since the sore been affected with any secondary symptoms. This treatment gave him no relief. In the early part of the winter of 1877, he came under my care, and said that after the third application of the spray he began to feel better. The spray was continued for over two months, the patient attending two or three times a week, no internal remedies being given. Since then there has been no return of the discharge, or any recurrence of the attacks of sneezing.

REMARKS.—These cases are, with one exception, all typical cases of simple ozæna. They presented most of the common symptoms of the complaint, which are: congestion of the mucous membrane with, commonly, slight thickening; crustations of dried mucus blocking up the nostrils, which, on being removed, discover ulceration of the mucous surface, and occasionally destruction of bone; a constant discharge, either scanty or copious, thin or thick, perhaps mixed with blood, and frequently so offensive that the sufferer is debarred from society; a running of the discharge, when the patient is lying down, into the larynx. In two cases in which the patients have suffered from chronic laryngitis previous to incurring ozæna, the irritation caused by this gravitation of the nasal discharge has materially helped, it would seem; to keep up the laryngeal congestion. Pain in or about the nostrils, or a feeling of discomfort, severe enough to keep the patient awake at night; redness of the skin over the bridge of the nose; the eyes or eyesight are in some cases affected. During the catamenial period the symptoms are with many increased. This ozænic condition causes a great depression of spirits, and with some patients a disgust for life, insomuch that they have often confessed to feeling inclined to commit suicide, and thus free themselves from what seemed to be an incurable disease.

I have inserted one syphilitic case, for the sprays appear to assist the constitutional remedies. This has been made evident in the case of a gentleman who came to me for ulceration in the right nostril, the result of primary disease contracted ten years ago. It seems to me that in these cases of specific disease it is better to employ mercury rather than iodide of potassium, on account of the common tendency of the latter drug to cause a nasal discharge, at any rate to give it as sparingly as possible. A clergyman, who was under my care last year, after he had been cured of ozæna took iodide of potassium for sciatica. At the end of a fortnight he had all his ozænic troubles back, and as they did not leave him after remission of the drug he was obliged to return for the spray-treatment.

A NEW ANTISEPTIC DRESSING.

By HERBERT L. SNOW, M.D.Lond., Bayswater.

IN the JOURNAL for February 28th, occurs a memorandum by Surgeon-Major MacNamara, in which the question is asked, "What is the best substitute in military surgery for exact antiseptic dressing?" And lint, soaked in carbolic acid solution, then covered by a layer of cotton-wool, is the substitute proposed. I venture to suggest another, which I think will be found far superior to this, and which is, indeed, in some respects better than the ordinary Listerian applications for ordinary hospital practice. The dressing to which I allude is called "antiseptic marine lint"; the packages I have seen bear the name of T. Westhorp, Falcon Works, West India Road, E. It is practically fine oakum, but differs from the tenax in ordinary surgical use in being more oily, more tenacious, and more thoroughly saturated (to all appearance) with tarry principles.

My experience of it extends to nine or ten operation-cases, chiefly excisions of the breast. I have operated on those under the carbolic spray; have subsequently applied a layer of the "marine lint", moistened with carbolic solution (without any intervening protective), and two or three dry layers of the same over this; outside the whole, a piece of mackintosh and ordinary calico bandages. The cases were dressed again (always under the spray) on the third day; subsequently, at intervals of from five days to a week. All except one united without any suppuration, quite as cleanly and as rapidly as under the complete Listerian plan. In the exception (a case of excision of the breast for cancer), torsion had been used instead of the ordinary catgut ligatures; there was consequently a profuse serous oozing reaching the outer atmosphere; the mackintosh and amount of "marine lint" were not proportionately enlarged; and the method accordingly failed in preventing suppuration, though subsequently good recovery took place.

For ordinary hospital purposes, this "marine lint" has two advantages over the Listerian gauze; the first is, that it acts much more completely as a sponge, soaking up and holding innocuous in its meshes a large quantity of discharge; the second, that it is very much cheaper—the expense being 2d. or 3d. per dressing, in comparison with from 1s. 6d. to 2s. 6d. in the other case.

For military surgery, I am confident that it will prove the best ready application hitherto devised. The sponge-like action is very valuable; and, when applied on the battle-field to wounds, the large amount of tarry principle held in solution is amply sufficient to keep a wound aseptic for several days, even without the useful adjunct of carbolic solution to moisten the first dressings.

My experience of cotton-wool as a dressing for operation-cases is decidedly unfavourable. It filters the air, doubtless; but in practice the surface next the wound becomes "caked" by the discharge; an impervious "skin" thus formed pens up the latter, and frequent dressings are necessary, or bad consequences quickly follow.

In a dangerous and critical operation, it is a good plan to use Lister's method in its entirety for the first two or three dressings; subsequently, when the discharge has lessened, the "marine lint". I need hardly point out the advantages of this latter as a dressing for large burns in the suppurating stage, or as an application to fœtid cancerous ulcers, etc.

So far, I am not disposed to trust this absorbent lint quite so implicitly as the carbolic gauze and protective; but it is far cheaper, less complicated, and readier of application, and in the majority of ordinary operation-cases answers quite as well.

ATTEMPTED SUICIDE BY STRYCHNIA, SUCCESSFULLY TREATED BY HYDRATE OF CHLORAL.*

By GEORGE GRAY, M.D., Castlewellan, Co. Down.

ON December 30th, 1879, I was called upon to visit a man living about two miles and a half distant, who, the messenger informed me, had taken a poisonous dose of strychnia. When I arrived at the house, about half-past twelve o'clock, I found the patient, a man 34 or 35 years of age, supported in bed in a semirecumbent position, with his head thrown back, his eyes staring, and evidently suffering from the usual symptoms of poisoning by strychnia. The muscular spasm came on with a tremor like a jerky kind of convulsion, and recurred about every three minutes. During the spasm, the breathing was irregular, and the breath came through the closely clenched teeth with a hissing sound. The angles of the mouth were drawn down, and the peculiar Sardonic grin well marked; the skin was cold, and covered with a clammy perspiration. The pulse was very weak and quick, but not irregular. During the intervals between the convulsive attacks, the spasm of the jaw did not pass off, and any attempt to open the mouth forcibly at once brought on a fresh attack, which was preceded by a peculiar sound —half groan, half cry.

Having brought with me a solution of two drachms of hydrate of chloral in two ounces of water, I poured half of it into a cup, and managed slowly to administer it with a teaspoon by inserting the point of the latter in a space where he had lost two molar teeth, and directing him to suck in the fluid. This he did in the intervals of the attacks, swallowing it with a gulp until the ounce of fluid was taken. After swallowing the chloral, he had only two severe spasms, the latter less marked than the former; and, at gradually lengthening intervals, they became less severe. In ten minutes, the jaw was so relaxed that I thought I could introduce the tube of a stomach-pump, but as doing so seemed to cause great distress and increased the jerking of the muscles, I did not persevere, but gave him an emetic of thirty grains of sulphate of zinc and warm water, and when this had acted I gave him a drachm of tannin; this he vomited also.

After waiting for an hour, as there were now and then slight tremors in some of the muscles, as no doubt some of the chloral was removed by the emetic, and as there was not any drowsiness, I gave half what remained of the solution—that is, half a drachm of chloral-hydrate, and applied warmth to the skin. In another hour, he was so much improved that I left, giving directions that if he had any more twitching, or if he had not any drowsiness—which had not yet appeared—to give him in three hours the remainder of the draught, and to let me hear of him in the evening. At *seven* o'clock, I heard that he had the chloral draught at *five*, but had not slept, and was feeling comfortable, having no more vomiting or convulsions. I ordered him a dose of castor-oil at bedtime.

There is nothing further to note of the progress of the case, as, two days afterwards, he was at his usual work.

On making inquiry, I found that, for a fortnight before, he had been drinking constantly, and was in bad spirits about losing his situation, and that about half-past ten on that morning he purchased some strychnia ostensibly to poison rats. He then went into a public house, ordered a glass of whiskey, stirred in the strychnia, and at once drank it off, adding water to the tumbler to suspend a few crystals that remained, and, swallowing these as well, so that both the man who was with him and the patient himself assured me he had taken all he purchased, which was sold to him for twenty grains. After taking the poison, he told his friend it was a powder he had bought to "put his stomach into good order". He then felt sick, went out into the yard of the public-house and vomited, got on a car which was waiting for him, and drove home, where he announced what he had done. His friend at once melted a pound of butter and made him swallow it, and sent for me. As well as I can make out, the symptoms came on about an hour after he took the poison, and had continued about an hour when I saw him.

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* Read before the North of Ireland Branch.

I have thought the case worth bringing forward, on account of the large dose of the strychnia, and also as shewing well the antagonism between chloral-hydrate and strychnia, and the great value of the former as an antidote in poisoning by the latter. Although some of the chloral must have been lost when the patient first vomited, enough was given afterwards to produce profound sleep in an ordinary man, and yet the physiological action of the drug was not manifested in the slightest degree, but seemed to be neutralised by the action of the strychnia. Living as I do in the vicinity of several demesnes, which are strictly preserved, and in which poison has been sometimes laid for vermin, I have had frequent opportunities of administering chloral-hydrate to dogs, which have accidentally picked up strychnia; and out of the number I have been able to save five. This is the first time I have had an opportunity of testing the value of the antidote in the human subject, and from the marked and immediate relief it afforded, I can speak very highly of its value. With regard to the enormous quantity taken, two things at once suggest themselves: was it all taken? and if so, was it pure strychnia? Both the patient and his friend affirm that he was most particular in washing every crystal out of the tumbler with water which he swallowed, and that he must have taken it all. As to the purity, I applied the rough tests given for the purity of the alkaloid in the Materia Medica, and according to these it was pure. This, however, did not satisfy me; so having obtained from the same person a like quantity out of the same bottle, through the kindness of Professor Cuming I had it analysed, and I think I cannot do better than read for you what Dr. Letts, Professor of Chemistry, Queen's College, Belfast, says of it. "I have carefully examined the strychnia. Its weight amounted to 1.554 grammes, that is over 22 grains. That such a quantity could have been taken without a fatal result is almost inconceivable, and I was much inclined to believe that the sample was largely mixed with some cheap alkaloid or with mineral matters. I have tested for brucine, quinine, and mineral matters, but can find none. I have also made a quantitative analysis. Strychnia gives an insoluble chloroplatinate, and the chloroplatinate contains 18.3 per cent. of platinum. If the sample of strychnia you gave me consisted of pure alkaloid, 0.3157 parts ought to give 0.510 of the chloroplatinate, instead of which, I got 0.492; the slight deficiency being due probably to the fact that the chloroplatinate is not absolutely insoluble in water, and thus some remained in solution. If we calculate from the weight of chloroplatinate *found* that of the pure strychnia taken, the result is 96.4 per cent. of the sample *actually* taken. In other words, the sample you gave me contains at least 96.4 per cent. of *pure* strychnia. To be quite certain that the salt which I obtained by dissolving the sample in hydrochloric acid and adding chloride of platinum was really the chloroplatinate of strychnia, I determined the platinum in it. It amounted to 18.3 per cent., whereas the calculated percentage of platinum is 18.3. There cannot be the slightest doubt, therefore, that the sample of strychnia you gave me consists almost (if not) entirely of pure strychnia."

Now, that a man could take 22 grains of strychnia and afterwards recover is very remarkable, and I think we can only attribute the result to a combination of circumstances. He had been drinking for some time, and his stomach was in an irritated state; which retarded absorption of the poison. The strychnia, being taken in crystals, was not dissolved for some time. The vomiting in the first instance enabled him to get rid of some of it. The butter which his friend gave him further helped to delay the advent of the symptoms, but, notwithstanding all these, enough strychnia remained to produce very severe symptoms of poisoning; and I feel certain that the good ending of the case was owing chiefly to the action of the hydrate of chloral.

A CONCERT was held last week in the Theatre Royal, Limerick, for the benefit of Barrington's Hospital, and upwards of £60 was realised on the occasion.

THERAPEUTIC MEMORANDA.

NITRO-GLYCERINE.

THE interesting article on this drug in the JOURNAL of the 13th instant recalls to my recollection a case in which I used it (it was then called *glonoine*) twenty-two years since, soon after the appearance of Mr. Field's, Dr. Fuller's, and Dr. Harley's papers in the *Medical Times;* and as its effect on the pulse was the very opposite of that described, and its action altogether of a very energetic and somewhat alarming nature while it lasted, I venture to transcribe from my note-book a short record of the case which I entered soon after its occurrence.

Miss S., a schoolmistress, aged about 50, the subject of double spinal curvature, somewhat feeble in health, but of active mind and energetic habits, was seized in June 1858 with most violent cramps in the lower part of the abdomen extending into the vulva. For some days they continued, recurring at short intervals like labour-pains, accompanied by retching and hiccough, and allowing no rest either night or day. There was neither hernia nor other obstruction to be detected, but her condition was most pitiable, and large and often repeated doses of solid opium, etc., had no effect whatever. At last, I ventured to try glonoine—a one-per-cent. alcoholic solution prepared by Squire. A drop was taken up on a pointed piece of wood; but, as my patient was a weakly one, I allowed it to fall off, and only touched the tip of the tongue with what remained on the point. In two minutes, the pulse fell from 140 to 50, a clammy sweat covered her features, and she became senseless. Stimulants to the nose, and brandy were quickly given, and in about three minutes more I was considerably relieved to find her recovering. The pain was completely gone, and did not return all the night and following day, although afterwards it did so in a much less severe form; but, for many hours after the dose, its effects were very strange. My patient said that she felt like two people, and so strong was this impression that, though perfectly rational in her conversation and unexcited in her manner, she could not shake it off, but frequently checked herself when about to make allusion to her imaginary double. Glonoine is decidedly a most powerful agent, and with care may become a most useful one. T. E. AMYOT, Diss, Norfolk.

APOMORPHIA IN HYSTERIA.

IN September, 1877, while House Surgeon at the Liverpool Northern Hospital, I was called to a woman aged 24, who had been carried into the outpatient room in a state of hysterical coma. She had been in a somewhat similar state for several days. After the use of other means without effect, I injected one-tenth of a grain of apomorphia subcutaneously; the patient in a few minutes sat up and was able to walk home with her friends.

JAMES ALLAN, M.A., M.B., New Wandsworth.

CLINICAL MEMORANDA.

IS TYPHOID FEVER INFECTIOUS?

DR. CAYLEY, in his interesting Croonian Lectures on the Pathology and Treatment of Typhoid Fever, mentions two patients under his care who contracted the fever from a patient in the same ward (see BRITISH MEDICAL JOURNAL, March 13th)—one apparently becoming infected from inhaling the poison given out by the contaminated bedding of his next-door neighbour, the other from using the closet where the typhoid stools had been deposited.

Two somewhat similar cases came under my notice last autumn in the General Hospital for Sick Children, Manchester, which are worth placing on record. A child was admitted suffering from typhoid and pneumonia with moderate diarrhœa. A few weeks afterwards, a girl of ten years, in the next bed, also contracted the disease; the diarrhœa was moderate in amount, but otherwise the disease was tolerably severe. This patient had been in hospital for several months, was convalescent from chorea, and had used the closet down which the typhoid stools had been thrown, or left to wait for medical inspection, as the diagnosis in the first case for awhile was doubtful. Sixteen days after the second case became ill, a third case occurred in a child of five years, who had been admitted about six weeks previously for bronchitis. This child's bed was on the opposite side of the ward and at the other end, a distance of about twenty-five yards; and, as it had suffered acutely from bronchitis, it had always used the bed-pan, and had never been taken either to the closet or to the bath-room. In this case, I do not think it possible that any sewer-gas could have reached the child. The closet is outside the ward, and the bed-pans and linen, in being carried away from the first cases, would not pass the third case, but go in an opposite direction. There seems to me to be no other explanation than that the third case was infected from contagion being carried by the soiled fingers, or from the poison given out by the breath or skin being carried by the clothes of a nurse.

In connection with this subject, I am always at a loss to understand why it is said that *fresh* typhoid stools are innocuous, and *stale* stools dangerous. No one denies that the stools retain their specific poison for an indefinite period, and that a minute dose will infect a willing soil; and it seems only rational to suppose that the poison is as active when passed fresh from contact with the Peyer's patches of the intestine. Possibly the unsavoury odour of the fresh stools helps us to evade the poison. Dr. Collie's cases, published in the BRITISH MEDICAL JOURNAL last year, would seem to point to the same conclusion. I always insist on one fluid-ounce of 1 to 20 carbolic acid solution being placed in the bed-pan before being used, and the soiled draw-sheets and linen passed at once into a solution of 1 to 40. Still one never feels quite confident that the poison has been destroyed.

HENRY ASHBY, M.D.Lond., Manchester.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

SARCOMA OF THE SCAPULA: REMOVAL OF THE GROWTH, TOGETHER WITH THE BODY OF THE SCAPULA: DEATH FROM SEPTICÆMIA.

(Under the care of Mr. BERKELEY HILL.)

FOR the notes of this case we are indebted to Mr. QUARRY SILCOCK, M.B.Lond., Surgical Registrar to the Hospital.

James H., aged 25, a clerk, was admitted to the hospital on April 16th, 1879. He was a pale, delicate-looking young man, well nourished, and of good muscular development, considering his employment. He stated that he had become somewhat thinner of late, and suffered from occasional aching pain about the right shoulder-blade. On examination, a tumour was apparent, about as large over as the palm of the hand, occupying the infraspinous fossa of the right scapula, forming a rounded prominence most marked about two inches above the angle. The margins of the growth were ill-defined, especially about the posterior border of the bone, which it overlapped; the angle and the supraspinous fossa were uninvolved. Its surface was broken up into smooth nodules. To the touch, it was firm and elastic; deep pressure gave rise to slight pain. The scapula moved freely and painlessly over the subjacent parts, and there was no visible wasting of the muscles attached to it. The skin over the tumour was unaffected, and there were no signs of generalisation of the growth.

The swelling was first noticed about two months before admission. No history of syphilis or injury could be obtained. His grandfather was said to have died of cancer, and his relations on the mother's side were phthisical.

On April 23rd, the patient having been placed under the influence of ether, one incision five inches in length was made over the posterior border of the bone, and another four inches long over the upper border, meeting the first at an obtuse angle. The flaps thus marked out were raised; the muscles attached to the posterior border of the bone were divided; and the latter was turned outwards, thus bringing into view the ventral aspect, with a large mass of growth springing from it, continuous with that on the dorsum around the posterior border. The upper portion of the spine and the neck were next cleared as far as possible, the former being sawn through near its junction with the acromion, and the latter at about the same level. The muscles attached to the inferior costa, with the subscapular artery, were divided last of all. The whole of the body of the scapula, with the growth, was thus removed. The operation was performed with Lister's antiseptic precautions; the arteries being secured with catgut ligatures, and the wound finally washed out with a solution of chloride of zinc previously to the application of the dressings. The amount of blood lost was considerable, the operation lasting one hour.

Three hours afterwards, the dressings were removed, as free oozing appeared to be going on. Five or six ounces of clot were found in them; but, as the hæmorrhage had ceased, they were reapplied without disturbing the wound. At this time, the patient was much collapsed, his radial pulse was imperceptible; but, after the administration of large quantities of stimulants and a hypodermic injection of morphia, he rallied. At 11 P.M., his pulse was 140 per minute; temperature 97° Fahr.

On the 24th, at 11 A.M., his temperature had risen to 100° Fahr.; pulse 140, small, irregular. A soft systolic *bruit* was audible at the apex of the heart; both sounds were very weak. Respirations 36. The dressings were changed, a moderate amount of sweet sero-sanguinolent discharge being found in them. He complained of aching pain in the back, and was apathetic and drowsy, being partly under the influence of morphia. Later in the day, he became very restless, and vomited after taking some brandy. At 8.30 P.M., he lapsed into unconsciousness, his pulse being very feeble. Three ounces of blood were transfused into a superficial vein of his forearm with good effect; he immediately became conscious, his pulse much improving. At 4 A.M. on the 25th, he had again become unconscious, and three ounces and a half of blood were transfused. On this occasion, however, although he regained consciousness for about half an hour as a result of the operation, his condition was not materially improved. When seen at 10 A.M., he was evidently moribund; his skin and mucous membranes were blanched and cyanotic; respiration was gasping; and the radial pulse imperceptible. At 11.40 A.M., he died, forty-five hours after the operation. The blood transfused was on each occasion taken from a healthy man, and the operation performed by means of Roussel's apparatus.

On dissection of the parts removed, the growth was found to be unencapsuled, resembling brain-substance on section, widely infiltrating the subscapularis and infraspinatus muscles. As thought during life, it was attached to both surfaces of the bone, but covering a larger area of the ventral than of the dorsal surface. The neck, supraspinous fossa, inferior costa, and angle, were free; and the tumour had, as far as could be judged by naked-eye appearances, been completely extirpated. It had probably commenced in the deeper layers of the periosteum covering the ventral surface, and had perforated the bone near the posterior border, the perforation being about as large over as a florin. Through this the mass on the dorsum felt during life was continuous with that on the venter, and also by continuity of growth around the posterior border in the muscles attached thereto.

Microscopic sections showed the growth to be a small round-celled sarcoma, with a small amount of delicately striated intercellular substance running through it.

NECROPSY, thirty-two hours after death.—Rigor mortis was marked. *Post mortem* lividity was considerable in the most dependent parts of the body. The surface of the wound was of a dark brown colour; but no pus was to be seen. A smell of decomposition was apparent. On dissecting the floor of the wound, numbers of small collections of pus, varying in size from mere "specks" to that of a pea, were found scattered beneath the surface; but none were situated deeper than the third layer of muscles. The areolar tissues around the wound were œdematous, blood-stained, and blown up by gases of decomposition, the emphysema being especially marked in the right posterior triangle. In the pleuræ were a few old adhesions, but no fluid; no subpleural hæmorrhages were to be seen. In the lungs were one or two small caseous masses, with surrounding induration, at each apex; much *post mortem* congestion posteriorly; otherwise nothing abnormal. The pericardium contained about two ounces of blood-stained serum. Numerous subpericardial hæmorrhages were scattered over the surface of the heart, chiefly posteriorly. The right auricle and ventricle contained "black currant-jelly" clot, scattered through the substance of which were little white masses about the size of pin-heads, apparently aggregations of white blood-corpuscles or small particles of fibrin. In the right auricular appendix was a small laminated *ante mortem* clot. The heart-substance was firm, but paler than natural. The liver and kidneys showed the appearances ascribed to "cloudy swelling"; otherwise normal. The spleen was of normal size, and not particularly soft. The blood of the body was unusually fluid. The veins leading from the wound were traced as far as was possible, but no clots were found in them.

REMARKS.—This case is one of some interest in several respects, but especially as regards the good effect produced by the transfusion of healthy blood into the vitiated and watery blood of the patient. It is to be observed that, at the time when transfusion was resorted to—thirty hours after the operation—the circumstances of the case were rather indicative of a septic condition of the blood than of loss of blood pure and simple, or "shock"; for the hæmorrhage during and subsequently to the operation, although large, was not excessive—certainly not so large as to preclude the possibility of recovery; whilst the *post mortem* appearances—the scattered abscesses beneath the surface of the wound, the subpericardial petechiæ, the cloudy swelling of the liver and kidneys, and the general fluidity of the blood—tend to show that death was the result of septicæmia, and not of anæmia or "shock". Hence it becomes a question whether the practice of transfusion might not be more generally adopted in such cases—whether they be considered as belonging to the category of septicæmias—acute septic intoxication, as they have been recently called—or to that of "exhaustion" or "shock", if not with a view to permanent benefit, with the hope of prolonging life; for occasionally it might be of the highest importance to rescue the patient from unconsciousness for even half an hour. It may be added, that no difficulty was experienced in using the somewhat complicated instrument of Dr. Roussel, which seemed to fulfil its purpose thoroughly well.

ROYAL FREE HOSPITAL.

COMPOUND FRACTURE OF SKULL, WITH DEPRESSION: TREPHINING.

(Under the care of Mr. GANT.)

G. P., AGED 29, railway guard, was brought to the Royal Free Hospital at 12 P.M. on January 15th. He was fully conscious, but pale and almost pulseless. He stated that he had been knocked down by an engine, which passed over his foot. The left foot was crushed, the tarsal bones being exposed, and the tendons torn away. In addition, he had sustained a laceration of the scalp, and, on passing the finger into the wound, it was found that there was a fracture of the left parietal bone, with depression. There were also several other lacerations of the face and scalp. Mr. Gant at once performed a modified Syme's amputation of the injured foot, during which little blood was lost. At the end of this operation, the patient's condition was so serious that it was decided, for the present at least, to make no attempt to remove the depressed portion of the skull. The depression was extremely slight, and at this time there were no symptoms of compression. The patient seemed to be doing well, until the evening of the 17th, when he became delirious, with rapid pulse and elevated temperature (102° Fahr.). On the following morning, he was still delirious, no longer had complete use of his right arm, and his face, also, seemed drawn to the left when he spoke or grimaced. He was still able to move the right leg as well as the left. Mr. Gant now (January 19th) trephined, removing the depressed bone in several small pieces, one of which had been splintered away from the inner table of the skull, and it was thought that all depressed fragments had been removed; but this expectation, as will be seen, proved fallacious. When the patient recovered from the chloroform, it was found that his condition was but little if at all better than before the operation, for he became rapidly more comatose. Eight hours after the operation, his right arm and the right side of his face were more markedly paralysed, and the nurse reported that he had had a fit, but of this she was unable to give any accurate description. He now began to have frequent convulsive seizures, which affected sometimes the arm alone, sometimes the face and neck, while occasionally both face and arm were involved in the same seizure. When the arm was convulsed, the spasm consisted of movements of flexion and extension of the wrist and fingers, not sufficiently powerful, however, to raise the elbow from the bed. When the spasm affected the face, the eyes and head were directed to the right, the mouth was drawn in the same direction, while both eyebrows twitched up and down. Hitherto the leg had, as far as could be ascertained, been free from spasm and from the paralysis which followed it; but, on January 20th, the spasm spread to the leg. At first, this produced merely a tremor of the muscles, scarcely visible, but readily to be felt. On January 21st, the patient died, his temperature before death rising rapidly to 105.8°. At the necropsy, it was found that a small spicule of bone, splintered from the inner table alone, had not been removed at the operation, but was still pressing upon the brain. The attached extremity of this fragment was on a level with the sound bone near the margin of the trephine-hole, and thus it escaped discovery at the operation. The trephine-hole in the skull was over the supramarginal convolutions, and partly over the angular gyrus. The pia mater and arachnoid over the whole of the left hemisphere were infiltrated with greenish pus, and this was found over a great portion of the right hemisphere.

CONVICTION FOR SELLING POISONOUS CONFECTIONS.—In Glasgow, on the 16th instant, a conviction took place under the Sale of Food and Drugs Act, 1875, and the Amendment Act, 1879. A confectioner was charged with having sold a quantity of toy confections, being articles of food, mixed, coloured, or stained with chromate of lead in the proportion of 2.63 grains per pound weight, so as to render such confections injurious to health. The city analyst having stated the proportion of chromate of lead that he found in the samples, and the medical officer of health having deposed that not only was such a quantity injurious to health, but that his attention had been particularly drawn to this poison by the death of a child which had been caused by eating confections coloured with chromate of lead, the sheriff found the accused guilty, and imposed a fine of £5.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 23RD, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

ON THE ESTIMATION OF URIC ACID BY ITS REDUCING ACTION UPON THE AMMONIATED CUPRIC TEST.

BY F. W. PAVY, M.D., F.R.S.

THE author first referred to the importance of being able to determine, readily and with precision, the amount of uric acid voided, for the purpose of studying the conditions attending the uric acid diathesis, and as a guide to its treatment during the management of a case in which the uric acid deposit occurred. The old methods of estimating uric acid could not be spoken of as meeting the requirements of the medical practitioner, either as regards facility of application or precision. The method which the author brought before the notice of the Society was founded upon the reducing action which uric acid, like sugar, exerted upon the oxide of copper. The ordinary form of copper test was most susceptible of application to the purpose; but the ammoniated cupric liquid, which the author had recently introduced (*Proceedings of the Royal Society*, vol. xxviii, page 260, and vol. xxix, page 272), for the quantitative determination of sugar, was perfectly available. With this test, the reduced oxide, instead of falling as a precipitate, was held in solution by ammonia, and a simple decoloration of the liquid occurred as the reduction proceeds. The mode of preparation and employment of the test having been described, it was stated that the results obtained from observation, conducted with known quantities of pure uric acid, so closely harmonised with the expression, that three atoms of oxide of copper were reduced by one atom of uric acid, as to justify this formula being adopted as the basis of calculation for the process. For the determination of the uric acid in a specimen of urine, the reducing power was taken before and after treatment with acetate of lead. The first total reducing action was in part due to uric acid, and in part to the small amount of sugar which urine naturally contained. The addition of acetate of lead effected a precipitation of the uric acid; and the reducing power now obtained represented the reducing power of the urine, *minus* that of the uric acid which it contained. By the difference between the two determinations, the amount of uric acid was ascertained. The mode of calculation was given. Results were furnished, showing the precision with which known quantities of uric acid added to urine were revealed by the process. To be certain that what was taken as expressing uric acid was in reality due solely to the presence of uric acid, the process was checked against the actual collection and subsequent determination of the uric acid. Results were given to show that the collection and subsequent determination of uric acid could be carried out in a manner to afford reliable information; and then the two processes—the determination from the difference in the reducing power before and after precipitation with acetate of lead, and by actual separation of the uric acid and its subsequent estimation—were applied to various specimens of urine, and the results compared. The figures obtained presented a close accord, and justified confidence being placed in the results derived from the process brought forward. In conclusion, the author said that the application of the process to the urine under various conditions of health and disease was a matter of some magnitude, which he reserved for a future communication. He stated, however, that, according to his observations, the figures hitherto given as representing the amount of uric acid present would have to undergo considerable alteration. Dr. Pavy supplemented his paper by reading some results of analyses, showing great variations in the relation between the amount of uric acid deposited and the amount present in the urine, and the acidity of the fluid.

The PRESIDENT asked if Dr. Pavy had made any examination of the uric acid in blood.—Dr. PAVY said that he had not, but that he intended to carry on his observations, and would examine the blood.—Dr. SILVER questioned whether the process was applicable both to uric acid in its simple form and to urates. In regard to the blood, it might be valuable as a means of confirming Dr. Garrod's thread-test. Difficulty might arise from the presence of bile-acids, or of other matters in the urine which threw down copper. Dr. Pavy's investigations had been of great advantage to medicine, and they might be extended with still greater advantage.—Dr. REGINALD THOMPSON asked whether Dr. Pavy had found much difficulty when there was much mucus in the urine.—Dr. PAVY said that uric acid and urates were distinguished by their physical properties. The test was applicable to uric acid, whether free or in combination. He did not think that uric acid existed in a free state in the blood. The bile-acids had no reducing effect. Mucus might be separated by filtration, an acid being added, if necessary; and pus, if present might be removed.

The Nitze-Leiter Endoscope.—Sir Henry Thompson gave a brief history of the rise and progress of endoscopy, and exhibited the urethral endoscope devised by M. Nitze and manufactured by M. Leiter of Vienna. It consisted of a tube in which was a platinum wire heated by means of a powerful Bunsen's battery; the instrument being kept cool by means of a current of water which flowed through it from a vessel placed at a height, and afterwards escaped. The use of the instrument was demonstrated on a patient. Sir Henry Thompson said that he had no great faith in the utility of the endoscope; but it might be of service in ascertaining the size and nature of foreign bodies in the bladder, and in cases of villous growth in the organ, which could not be detected by the touch with ordinary instruments.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, March 16th, 1880.

Jonathan Hutchinson, F.R.C.S., President, in the Chair.

The Pathology of Granular Kidney.—Dr. Saundby (Birmingham), who exhibited a number of microscopical specimens of granular kidney, said that there were three well-defined doctrines as to the nature of the changes taking place in that disease. The first was that of Dr. George Johnson, who regarded the lesion as a "chronic desquamative" inflammation of the renal epithelium, producing atrophy of the organ, which was eventually composed of the wasted remains of the tubes, the vessels becoming thickened by a "physiological hypertrophy" of their coats. The second doctrine was that of Traube, who looked on the stroma as the seat of the chronic inflammation, and the changes in the tubes as secondary. The thickening of the blood-vessels was only a participation by their fibrous coats in the inflammatory process, which affected the capsules of the Malpighian bodies also. The third view was that of Sir William Gull and Dr. Sutton, who asserted that there was an interlobular deposit of a "hyalin-fibroid" material in the kidney, leading to atrophy of the intratubular structures; and that the thickening of the vessels was due to this deposit in the inner membrane of the tunica adventitia, whereas the muscular coat was atrophied. Dr. Saundby thought that these views were not irreconcilable, but that, taken together, they illustrated the changes (1) in the tubules, (2) in the stroma and Malpighian bodies, (3) in the blood-vessels. His preparations showed a process of cell-proliferation going on in the renal epithelium, and, as a result, the tubes becoming filled with free nuclei. In other parts, the nuclei were undergoing transformation into spindle-cells; and other areas where the lesion was more advanced were occupied by wide tracts of hyaline connective tissue, containing a few spindle and stellate elements. In many cases, a tubule became filled with a delicate granulation-tissue, derived from these nuclei, which subsequently underwent gelatinous transformation, and formed a tiny mucous cyst. Remak's embryological law was opposed to the idea that epithelium might be converted into connective tissue; but Waldeyer, Schenk, Balfour, and others stated that the Wolffian ducts, tubes, and glomeruli were formed from the mesoblast; and therefore the renal epithelium must be regarded as a tissue having generic relationships with the connective substances. This view gained support from a paper recently published by Dr. Hamilton of Edinburgh on the development of fibrous tissue from the hepatic epithelium in cirrhosis of the liver, and from the observations of Dr. Creighton on the transformation of the mammary epithelium into connective tissue in breast-tumours. This process might best be observed in the lung. The stroma of the kidney was broadened and hyaline, and the capsule was thickened, but there was no appearance of any general nuclear proliferation. The Malpighian capsules shared in this widening; their epithelioid lining proliferated and formed masses of granulation-tissue, leading to atrophy of the glomeruli, while the new granulation-tissue from both underwent gelatinous transformation, so as to form a mucous cyst. The altered blood-vessels might be classed under two heads: those having, and those not having, differentiated coats. The former were greatly dilated; the epithelioid lining proliferated to form either a layer of granulation-tissue rich in cells, or (what was probably a later stage) a hyaline connective tissue; in either case, narrowing the lumen, sometimes very considerably, but still leaving it not less than that of a normal vessel in a similar position. The muscular coat was hypertrophied by an increase both in size and in number of its fibres. In some cases, it was atrophied. The adventitia was directly continuous with the hyaline connective tissue surrounding the vessel. The vessels with homogeneous walls were formed of consecutive layers of spindle-cells, identical with muscular fibres. Their calibre was often very large, and their walls were enormously thick. Neither of these varieties presented anything but what was commonly found in the vessels of inflamed tissues; at the same time, observation and reasoning pointed to the occurrence of a certain amount of thickening of the vessels anterior to the inflammation. The point which Dr. Saundby regarded as new, and for which he held himself responsible, was the affirmation that nuclei became converted into spindle-cells and connective tissue; but in this he derived support from what Drs. Hamilton and Creighton had already published. The mode of cyst-formation here described was a well recognised process, and only new as regarded its situation in the kidney.

Dr. Greenfield also exhibited a series of microscopical specimens of granular kidney. He had hoped to hear from Dr. Saundby some explanation of the pathology of this form of kidney based upon its histology, some account of the processes by which a kidney became granular, and the relations which this disease bore to morbid states elsewhere in the body. He agreed with Dr. Saundby that each of the three views of its pathology contained part of the truth. He believed, however, that his own specimens were illustrative of the condition diametrically opposed to that which Dr. Saundby had stated to be present in his specimens. Dr. Saundby had laid special stress upon the epithelial change, a line of investigation to which Charcot had recently devoted much attention. His own experience had been very different from that of Dr. Saundby; for he had rarely or never been able to trace a primary epithelial change in granular kidney. The condition in granular kidney was quite different from the "epithelial cirrhosis" described by Charcot, although Charcot himself described a hypothetical pathology for the former disease based upon the latter condition. He had ligatured the ureter, and had found that an exudation containing large quantities of leucocytes occurred round the convoluted tubes; but the glomeruli and arteries remained free from change. In this case, there was a secondary overgrowth of the connective tissue. As a fact, however, the vessels of the glomeruli suffered first in granular kidney. Not only in this disease, but in many other forms of renal disease, the earliest change was a proliferation of the epithelioid cells lining the glomeruli. This led to the formation of connective tissue, which tended to produce compression of the capillaries, whose walls cohered to that of the glomerulus; so that ultimately they together formed a fibrous mass—the real origin of the "myxomatous" change of the glomeruli described by Dr. Saundby. The fibrous tissue gradually found its way between the convoluted tubes, leading to the characteristic appearances of granular kidney. Next to the existence of high tension in the arteries, which was always present in cases where granular kidney occurred, the change just described was the most important feature in the production of this form of kidney. If now it were remembered that the function of the glomerulus was to secrete the water of the urine, which was to flow through the convoluted tubes, taking up, in its course, the solids secreted by the epithelium of these tubes, it was easy to understand that this epithelium would become profoundly modified so soon as the action of the glomerulus was interfered with; hence the epithelial changes of granular kidney. Again, the conversion of the capillaries of the glomerulus into a fibrous mass must profoundly modify the circulation in those of the convoluted tubes, and this must tend to increase the morbid condition of the tubes. He therefore believed that the change in the tubes set up by this glomerular condition was essentially atrophic. The primary glomerular condition might arise from various causes—as, for instance, scarlatinal nephritis; and it was present in large white kidney. The secondary tubular change might arise from lardaceous disease, the primary condition being here also the destruction of the glomerulus by the lardaceous deposit. He believed that, in certain cases of granular kidney, the glomerular change was preceded by disease of the walls of the small arteries, the disease being in some instances the result of endarteritis deformans. In other cases, he looked upon the vascular disease as secondary to the change in the glomeruli.—Dr. Mahomed thought that the specimens exhibited by Dr. Saundby, in which nuclei accumulated into rows and tended to pass into the spindle-form, certainly pointed to the conclusion that this was one mode in which fibrous tissue was formed in granular kidney. He did not think, however, that this was the only mode of its formation, but that there were three well-defined forms of granular kidney. One of these did not give rise to kidney-symptoms. This was the form produced by arterio-capillary fibrosis. The clinical history was one of high arterial tension, giving rise to apoplexy, etc.; and, after death, general fibroid changes were found in the body. He believed that, in this form, an intertubular fibro-hyaline degeneration took place. This was entirely unlike the second form, that of the ordinary mixed granular kidney, where there was much epithelial change, the tubes being full of epithelium undergoing degeneration. He believed this was the form especially described by Dr. Saundby, who, he thought, had thrown great light on the formation of the fibrous tissue. Of this form there were two chief varieties; the first being the result of acute inflammation, especially when occurring in young people; the second being chronic from the outset. The third form he believed to begin with lardaceous change, which induced nephritis, and hence led to granular change.—Dr. NORMAN MOORE could not follow Dr. Mahomed in his distinctions between the different forms of granular kidney. The account of the *post mortem* examination on his first case given by Dr. Saundby showed that it was a case of granular kidney associated with general fibroid change. He asked Dr. Saundby whether the two kinds of granular kidney met with clinically could be distinguished from one another pathologically; viz.: 1. The class of case where, after scarlet fever, for instance, a child showed symptoms of large white kidney, but was found to have granular kidney at its death two or three years later; 2. The class of case of which Dr. Saundby's first patient was a good instance.—Mr. EVE could not accept the view that epithelial cells could develop into connective tissue, the two formations having nothing to do with one another morphologically. In ordinary inflamed tissue, the fibrous changes arise from the transformation of leucocytes, and not of epithelial cells.—Dr. HOGGAN concurred in the remarks of the last speaker.—Dr. SAUNDBY, in reply, said that the origin of epithelium was under consideration, and its relation to connective tissue occupied the very borderland of speculative pathology. He believed that the two forms of granular kidney referred to by Dr. Moore could be distinguished from one another by the presence of fattily degenerated cells when the disease had begun acutely. He believed in general arterial disease as spoken of by Dr. Mahomed; and he thought that, in such cases, the renal arteries were specially involved. In reply to Dr. Greenfield, he stated that the water-secreting functions of the kidney in granular kidney were rarely diminished; and he was unable, therefore, to follow him in his description of the epithelial changes in the tubes resulting from the supposed diminution of the water.

New Method of Mounting Eyes.—Dr. MULES (Manchester) showed some specimens illustrating a new method of mounting eyes introduced by Mr. Priestley Smith. Amongst the specimens shown were: 1. Sclero-fibroid thickening of the eye; 2. White-celled sarcoma springing from the choroid; 3. Dropsy of the sheath of the optic nerve, with neuritis, from the pressure of an apoplectic clot. The eyes were first hardened in Müller's fluid; the colouring matter of this fluid was subsequently removed by chloral, and the eye placed first in weak and then in strong spirit. Other specimens had been mounted in carbolic glycerine.

Peculiar Form of Cancer of the Breast.—Mr. NUNN showed a tumour of the breast removed from a woman aged 55, who was first operated on by Mr. Curling seven years ago. There had been no return until twelve months ago. Microscopically, the tumour consisted of minute cysts set round with columnar epithelium, and in the centre was a certain amount of obsolete blood.—Mr. GODLEE said that this tumour resembled one he had brought before the Society some years ago.—Dr. THIN thought it was a case of what he had described as "duct-cancer"—a form of adenoma. Relapses were rare in this disease; but, when they occurred, they retained the original characters of the tumour. It was this form of disease which followed eczema of the nipple.

Mr. NUNN also exhibited specimens of Melanosis of the Finger and of Epithelioma of the Penis.

Specimens exhibited by Card:

1. Dilatation of Fallopian Tubes: Mr. DORAN.
2. Fatty Changes in the Muscles of the Leg, with Talipes Equinus from long-standing Paralysis: Mr. EVE.
3. Dissection of a Leg atrophied as the Result of Infantile Paralysis: Mr. DORAN.
4. Aneurism of Mitral Valve: Dr. NORMAN MOORE.
5. Disease of Pulmonary Valve: Dr. NORMAN MOORE.
6. Ulcer of Cardiac End of the Stomach, the Result of Vomiting due to Intestinal Obstruction: Dr. NORMAN MOORE.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 3RD, 1880.

W. S. PLAYFAIR, M.D., President, in the Chair.

Dicephalous Monster.—DR. GODSON showed a dicephalous monster for Dr. Jarrow. The spinal columns converged, but were distinct throughout. The sternum was single; the hearts were fused into one. The first head was delivered by forceps; the right arm was brought down, and the second head extracted by the vectis.

Specimens.—Mr. ALBAN DORAN showed two specimens of congenital communication between the rectum and the genito-urinary tract. The first was in a male infant, which died at the age of six months. It had passed meconium by the penis, the anus being absent. The second specimen was from a girl who had lived fourteen years; the vagina and rectum both opened into the vulva.—Drs. Aveling and Rogers made remarks upon the specimens.

Dr. HAYES showed an anteflexed uterus from a woman aged 57, who had never been pregnant.

The report of Drs. Godson, Galabin, and J. Williams, on a specimen of ruptured Fallopian tube, was then read. Dr. GALABIN showed microscopic sections of the chorion and villi growing from the tube-wall.

Dr. ROPER exhibited the cast of a fœtal head, showing the furrowing in the left temporal region caused by pressure against the promontory of the sacrum in delivering through a narrow conjugate. Dr. Roper also showed a specimen of malignant disease of the cervix, which had given rise to fatal peritonitis.

Axial Rotation of Ovarian Tumours.—Mr. LAWSON TAIT read a paper on axial rotation of ovarian tumours, leading to their strangulation and gangrene. In one case, that of a woman aged 48, he operated for femoral hernia. The patient died in five days. The necropsy revealed a small ovarian tumour, not recognised during life; it was black and gangrenous from twisting of the pedicle. Three cases were successfully treated by ovariotomy. The first was diagnosed as a small simple tumour, probably parovarian. It enlarged, and severe abdominal pain came on. Immediate ovariotomy being performed, a cyst of a black colour, adherent by recent lymph to the intestines, was discovered. The pedicle was twisted three or four times. The second case was in a woman aged 30, who had noticed an increase in the size of her abdomen, and was suddenly seized with violent pain in the abdomen followed by incessant sickness. Ovariotomy was performed; a black tumour with twisted pedicle was found universally adherent by recent lymph; this was removed. The third case was in a woman aged 36, who had not menstruated for seventeen weeks, but had noticed an increase of size too rapid for ordinary pregnancy. Intense abdominal pains followed by sickness came on, on November 21st. Immediate ovariotomy was performed. The uterus was found occupied by a pregnancy at the fourth month. The tumour was a parovarian cyst of the right side, black, with the pedicle twisted three times. The pregnancy continued to term.—Mr. KNOWSLEY THORNTON related seven cases in which, on performing ovariotomy, he had found the tumour gangrenous from twisted pedicle.—Mr. SPENCER WELLS did not accept Mr. Tait's explanation of the mode in which twisting of the pedicle occurred. Moderate degrees of twisting were often found without gangrene being produced.—Drs. BANTOCK and HEYWOOD SMITH, and Mr. ALBAN DORAN, also joined in the discussion.—Mr. LAWSON TAIT, in reply, said he hoped that Mr. Spencer Wells and Mr. Thornton would publish their cases.

Alleged Delivery after Death from Burning.—A paper was read, by Dr. ROBERT HARRIS of Philadelphia, to show that the story related by Professor Tardieu, that the Princess Pauline von Schwartzenberg was delivered of a living fœtus some hours after she was burned to death, is absolutely without foundation.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, FEBRUARY 18TH, 1880.

W. A. N. CATTLIN, F.R.C.S., President, in the Chair.

President's Address.—The PRESIDENT delivered an address, which was published at page 360 of the JOURNAL for March 6th.

The means of Diagnosis afforded by an Examination of the Teeth and Mouth in Doubtful Cases of Constitutional Disease.—Mr. HAMILTON CARTWRIGHT opened a discussion on this subject. He desired to show how some knowledge of dental lesions might be of the greatest service to practitioners of medicine and surgery; whilst, at the same time, the qualified surgeon practising dentistry might give valuable aid to his *confrères* in many dubious cases. The first subject to which he drew attention was that of neuralgia, connected more especially with the head and neck, which he divided into supra-orbital, infra-orbital, and facial, mental, and cervico-facial. He held that there was no such disease as idiopathic neuralgia; that a cause for it was invariably to be found, whether in connection with the impression created on the nervous centres by the ovum in the womb, or by the diseased tooth. He combatted the theory, that in ordinary cases there was degeneration of the posterior roots of the spinal nerves, on the ground that, in many cases, sudden and complete cure followed the removal of an exciting cause of pain. Though the teeth were very frequently the originators of a spurious kind of neuralgia, he thought that they were very often unjustly blamed and sacrificed. In speaking of the *loci* of neuralgic pain, he suggested that the symptoms of neuralgia were, in many instances, due to pressure on the main branch of a nerve, caused by exostosis around the edges of the foramina, through which they passed. He gave the means of diagnosing between pain due to dental causes and that caused by lesion of the nervous centres or of special nerves. He said that, in gout, there was a special condition of the teeth and oral mucous membrane by which the disease might be diagnosed, and even anticipated, in hereditary cases. He noticed the sign of syphilis seen in the mouth, as well as rickets, phthisis, and dyspepsia; and concluded by discussing the signs of scrofula and struma in the glands, laying great stress upon the fact that a lack of knowledge of the elements of dental surgery, such as might be acquired in any general hospital, frequently was the cause of glandular abscesses being treated as scrofulous, when they were entirely owing to causes connected with the teeth.—The PRESIDENT thanked Mr. Hamilton Cartwright, and quoted several published cases to support his theory that the local cause of facial neuralgia was often to be found in a remote part, and *vice versâ*. He instanced the case published by Sir Charles Bell, in which an ulcer of the stomach had caused facial neuralgia; and others, mentioned in Sir Henry Halford's *Essays*, in which osseous deposit on the crista galli of the ethmoid bone had produced the same effect. Perhaps the most interesting case was one published by the late Mr. Sercombe, in which severe spasm of the uterus was clearly traced by experiment to the exposed pulp of a tooth. He thought facial neuralgia was more frequently to be traced to the gouty diathesis and an impoverished condition of the blood than Mr. Cartwright supposed; although cases of neuralgia from constitutional causes were by far the most rare, and Dr. Fothergill had shown that they were common in malarious districts.—Mr. FRANCIS MASON commented upon the importance of distinguishing syphilitic from other diseases of the cavity of the mouth; and remarked that the commonest form of secondary eruptions in that cavity was found in a raised whitish patch, somewhat indented from contact with the teeth, and situated inside the cheek, near the angles of the mouth, on both sides. He believed that, in true syphilitic sore-throat, such patches were observed either over the tonsils, or extending as crescentic elevations on the soft palate. If the tongue were affected, the patches were chiefly on the sides of the organ, and indented from contact with the teeth. He believed that this peculiar raised condition, due to the effusion of lymph, characteristic of true syphilis, was much more commonly to be observed than the deep excavated ulcer. He further remarked that it was customary at the present day to attribute all cases of exfoliation of the palate and nasal bones to syphilis. His own experience led him to believe that, in by far the majority of such cases, there was no history whatever of true syphilis. In reply to a remark by the President, he said that the awful destruction of the bones of the face and soft parts, occasionally seen in former years, but now, happily, illustrated only in the museums, was due, not to syphilis, but most probably to the wholesale administration of mercury. He urged the importance of making a correct diagnosis; and instanced some cases in which the mere eruption of a wisdom-tooth had been mistaken for syphilitic sore-throat, and had been treated accordingly.—Mr. EDGELOW considered that neuralgia had always some positive cause, and narrated a case that had come under his notice at St. George's Hospital, in which exostosis of the fang of a tooth had caused severe pain in the hand, which subsided at once on the extraction of the tooth.—Mr. RANGER stated that, in two cases which he had recently met with at St. Thomas's Hospital, the same result followed. The first case was that of a young man who suffered extreme pain in the right arm and down to the hip-joint. He found a lower bicuspid very much decayed, and, on destroying the pulp with arsenic, the pain ceased almost immediately. The other case was one of hysteria in a girl, when, on removing a lower bicuspid, much decayed, the same result followed.—Mr. HAMILTON CARTWRIGHT briefly replied.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

WEDNESDAY, FEBRUARY 10TH, 1880.

ALEXANDER ROBERTSON, M.D., President, in the Chair.

Cystic Tumour of Abdomen: Recovery.—Dr. W. T. GAIRDNER showed a boy aged 15, who had been under his care five years ago for a large, tense, semisolid tumour, apparently connected with the left kidney, and which had occupied about two-thirds of the abdominal cavity. While he was under observation, a sudden profuse liquid discharge from the bowels took place, followed by diminution in the size of the tumour. After a few days, the tumour refilled, but was relieved a second time by a profuse discharge of urine, accompanied by a good deal of fever. The boy was at first much emaciated; but, after the second relief, he began to gain flesh, and was now well, while there had been no reappearance of the tumour.

Cystic Disease of Kidney.—Dr. GAIRDNER also showed specimens of cystic disease in both kidneys of a man aged 43. The patient had had repeated attacks of hæmaturia for about eighteen years. These were preceded by pains commencing at the lower part of the chest and extending downwards chiefly on the right side, but not of a distinctly renal character. These attacks at first only lasted for a week or two; but, in the later stages, the patient did not recover from them; the ureters becoming blocked up with blood-clot, and the bladder irritable. There was enlargement of both kidneys. Death occurred from uræmia. On *post mortem* examination, the right kidney was found to weigh nineteen ounces; the left, twenty-nine ounces. Both were in a state of complete cystic degeneration.—Dr. COATS, in reference to the *post mortem* appearances, said that there was a considerable amount of renal tissue remaining between the cysts, but that it was not normal; it was very much in the condition of that in the contracted kidneys of interstitial nephritis, there being large collections of inflammatory cells separating the proper renal structures. The Malpighian bodies were very prominent. Dr. Coats regarded the cystic degeneration in this case as of congenital origin. There was also a congenital malformation of the aortic valve, which had only two curtains; one of these was larger than the other. and showed a partial septum running up from its middle on to the aortic wall. The valve was the seat of a slight chronic endocarditis; but there was no evidence that it had been incompetent.

Embolism of Superior Mesenteric Artery.—Dr. MCCALL ANDERSON read notes of this case. The patient had been admitted to hospital with bronchitis and emphysema, with enlargement of heart and mitral murmur. About six or seven days before death, he began to complain of pain across the epigastrium and in the region of the kidneys. This became violent and paroxysmal in character, with no positive physical signs except tenderness, which was much relieved on pressure. After a purgative, diarrhœa set in, with some vomiting of the contents of the stomach merely. On the next day, the diarrhœa continuing, the vomited matters were black and very fluid. Death occurred from exhaustion. —Dr. COATS reported the *post mortem* appearances. An embolism of the superior mesenteric artery was found, which involved the colica dextra, ileo-colic, and vasa intestini tenuis branches. The portions of large and small intestine supplied by these were very dark in colour; and the mucous membrane was soft and pultaceous, and engorged with blood. These portions of bowel also contained a large quantity of blood. The stomach, duodenum, descending colon, and rectum contained no blood; and their mucous membrane was natural in appearance. The left kidney had several embola of long standing. The heart was enlarged, and had a dilated mitral orifice, with numerous fringing clots in the valves. There were also globular thrombi in the left auricular appendage. The lungs were œdematous, and the usual signs of bronchitis with emphysema were present. Dr. Coats also commented on the fact that, though the superior mesenteric artery had very wide anastomoses, embolism of it produced as disastrous results as if it were an end-artery. Cohnheim, on the ground of experiment, explained this by supposing that the intestinal arteries were so excessively vulnerable, that deprivation of blood for a few hours rendered them incapable of again carrying on the circulation. When plugged, therefore, their integrity was lost, and the presence of the collateral circulation only increased the tendency to hæmorrhage.

Mediastinal Tumour with Venous Thrombosis.—Dr. COATS showed a sarcomatous tumour which had originated in the mediastinal glands and had invaded the large veins and other tissues. The superior vena cava, the azygos major, and the lower parts of both innominate veins, were completely incorporated in the tumour. Microscopic sections and drawings of the left innominate were shown to illustrate the process of extension into the veins. The vessel was surrounded by the tumour, and its posterior wall was replaced by tumour-tissue, which also extended into the interior like a thrombus. Over the surface of this projection, there existed a pigmented structure—the remains of the original blood-thrombus which had doubtless existed. The tumour had also penetrated into the lower part of the trachea and one bronchus, and to some extent into the lung.—Dr. GAIRDNER referred to the clinical features of the case, from which he had diagnosed obstruction of the superior vena cava. These were not marked: slight dropsy and lividity of the upper part of the body, especially on the left side, with varix of the superficial veins; slight swelling of the left side of the neck and of the left arm; gradual obstruction and consolidation of the left lung, with dyspnœa; and death from asthenia.—Dr. MCCALL ANDERSON remarked that pressure on the mediastinal veins, while common in the case of mediastinal tumours, was not so in aneurism, in which there was rather a tendency to obstruction of the arterial system.

Acari from the Common Fowl.—Dr. GAIRDNER showed specimens of acari from the common fowl, which had produced symptoms on a patient like those of phtheiriasis.

Decalcified Drainage-Tubes.—Dr. MACEWEN showed drainage-tubes made from chicken-bones. These were decalcified by steeping for three or four days in hydrochloric acid; their ends were then cut off, the interior removed, and the tubes now replaced in hydrochloric acid for twenty-four hours. After this, they were put into carbolic acid solution for preservation. They were quite supple, though the carbolic acid tended to harden them slightly. If it were wished to harden them more, they might be placed in chromic acid for some time. Dr. Macewen had also tried crow- and rabbit-bones; but he found the chicken-bones most suitable in point of size.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, JANUARY 30TH, 1880.

E. D. MAPOTHER, M.D., President, in the Chair.

Phlebitis of the Lower Extremities, a Secondary Complication of Injuries of the Head.—Mr. CROLY read a paper on this remarkable complication, which he said was, as far as his knowledge went, one which had never been described by any surgical writer. Two cases having lately come under his care, he thought them worthy of record. CASE I.—A gentleman aged 35 was thrown from his car, and received a severe injury of the head, probably fracturing the left side of the base of the skull. He afterwards had unconsciousness, arterial hæmorrhage from the left ear, vomiting of blood, and subsequently facial palsy. There was no injury of the lower extremities. The usual treatment was adopted, and in a month the patient was rapidly approaching convalescence, when he suddenly complained of acute pain in the left thigh and groin, the inguinal glands on the same side being hard and painful. There was slight fever; the pulse and temperature rose to 100; and the entire limb soon became œdematous and painful, presenting all the appearances of phlebitis, which gradually yielded to treatment. About a fortnight afterwards, the other leg became somewhat similarly affected, the attack being ushered in by severe rigors and perspirations. The femoral and posterior tibial veins were hard and painful, but the swelling did not extend above the knee. Recovery was slow, but perfect. CASE II.—A young lady was thrown from her horse against an iron gate, causing considerable laceration of the scalp and concussion, but apparently no fracture of the skull. For three weeks all went well, when she was attacked with a severe rigor, followed by acute pain in the left groin, extending down the thigh and leg to the foot. The femoral vein was hard and painful, and the whole limb œdematous. She subsequently got an attack of acute pleuritis, and afterwards erysipelas attacked the seat of the scalp-wound which had healed. All the symptoms gradually subsided. The similarity of the cases was remarkable; the phlebitis having set in subsequently to the subsidence of all head-symptoms. Mr. Croly thought the cases must be rare, as he had never seen any allusion to such in surgical writings; and several of the most eminent London surgeons, to whom he had communicated the facts of the cases, and whose replies he read to the Society, stated that they had never met with similar cases in their practice.—Mr. THORNLEY STOKER thought the cases might be partially explained by reference to the history and pathology of phlegmasia alba dolens, which often came on after exhaustion from hæmorrhage, or wasting diseases, unconnected with parturition; and, if the disease were referable to the blood, one would expect it to occur where stagnation was most prone, and in the left leg pressure was more exercised on the vein, owing to the position of the rectum.—Dr. MCDONNELL, Mr. HAMILTON, Dr. H. KENNEDY, Mr. STOKES, and Dr. MCCLINTOCK also took part in the discussion which followed.

Contraction of the Mouth.—Dr. MAPOTHER read the notes of a case of what the Americans call *trismus dentium*, to which name he would wish to add the words *sapientiæ inferiorum;* for it was those teeth alone which caused it, as the upper wisdom-teeth could make room towards the tuber or antrum, whereas the coronoid process was less yielding. A married lady, aged 24, had suffered from progressive closure of the jaws for the last eighteen months. She had had toothache of the second and third left lower molars, but no abscess or other inflammatory process. The central incisors could only be separated for two lines, and any attempt to force the mouth open caused much pain; and the masseter muscles were in a state of tonic spasm. Under the influence of ether, the mouth could be freely opened; and, with the assistance of Mr. Baker, the left inferior wisdom-tooth, which was impacted in the root of the coronoid process, and the second molar, which it had displaced and diseased, were extracted. For a few days, there was some soreness in moving the jaws, which soon disappeared, leaving the patient free to indulge in a hearty yawn and chew solid food with ease. Dr. Mapother then reviewed the numerous causes said to produce trismus, and concluded by observing that most serious troubles might not unfrequently be avoided by the diagnostic power which a course of lectures on dental pathology would confer on members of the medical profession.

Stomatoplasty.—Dr. MAPOTHER described a case of contracted mouth and nostrils from cicatrices after lupus, on which he had performed several operations for the purpose of enlarging the oral aperture, which, when he first saw the case, was only a circle six lines in diameter, undilatable, with hard cicatricial tissue at the commissures, but healthy lip-tissue at the upper and lower thirds. The operation was as follows. In each cheek, six lines from the edge of the mouth, a perforation was made with a platinum rod two lines in diameter, heated by the benzole apparatus. The sloughs having separated, and the holes healed with a smooth flexible tissue (which they did in a month), the intervening tissue between them and the mouth was removed. The result was satisfactory on the left side; but on the right side Dieffenbach's stomatoplasty was subsequently performed, and a mouth-stretcher employed for some time, with the result of leaving the oral aperture with a transverse diameter of sixteen lines, and, when fully opened, fourteen lines from above downwards.—Mr. R. MCDONNELL said that an almost exactly similar case had recently come under his care, in which nothing larger than a crow-quill could be introduced into the mouth. Dilatation of the mouth had been tried without success; and, as there was no mucous membrane existing on the inside of the lips, he contented himself with simply slitting the mouth across very widely, and inserting silver sutures. These, however, were useless, and after a few days it began to heal. The resident pupil (Mr. Isdell) then made silver-wire hooks, and, fixing them into the commissure, fastened them behind with an India-rubber strap, and thus arrested the closure.—Messrs. BAKER, STACK, STOKES, CROLY, and SHERLOCK also took part in the discussion which ensued.

FRIDAY, FEBRUARY 13TH, 1880.

A. H. MCCLINTOCK, M.D., Vice-President, in the Chair.

Recent Specimen.—Mr. CROLY exhibited the arm of a woman aged 70, which he had amputated in consequence of a large malignant ulcer of the forearm, which had lasted for eight years. The bones of the forearm were implicated; the radius was fractured; and the ulna dislocated. The glands at the elbow were enlarged, but none elsewhere.

Congenital Malformation of the Rectum.—Mr. STOKER recounted the facts of a case which had come under his care in the Richmond Hospital. A. F., aged 21, unmarried, applied to him in consequence of an abdominal tumour, about as large as that caused by pregnancy in the eighth month of gestation. The tumour was tympanitic, measuring in the longest diameter nine inches, with a transverse measurement of six inches and a half; and extended from two inches and a half above the level of the umbilicus to the symphysis pubis, and could be traced back deeply into the pelvis. The uterus was displaced forwards and upwards, and could be felt between the tumour and the abdominal wall. On endeavouring to make an examination of the rectum, no trace of an anus was discoverable, until a vaginal examination showed that the rectum opened, by an orifice sufficiently large to admit one finger, on the posterior wall of the cavity; there was no sphincter, and she had but limited control over the discharge from the bowel. On passing his finger through this abnormal anus, a mass of indurated fæces was discovered, which showed what must be the nature of the tumour. The girl professed herself ignorant of any peculiarity, but said that she had suffered from constipation all her life, having a regular motion only once or twice a week, and then usually in consequence of medicine taken, and for the last twelve months one only each two or three weeks. Treatment with enemata, purgatives, manipulation, etc., succeeded in gradually breaking down the enormous mass of hardened fæces, and after six weeks she was discharged with the bowels acting as naturally as was compatible with her deformity, and the tumour completely gone. Her general health had never suffered, and, but for the disfigurement which "the lump" caused, it was doubtful if she would have applied for advice; for, notwithstanding the very large accumulation in the intestine, she had suffered only occasionally some griping pains. Mr. Stoker then reviewed the various methods of treatment by operation which had been suggested for the cure of such cases of malformation; to none of which, however, he had as yet been able to persuade his patient to submit.—Dr. MCCLINTOCK said that he had, a few years ago, been asked to see a female infant two days old, who had not had any evacuation from the bowel since birth. There was no sign of an anus, and the question of operation was being considered, when he took a large catheter and passed it into the vagina; on moving it freely about, a quantity of meconium came away, thus disclosing the nature of the affection.—Dr. CRANNY, Mr. WHEELER, Dr. ATTHILL, and Dr. BYRNE also took part in the discussion, and enumerated several interesting cases which had come under their care; and Mr. STOKER replied.

Large Ranula, with a Tumour of the Floor of the Mouth.—Mr. WHEELER read the notes of a case which had come under his care in the City of Dublin Hospital. The patient stated that she had noticed the lump (the ranula) for about a year previous to her admission, but was unaware of anything else wrong with her mouth. On examination, a large ranula was discovered, and also a tumour, about the size of a Seville orange, beneath the symphysis menti, which pushed up the whole tongue. He (Mr. Wheeler) excised a portion of the cyst of the ranula, and removed a large piece of bone from it, which, however, did not obtain a permanent cure. Some weeks afterwards (the ranula having refilled), the girl was in excellent health—the swelling below the chin was not quite as large as it had been when she was admitted—when she was, one evening, suddenly seized with a violent attack of dyspnœa. When Mr. Wheeler saw her, she was sitting up in bed gasping, her eyes starting from her head, and a cold perspiration on her face and body. The tongue was immensely swollen, and pushed upwards and backwards by the enlarged tumours; her pulse was weak and rapid, and suffocation seemed imminent. Incisions were made at each side of the tongue, and the ranula and tumour were opened and their contents evacuated, the epiglottis scored, and warm fomentations and poultices applied to the throat, and the patient made to inhale steam; she was very much relieved by these measures, but next day it was deemed necessary to evacuate, through the floor of the mouth, the remaining contents of the tumour, which proved to be of a cheesy consistence. The case terminated in a complete cure.—Mr. TUFNELL and Dr. H. KENNEDY took part in the discussion which followed.

REVIEWS AND NOTICES.

A DESCRIPTION AND EXPLANATION OF THE METHOD OF PERFORMING POST MORTEM EXAMINATIONS IN THE DEAD-HOUSE OF THE BERLIN CHARITÉ HOSPITAL: WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE. By Professor RUDOLPH VIRCHOW, Translated from the Second German Edition by Dr. T. P. SMITH. London: Churchill. 1879.

THE name of the author of this manual is a quite sufficient recommendation, without further comment; and its low price and portability make it accessible and convenient to every surgical registrar and practitioner in this country. The new English edition is in form more suitable to the pocket than the first, and the print is larger and clearer. We fear that, in putting Professor VIRCHOW's teaching into practice, not everybody will imitate his patience; but we trust that all will at least follow his method. His remarks on fallacies with regard to apparent pathological engorgement of vessels on free surfaces deserve attentive consideration; so do his observations on the importance of using sharp knives and making clean incisions. "How", says he, "could we possibly demonstrate small foci of softening and induration upon an uneven, crushed, or torn surface?" At the conclusion of this new edition are a series of regulations for medical jurists conducting legal *post mortem* researches. They have met with the approval of the Prussian Government, and are now rendered obligatory on all medical officers in Prussia by a decree bearing the signature of that very thorough-going minister Herr Falk. Much as similar legislation is required in England, we trust that the recommendations contained in this work will be followed by all British practitioners for the sake of their own excellence and conciseness, rather than through mere legal compulsion and the dread of difficulties in the witness-box. Dr. SMITH has well performed his duty as a translator, so that the manual is readable even outside the *post mortem* room.

CANCER OF THE RECTUM, ITS PATHOLOGY, DIAGNOSIS, AND TREATMENT; including a Portion of the Jacksonian Prize Essay for 1876. By W. HARRISON CRIPPS, F.R.C.S., Surgeon to the Great Northern Hospital; Surgical Registrar, St. Bartholomew's Hospital; etc. London: Churchill. 1880.

THIS work is chiefly remarkable for the author's researches into the pathology of the disease, described here at length, and illustrated by some drawings beautifully executed. In a section through the coats of a cancerous rectum, the free surface of the mucous membrane is found covered with distinctly nucleated columnar epithelium as in health; next comes a layer of lymphoid tissue with well-marked lymph-cells; lastly, a mass of new adenoid growth can be traced in an imperfect form near the lymphoid tissue, but very distinct further towards the muscular coat. Mr. CRIPPS believes that the lymph-cells are derived from the nuclei of the normal epithelium; and that, gathering fresh protoplasm around them, they become, later on, the epithelial lining of the morbid adenoid follicles. The migration of nuclei is very plain in cases where they are deeply pigmented; in such conditions, no difference can be detected between them, as they lie in the columnar epithelium, and the lymphoid cells in the submucous tissue. The author considers that this theory applies to cancer in any part of the body. Mr. Cripps advocates excision of the rectum, which he has practised with excellent results in seven cases. Even when relief is temporary, it is more complete and agreeable to the patient than any palliation of his sufferings which could be gained by colotomy, an operation the value of which he fully admits when the stricture is beyond the reach of the finger.

NOTES ON BOOKS.

The Truth about Vaccination. By ERNEST HART. (Smith, Elder, and Co.) This little pamphlet of eighty-seven pages is an attempt "to place before the public in a handy and readily accessible form the materials for an answer to the numerous objections of the anti-vaccinators". With this view, each anti-vaccination allegation is separately dealt with, and disproved by medical and statistical evidence collated from the standard authorities on the subject. The plan of the book is essentially that of the author's lecture given at the Society of Arts in January last (see p. 223); but very considerable additions to the facts brought forward at the lecture have been made. A summary of conclusions, and several appendices and tabular statements have also been added, and the whole is conveniently divided into numbered sections with titles in prominent type, so as to facilitate reference to any particular part of the question. The author first shows the ravages which small-pox makes in unvaccinated communities, then combats *seriatim* the several objections to vaccination, and finally proves, from a vast body of evidence, the immense advantage which vaccinated persons have over those unvaccinated, both in resisting an attack of small-pox and in the mildness of the disease if attacked. Inasmuch as no other concise statement of the merits of vaccination exists, this pamphlet may perhaps be found useful to those who have no leisure or opportunity to make individual research into the evidence in its favour.

Ambulance Lectures on what to do in Cases of Accident or Sudden Illness. By LIONEL A. WEATHERLY, M.D. (London: Griffith and Farran. Bristol: J. W. Arrowsmith.) The object of this little work is to furnish plain and simple rules which may enable any one, knowing and understanding them, to act efficiently in cases of accident or sudden illness till professional help arrives. In order that the directions may be better understood, the first two lectures are devoted to a short outline description of the structure and functions of the human body. The remainder of the book is occupied by instructions for the treatment of the most commonly occurring accidents, such as bleeding, drowning, etc. The last chapter contains excellent instructions on the application of bandages. The work should prove extremely useful to policemen, railway officials, and those employed in large works where accidents are frequently happening. It will also prove useful as a text-book to those attending ambulance lectures. We can thoroughly recommend the work as a safe guide in cases of emergency: it will supply a much felt want.

A Manual of Minor Surgery and Bandaging. By CHRISTOPHER HEATH, F.R.C.S., Surgeon to University College Hospital, etc. (Second edition: Churchill. 1880).—We welcome the new edition of this well-known manual, not only because it proves that the popularity of the work is unabated, but also on account of the author's judicious revision of the new issue itself. Hence we find that it retains all the compactness and conciseness of earlier editions, without becoming bulky from the addition of too much fresh material. As Mr. Heath has made alterations consistent with the rapid advance of surgical science, the manual cannot fail to be of great value to senior as well as to junior practitioners.

DR. EWING MEARS's *Practical Surgery* (Philadelphia: Lindsay and Blakiston) is an useful transatlantic homologue of the familiar text-books of Heath, Berkeley Hill, Bellamy, and others. It cannot fail to prove of great value to the American student, house-surgeon, and practitioner. The chapter on "ligations", as Brother Jonathan will have it, is very good; but to gravely give short notes on the methods of ligaturing the abdominal aorta and the innominate artery in an elementary work, seems like describing the formalities to be observed between plenipotentiaries at a conference in a shilling book on etiquette for gentlemen.

SELECTIONS FROM JOURNALS.

PATHOLOGY.

Subepicranial Ecchymosis and Cephalhæmatoma.—According to M. Charles Féré (*Bulletin de la Société Anatomique* and *Boston Medical and Surgical Journal*), these two lesions, common in new-born children and important from a medico-legal point of view, are to be carefully distinguished the one from the other. Subepicranial ecchymosis is oftenest seen on the parietal bones, along the sagittal suture; but, instead of being, as is the case with the cephalhæmatoma, limited to a small region, it can extend so as to include the greater part of this bone; and it may even be found in other regions of the cranium, as the frontal and occipital. When this lesion is examined on the dead body of a new-born infant, the pericranium is found in great part detached, and its union to the subjacent bone is by a few isolated points only; it is raised by a layer of blood, which is more or less liquid, according to the age of the effusion. In the reparatory stage, however, the periosteum is no longer separated from the bone by a layer of blood, but firmly adherent to the bony surface; the bone itself, when stripped, presenting a dark red colour. In cephalhæmatoma, in the stage of repair, section of the bone presents superficially, under the pericranium, an ossiform layer which covers the bloody effusion, and underneath the bone itself appears porous. The anatomical characters of these two lesions, macroscopic as well as microscopic, show very well the differences in their manner of production and of repair. It is always a subperiosteal hæmorrhage; but in cephalhæmatoma the effusion which is made by the rupture of a relatively large vessel is sufficiently abundant to raise the periosteum completely; while in ecchymosis the effusion caused by the laceration of many small vessels is not sufficient to detach all the adhesions of the pericranium and to form a distinct tumour.

Multiple Neuromata.—At a meeting of the New York Pathological Society in January, Dr. T. E. Satterthwaite related a case in which there were multiple tumours of the cranial, spinal, and sympathetic nerves, with remarkably few symptoms. The subject was a woman aged 25, who was admitted into the Presbyterian Hospital on October 14th last. During convalescence from an attack of small-pox at the age of 13, both lower extremities became paralysed. She regained motion, to some extent, under the use of the electrical current. She subsequently had severe pain along the course of the sciatic nerve. There was no uterine trouble, and no evidence of syphilis. On admission, sensibility was diminished in the right foot, and motion was limited. Under the use of the continuous current, she became, in the course of about ten days, able to walk with greater ease; but she still had dull pain in the limbs at night. On November 1st, nausea, vomiting, and diarrhœa set in, and she died on the 4th. Before death, a large tumour was felt on the right iliac fossa. At the *post mortem* examination, this was found to embrace and include the cords of the lumbar and sacral plexuses, forming a mass as large as a hand, and closely connected with the bone. The growths constituting the tumour varied in size from a pea to a goose's egg. They were either on the sides of the nerve-cords or pressed them centrally. The mesentery was studded with them. No tumours were found on the spinal cord. The intercostal nerves were thickened and beset with tumours up to the size of a small almond, some of which passed through the intercostal foramina. Small tumours were found on branches of the fifth nerve, and on the occipital, spinal accessory, and phrenic nerves. The right pneumogastric was thickly beset with tumours, the largest of which was ovoid, and measured about 1¾ by 1⅕ inches. The cardiac and œsophageal plexuses presented numerous small tumours; the right sympathetic was extensively involved; and the cervical portion of the right sympathetic was converted into a bulbed cord about as large as the little finger. The remaining spinal nerves in the extremities were for the most part thickened; in the foot and hands, the change was but slight. Both sciatics, as they entered the thighs, presented themselves as large knotted cords. In the left leg, all the branches of the sciatic down to the ankle were beset with tumours, as was the anterior crural with its branches. On the left anterior crural and its branches, 276 tumours, large and small, were counted. In the left arm, all the nerves down to the wrist were thickened, and, especially above the elbow, beset with tumours. They were abundant alike in the muscular and in the cutaneous nerves, perhaps, in general, more so in the latter. There were extensive changes in the muscles of the leg. Examination of the fresh tumours with the help of osmic acid (one per cent.) showed that the medullated nerves were very closely connected with the growths. In some instances, the medullated fibres passed directly through the centre of the nodules; in others, merely skirted their periphery, or were expanded over them. The nerve-fibres were apparently not increased in number. Dr. Satterthwaite remarked that growths conforming to these gross anatomical characters had been described by Robert W. Smith of Dublin, Toynbee, and others; but they were loosely described under the head of neuromata, fibrous tumours, myxomata, sarcomata, and the like. True neuromata were probably extremely rare. This case was remarkable as exhibiting extensive implication of the cranial, spinal, and sympathetic nerves. The auditory and optic nerves were unaffected.

Dilatation of the Seminal Vesicles.—At a recent meeting of the New York Pathological Society (*New York Medical Record*, March 6th), Dr. Heinemann presented a specimen of dilatation of both seminal vesicles removed from a patient who died at Roosevelt Hospital. No history had been obtained during life. The seminal vesicles were the seat of cystic degeneration; they measured two inches in length, an inch and a quarter in breadth, and three-quarters of an inch in thickness. They contained a brownish mucoid fluid, which could by slight pressure be forced through the ejaculatory ducts, and which, upon microscopic examination, revealed the presence of well-developed spermatozoa. Medical literature recorded, up to 1879, but three similar specimens, one referred to in *Pitha and Billroth's Handbook*, in Göttingen, and two in the possession of Englisch of Vienna. Drs. E. Mason, G. L. Peabody, and I. Adler, of New York, had personally communicated that they each had met with a similar specimen. Englisch, who had written upon the subject of cysts of the posterior wall of the bladder, divided them into four groups: one, found as single cysts in the median line of the posterior wall of the bladder, low down; a second, connected with either vas deferens; a third, cysts in the prostate gland, being really only a dilated sinus pocularis; and, fourth, cystic degeneration of the seminal vesicles. The first three varieties might be congenital; the second and third were unilateral. The fourth variety was usually the result of inflammatory action, and was generally bilateral. In the specimen, the thickening from inflammation of the vasa deferentia seemed to have been propagated to the seminal vesicles, and confirmed the views of Englisch. Whether such specimens were as uncommon as the literature would seem to indicate was open to doubt.

SURGERY.

Hypodermic Injections of Morphia in Epididymitis.—Dr. Z. C. McElroy, of Zanesville, Ohio, in a short communication to the *St. Louis Med. and Surg. Journal*, says he has used these injections for several years, with the best results. He injects about half-a-grain under the skin of the scrotum; and, in the course of twenty-four hours, he has invariably found all pain, swelling, and soreness gone. Constitutional treatment is at the same time instituted, to get rid of the cause and prevent a relapse. No cases have been treated by him save those of urethral origin.

Dislocation of the Radius Backward.—A case of this rare injury is reported by Dr. J. J. Berry in the New York *Medical Gazette* for February 7th. The subject was a boy aged 15, who was admitted to hospital as an out-patient with arthritis of the knee. The dislocation was said to have occurred when he was one year old, at which time he suffered severely from convulsions. The left arm was smaller and shorter than the right. The elbow was enlarged, and had lost its normal contour, and the head of the radius could be felt at the outer aspect of the arm. No evidence of fracture could be discovered. The condyles of the humerus were not enlarged. The arm could be flexed to the normal limit, but could be extended to only about 160°. Motion was painless and free. The forearm was in a state of semi-pronation; supination was impossible, and movement in the other opposite direction was imperfect. The extensors of the hand were diminished in power, while the flexors were nearly normal in strength. The diagnosis of dislocation of the head of the radius backwards was confirmed by Dr. F. H. Hamilton. The boy experienced little inconvenience from the deformity.

The late Dr. Daniel Donovan.—The Ballincollig Dispensary Committee, at a recent meeting, passed the following resolution unanimously: "That we beg to offer to Dr. Donovan, medical officer of the district, our deep sympathy in the loss he has sustained by the lamented death of his brother, Dr. Donovan, Skibbereen, by typhus fever, contracted in the faithful discharge of his professional duties; and we warmly sympathise with his mother and family in their sorrow in this heavy bereavement, which has deprived the poor of a kind and attentive friend."

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 27TH, 1880.

A NEW DEPARTURE OF THE LOCAL GOVERNMENT BOARD.

ON the 16th instant, a series of Orders of the Local Government Board were published in the *London Gazette*, which seem to indicate a totally new departure on the part of that body with regard to the Public Health Medical Service of the country. Up to the present, those sanitary authorities who have preferred to hold aloof from what they term central interference have been able to a large extent to accomplish their desire by paying the whole of the salaries of their officers out of the local rates, instead of accepting the Government subvention. The offer to pay half the salary of medical officers of health and inspectors of nuisances has been held by many authorities to be equivalent to a bribe to induce them to come under more direct supervision by the Local Government Board, than they would otherwise be. As a matter of fact, the receipt of copies of the annual reports of medical officers of health has enabled the Whitehall authorities to exercise some more immediate control over the sanitary state of particular districts; but in the abstract, the idea of exemption from central control is a fallacious one. It is needless, however, now to point out its fallacy, since on the 25th instant the exemption as regards future appointments ceases to exist.

In a quiet corner of the Public Health Act has been lying dormant for nearly five years, in the midst of a series of enactments relating to the appointment of health-officers whose salaries are partly paid by Government, a clause to the effect that the Local Government Board "may by order prescribe the qualification and duties of *other* medical officers of health appointed under this Act" (Section 191, Public Health Act, 1875). What this mysterious sentence could mean has often puzzled students of the Act. None of these are, we think, likely—bearing in mind the present unsettled position of the public health medical service—to have imagined that it could mean that the Local Government Board intended to prescribe the duties and qualifications of *all* officers of health, whether any part of their salaries was repaid or not. Yet this is exactly what is enacted by the recent series of orders, having, it must be remembered, the force of law.

"Every medical officer of health, no portion of whose salary is paid out of moneys voted by Parliament, and who may be appointed or reappointed by any sanitary authority after the 25th March, 1880", is subject to the following regulations. He must be registered under the Medical Act, and qualified to practise both medicine and surgery, unless the Local Government Board dispense with one or the other qualification. His duties, which are set out in full, are mainly those prescribed by the old order of November 11th, 1872, for officers whose salaries are part paid by the Government. There are, however, certain not unimportant additions, which are shown beneath in italics. 1. *Within seven days after his appointment, he is to report the same in writing to the Local Government Board* (an order contrary to all precedent, which is very strict about all appointments being notified by the clerk). 2. He is to inform himself as to all influences affecting the public health within the district, and (3) to inquire into the causes, origin, and distribution of diseases within the district, and ascertain how far they depend on conditions capable of removal or mitigation. 4. He is, by systematic inspection, to keep himself informed of the conditions injurious to health existing in the district; (5) to be prepared to advise the authority on all sanitary matters; and (6) to advise in the framing and subsequent working of by-laws. 7. On receiving information of the outbreak of any contagious, infectious, or epidemic disease of a dangerous character within the district, he is directed to visit the spot without delay, and inquire into the causes and circumstances of such outbreak; *and, in case he is not satisfied that all due precautions are being taken*, to advise the persons competent to act as to the measures required for preventing the extension of the disease, and to assist in their execution. 8. *Subject to the instructions of the sanitary authority, he is to direct or superintend the work of the inspector of nuisances in the way and to the extent that the sanitary authority shall approve;* and, on receiving information from the inspector of nuisances that his intervention is required in consequence of the existence of any nuisance injurious to health, or of any overcrowding in a house, he is required, as early as practicable, to take such steps as the circumstances of the case may justify and require. 9. When necessary or advisable, or when directed by the sanitary authority, he is himself to inspect and examine any diseased or unwholesome animal, carcase, meat, poultry, game, flesh, fish, fruit, vegetables, corn, bread, flour, *or milk* intended for the food of man, and to give the needful directions for the seizure of the same. 10. He is to perform all the duties imposed upon him by any duly confirmed by-laws and regulations of the sanitary authority; (11) to inquire into any offensive process of trade carried on within the district, and report on the appropriate means for the prevention of any nuisance or injury to health therefrom; and (12) to attend, when required, at the office of the sanitary authority. 13. He is from time to time to report in writing to the sanitary authority his proceedings and the measures which may require to be adopted, for the improvement or protection of the public health in the district. 14. He is to keep a book or books for entry of his visits, and notes of his observations and instructions thereon, the applications made to him, and the action taken thereon. 15. He is also to prepare an annual report, to be made to the end of December in each year, comprising tabular statements, a summary of the action taken during the year for preventing the spread of disease, *and an account of the sanitary state of his district generally at the end of the year. The report is to contain an account of the inquiries which he has made as to conditions injurious to health existing in his district*, and of the proceedings in which he has taken part or advised, and also an account of his supervision over places and houses that the sanitary authority have power to regulate, and the action taken by him, or on his advice, during the year, in regard to offensive trades and to factories and workshops. 16. He is to give immediate information to the Local Government Board of any outbreak of dangerous epidemic disease within the district, and to transmit to the Board a copy of each annual and of any special report. 17. Generally, he is to observe and execute the instructions of the Local Government Board and all orders and directions of the sanitary authority. 18. Whenever the Local Government Board make regulations under Section 134 of The Public Health Act, 1875, and declare such regulations to be in force within any area comprising the whole or any part of the district, he is to observe such regulations so far as the same concern his office.

As to the details of these duties, there is nothing to observe. It is to the policy of imposing a code of duties upon officers over whom the Local Government Board have no other control than that given in this obscure and, as it were, parenthetical clause, and as to the terms of whose appointment, or salary, or tenure of office, they have absolutely no power whatever, that public attention will be particularly directed. Why the Local Government Board should think it expedient at the present moment, after five years of silence, and when the whole question of the appointments of medical officers of health is in so unsatisfactory a state, to issue orders which only complicate matters, and are sure to estrange and irritate local authorities, is one of those inscrutable official mysteries which the outside world cannot penetrate. The Local Government Board may be, and doubtless are, within their legal powers in making such orders as those which they have just issued; but it seems to us that, in doing so, they are beginning at the wrong end. The whole of the sanitary medical service of the kingdom needs recasting on some broad and carefully considered basis; and it seems a great pity that the subject is not at once grappled with in some large-hearted spirit, rather than that a march should be stolen in this way upon local authorities. The general question of the appointment, emoluments, and tenure of office of medical officers of health is evidently one that deserves the early and careful attention of the Parliamentary Bills Committee of the Association.

It will be interesting to medical officers of health whose salaries are partly paid by Government, to learn that the official order of November 11th, 1872, will not apply to any officer appointed or reappointed after the 25th instant. Such officers will be subject to a new order dated the 8th instant, which is generally similar to the order of 1872, but is in some respects an improvement. Thus an attempt has been made to get rid of the objectionable practice of paying by fees by omitting all reference to remuneration, and speaking of "salary" only, instead of "salary or remuneration". An officer proved to be insane on evidence which the Local Government Board shall deem sufficient, may be removed from office. A sanitary authority may, at their discretion, suspend any officer, reporting the suspension and its cause to the Local Government Board; and if the latter remove the suspension, the officer shall forthwith resume the performance of his duties. This is clearly aimed against the repetition of the Harrogate scandal of a few years ago. Other minor alterations are made, and the duties are made identical with those which we have sketched above, except that the medical officer has not himself to give notice to Whitehall of his appointment. It will be seen that, in certain important respects, as with regard to the medical officer's duty only to advise the needful measures for preventing the spread of infectious disease "in case he is not satisfied that all due precautions are being taken" (Section 7), to the subordination to him of the Inspector of Nuisances (Section 8), to the inclusion of milk in articles to be examined (Section 9), and to the information to be given in the annual report (Section 15), there are material deviations from the duties laid down in the order of 1872. That some of a certain class of officials, otherwise similarly circumstanced, should have one set of duties, whilst the rest have a different set, must inevitably lead to endless confusion; and it would seem proper that the new regulations should be made to apply at once to all officers over whom the Local Government Board profess to exercise control.

RECENT STUDIES IN THERAPEUTICS.*

III.—NITRO-GLYCERINE *(concluded)*.

The action of nitro-glycerine on the lower animals has been investigated both in this country and on the continent. A dose of six minims of a ten-per-cent. solution, injected under the skin of a frog, produced (among other symptoms) languor, tetanus, and finally paralysis. Immediately after the injection, the animal became restless, and the respirations very rapid. In a minute or two, this restlessness subsided and gave place to lethargy, the frog showing a disinclination to move. The respiration continued rapid, and, in about five minutes from the commencement of the observation, the animal gave a sudden spring and fell into tetanic convulsions. These lasted about half a minute, and then became more or less relaxed; they soon returned, and continued to do so at regular intervals, although they were readily excited by touching the animal. After continuing for some time, the convulsions became gradually weaker; and the animal died. In some instances, the mouth seemed to be the part first affected by the convulsions, as the jaws were seen to open and shut, but possibly this action was connected with respiration rather than with the general convulsions; next it spread to the fore limbs, and then to the hind ones. It was noticed, too, that the fore limbs were more sensitive than the hind ones, as slight spasmodic twitches could sometimes be produced by touching or pinching the former, when similar irritation of the latter had no effect. To ascertain whether the tetanus was due to the action of the drug on the spinal cord, or on the nervous centres within the encephalon, the spinal cord was cut across before the poison was given. The upper part of the animal immediately became very restless, and the fore limbs were outstretched with the toes spread out; but there was no alteration in the hinder part of the body or in the hind limbs. This result was confirmed by another experiment. A frog was decapitated, and, after the spinal cord had recovered from the shock, and reflex movements were again observed, the drug was injected, but no spasm occurred. Dr. Lauder Brunton is inclined to think, from some observations he has made, that the tetanus is not due to any action on the cerebral lobes, but probably to the effect of the poison on the optic lobes; but on this point he is not prepared to speak with certainty.

The principal effects produced on cats by nitro-glycerine are great acceleration of respiration, paralysis, loss of reflex action and sensation, and death from arrest of respiration. A dose of about sixty minims of a ten-per-cent. solution was injected into the peritoneal cavity of a cat, and in a few minutes there was a stretching movement of the hind leg, as if the animal were trying to shake something off the foot. Half an hour later, the animal vomited; and, at the expiration of about an hour, during which the legs seemed to fail in walking, it sank down, never to rise again. Vomiting occurred again once or twice, breathing became very rapid, and the tongue and muscles of the lower jaw worked at each inspiration, so that the tongue was drawn backwards and forwards, as in a dog that has been running. The nostrils also worked during respiration, and muscular twitching was observed all over the body. Slight spasm-like hiccup then set in, and five minutes later the animal was dead—a little over two hours after the injection of the poison. Some years ago, Dr. George Harley gave a middle-sized dog fifteen drops of the undiluted nitro-glycerine, followed in three minutes by ten drops more, without the production of any symptoms beyond those induced in the mouth by the acidity of the drug. The loss of reflex action noticed in the observations on the frog and cat, in the advanced stages of poisoning, would indicate that the cord is paralysed; and from the persistence of reflex action, in parts supplied by the cranial nerves after its disappearance from other parts of the body, it would seem that the spinal cord is paralysed before the ganglia at the base of the brain. Dr. Brunton has shown that nitro-glycerine is probably a muscle-poison; but whether it also exerts its influence on the motor nerves is not yet determined. It is said to diminish blood-pressure considerably, but detailed experiments on this point have yet to be made. It is probable that its general effects are due chiefly to its influence on the vaso-motor centres, although it is possible that it partially paralyses the lymphatic ganglia and their motor nerves.

We must now consider what are the practical applications of this drug in the treatment of disease. For some time past, it has been used as a remedy for neuralgia, but has never attained anything like a wide popularity with the profession, probably on account of the disagreeable, not to say dangerous, effects known to follow an over-dose. The case is recorded of a lady who, for many years, suffered from a most persistent neuralgia, which had resisted the best efforts of her numerous medical advisers. At last, it was determined to try the effects of nitro-glycerine, and she was given two-and-a-half drops of a five-per-cent. solution in a teaspoonful of water. In the course of a minute or so, she complained of sickness and faintness. These rapidly increased, and there was for a few minutes unconsciousness, accompanied by stertorous breathing and convulsive action of the muscles of the face. She became deadly pale, the pulse was alarmingly feeble, and for a time she was undoubtedly in imminent danger. Some brandy and water was poured down her throat; she vomited, and the unpleasant symptoms gradually subsided. On recovering, she found that her neuralgia had left her completely, and, as it subsequently proved, permanently. This is a remarkable case, but the fact of an over-dose of a strong solution having been given is no argument against its employment, in a more dilute form, in the hands of a skilled observer. Both Mr. Field and Dr. Brady speak of it as an antineuralgic of the greatest value. It is not likely to supersede established remedies—such as quinine, chloride of ammonium, croton-chloral, phosphorus, and gelseminum—in the treatment of neuralgia; but still it may be found useful from time to time, and in obstinate cases. In addition to its use in neuralgia, it has been suggested as a remedy for tetanus, hydrophobia, sea-sickness, chloroform poisoning, and many other morbid conditions. It is, however, as a remedy for angina pectoris that it will be found most useful. Dr. Murrell's cases show that, in the treatment of this terrible complaint, it is an agent of the greatest possible value, worthy to be ranked with nitrite of amyl. It is now in general use in most of our London hospitals, and in many cases it has effected a complete cure. A very striking account of the benefit derived from its employment has been published by Mr. Jameson of Caistor, who suffered very severely from angina pectoris. At Dr. Murrell's suggestion, he began by taking two minims of the one-per-cent. solution every three or four hours during the day. He always found relief if he took the dose when he felt the first threatening of the attack, and the paroxysm was staved off. He continued taking the two-minim dose regularly every three or four hours for four days, and, as the attacks did not trouble him so much, he began to diminish the frequency of the dose, and took it only when he felt an attack threatening. He says: "I always carry an ounce-and-a-half bottle of the diluted solution in the breast-pocket of my coat, the bottle carefully marked for six doses, each dose containing five minims of the one-per-cent. solution. If I feel an attack coming on, I apply to my bottle, and at once feel that I am saved from a paroxysm. The action of the medicine seems to commence the moment it is swallowed, just as Dr. Murrell describes. It produces always a feeling of fulness in the head, singing in the ears, and a sensation of pulsation all over, especially in the head, severe at the root of the nose, as if epistaxis were threatened. I do not suffer from headache, and the congested feeling soon goes off. It is a great boon to have a remedy in which you can have perfect confidence that the attacks can be controlled. I have not had any severe attack of the disease since I got the solution, and began to take the drug, six weeks ago."

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* It should have been stated at the end of the last paragraph but two of the article on this subject, in the JOURNAL of March 13th, that the facts relative to the pulse were admirably illustrated by a series of sphygmographic tracings, taken by Dr. Fancourt Barnes.

The nitro-glycerine can be obtained in solution either in alcohol or in ether, but the former is usually preferred. It is difficult to lay down any absolute rule as to dosage; but it is a good plan to begin with a drop of the one-per-cent. solution—or, in the case of a delicate woman, even less—and gradually to increase it until the full physiological action is produced. A dose may be administered at stated intervals—*e.g.*, every three or four hours; but it is best to be guided by the urgency of the symptoms, and to give it only at the threatened onset of an attack. The condition of relaxation of the blood-vessels, as shown by Dr. Fancourt Barnes's sphygmographic tracings, usually last about half an hour. At first, headache is often a source of inconvenience; but tolerance in this respect is soon established, and the patient ceases to complain. It is undoubtedly, in many cases, a nuisance to have always to carry a bottle of medicine about in the pocket, and an attempt has been made to put up the nitro-glycerine in a more portable form. Mr. Martindale has recently shown that it is soluble in melted cocoa butter, and this mass may be employed as a basis for making pills. The great objection to the pills is that they do not act so quickly as the spirituous solution, unless munched up in the mouth, and the idea of having to chew pills is anything but a pleasant one. A better plan is to add an equal quantity of chocolate-paste to the pill-mass, and then to roll it out and cut it into lozenges, which can be made of any desired strength.

It is often asked if nitro-glycerine can be dispensed with perfect safety, and this question we can answer most positively in the affirmative. With the most ordinary care, it would be impossible for an accident to occur. There would naturally be objections to manufacturing nitro-glycerine in the midst of a crowded city; but there can be no danger in keeping the one-per-cent. solution in small quantities for medicinal use. The pill-mass may be thrown on the fire, or hammered on an anvil, without any danger of explosion; and it has not been found necessary to adopt the suggestion of a daily contemporary, and label each box of pills: "Explosive, with care: containing dynamite." Nitro-glycerine can be used in medicine with perfect and absolute safety. It has already proved of such service, that it is to be hoped that the one-per-cent. alcoholic solution may find a place in the next edition of the *British Pharmacopœia*.

THE GUINEA-WORM.

A VERY large number of attacks from the parasitic disease known as Guinea-worm (*Dracunculus Medinensis*) has lately been officially reported by Mr. Chunder Dutt, assistant-surgeon in medical charge of the Warora Colliery establishment in Chonda, Central Provinces of India. No fewer than 180 cases came under Mr. Dutt's notice from one village named Saimbul, three miles south of Warora. At the date of the report, 139 of these cases had been cured, one had died, and 40 remained under treatment. The death occurred from intermittent fever intervening whilst the patient was suffering from Guinea-worm. Of these 180, there were 97 males and 83 females. It appears that the Hindoos obtain their water for drinking and washing purposes from a well (the only well) in the vicinity of the village. This well has a flight of stone-built stairs, down which the people descend to fill their pots with water. It contained a large quantity of mud and dirt at the bottom; and the water was muddy and of the appearance of weak gruel or rice-water. All those who obtained water from this well suffered more or less from the disease; whilst those castes that were never allowed to touch the well were almost totally exempt from it. All that could be gleaned as to the outbreak of the disease was that men from a neighbouring village, where the disease was very rife the year before, used to go down to the well for drawing water whilst suffering with mature Guinea-worm in their legs and feet, and dip their feet in the water. From this, the reporter infers, "that the germs of the mature worm might have access to the water; and, having found a germinating soil for propagation and development, on account of filthy and muddy water, these zoosperms soon developed and infected the well". In reference to this, it is to be observed that the field-labourers, to whom the disease was to a great extent limited, have a habit of drinking from this well on returning from their work, descending one or two steps into the water to dip their hands or water-vessels therein. Thus the hands and the feet are the parts attacked by the worm, and these were the members affected in all the patients but one, in whom the worm appeared in the abdomen.

Happily, in England, we need have no fear of this formidable parasite; but in the tropics its ravages are well known and greatly dreaded. On the subject of the worm, numberless treatises (ancient and modern) have been written; but, in the writings of Küchenmeister, Davaine, Aitken, and Cobbold on the subject, will be found all that is historically and professionally interesting. The Guinea-worm has been known from the earliest times. Any one who has read Küchenmeister's elaborate narrative of the historical significance of the worm (as it is given in Lankester's edition of the well-known *Manual of Parasites*), will hardly have failed to arrive at the conclusion that Moses was probably the earliest writer on the endemic disorder which is occasioned by this parasite. It is highly probable that the "fiery serpents", which afflicted the children of Israel, during their stay in the neighbourhood of the Red Sea, were neither more nor less than examples of the Dracunculus. At all events, if this be doubted, it is quite evident that Plutarch spoke of dracunculi when, in the eighth book of his "Symposiacon", he quotes Agatharchidas as stating that the people taken ill on the Red Sea suffered from many strange and unheard-of attacks, amongst other worms, from "little snakes, which came out upon them, gnawed away their legs and arms, and when touched retracted, coiled themselves up in the muscles, and these gave rise to the most unsupportable pains". For these are the characteristic symptoms of the attack, which make it so greatly dreaded at the present day. As to treatment, every Oriental traveller is more or less familiar with the time-honoured methods employed in the process of extracting the adult Guinea-worm. The plan followed of old is essentially the same as the one most successfully employed at the present day. This is done by winding the exposed or protruded end of the parasite round a small stick of ivory, bone, or wood, or even round a portion of adhesive plaster, card-board, or stout paper. The great thing to be avoided is the rupture of the worm, which, if it once take place, is extremely liable to produce serious inflammatory action in the infected parts. From this condition, there usually follows a considerable amount of irritative fever, which is subsequently aggravated by the formation of abscesses, fistulous diseases, and more or less extensive gangrene. Under these circumstances, therefore, even death itself may supervene. As a preventive measure, all persons travelling in Guinea-worm districts should be careful to protect their feet and legs during the rainy season, and especially also should they be scrupulously careful, after washing or bathing, to wipe themselves thoroughly dry—if possible with warm or hot towels. In this way only, according to the high authority of Dr. Cobbold, can they be tolerably sure of preventing the incompletely developed, but probably sexually mature, female dracunculi from gaining access to their bodies.

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AT the last meeting of the Pathological Society of London, the President announced that Dr. Hilton Fagge had accepted the invitation of the Council to open a discussion upon rickets, at the second meeting of the Society in November next.

THE office of coroner for West Kent is vacant by the death of Mr. C. J. Carttar, which took place on Friday of last week. He had held the office nearly fifty years.

AT the annual commencement of Rush Medical College, Chicago, on February 24th, one hundred and fifty-four graduates received the degree of Doctor of Medicine.

THE New York Antivivisection Bill, to which reference was made in last week's JOURNAL, has, we are glad to learn, proved a failure. The committee to which it was referred by the State Legislature have reported adversely to it.

THE annual commencement of Bellevue Hospital Medical College, New York, was held on February 25th, when the degrees were conferred on one hundred and fifty-two graduates.

DR. R. J. LEVIS of Philadelphia recommends the use of Martin's bandage for the persistent swelling that follows a fracture due to disturbance in the circulation. All surgeons find a difficulty in getting patients upon their feet after a bad fracture; he believes this expedient will be of great assistance to others, as it has been to himself.

THE NEXT CENSUS OF INDIA.

THE Inspector-General of Registration, Bengal, has been appointed *ex officio* deputy superintendent of the census operations in that Presidency. The census will be taken throughout India in the early part of February 1881, and already the local government has issued a circular giving instructions to the commissioners of the several districts in Bengal.

THE INDIAN FACTORY BILL.

WE regret to learn from India that the devices of interested opponents have prevailed, and this Bill has been sacrificed. We some time ago pointed out that, if the Bill were allowed to retain its limited and permissive character, its utility would be insignificant. The Select Committee, to which it was referred by Lord Lytton, has endorsed this view, and advised that it should be made compulsory throughout India. It would seem that this has proved too much for the employers of labour, and the Legislative Council has postponed it *sine die.* We cannot for a moment suppose that this suppression is more than temporary.

SMALL-POX IN LONDON.

THE deaths from small-pox in London, which had been 8 and 13 in the two preceding weeks, were 11 last week, all of which occurred in the Metropolitan Asylum Hospitals at Fulham, Homerton, and Deptford. Nine of the 11 fatal cases were certified as unvaccinated, and 2 as vaccinated. Three of the deceased small-pox patients had resided in the North, 3 in the Central, and 3 in the East groups of districts. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 185 and 172 in the two preceding week, further declined to 166 on Saturday last; 23 new cases of small-pox were admitted to these hospitals last week, against 49 and 39 in the two previous weeks. The Highgate Small-pox Hospital contained 16 patients on Saturday last; one of whom was, however, not a small-pox patient.

ENGLISH DOCTORS IN CABUL.

ONE of the *Times*' correspondents in Afghanistan telegraphs as follows. —The Government has published an interesting report, by Surgeon Owen, on the working of the dispensary opened by him at Cabul. Between November 14th and February 16th, Dr. Owen treated over ten thousand Cabuli patients. He evidently threw himself heart and soul into the work, and, in spite of difficulties, did much good. The diseases most prevalent appear to be a severe type of syphilis, leprosy, eye-diseases, scrofula, and skin-diseases generally; small-pox, scurvy, rheumatism, bronchitis, and asthma. Never before, he says, had he seen so many asthmatic cases. Not content with attending the sick, he has taken much trouble in instructing the native hakims, whose ignorance almost passes belief. It is gratifying to find that Dr. Owen's charitable efforts have been fully appreciated by the people; and it will be freely admitted that he has well earned the thanks given to him by General Roberts and by the Government.

THE ACCIDENT TO MR. COWEN, M.P.

THE circumstances attending the injury to Mr. Cowen are well enough known, but the statement that it was caused by pressure against the handrail of the Town Hall staircase does not seem to be accurate. Mr. Cowen's own impression of it is, that the accident was caused by an effort to save him from being crushed; that he was forced with violence and pressed against the bent and rigid knee of a man who was seeking to clear his way. The seat of the contusion is principally in the upper part of the right lumbar region of the abdomen, extending slightly towards the umbilical, and only touching the epigastric at its right corner and the corresponding corner of the right hypochondriac region. There is no rupture of any of the organs, though the right kidney has slightly suffered. When Mr. Rutherford saw him, a minute or two after the accident happened, he was in a state of complete collapse, which lasted for nearly half an hour. When he awoke to consciousness, he remarked that he could hear, but that he could not see. The amaurosis lasted fully twenty minutes longer, and seemed to depend upon the condition of the retina. It would have been interesting to examine the retinal vessels through the ophthalmoscope, or to have seen whether these vessels would project an image upon the field of vision at the layer of rods and cones, and thus produce Purkinje's figures. There was a previous history of retinal congestion, the result of overwork. Before the accident, there had been insomnia for several nights. Mr. Cowen was very anxious to meet his constituents at the earliest moment after the announcement of the dissolution of Parliament; but he had undertaken certain important duties connected with the Agricultural Commission, which kept him in London. It was essential he should have sleep, and chloral-hydrate was given, from which, after more than twelve hours' sound sleep, he woke up refreshed, and his eyes feeling much better. There is still a good deal of muscular pain, and slight dysuria, but there are no untoward symptoms.

CONVEYANCE OF PATIENTS WITH INFECTIOUS DISEASES.

THE communal authorities of Brussels, acting on the suggestion of Drs. Janssens and Buys, have had a carriage constructed for the conveyance of persons suffering from infectious diseases. In external appearance it resembles a hotel omnibus; the windows are made opaque, so that passers-by may not see the patient. The interior is entirely wooden, without any material which may become impregnated with morbid emanations; all the corners and angles are rounded off. Four little benches allow as many persons to be accommodated in the sitting posture; if the patient require a more comfortable seat, a cane sofa is unfolded in the centre of the vehicle. When it is necessary to transport a wounded person or one who must remain in the horizontal position, he is laid on a hammock, stretched on two supports and introduced into the carriage. Room is left in the vehicle for an attendant. The carriage contains also a number of small compartments in which linen and medicines may be placed. It is to be kept at the Hôtel de Ville, and may be had for use on application at the nearest police-station, from which a message for its despatch will immediately be sent. After being used, it will be carefully ventilated and, if necessary, disinfected.

THE REGISTRATION OF DENTISTS.

THE Association of Surgeons practising Dental Surgery has addressed to the General Medical Council a memorial, asking for an amendment or repeal of the Dental Act of 1878. The memorialists state that more than 5,000 persons have been registered as dentists, instead of about 2,000, the number originally supposed to be capable of being registered in Great Britain and Ireland to practise dentistry; and that a large proportion of the persons registered do not possess the qualifications required by the Act. No interpretation of the terms "dentistry or dental surgery" having been given, each person claiming registration has interpreted these words after his own fashion. It will, the memorialists urge, be impossible for the General Medical Council to remove the names of persons who may not be "specially qualified" as dentists, until the terms "dentistry or dental surgery" used in the Act are defined; and, even if the General Medical Council could act, the delay and difficulties are so great, that much harm will be done before the desired result can be obtained. They further state that a large and important body like the General Medical Council, meeting at rare intervals, and having special and important business of its own, is not that best qualified to undertake the duties assigned to it by the Dentists' Act. In the Lord President's original Bill (1878), power was given to the General Medical Council to frame "a scheme for the examination, licensing, and registration of dentists", to be approved by the Privy Council. It would thus have been possible for the General Medical Council to establish a board, the regulations of which, under the control of the Privy Council, would have had all the force of the clauses of an Act of Parliament, but could be modified. This was evidently the object which the General Medical Council had in view during the progress of the Bill through Parliament. The whole work of carrying the Act into operation has, however, been thrown upon the Council itself, which has thereby been made an executive and not a legislative body. The memorialists further object to the power given in the Dentists' Act of registering the degree of Doctor of Dentistry, so that the title of "Doctor" can be used; and they point out that the Act does not prohibit persons from assuming the title of surgeon in conjunction with that of dentist by those who do not possess any surgical qualification. They therefore pray the General Medical Council to take such measures with reference to the Medical Act Amendment Bill now before Parliament as will secure a due interpretation of the terms "engaged in the practice of dentistry or dental surgery" made use of in the Dentists' Act; also to consider whether it will not be advantageous that Clause xxiii of the original Bill of the Lord President should be made law, and the Dentists' Act either repealed or modified.

HISTORY OF THE GODDESS OF SMALL-POX.

AN Indian paper reports that the following is said of Shitala, the goddess of small-pox, in *Skandapurana*. As small-pox invariably attends the goddess, it may be called the goddess herself, and the fever which accompanies it is called violent fever. There are seven kinds of small-pox. Fever is generally felt beforehand; then within a week the eruption comes out; in the second week it becomes mature; and in the third it dries. But, if the pustules break, the smoke of the dung of a wild cow should be taken. The branches of the nimb or neemb (Melia azaderata) tree should be waved in order to drive out the flies. Cold water should be used, and the body should not be rubbed even at the time of fever. The man suffering from it should be placed in a clean (well-ventilated), cold, and lonely room. A dirty or unholy man should not touch him or go to him during that time. Almost all the physicians do not prescribe medicine at all, but a few only do so. The only treatment for it, as prescribed in the Shastras, is *Japa* (prayers), *boma* (oblation), *dana* (donation), *sedastayana* (aversion of evil), and the worship of Brahmin, cow, Shiva (the well-known god) and Gauri (the wife of Shiva), and a holy and faithful Brahmin should recite the praise of the goddess Shitala before the patient, and the eruption will be cured. Skanda (the son of Shiva) requested his father thus: "O great god of gods (Shiva) kindly recite fully before me the auspicious praise of the goddess Shitala, which, being uttered, cures the small-pox for ever." Shiva said: "I bow before the goddess Shitala, riding on an ass, having the points of the compass for her clothes (*i. e.*, quite naked), holding a broom and jug with both hands, and her head is adorned with a winnowing basket. I pray the goddess Shitala, the destroyer of all diseases, and by whose grace no fear of small-pox exists any more. If a man suffering from burning sensation utter the word 'Shitala', 'Shitala', the fear of eruption will suddenly disappear from him. O goddess Shitala, if a man placing you within cold water, worship thereby, he and his descendants have not to fear the eruption any more. O goddess Shitala, you are the only medicine to men suffering awfully from inflammatory fever, having an ill smelling body and losing eyes for ever. O goddess Shitala, you are the infallible curer of all pains arising in the human body, and you shower the heavenly nectar over the man who suffers from eruption. No Mantra (incantation) nor medicine can effect any benefit to the man who is suffering from bad diseases but only you, and no other goddess is the curer of the same."

HOSPITAL SATURDAY AND SUNDAY IN NEW YORK.

THE total amount of contributions, in aid of the hospitals in New York city, on December 28th and 29th, was 25,811 dollars and 60 cents, including 11,000 dollars sent directly to the treasurers of the different hospitals. Of the balance, 3,454 dollars consisted of designated gifts, and 10,000 dollars of undesignated funds were distributed. Mount Sinai Hospital received 2,500 dollars; the House of Rest for Consumptives, 1,250; the German Hospital and the Home for Incurables, 1,000 each; the Orthopædic Hospital, 750; together with six awards of 500 dollars and two of 200 dollars each. The managers of the New York Hospital co-operated in establishing the general collection, but did not wish to avail themselves this year of any share of the contributions. The managers of St. Luke's Hospital, by whom the collection was suggested, were so generously remembered in designated gifts that they waived all claim upon the undesignated funds. The general committee which had charge of the collections has been organised on a permanent basis, with the title of "The Hospital Saturday and Sunday Association of New York City".

THE CONSEQUENCES OF A COLD IN THE HEAD.

AT the recent annual meeting of the Medical Society of the State of New York, Dr. St. John Roosa read a paper on the evil consequences of a neglected cold in the head, in which the following views were expressed. A large proportion of the cases of incurable deafness and of chronic conjunctival and lacrymal disease were due to frequent attacks of coryza. Children of feeble constitution were particularly subject to this affliction. They were not treated at all during its progress; even the physician, if called in, sometimes thought it a matter of no account; yet frequent attacks led to thickening of the mucous membrane, with all its evil results. Children could not be hardened, and they should be taught the dangerous consequences of improper exposure. Each physician should be the medical guide of the families that he attends, and not be likened to a fire-extinguisher, to be sent for when the flames have broken out. The autobiography of many young persons suffering from chronic ophthalmic, aural, or pharyngeal disease would show that they had been improperly nourished, and hence were subject to frequent attacks of cold in the head, which finally resulted in a condition which the specialist was obliged to consider incurable. The means for the relief of coryza were confinement to well-warmed rooms, and the use of diaphoretics, tonics, local douches, baths, narcotics, etc. The general means consisted in a care of the general health, with forced alimentation, if necessary. The whole medical profession was now awakened to the necessity of general hygienic care. Memphis, if properly sewered, would not probably again suffer from yellow fever; but there were dangers to the public health as great as those from such epidemics, in the neglect of individual hygiene.

THE PLASTER-OF-PARIS JACKET.

AT the annual meeting of the Medical Society of the State of New York, in Albany, early in February, Dr. Lewis A. Sayre of New York introduced a modification in the use of the jacket in rotary lateral curvature of the spine, which was not to remove the whole of the dressing and apply a new jacket, but only that which covered the prominent portion of the trunk, cutting out a piece and then adjusting a new portion, which covered and fitted snugly to the eminence. The plan was demonstrated. At the same meeting, Dr. Henry Foord of Cazenovia exhibited a plaster-jacket which he had used in the treatment of a case of Pott's disease, and which was so arranged that half of the jacket could be removed while the other remained in position to maintain extension. The jacket was divided on each side, and the sections were held together accurately by clasps made of tin, resembling strap-hinges, and with pins that could be drawn out when the jacket was to be opened. The clasps were placed one near the top and the other near the bottom on each side. Dr. Sayre thought the idea a very good one, as it apparently sustained extension while the dressing was being changed. It also held the parts together perfectly, and prevented any motion between the cut edges.

BERIBERI.

A DISEASE, attended with large mortality, has appeared in Calcutta during the last two months. The prevailing opinion seems to be that it is identical with the disease known in Madras and Ceylon as "beriberi". Its main features are thus specified by Dr. MacLeod, the municipal health-officer, in his report to the municipality: swelling of the limbs, fever, occasionally bowel-complaints, in many cases burning and pain in the affected limbs, shortness of breathing, great emaciation in fatal cases. Death by this disease is generally sudden. The disease seems to have first appeared in the suburbs of Calcutta in the rains of 1877; but it has not attracted much attention until this year. Dr. MacLeod is unable to pronounce a positive opinion as to its causes, or whether it is infectious. The most remarkable circumstances in its history are its gradual spread from the southern parts of the town towards the north, its pronounced localisation, and its seizure of whole families. It has hitherto affected only natives, Eurasians, and Armenians, not a single European case having been reported; and this, too, although the disease prevails chiefly in the European quarter of the town.

A TRAUMATIC ANEURISM MISTAKEN FOR ABSCESS.

MISTAKES of this sort are historic. Dupuytren, Lisfranc, and Cullerier, each in turn fell into it; Liston and Pirogoff did not escape it; and many minor men have fallen into it. It has more than once threatened trouble. A somewhat remarkable case has occurred in Chicago. About October 1st, a young man, named John Conroy, was shot in the face. Dr. E. W. Lee was called in, and found a wound under the right eye. The patient's jaws were firmly locked; there were much pain and some fever, and swelling of the glands on the right side. The wound was not probed, but treatment was directed towards allaying the inflammation. The man gradually improved, and at the end of a week went to his business. In another week, he returned to Dr. Lee, much worse, and unable to speak or swallow. On examining the mouth, a tumour, of the size of a hickory-nut, was felt on the hard palate. It felt hard. An exploratory incision was made, which let out some blood-clots, but no hæmorrhage followed; and a free incision was then made in hopes of finding the bullet. Immediately upon doing this, there came more clots, and then a stream of bright arterial blood. An attempt was made to arrest the hæmorrhage by filling the cavity with a piece of cloth; but the man struggled so violently that it was impossible; the blood issued from his mouth and nose; and he died immediately. The necropsy showed that the bullet had passed down to and pierced the internal carotid artery about three-quarters of an inch below the carotid foramen. A large cavity filled with blood-clots was connected with this opening. When the case was brought before the coroner, Dr. Moses Gunn testified that Dr. Lee's treatment of the case was a perfectly proper one; also that there was scarcely any possibility that the man could have lived long in any event. Dr. Fenger, who made the necropsy, testified still more positively than Dr. Gunn that the aneurism must within a few days have made a spontaneous opening, as pus had already appeared among the glands at its lower part. Drs. Dunne and Hobbs testified in the same way. The jury rendered a verdict entirely exonerating Dr. Lee, and stating that, under the circumstances, he was perfectly justified in making his opening incision. This seems to have been the view generally expressed among the medical men. The friends of the deceased, however, showed much excitement over the verdict.

PRESERVATIVE FLUID.

THE German government has recently bought the secret for a new preservative fluid. It is stated that human bodies and animal tissues generally, even after years, retain their colour, form, and flexibility. Decay is entirely prevented, and the muscles even keep their natural colour. The bodies are saturated in a liquid made as follows: alum, 100 parts; chloride of sodium, 25; nitrate of potass, 12; carbonate of of potass, 60; arsenic acid, 10; and water, 1000 parts. This solution is cooled, and filtered. There are then added to ten litres of the fluid four litres of glycerine and one litre of methylic alcohol. From two to five litres of the liquid are used in saturating the body to be preserved.

STATISTICS OF ANTISEPTIC SURGERY IN FRANCE.

AMONG the theses of the Faculty of Nancy, for the year 1878-79, is one by M. Briquot on the "Étude comparative entre les principales Méthodes de Pansement des Plaies". M. Briquot collects all the recent French and German statistics relating to the treatment and results of great operations and major surgical cases; and he finds that the mortality with Lister's dressing is only 10.83 per cent., while the mortality with ordinary surgical dressings in the hospitals of Paris is 52.5 and with alcohol dressings 28 per cent.

A LARGE CALCULUS.

AN urinary calculus, weighing one pound six ounces avoirdupois, was lately removed by Dr. John Hodgen of St. Louis. The stone was nearly spherical, and measured eleven inches and a half in circumference, and about four inches in diameter. The removal was accomplished by the suprapubic operation, and the calculus was necessarily broken. The patient was sixty-two years old, and, up to within a few days, had been in the habit of walking from two to four miles daily. Fifteen years ago, he had two stones removed from his bladder, and subsequently enjoyed remarkably good health for a man of his years, except for some vesical irritation, and, during the last two years, incontinence of urine. Before the operation, the stone could be distinctly felt as a hard tumour in the hypogastrium. The stone was composed chiefly of phosphates.

PHARMACY IN VICTORIA.

THE Pharmacy Act of Victoria, which became law in 1876, provided for the appointment of a Pharmacy Board to hold office for three years. At the end of their term of office, the Board has presented a report on its proceedings. The following particulars on this subject are taken from the *Chemist and Druggist* for March 15th. Six hundred and twenty-seven pharmaceutical chemists have been registered, of whom twenty have died. Thirty out of thirty-six candidates have passed the preliminary examination, and forty-seven apprentices are now on the *Register*. Pharmaceutical students are now received at the Schools of Mines at Ballarat and Sandhurst, and the University of Melbourne has been urged to establish courses of pharmaceutical study to provide for the major examination. Nothing has yet been done, and the alternative of establishing a college of pharmacy at Melbourne is under discussion. Eight unregistered men have been convicted and fined for carrying on business. The total income for the three years has been £1,623 3s. 6d., the expenditure £1,032 17s. 6d. The diploma of the Pharmaceutical Society of Great Britain was made a registrable qualification by the Act of 1876. The Board have since placed upon the same footing the Pharmaceutical Society of Ireland, the schools of pharmacy of France and Belgium, the colleges or universities of Germany, Denmark, Sweden, Russia, Norway, and Austria, and the Ontario college of pharmacy. The administration of the Sale and Use of Poisons Act, 1876, is also in the hands of the Board, and nineteen convictions have been obtained.

YELLOW FEVER AND ATMOSPHERIC ALKALINITY.

IN an addendum to the report of the Yellow Fever Commission, published in the *National Health Bulletin*, Dr. Charles Finlay puts forward the following considerations in support of the view of a probable connection between the prevalence of yellow fever epidemics and an alkaline condition of the atmosphere. 1. The high figures of atmospheric alkalinity in Havannah coincide with the greatest intensity of yellow fever in that city. 2. In the pathology of yellow fever, it has been found by Blair, and verified by other observers, that the blood, the breath, the perspiration, and the vomited matters (at certain periods of the disease), are markedly alkaline, owing to the presence of an excess of volatile alkali. 3. Some of the most remarkable symptoms of yellow fever bear a strong analogy to those of gradual intoxication by volatile alkali, such as ammonia; *e.g.*, hæmorrhagic tendency, scorbutic condition of the gums, albumen found (*post mortem*) in the urine, gastric irritability, as observed by Dr. Richardson, Christison, Orfila, and others. 4. The poison of yellow fever is considered by such an authority as Dr. Parkes to have existed in some cases in sewer-air; whereas Dr. Odling's observations show that the putrid substance in sewer-water appears to be allied to the compound ammonias, and contains less carbon than ethylamine and more than methylamine. 5. Among the disinfectants recommended against the yellow fever infection only acid substances are mentioned; and the most efficacious is believed to be nitrous acid fumes. 6. The various empirical treatments practised in the West Indies by non-professional persons have always had oily and acid substances for their foundation, just as if the object in view consisted in saponifying or neutralising some alkaline poison.

RECOVERY AFTER SEVERE INJURY TO THE BRAIN.

THE question sometimes arises in court, "Is not such a wound—one, for example, penetrating the brain, or the heart, or the lungs—necessarily fatal?" The first impulse would be to answer in the affirmative; yet a sufficient number of remarkable recoveries are on record to constitute a respectable minority of exceptions to the rule of fatality. Dr. Draper, in the *Boston Medical and Surgical Journal*, refers to a case reported by Assistant-Surgeon P. F. Harvey, of the United States Army, in the *American Journal of the Medical Sciences* for July 1879. The patient, an Indian-agency physician, received a Winchester-rifle ball three inches and a quarter above and one inch behind the right external auditory meatus. The missile took a transverse direction across both hemispheres toward the left supraorbital convolution, a grooved director being easily passed in that course a distance of five inches, without, however, reaching the ball. The patient did not lose consciousness on being wounded, and complained only of "seeing stars" and of some confusion of ideas; he recovered so rapidly that, after thirty-five days of convalescence, he took a journey of ninety miles, in December, in an open buggy, alighting several times to make his way on foot through deep snow-drifts. At the end of this exertion, however, two convulsions occurred, and the wound in the head reopened. Subsequently, various threatening symptoms supervened, but they were all happily managed, and complete convalescence ensued. Six months after the wounding, the patient travelled across the plains to his home in Indianapolis, and on his arrival reported himself in excellent condition. In this connection may be mentioned an instructive paper by Dr. H. R. Wharton of Philadelphia (*Philadelphia Medical Times*, July 9th, 1879), wherein he gives an analysis of three hundred and sixteen recorded cases in which foreign bodies were lodged in the brain. Of these 316 cases, 160 recovered and 156 died. There were 106 cases in which the intruding body was removed; the result in these instances was fatal in 34; of the 210 cases in which the foreign body was allowed to remain in the brain, 122 ended fatally in consequence, and 88 recovered. Brodie's opinion, that recovery is more apt to follow wounds of the anterior portion of the brain, is confirmed by an examination of the cases in the present series, where the foreign body penetrated the frontal bone; of these, 132 in number, 58 ended fatally and 74 resulted in recovery. The parietal bone was penetrated 58 times, with 27 deaths and 31 recoveries. The occipital bone received the lesion in 23 instances; 16 of the subjects died and 7 recovered. The foreign body entered the brain through the temporal bone 31 times; there were 12 deaths and 19 recoveries. Wounds of the orbit were by far the most fatal; there were 18 cases on record, all but one of which resulted fatally.

THE BRITISH SCHOOL OF OPHTHALMOLOGY.

"HAS the British school of ophthalmology any real existence?" asks the *Dublin Journal of Medical Science* in the February number. This question is suggested on looking over the record of ophthalmic works published in Great Britain during the past few years; and our able contemporary says:

> "We fear the answer must be a decided negative. When we compare the ophthalmic literature of this country with that of Germany, America, or France, we cannot but be struck with its extreme poverty and insignificance. For the past ten years, and up to the present, if we except such admirable works as Dr. Allbutt's and two or three others, besides a very few isolated papers—as, for instance, Dr. Brailey's on glaucoma—we find nothing of marked originality or importance has appeared in the domain of English ophthalmological literature. No doubt this may, to some extent, be accounted for by the fact that it is only quite recently some tardy efforts have been made to raise ophthalmology to its legitimate position in this country. We believe we are correct in stating that the only bodies which require a certificate of attendance on a course of ophthalmic surgery are the University of Dublin and the King and Queen's College of Physicians in Ireland—the former for the degree of bachelor in surgery, the latter for the membership of the College. No doubt it is gratifying to us, as Irishmen, that our institutions have taken the lead in this matter, but far more than this is really required. Ophthalmology is now entitled to an equal footing with midwifery, and it ought to form an essential part of all examinations for licences and degrees in medicine and surgery, as well as for admission to the military and naval service."

We agree with the Dublin journal in the conviction that it is merely a matter of time, and that sooner or later the claims of ophthalmology to be placed on an independent basis must be recognised, in justice to the public, and as a matter of duty. The day when every well-educated physician and surgeon will be able to use the ophthalmoscope with the same ease and certainty as the stethoscope cannot be far distant. A factor which our contemporary notes as having largely contributed in retarding the progress of British ophthalmology, is the lack of any central or representative medium for the interchange of ideas or discussion on the subjects connected with this branch of medical science. The fact that the only special organ in this department—*The Royal London Ophthalmic Hospital Reports*—has, after the lapse of two years, appeared in the form of Part 3 of Vol. ix, demonstrates the languishing condition of ophthalmic literature in this country. There is, it is suggested, ample material, as regards members, for the formation of a British Ophthalmological Society, which should hold annual meetings like the German and American Societies; and it is believed that such a society would go a long way towards reviving the British school, and placing it in a position of competing more fairly with its German and American colleagues. These views are, we have reason to know, those which are widely entertained by the most competent men directly and indirectly connected with this department of surgery, and we trust it will not be allowed to fall into oblivion. It deserves careful and thorough consideration.

SCOTLAND.

UNIVERSITIES ELECTION: SCOTLAND.

Dr. J. A. Campbell of Stracathro, and Mr. Alexander Asher, advocate, are the accepted candidates of the Conservatives and Liberals respectively for the Parliamentary representation of the Universities of Glasgow and Aberdeen. The committee-rooms of Mr. Bickersteth and the Right Honourable Lyon Playfair, the candidates for Edinburgh and St. Andrew's Universities, are open daily in Edinburgh; and each side seems to be working earnestly among the somewhat scattered constituents. Both sides allege that they have received assurances of support from over one thousand medical graduates; and there is no doubt that each of them has received much encouragement. The polling will not take place till April 12th, and will last till the 19th. Arrangements have been made for allowing graduates at present abroad to vote there, by means of doing so when a justice of peace is there at the time.

AMBULANCE LECTURES IN EDINBURGH.

The course of ambulance lectures, delivered in Edinburgh by Dr. A. G. Miller, was brought most successfully to a termination on Friday last. Nearly two hundred and thirty ladies have attended the course, and have taken much interest in the lectures. The class was from its size necessarily divided into two, and practical lessons in bandaging were given by Dr. Miller, who was assisted by twelve votaries in the form of young ladies, who acted as pupil teachers.

NEW TOWN DISPENSARY, EDINBURGH.

The annual meeting of the subscribers to the New Town Dispensary was held in St. Andrew Square, Edinburgh, in the Bible Society's Rooms, last week. In the unavoidable absence of Dr. Douglas Maclagan, Mr. Christopher Douglas presided. From the report of the managers, it appears that, during the year, 10,046 cases had been treated by the medical officers, and that 2,058 of these had been attended at their own homes. The managers regretfully directed attention to the fact that, while so many of the sick poor continued to receive medical aid, yet the subscriptions had fallen off so much of late years that, last year, the revenue fell short of the actual expenditure by £100. The subscriptions for the year amounted to £271, while the expenditure amounted to £373. It was agreed to circulate the report, and to solicit increasing instead of diminishing support for an institution that has done, and continues to do, so much good work among the sick poor in Edinburgh.

REGISTRAR-GENERAL'S RETURNS.

From the returns of the Registrar-General for the week ending March 13th, 1880, it appears that the death-rate in the eight principal towns was 23.7 per 1,000 of estimated population. The lowest mortality was recorded in Perth, viz., 13.6 per 1,000; and the highest in Paisley, viz., 30.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.2 per 1,000, exactly the same as for last week. Dundee continues to show a high proportion of deaths from measles. The number of deaths from inflammatory diseases of the lungs was 112, or 49 less than during the previous week. The same decrease is apparent in all the towns. The mean temperature of the week was 42.4, being 0.4 lower than that of the week immediately preceding.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

On the evening of the 19th instant, the President and Fellows of the Faculty of Physicians and Surgeons of Glasgow entertained in their hall, at a *conversazione*, a large number of members of the medical profession from all parts of Scotland. The guests were received by the venerable President of the Faculty, Dr. Andrew Buchanan, who welcomed them in a few well-chosen and kindly words. The programme was a most varied and interesting one. Demonstrations were given on various subjects, as by Professor Forbes of Anderson's College, on Crookes' experiments on radiant matter. Dr. Munro of Kilmarnock gave a short account of the "lake dwellings" which he had explored near that town, and he also exhibited a number of the remains of those dwellings. The various rooms of the Faculty Hall were laid out with a display of objects of literary, scientific, and medical interest. Thus there were collections of surgical, physiological, and optical instruments, and various sanitary and heating appliances. From the Faculty library there had been gathered a most extensive and interesting series of illustrated works on botany, natural history, and the various departments of medical science. Altogether, the meeting was a most enjoyable and successful one.

VOLUNTEER AMBULANCE DRILL IN GLASGOW.

On the afternoon of the 20th instant, a very interesting parade of the Ambulance Corps in connection with the 1st Lanarkshire Rifle Volunteers was held in the presence of a large number of spectators. The purpose of the exhibition was to show what can be done in cases of emergency in the way of giving first assistance to the wounded when a medical man is not present, and also to enable those present to judge of the benefits of similar instruction to men in public works, the police force, and others liable to be present at accidents. The Ambulance Corps were put through their drill, which they accomplished most satisfactorily. One portion of the drill consisted in giving medical assistance to a number of Volunteers who were supposed to be wounded, and who lay down with the nature of the injury indicated on a small ticket attached to their breasts. There was then a medical inspection of the manner in which the injuries had been attended to. Professor Buchanan, who was present, expressed his gratification at the skilful and expeditious way the injured had been treated, and at the answers he had received in reply to the questions he put. The proceedings were brought to a termination by the distribution of badges and certificates to the Corps. Great praise is due to Dr. Irvine for the high state of efficiency to which he has brought the class and for his labours in the matter.

UNIVERSITY OF EDINBURGH.

As Good Friday and Easter happen this year a few days before the termination of the winter session in the Faculty of Medicine, various of the Professors have made arrangements for terminating their courses of lectures on Thursday. To fourth-year men who are within six or seven weeks of their final professional examination, this will afford a most welcome little holiday. At the preliminary examination in arts for entrance to the medical curriculum, about four hundred candidates appeared for examination. At the graduation ceremonial in August, the University will confer on William Farr, M.D., F.R.S., D.C.L., late Superintendent of the Statistical Department of the Registrar-General's Office, the degree of LL.D. The same honorary degree will, in the month of April, be conferred on John Hutton Balfour, M.A., M.D., F.R.S., Emeritus Professor of Botany.

UNIVERSITY OF ST. ANDREW'S: THE UNITED COLLEGE IN DIFFICULTIES.

It will be a source of regret to many of our readers to learn that the "United College" of the oldest university in Scotland is in difficulties. The University of St. Andrew's is composed of two colleges, viz., the United College, comprising the Faculties of Arts and Medicine; and St. Mary's College, consisting of the Faculty of Divinity. Both colleges derive their revenues to a large extent from college lands, and it so happens that the United College has been particularly unfortunate for some years past in the letting and management of its farms. With bad seasons, insolvent tenants, and unoccupied farms, the United College is said to be financially in a critical position. For several years past, the United College has been suffering from the general agricultural depression which has overtaken the country, and in spite of every effort to the contrary, has contracted debts which, it appears, must be paid out of the already too slender incomes of the professors. In order to meet existing liabilities, the salaries of the professors of the United College, at no time large, will, we are given to understand, be reduced in some cases by more than half for several years to come. The blow will fall heavily on the medical chairs, the entire emoluments of which, it is computed, will not exceed from £130 to £200 *per annum* till the debts are liquidated. The Arts chairs will also suffer largely, as it is calculated the salaries of these chairs for several years will in few cases exceed, if they actually reach, £250 *per annum*. It is hoped that the Arts and Medical Graduates of St. Andrew's, and the professions generally, will come to the rescue. Donations to the extent of a few thousand pounds would do much to relieve the United College of its present pecuniary embarrassment, and it will be matter for surprise if the principal college of the oldest northern university be permitted to go to the wall for want of a little timely assistance. It is difficult to understand how, in a wealthy country like Britain, a body of learned and illustrious professors in an old and famous university, whose foundation dates back nearly five centuries, should (under any circumstances) be required to live upon salaries in many cases smaller than those received by ordinary clerks; and it appears to us the grievance only requires to be stated to be redressed.

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IRELAND.

No additional cases of fever have taken place in Hare Island during the past week.

SMALL-POX IN BELFAST.

During the week ending the 13th instant, a death was registered in Belfast from small-pox; a disease which has again appeared in that town, having been communicated by some persons suffering from the affection arriving from Ballymena, where small-pox exists. Last week, there were twelve cases under treatment in the Workhouse Hospital; and steps have been taken to increase the accommodation for any additional patients that may require it.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An extraordinary meeting of the Fellows was held on Monday last.

The adoption of the rules relating to Licentiates was moved and seconded for the second time, with the alteration of the date when they would come into force to March 25th.

Two interesting portraits, by Holbein, of Sir William Butts, Physician to King Henry VIII, and his wife, were exhibited, and will remain on loan for a short time. The excellence of these portraits as works of art, as well as from the interest attaching to this physician as one of the *dramatis personæ* in Shakespeare's play of *Henry VIII*, will probably attract many to pay a visit to the College.

The President, in accordance with custom, delivered a short address, in which he referred to those of the Fellows whose loss the College had to lament during the past year. In language dignified and full of sentiment, he spoke of Drs. Murchison, Tilbury Fox, Black, Leared, and Seaton. Of the public services of the College a short summary was given, during which the subject of the public health of the colonies and the prize essays on hydrophobia were mentioned.

Dr. Risdon Bennett was re-elected President after a ballot.

IRISH GRADUATES' ASSOCIATION.

The annual metropolitan dinner of this Association took place at the Holborn Restaurant on St. Patrick's Day, March 17th. Sixty-two members and guests were present. The chair was occupied by Mr. Mac Cormac, President of the Association; and among those present were Dr. G. E. Paget, President-elect; Dr. Balthazar Foster, Treasurer; Dr. Risdon Bennett, President of the Royal College of Physicians; Mr. Erichsen, President of the Royal Medical and Chirurgical Society; Dr. Greenhow, President of the Clinical Society; Mr. Jonathan Hutchinson, President of the Pathological Society; Mr. John Wood, President of the Metropolitan Counties Branch of the British Medical Association; etc. The following toasts were proposed. "Our Rulers, the Queen, and the rest of the Royal Family", by the President. "Our Guests—non-professional", proposed by Dr. G. E. Paget, President-elect, responded to by Messrs. Finlay J. Wilson, Mackeson, etc. "Our Professional Brothers," proposed by the Chairman, responded to by Dr. Mason, Dr. Brodie Sewell, Dr. Ord, Dr. Tonge-Smith, etc. "Our Elders—other Professional Associations", proposed by Dr. Balthazar Foster, and responded to by Mr. Erichsen, Mr. Wood, Mr. Jonathan Hutchinson, Dr. Greenhow, and Dr. Milner Fothergill. "Ourselves—the Irish Graduates' Association", proposed by Dr. Risdon Bennett, and responded to by Mr. W. Mac Cormac. "Our Next Meeting, at Cambridge, in August," proposed by Dr. Daniell. Music during dinner was furnished by the Holborn Band; after dinner, a selection of Irish airs was given by Mr. Maler and Mr. Laistner. The dinner was excellent and the wine good; and a very pleasant evening was spent. The Honorary Secretaries, Dr. Thompson of Leamington and Dr. Daniell of London, deserve credit for their excellent organisation on the recent occasion. The Irish Medical Association is greatly indebted to their energy for the rapid and satisfactory progress which it has made.

MEDICAL EDUCATION.

Subjoined are those portions of the report of the Committee on Medical Education, appointed last year by the Metropolitan Counties Branch, which bear especially on the resolutions on the subject adopted by the Branch.

Question 1. Is it desirable that intending medical students should pass an examination in the elements of Botany, Physics, and Inorganic Chemistry, *prior to admission* to the regular medical curriculum, and that these subjects should form part of their "Preliminary General Education and Examination"?

Your Committee has received 207 replies from the past and present metropolitan and provincial teachers of medicine and surgery, and 265 answers from general practitioners to this question; 90 per cent. of the former, and 96 per cent. of the latter, are in favour of making intending medical students pass an examination in the subjects mentioned in this question before allowing them to enter at a medical school. The replies we have received demonstrate the fact that, among the medical practitioners of this Branch of the British Medical Association, there is a remarkable concurrence of opinion as to the necessity which exists for altering the curriculum of medical students in the manner above referred to. This view was advocated by Professor Huxley at a meeting of this Branch, and is in accordance with the terms of a report drawn up by the Medical Teachers' Association; it is also advocated in a note on this subject forwarded by the Royal College of Physicians, in May 1877, to the General Council of Medical Education and Registration.

Dr. Andrew Wood's Committee on Medical Education reported to the General Medical Council in the year 1869 that, however desirable it might be to make Chemistry a subject for the preliminary examination, it was out of the question doing so, because this science was beyond the range of ordinary schools. Within the past ten years, however, a considerable advance has been made in our system of national education, and it seems that at the present time there is no necessity for a man to come to a medical school to study elementary Botany, Physics, Inorganic Chemistry, or Biology; for the knowledge of these subjects is now acquired by a considerable number of youths, educated either in the Government Schools of Science and Art, or elsewhere. These subjects should therefore be entirely removed from the medical curriculum, and made a part of the preliminary examination to be passed by every student before he is allowed to enter his name on the books of the General Medical Council. The Preliminary Examination should include a knowledge of the subjects detailed in the existing Orders of the General Medical Council, and, in addition, Elementary Botany, Physics, Biology, and Inorganic Chemistry.

The question naturally arises as to the feasibility of this scheme; and, in order that we might obtain correct information on the subject, the matter was referred to Professor Huxley, who observes: "The examinations of the Science and Art Department very nearly fulfil the required conditions; that is to say, a student who has passed in the first class of the advanced stage of those examinations in Physics, Chemistry, and elementary Botany and Biology, would possess a very fair knowledge of these preliminary sciences. It would be desirable, however, to introduce more of the practical element into the examinations for intending medical students than I have been permitted to give in the Science and Art Examinations, and on other grounds it would probably be better to make the examination for intending medical students distinct and independent. I mention the Science and Art Examinations, because I have had long experience of them and know how they work." From the twenty-third report of the Science and Art Department of the Committee of Council on Education, it appears that seventy-five per cent. of the pupils pass their examinations in the class referred to by Professor Huxley during their seventeenth year of age.

The examinations conducted by the College of Preceptors is probably as searching as that of the Science and Art Department, so that there can be no doubt as to the possibility of a student obtaining certificates sufficient for the purposes referred to in the question we are considering before he is eighteen years of age, from one of the "National Education Bodies".

Question 2. Is it desirable that a certain period, previous to admission to a medical school, should be spent with a general practitioner in the form of an "articled pupilage"? *a*. If so, when, and how long? *b*. And which of the subjects mentioned in Question No. 1 should form a part of this preliminary training? or are there any others?

The answers received by your Committee to this question indicate the existence of a marked diversity of opinion between the teachers in our medical schools and the general practitioners belonging to this Branch of the British Medical Association. Seventy-four per cent. of the general practitioners who have sent us answers to this question express their conviction, as Dr. J. Rogers remarks, that "there is a want in the education of medical students as regards teaching in the art of prescribing". It is affirmed that, "in making up prescriptions, pupils soon attain a knowledge of doses, the use of drugs, and their compatibilities", and that a thorough knowledge of Pharmacy is indispensably necessary to the general practitioner. Further, it is urged that, at present, medical men commencing practice are frequently unacquainted with much they ought to know concerning the ordinary routine of the general practitioner's work; and, when called upon to take charge of a practice (including, perhaps, a parish and club patients), the young practitioner is not only incapable of dispensing and sending out his own medicines, but is also at a loss in various matters of detail, a neglect of which brings discredit upon himself and endless trouble to his employer. Lastly, it is argued that no inconsiderable number of recently qualified medical men have no idea of the real nature of their duties as general practitioners until they are actually engaged in practice; many of them then discover that their work is hardly that which they had anticipated—they become discontented with their position in life, and regret, when it is too late, that they had entered the profession.

In order to mitigate these evils, a majority of general practitioners advise that intending medical students should spend at least twelve months of their time as "articled pupils" before they are allowed to enter a medical school. Many general practitioners hold that in this way only a youth can gain a thorough knowledge of pharmacy and the work ordinarily carried on in a surgery; they concur in the views expressed by the Council of the Royal College of Surgeons when discussing this question in the year 1864—that a pupil, under the supervision of a general practitioner, has an opportunity of "becoming acquainted with drugs and medicines, and learning the ordinary course of accidents and diseases". In fact, the pupil might gain an insight into, and the nature of, a general practitioner's routine work; and, if he found the duties of the profession distasteful, he could then, without detriment to his future prospects, take to some other course of life.

On the other hand, no less than seventy per cent. of the past and present teachers in our provincial and metropolitan medical schools are of opinion that a return to the system of apprenticeship, even in the modified form of an articled pupilage, would be a serious error, which some of them find it impossible to sanction. Many of the teachers assure us that young men who have served an apprenticeship, and, not a few sons of medical men, who have learnt pharmacy in the surgery, and had all the advantages claimed for this system of teaching by general practitioners, have, nevertheless, turned out indifferent students. After leaving school, they are said to have acquired habits which render it hard for them to resume a course of systematic reading; they are described as too often coming up to the medical schools with a very superficial knowledge of medicine and surgery; and as apt to be self-satisfied and supercilious, so that the little they have learnt is really a hindrance to them, preventing their exercising that spirit of inquiry and desire to obtain knowledge, without which it is almost impossible for any student to succeed.

Your Committee have carefully considered the evidence laid before them regarding this question. It appears to them that the issue depends on the line of practice a young man proposes to follow, whether it is necessary for him before becoming qualified to go through a course of training under a general practitioner. If a medical man intend to enter the army or navy, time spent in learning the routine work of a general practitioner, although it may be useful, is not essential to his success in life. The same remark applies to those who wish to practise as consulting physicians or surgeons, and, in a less degree, to the increasing class of general practitioners who do not dispense their own drugs. But the aggregate number of medical men engaged in the various branches of practice above referred to form but a small proportion of the profession in England; and, with the exception of those who enter the public services, they are all so intimately associated with the general practitioner, that it must be an advantage to them to have had some practical experience of the work carried on in a surgery.

With reference to the exemption from a forced attendance on the practice of a general practitioner claimed for young men intending to enter the army, we grant that the suggestion is to some extent valid. It has been found necessary to establish a medical school at Netley, through which young men have to pass before they are allowed to become army surgeons, because our metropolitan and provincial schools cannot give their pupils a special training for the duties connected with the medical charge of a regiment. Now, this practical kind of teaching is what general practitioners so strongly contend for. They argue that, before a medical man is considered qualified for the duties of a general practitioner, he should have had special training in the work that lies before him—work which, beyond a knowledge of his profession, is as peculiar in its details as any that a regimental surgeon can have to perform.

It is evident that the argument advanced by a large majority of our teachers is of some weight with respect to the evils arising to a lad fresh from school being subjected for any length of time to the unpunctual habits and desultory kind of work which must be his lot as a dispenser of medicines. Employment of this kind may destroy the habits of discipline and steady reading a youth ought to have acquired at school, and which it is so essentially necessary he should continue as a student of medicine. After passing his entrance examination, he should commence his work at a medical school; and, after getting through his examinations in anatomy and physiology, he might, with advantage, work for a time under a general practitioner during the summer session, when no Botany or Materia Medica lectures are required in the medical schools, and during the adjacent vacations. The course of study at Netley extends over a period of not less than four months, and most men acquire a practical knowledge of the details required for regimental duty in about six months; we believe that, if the same amount of time were devoted to study with a practitioner, a student might very well make himself acquainted with the duties pertaining to the special work of general practice.

Question 3. Is it desirable that the age of eighteen years should be attained before a student enters the regular medical curriculum, and that the age of twenty-two years be completed before he be permitted to receive a qualification to practise?

With reference to this question, we have to report that 89 per cent. of the teachers, and 97 per cent. of the general practitioners of this Branch of the British Medical Association, are of opinion that pupils should not be permitted to enter a school to study Anatomy and Physiology until they are eighteen years of age, and that they should not be allowed to present themselves for their final examination before they are twenty-two years old. Mr. Rumsey, as far back as the year 1863, urged on the General Medical Council the necessity of making twenty-two the earliest age for obtaining any licence to practise medicine or surgery. After stating the very large number of votes we have received in favour of the alteration referred to, we do not consider it necessary to discuss again the merits of the question; but we may observe, that all hopes of improving the existing system of medical education must be based upon a rule of this kind; on the grounds that a lad cannot go through a thorough training in literature, mathematics, and the rudiments of science, before he is seventeen years of age. He has then a year in which to study elementary science, and four years more for work specially connected with the practice of his profession. It is supposed that cases might occur, in which exceptionally clever men could pass their examinations before they have reached the age above specified, and that it is hard to keep them back by making a compulsory rule, such as that referred to. This may be true, but rules must be made for the majority of students, and we are convinced that very few young men, however talented they may be, are capable of effectually performing the responsible duties which devolve upon qualified practitioners, before they are twenty-two years of age.

Question 4. Do you approve of the introduction of an examination in Elementary Anatomy and Physiology at the end of the first year of medical studies?

Seventy-nine per cent. of the general practitioners, but only 58 per cent. of our medical teachers, are in favour of introducing an examination in Elementary Anatomy and Physiology at the end of the first year of a student's curriculum. The Medical Teachers' Association, ten years ago, came to the conclusion that it was desirable there should be a professional examination for medical students at the end of the first year, and they recommended the Educational Committee of the General Medical Council to enforce this principle. The Council declined the medical teachers' suggestion, on the grounds that there was "a disadvantage in having so many examinations, as regards both students and examiners".

The bearing of the remarks made by a large number of the general practitioners on this subject is to the effect that, of all the students who enter at our medical schools, no less than 24 per cent. fail to qualify so as to be able to enter the ranks of the profession. This statement was made many years ago, and recent experience seems to confirm it; for, in a number of the *Lancet* lately published, it is stated that, "in one of our largest medical schools, only 43 per cent. of the students ever obtain their diploma to practise, and that, during the past year, 43 per cent. of the students failed to pass their primary examination"; and this condition of things is said to exist in spite of the "test" examination which the authorities in most of our medical schools enforce, before they allow students to go up to the College of Surgeons. It is argued, from a consideration of this fact, that the teachers in our medical schools are unable, under the existing system, to improve them. General practitioners urge this point very strongly, and many of them believe that a real necessity exists for an examination being held by some of our examining authorities, before whom every student entering at our medical schools should be compelled to appear at the end of his first year. It is contended that the examination should be of such a nature as to enable the authorities to weed out idle men from among our students—men who, by continuing about our medical schools, as at present constituted, are not only an useless burden to their relations, but a positive evil to the more industrious students.

Forty-two per cent. of our medical teachers are opposed to an examination, such as that referred to in the question under consideration, on the following grounds. "If this examination is to be a public one, conducted by the College of Surgeons or other examining body, then there are already public examinations enough, and the expenses connected with them are quite sufficient." "No advantage would be gained by such an examination as this; it is a mistake to harass students by too many examinations; it keeps up a state of nerve-tension which is opposed to useful work." Lastly, it is said "an examination of this kind would be very inconvenient for provincial students". Some of the medical teachers, however, take a different view of this matter; for instance, Mr. T. Holmes remarks that "an examination of the kind is a most important desideratum in our present system. Much of the imperfection of the training of our students depends on their wasting the first year of their hospital course, trusting to their power of cramming up for the examination in the second year". This, too, would seem to be the principle that governs the action of the University of Oxford, as undergraduates have, in the first instance, to pass an examination before they can enter at any one of the Colleges. At the termination of the first, or before the end of the second term, they must go up for "Smalls", as they are called, and at the end of the second, or before the fourth term, they have to go up for "Mods"; and these examinations are conducted by the University, and not by the College authorities.

Your Committee are of opinion that it is essential for the improvement of medical education in our metropolitan schools, that a public examination, conducted by competent authorities, should be held, at which every student must appear at the termination of his first year's study, in order that he may demonstrate to the examiners whether he has made good use of his time. If a student, from inattention in the class and dissecting room, as well as by the result of such examination, is proved to have been idle, a limited period should be allowed him to regain his lost ground. Should he still be found wanting, means should be taken by his school authorities to rusticate him, until such time as he can satisfy them that he has commenced to work in earnest.

Beyond weeding out the idle men from our schools, an examination such as that proposed, might have the effect of dispelling the too common delusion which hangs over so many of our freshmen, that the examination in Anatomy and Physiology is an event which to them is a matter for future consideration. Being for the first time in their lives free from all control, they frequently allow weeks and months to slip away, and are then compelled to resort to the crammer in order that they may pass their examination. We believe a public examination at the end of the first year might compel students to realise the importance that exists for them to commence their work with earnestness directly upon entering a medical school.

Question 5. Is it desirable that, after passing the "primary" professional examination, every student should be compelled to devote two full years to Clinical Medicine, Surgery, and Obstetrics, at a hospital, prior to being allowed to present himself for his final or qualifying examination?

Ninety-two per cent. of the teachers of medicine and surgery, and ninety-seven per cent. of the general practitioners, have answered this question in the affirmative. With such a strong array of evidence in favour of this proposition, your Committee do not consider it necessary to discuss its merits; but they would simply state that they believe it to be essentially necessary that students should devote at least two full years to the clinical study of Medicine, Surgery, and Obstetrics, after passing the "primary professional" examination.

The majority of your Committee beg to recommend that—

1. Intending medical students should pass an examination in the elements of Botany, Physics, Biology, and Inorganic Chemistry, prior to admission to the regular medical curriculum.
2. Every student of medicine, before going up for his final examination should produce a certificate of having studied for a period of not less than six months with a general practitioner who dispenses his own medicines, or of having dispensed for six months at a public dispensary.
3. The age of twenty-two years should be attained before a student is permitted to receive a licence to practise medicine and surgery.
4. An examination in Elementary Anatomy and Physiology, at which every student must appear, should be instituted at the end of the first year of medical studies.
5. After passing the "primary" professional examination, every student should be compelled to devote at least two full years to the study of Clinical Medicine, Surgery, and Obstetrics, at a recognised hospital, prior to being allowed to present himself for his final or qualifying examination.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE SAILORS' HOME AND DISPENSARY, LIVERPOOL.

THE Liverpool Sailors' Home, in addition to the other good works that it has in hand, maintains a dispensary for the treatment of venereal diseases. It is hoped that, by this means, sailors may be kept from becoming the victims of the advertising quacks. The register of cases treated at the dispensary shows that the more severe form of venereal disease is on the increase; and the medical officers suggest that seamen should undergo a medical inspection before they sail from the port. The amount of invaliding which arises from cases proceeding to sea uncured must, in their opinion, be prejudicial not only to the health of the crew, but even to the safety of the ship. The number of individuals who applied at the dispensary, during the year 1879, was 853; and the medical officers consider that, notwithstanding the difficulties with which the institution has had to contend, its utility has been proved in a marked degree.

THE TWICKENHAM PROVIDENT DISPENSARY.

THE third annual report of this institution shows that it is making most satisfactory progress. The number of families on the books at the close of last year was 201, representing 675 individuals. The supply of drugs through a chemist was found so expensive that the contract was terminated at midsummer; and during the latter half of the year, the medical officers undertook to furnish the medicines at their own surgeries, where the patients are also seen. Thus the working expenses of the dispensary are small. The rapid growth of the institution is shown by the following figures. In 1877, the payments of members amounted to £14; in 1878, to £56; and in 1879, to £124. As the result of last year's work, £156 were divided between the two medical officers. This includes the cost of drugs for six months.

At this dispensary, the provident principle is thoroughly carried out. It would be well if the Twining Hospital, in which there is a provident element, could be brought up to the same standard, so that the two institutions might work in complete harmony.

THE FUNCTIONS OF A STATE BOARD OF HEALTH.—In his address as President at the recent annual meeting of the New York State Medical Society, Dr. H. D. Didama of Syracuse advocated the establishment of a State Board of Health, to be composed of the most learned, prudent, practical, and energetic sanitarians in the land, to whom should be given plenary power as a means for dissipating prevailing ignorance, rousing the people from their dangerous apathy, and compelling the accomplishment of incalculable good. It would be the duty of this board to instruct the laity, and the profession as well, concerning ventilation, drainage, sewerage, foods and drink, pointing out that the germs of many deadly diseases, while never produced by filth, are often transplanted to it, that they breed and flourish in it, and are disseminated by it. It should be the further duty of this board to teach that zymotic diseases are preventable and should be abolished, and to impress upon the people that the continuance of these diseases should imply not ignorance alone, but criminal negligence.

SPECIAL CORRESPONDENCE.

MELBOURNE, VICTORIA.

Lunatic Asylums in Victoria.—The British Medical Association in Australia.—Dr. Fitzgerald.—The Yarra-Bend Lunatic Asylum.

OUR report on the condition of the Kew Lunatic Asylum has recently been the topic of interest. The daily and weekly newspapers of every political shade have followed up the subject, in leading articles unanimous in condemning the existing state of affairs, and urgent in their demands that the Government should at once take action in remedying the evils complained of. Our independent and self-imposed work has been warmly applauded by the public, accompanied with assurances of its ready support. In accordance therewith, the subject was brought prominently before Parliament; and the Chief Secretary, in whose department the charitable institutions are placed, has ordered an investigation of all the lunatic asylums in Victoria to be made. Our political horizon is at present in a state of intense excitement pending a dissolution, so that members of the Legislative Assembly have not been able to deal with this matter in a more exhaustive manner. The special motion in reference to our report is, however, still on the papers, so that it can be brought forward at any time. The satisfaction that we have experienced by the indirect recognition of the Ministry in noticing our report, and to a certain extent acting thereon, has been marred by the first step they have taken towards the enforced reform. The Acting Inspector of Lunatic Asylums has always been a medical man, both here and in the adjacent colonies. The present Inspector, Dr. Paley, who has been suffering from ill-health for some time past, received leave of absence; and the Government, instead of appointing the next in command to fill the office, selected the Governor of the Melbourne Jail as "Acting Inspector of Lunatic Asylums" *pro tempore.* The illegality of this appointment was brought under the notice of the Premier in Parliament, but he justified this step by referring to the Lunacy Statute. The law reads thus: "It shall be lawful for the Governor in Council from time to time to appoint an inspector or deputy-inspector of asylums, hospitals, and licensed houses in Victoria, etc.; provided that such inspector shall not, during the continuance of his office, himself carry on in Victoria, or be the partner or assistant of any person carrying on in Victoria, the profession or business of a physician, surgeon, or apothecary, and any inspector who shall violate this enactment shall be guilty of a misdemeanour." I think the intention conveyed by the legislature is sufficiently expressed, that the inspector should be a medical man. By an arbitrary action of this sort, all chance of promotion is naturally cut off. It is intended, I believe, to refer the point to the gentleman who drew up the Act just quoted, and who is at present one of our most eminent barristers. Action will be taken according to the tenor of his reply.

Dr. Milford, of Sydney, has expressed his willingness and ready co-operation in forming a Branch of the Association in Sydney. Your correspondent has also been in communication with Dr. Thomas of Adelaide and Dr. Bright of Hobart Town with a similar view. Dr. Thomas informs us that a Branch is in existence in Adelaide.

Dr. Fitzgerald, the President of the Medical Society, gives a dinner on his retiring from office.

We have received permission to visit the Yarra-Bend Lunatic Asylum, and a visit will be made shortly after the new year. The number of inmates has been greatly reduced, and the patients sent to Sunbury, where the children belonging to the Industrial Schools were formerly housed. A complaint is made from this institution, that the lunatics are placed under "a head warder in charge, and that the medical officer is but second in rank". I dare say that these matters will be discussed during the next weeks.

VITAL STATISTICS OF THE GERMAN EMPIRE. — According to the German Imperial statistics for 1878 of births, deaths, and marriages, just published, the estimated population being 44,200,000, the marriages numbered 340,000, the births 1,785,000, and the deaths 1,228,000. The still-born are reckoned in both births and deaths. It is interesting to compare the latter figures with those of the same year for France. In France, the number of births was 936,000, and of deaths 839,000; so that the births exceeded the deaths by 97,000. In Germany, the excess of births was 557,000; that is to say, while in France population increased in 1878 at the rate of .27 per cent., it increased in Germany at the rate of 1.25 per cent. The number of marriages in Germany has greatly fallen off since 1872, when 423,900 were registered.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 14th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 22nd, 1880.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

THE meeting notified in last week's JOURNAL to take place at Brighton on the 31st instant, is unavoidably postponed until Tuesday, the 6th of April.

THOMAS TROLLOPE, M.D., *Hon. District Secretary.*

9, Maze Hill, St. Leonard's-on-Sea, March 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE next ordinary meeting of this Branch will be held at Aberdare on Thursday, April 22nd. Gentlemen desirous of reading papers, etc., are requested to send titles without delay to one of the honorary secretaries.

ALFRED SHEEN, M.D.
J. HANCOCKE WATHEN. } *Honorary Secretaries.*

March 16th, 1880.

BATH AND BRISTOL BRANCH.

THE fifth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, April 15th: J. BEDDOE, M.D., President.

R. S. FOWLER,
E. C. BOARD, } *Honorary Secretaries.*

Bath, March 1880.

NORTH WALES BRANCH.

THE intermediate meeting of this Branch has been deferred until after the General Election.

The subject for discussion at the meeting will be "The Zymotic Influence in Disease".

J. LLOYD ROBERTS, *Honorary Secretary.*

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Tuesday, March 23rd.

Trichinosis on Board the Cornwall Training-Ship.—Earl BEAUCHAMP, in answer to Lord THURLOW, said that the Secretary of State, having consulted the Local Government Board, had undertaken an inquiry as to the sickness that had existed on board the training-ship *Cornwall.* The inquiry had been carried on in a very careful and laborious manner, and the result was a report that the sickness had resulted in one death only. At first, the sickness was believed to be fever; but it was in the end found to be due to trichinosis. The report would be laid upon the table, and it was a most interesting document.

HOUSE OF COMMONS.—Friday, March 19th.

The Case of Acting Staff-Surgeon Allen.—Reply to Mr. SULLIVAN (who put a question for Mr. O'Shaughnessy), Mr. W. H. SMITH said: Mr. Marcus Allen, while a patient in Haslar Hospital in 1878, was recommended for survey by Dr. Watt Reid, on the ground that he was suffering from an incurable disease, but one which, nevertheless, was not beyond remedial measures. This survey, however, was not then ordered by the Medical Director-General. On Mr. Allen's discharge from hospital, he was appointed to a Coastguard cruiser. In accordance with the practice of the service, he was medically surveyed in London, and not at Haslar, as he had requested, and was reported fit for active service. On this, he requested permission to resign, as not equal to the responsibilities of the position either mentally or physically. His resignation was accepted, and he never joined his ship. It is not customary to give compensation to officers who resign, nor to reconsider their cases with a view to their readmission into the service, for which an Order in Council would be required.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

METROPOLITAN LUNATICS.

AT the last weekly meeting of the St. Saviour's Board of Guardians, the Clerk reported that nearly every private lunatic asylum receiving pauper patients in the metropolis is full, and that it is intended to send a number of lunatics to Fisherton House, Salisbury, in order to make room for more urgent cases. It is understood that there are, or were quite recently, a number of vacancies in the new Middlesex Asylum on Banstead Downs; and it might be a fit subject of inquiry why, while these vacancies existed, metropolitan lunatics were sent to a licensed house, in which their maintenance must cost the ratepayers nearly double what it would do at Banstead. It is manifestly inexpedient to send metropolitan lunatics to Salisbury if such a measure can possibly be avoided, for their removal to such a distance involves entire deprivation of those visits from relations and friends which are always consolatory, and sometimes restorative, in their effects on the incarcerated insane.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BETHNAL GREEN.—Considering the character of the population in Bethnal Green, the death-rate is not so high as might have been anticipated, being 23.0 per 1,000, against 23.5 for London generally. The proportion of deaths amongst infants under one year of age was 145.7 per 1,000, or more than 18 less than the whole of London. Out of the 2,951 deaths registered in this district, 1,443, or 48.8 per cent., were those of young children under the age of five. Persons aged over sixty years died to the number of 545. The chief zymotic diseases caused 477 deaths, against 521 in 1877. To these, however, must be added 48 deaths amongst parishioners of Bethnal Green in the Fever and Small-pox Hospitals, raising the numbers to 525, and giving a zymotic death-rate of 3.9 per 1,000. A total of 334 cases of small-pox were reported, 22 of which died at home, and 33 (out of 188 removed thither) in the Small-pox Hospital. Measles was, as usual, prevalent, causing 59 deaths, and scarlatina caused 68 deaths. The most fatal zymotic disease was, however, whooping-cough, which was extremely fatal, and caused 192 deaths, or more than 6 per cent. of the total deaths. Tubercular diseases were accountable for 423 deaths, of which no less than 372 were from pulmonary phthisis alone.

SUPERANNUATION.

THE following letter has been received by the Council of the Poor-law Medical Officers' Association from the Local Government Board.

"Local Government Board, Whitehall, S.W.,
"February 27th, 1880.

"Sir,—I am directed by the Local Government Board to advert to their letter of the 12th instant, and further to acquaint you, for the information of the Council of the Poor-law Medical Officers' Association, that inquiry having been made of the Guardians of the Tenterden Union respecting the case of Mr. Terry, formerly medical officer of that union, the Guardians have explained that they entertain objections to the system of superannuation, especially in cases where the whole time of the officer is not devoted to the duties of the office. As the Council are probably aware, the initiative in these cases rests with the Guardians, and the Board have no power to insist upon a superannuation allowance, even where it might seem to them that a proper case for superannuation had been made out.—N. ROTTON, Assistant Secretary."

THE HEALTH OF SOUTH-COAST TOWNS.

SIR,—In to-day's issue of the BRITISH MEDICAL JOURNAL, you have inserted my letter on the above subject without omitting the latter part of the third paragraph, commencing with the words, "On the other hand". I sent you a letter asking you to make this correction, as I found I had misinterpreted Table VIII of the Registrar-General's Report respecting the rate of mortality of those above sixty years of age. [We regret that Mr. Greenway's correction was accidentally overlooked.—Ed.] In the second line of the second paragraph of my letter, "equal average" should be "equal acreage".

In your foot-note you say, "We attach, however, very little value to calculations of density of population based merely upon the average number of persons living on each acre within the arbitrary boundaries of different municipal boroughs". This passage implies I have attached value to such calculations. My argument, however, showed quite the reverse, for I said, "It would be far more valuable to ascertain the average density of population in the inhabited portions only of a given borough or district"; but it is beyond controversy that, although of no real benefit, the enlargement of a given borough or district, containing old and overcrowded dwellings, so as to include a large number of good class houses and inhabitants, would materially lessen the death-rate. It is for this very reason the death-rates of Portsmouth and Plymouth cannot be judged by the same standard. You also say, "Nor do we think it probable that the Plymouth population contains a much larger proportional Irish contingent than does that of Portsmouth". My informant, who has resided some years in Portsmouth, says Plymouth does contain a much larger proportion of poor Irish. This is stronger evidence than probability. Plymouth also contains another large class not to be found in Portsmouth—the poor fishermen, who chiefly reside in the old and overcrowded parts of the town in the neighbourhood of the quays. Large numbers of emigrants are also lodged here from time to time. You do not say in what manner the Public Health Acts can be made to relieve the overcrowding in Plymouth, where the supply of house-accommodation is not equal to the demand. The poor cannot be turned out into the streets.

You take exception to my remark that "fortunately, infantile diarrhœa is not a zymotic disease, otherwise the mortality would have been much greater". Surely, if it were zymotic, it would affect the rate of mortality to a greater degree than if it were not; and still more so in a town partly overcrowded than in one with a population evenly distributed. Whether my assertion as to the non-infectious character of the disease be "sound or unsound", I may safely leave it to be judged by the medical profession. The Registrar-General classes infantile diarrhœa as zymotic. In the book issued by the Royal College of Physicians for the guidance of the profession in the nomenclature and classification of diseases, "diarrhœa" (unless it be choleraic) is placed under the head of "Diseases of the Digestive System"; and I have not yet met with any experienced practitioner who regarded the disease in any other light. I shall hope to deal with this subject more fully in a separate communication.

I must again express my belief that I have fully explained why a difference of 2 per 1000 exists between the average death-rates in Plymouth and Portsmouth, excluding those from zymotic diseases, which you have shown are about equal.—I am, sir, yours obediently,

HENRY GREENWAY.

Plymouth, March 6th, 1880.

POOR-LAW MEDICAL APPOINTMENTS.

*BLACKER, E. J. Latham, M.D., appointed Medical Officer to the B District of the Thrapstone Union, *vice* J. Bird, L.F.P.S.Glasgow.

MACGREGOR, Peter, L.R.C.P.Ed., appointed Medical Officer to the Crosland Moor Workhouse, Huddersfield Union, *vice* G. W. Rhodes, M.R.C.S.Eng., resigned.

WRIGHT, William Henry, L.K.Q.C.P.I., appointed Medical Officer and Public Vaccinator to the Normanton District of the Shardlow Union, *vice* J. C. Brady, L.R.C.P.Ed., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL SERVICE.—The following appointments have been made: Fleet-Surgeon—W. Telfer, to the *Britannia;* Staff-Surgeons—A. G. Colquhoun, to the *Pembroke;* T. Conry, and Surgeon C. W. Magrane, to the *Flora*, for service at Ascension.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

FACULTY OF MEDICINE.—The following notice has been issued by Dr. Acland, Regius Professor of Medicine. Candidates for the several examinations in medicine are informed that, in conformity with the statute passed on December 17th, 1879, examinations for the first (or scientific) and for the second (or practical) part, and for the certificate in State medicine and public health will be holden during Trinity Term next, *i.e.*, at an early date subsequent to May 15th. Notice will be given in Easter Term stating the days and hours of each examination. Intending candidates are requested to forward to the Regius Professor of Medicine, 'Medical Department, Museum', their names, addresses, standing, and the date of passing their final examination in arts.

EXTIRPATION of the larynx was performed, for the first time in America, by Dr. Lange, in October 1879. The patient was a gentleman aged 74, who had a tumour at the upper part of the larynx, which pointed upwards to the base of the epiglottis and everted it, almost entirely occluded the larynx, and pressed on the œsophagus. The parts removed were the larynx, with the exception of the lower part of the cricoid cartilage, the right wing of the hyoid bone, and anterior wall of the œsophagus, which latter had become involved. After three months of a very difficult and troublesome after-treatment, during which his life was in question more than once, the patient returned home. By means of an artificial apparatus, closure of the œsophagus was effected, deglutition was secured, and the patient was able to take his food without difficulty, and, by means of an artificial larynx, was able to articulate. Still, the apparatus was troublesome to him. He was getting along tolerably well when the case was reported by Dr. Lange, at a meeting of the New York Pathological Society, on January 28th.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 18th, 1880.

Bartlett, Charles Richard, 32, Halsey Street, S.W.
Clarke, William, Lamont, Ottawa, U.S.
Grindon, Francis James, Olney, Bucks.
Hepburn, John, Turnham Green, W.
Hormasdji, Robert Nesbitt, 21, Artesian Road, W.
Lecoq, Jules Arthur, 15, Soho Square, W.

The following gentleman also on the same day passed his primary professional examination.

Yeatman, John Walter, St. Bartholomew's Hospital.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

*ABINGDON UNION—Medical Officer and Public Vaccinator for No. 3 District. Salary, £95 per annum. Applications, with testimonials, to the Clerk of the Guardians, on or before April 10th.

*BETHLEM HOSPITAL—Two Resident Medical Students. Applications, with testimonials, before April 10th.

BOYLE UNION—Medical Officer for Keadue Dispensary District. Salary, £120 per annum, with £10 a year as Medical Officer of Health. Registration and Vaccination Fees. Election on the 31st instant.

CARLISLE UNION—Medical Officer to the Dalston District. Salary, £10 per annum.

CARMARTHEN INFIRMARY—House-Surgeon. Salary, £125 per annum, with lodging, fire, and washing. Applications to the Secretary on or before March 31st.

CELBRIDGE UNION—Medical Officer for Lucan Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health. Registration and Vaccination Fees. Election on April 12th.

CHORLTON UNION—Assistant Medical Officer to the Workhouse. Salary, £120 per annum.

CORK UNION—Medical Officer for Ballincollig Dispensary District. Salary, £120 per annum, £15 per annum as Medical Officer of Health, with Registration and Vaccination Fees. Election on April 3rd.

CREDITON UNION—Medical Officer to the Mochard Bishop District. Salary, £52 10s. per annum.

*DENTAL HOSPITAL OF LONDON—Dental House-Surgeon. Salary, £40 per annum. Applications to the honorary secretary on or before April 14th.

GREAT NORTHERN HOSPITAL, Caledonian Road—Junior Resident Medical Officer. No salary but board and residence in the hospital. Applications, with copies of testimonials, to the Secretary up to April 1st.

GREENOCK INFIRMARY—Oculist to the Out-Door Patients. Applications not later than March 31st.

HUDDERSFIELD UNION—Medical Officer to the Marsden District. Salary, £18 per annum.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT—A vacancy in the Honorary Medical Visiting Staff. Election on April 15th.

IRVINESTOWN UNION—Medical Officer for Ederney Dispensary District, at a salary of £120 per annum, £15 as Medical Officer of Health, Registration and Vaccination Fees. Election on April 3rd.

*ISLE OF WIGHT UNION—Medical Officer to the Carisbrooke District. Salary, £80 per annum, with fees for Vaccination. Applications on or before April 14th.

*LONDON HOSPITAL, E.—Clinical Assistant to the Out-patient Physician, Salary, £80 per annum. Applications, with testimonials, before one o'clock on Tuesday, March 30th.

METROPOLITAN FREE HOSPITAL—Assistant Physician. Honorarium of twenty-five guineas per annum. Applications on or before March 27th.

QUEEN CHARLOTTE LYING-IN HOSPITAL, London—Resident Medical Officer. Salary, £60 per annum, with board and lodging in the hospital. Applications, with copies of testimonials, to the Secretary before April 5th.

*QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Physician. Salary, £50 per annum, with board, residence, etc. Applications, with testimonials, to the Secretary, on or before April 8th.

*SHEFFIELD GENERAL INFIRMARY—Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications, with testimonials, on or before April 10th.

SUDBURY UNION—Medical Officer for the Fourth District. Salary, £62 per annum. Applications, with testimonials, on or before March 29th.

*SUNDERLAND UNION—Medical Officer to the Workhouse—Salary, £250 per annum. Applications, with testimonials, on or before April 2nd.

THE GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Physician for Out-patients. Applications, with testimonials, on or before March 31st.

TORBAY HOSPITAL AND DISPENSARY, Torquay.—House-Surgeon. Salary, £100 per annum, with board, lodgings, and attendance. Applications on or before the 29th instant.

UNIVERSITY COLLEGE HOSPITAL—Third Assistant Physician. Applications on or before March 29th.

UNIVERSITY OF EDINBURGH—Additional Examiner to the Clinical Surgery Department. Applications, with testimonials, to the Secretary not later than April 5th.

WESTMINSTER HOSPITAL—Medical Registrar. Salary, £40 per annum. Applications before March 30th.

*WESTMINSTER HOSPITAL—Pathologist and Curator of the Museum. Salary £52 10s. per annum. Applications, with copies of testimonials, to the Secretary, on or before April 10th.

WETHERBY UNION—Medical Officer to the Harewood District. Salary, £15 per annum.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

ABBOTT, George, M.R.C.S.E., appointed Surgeon to the Central London Ophthalmic Hospital, *vice* A. Dunnage, M.R.C.S., deceased.

MACKENZIE, A. G., L.R.C.P.Edin., appointed Surgeon to the *Severn*, in the Royal Mail Steamship Company's Service.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BAKER.—On March 17th, at "The Cedars", Tenterden, Kent, the wife of Charles Eaton Baker, M.R.C.S.E., of a son.

DICKSON.—On the 20th March, at 33, Albany St., Edinburgh, the wife of Frank K. Dickson, F.R.C.P.E., Wye House, Buxton, of a son (Francis Henry).

DEATHS.

BOLTON, Robert H., L.K.Q.C.P.I., Surgeon-Major Army Medical Department, of Candahar, aged 40, on February 27th.

ELSOM, Joseph F., M.R.C.S.Eng., at Limehouse, aged 67, on March 11th.

*SINCLAIR.—On the 17th instant, at Halstead, Essex, Duncan Sinclair, F.R.C.S.Ed., aged 71.

SYKES, George, M.D., at Queen's Road, Dalston, aged 49, on March 17th.

DR. JOHN DONOVAN was, on the 18th instant, elected by the Skibbereen Board of Guardians medical officer to the Workhouse. He was unopposed for the post, which was recently held by his deceased brother, and previously by his father.

BEQUESTS.—Mr. James Robertson, Carnegie Street, Edinburgh, has left to the Royal Infirmary £100; the Orphan Hospital, £95; the Blind Asylum, £95; the Destitute Sick Society, £100; the Association for Incurables, £40; and the Society for Improving the Poor, £95.

RULES FOR THE USE OF THE FORCEPS.—In the course of a recent discussion on the use of the obstetric forceps, in the New York Academy of Medicine, Dr. Fordyce Barker said that there were certain rules which he regarded as well established. 1. In that form of contraction of the superior strait called the oblique oval of Naegele's, the forceps should not be used, but we should always resort to version. 2. In that class of cases in which the contraction is at the inferior strait, with a straight sacrum instead of the normal curvature, narrowness of the subpubic arch, etc., we should never resort to forceps, but always select version, if we have the opportunity to make the election by a sufficiently early examination. 3. In face-presentation, we should never resort to forceps when the head is above the superior strait, and not engaged. He would not say that the forceps should never be applied when the head was not engaged at the superior strait; for he knew he had safely delivered several women, where it was necessary to save the life of the mother, when the head was not engaged at all, or was lying loose at the superior strait. But, if the face presented under the same circumstances, we should not resort to the forceps. He had, in at least three cases where there was a face-presentation in a contracted superior strait, and the face had become engaged in the strait, been successful in delivering by the forceps, by first flexing the head and converting it into a vertex presentation, and partially rotating it. Then, taking off the blades, he had reapplied them as if it were a vertex. In these cases, it was fortunate that the original presentation was the face, because the vertex would not have engaged in these contracted pelves if it had presented.

PUBLIC HEALTH.—During last week, being the eleventh week of this year, 3,692 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 22 deaths annually in every 1,000 persons living. The annual death-rate was 27 in Edinburgh, 24 in Glasgow, and 37 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Brighton 11, Leicester 16, Hull 17, Wolverhampton 18, Bristol 18, Birmingham 18, Portsmouth 19, Leeds 20, Sunderland 21, London 21, Bradford 21, Salford 21, Sheffield 21, Newcastle-upon-Tyne 22, Liverpool 24, Norwich 24, Manchester 28, Nottingham 29, Plymouth 31, and the highest rate 35 in Oldham. The annual death-rate from the seven principal zymotic diseases averaged 3.3 per 1,000 in the twenty towns, and ranged from 0.8 and 1.5 in Portsmouth and Brighton, to 9.9 and 15.3 in Oldham and Plymouth. Measles showed the largest proportional excess in Plymouth, Nottingham, Oldham, and Hull; scarlet fever in Oldham, Norwich, Sunderland, and Sheffield; and whooping-cough in Plymouth, Norwich, and Salford. In London, 1,465 deaths were registered, which were 278 below the average, and gave an annual death-rate of 20.9. The 1,465 deaths included 11 from small-pox, 45 from measles, 45 from scarlet fever, 18 from diphtheria, 114 from whooping-cough, 10 from different forms of fever, and 14 from diarrhœa—in all 232 zymotic deaths, which were 4 below the average, and were equal to an annual rate of 3.3 per 1,000. The deaths referred to diseases of the respiratory organs, which had steadily declined from 1,557 to 315 in the six preceding weeks, were again 315 last week, and were 145 below the average; 220 resulted from bronchitis, and 65 from pneumonia. Different forms of violence caused 52 deaths; 49 were the result of negligence or accident, including 22 from fractures and contusions, 3 from burns and scalds, 3 from poison, and 16 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 41.3°, and 0.1° above the average. The general direction of the wind was easterly, and the horizontal movement of the air averaged 10.7 miles per hour, which was 2.3 below the average. No rain fell during the week. The duration of registered bright sunshine in the week was equal to 45 per cent. of its possible duration.

Philadelphia Academy of Surgery.—An application for a charter for a new medical and surgical institution has been filed in the Prothonotary's Office, in Philadelphia, by Mr. A. Haller Gross, who represents the medical gentlemen instrumental in starting the enterprise. It is to be called the "Philadelphia Academy of Surgery"; and the objects of the organisation are the cultivation and improvement of the science and the art of surgery, the elevation of the medical profession, the promotion of the public health, and such other objects as may come legitimately within its sphere. With these purposes in view, when the Academy is established, a suitable hall will be selected where the members can meet at stated intervals, and read essays and discuss matters pertaining to medical and surgical affairs. The temporary officers of the Academy are: *President*, Dr. A. Hewson; *Secretary*, J. Ewing Mears; and *Treasurer*, Dr. Wm. Hunt.

National Hospital for Consumption, Ventnor.—Dr. Coghill reports that the number of patients under treatment during 1879 was 581, of whom 570 were in-patients, and 11 out-patients. The numbers for 1878, 1877, and 1876 were 537, 525, and 487 respectively. The average length of residence, calculated on 401 cases completed within the year, was 8.1 weeks; but many stayed for periods varying from 14 to 24 weeks, and the average is unduly depressed by the inclusion of a large number patients whose condition rendered speedy departure advisable. In the 570 cases, the results were the following: 82 were very much improved; 158 much improved; 128 improved; 110 *in statu quo;* 55 worse; and 15 died. The remaining 22 were in hospital for too short a time to show any result. The number of fatal cases was 15, or 2.63 per cent., of whom 12 were men and 3 women. Of the 15 deaths, of which 4 only occurred during the second half of the year, 7 resulted from phthisis pulmonalis uncomplicated, 3 from profuse hæmoptysis, occurring in the course of phthisis, and the remaining 5 cases were variously complicated with abdominal tubercle (in 3 cases), Bright's disease (in 2 cases), empyema (in 1), cirrhosis of the liver (in 1), and simple meningitis (in 1). Nearly all the patients gained weight during their residence in the hospital. In ten weeks, four patients gained collectively 56 lbs., *i. e.*, an average of 14 lbs. each; in eight weeks, two gained 26¾ lbs., one in five weeks gained 14¾ lbs., and one in four weeks 12½ lbs. The total gain by 398 patients was 1963¾ lbs.; while 131 patients lost weight to the extent of 328½ lbs.

Vital Statistics of Cavalry Horses.—At the meeting of the Statistical Society on March 16th, a paper on this subject was read by Dr. T. Graham Balfour, F.R.S. The subject had received much attention in France, where, in 1843, owing to the heavy losses by glanders sustained by the army during the preceding ten years, a permanent commission, presided over by the celebrated physiologist Magendie, was appointed to examine all questions relating to the health and preservation of the horses of the army. The commission established statistical returns to be furnished annually by the veterinary surgeons of the army, and was authorised by the war minister to publish an annual volume giving the results of these returns, and any information it might judge deserving of publication relating to the health of the horses. The mortality of the horses in the French army during the thirty years 1837-66 averaged 58 per 1,000 of the strength; ranging between 125 in 1841, and 26 in 1862; and the proportion "cast" was 80 per 1,000, ranging between 135 in 1849, and 47 in 1855. The total loss amounted to nearly 14 per cent. annually. As a result of the improvements introduced by the commission, the deaths in the last five years have been only 27.5 per 1000, against 115 in the first. The casting, however, was higher in the last two than in the first two periods. The influence of sex was shown in a slightly higher rate of mortality, but lower of casting, among mares than horses. The death-rate decreased steadily till eleven years of age, when the minimum was reached. The casting, as might be expected, increased steadily with advancing years. The disease which caused the highest rate of mortality was glanders, and next to it was inflammation of the lungs and pleura. The highest death-rate by glanders occurred at the age of six, after which it steadily decreased; the highest rate of deaths by lung-disease was among the four-year-old horses. The chief cause of casting was legs worn out, which accounted for two-fifths of the whole. The admission of cases into the infirmaries averaged more than 50 per cent. annually, about one-fourth of them being on account of wounds and injuries. The influence of the seasons on the sickness was shown by a table of the admissions in each quarter of the year for the chief classes of the diseases; they were lowest in the fourth, and highest in the second quarter. The returns, unfortunately, did not show the number constantly non-effective. The information respecting the British cavalry was very meagre. The deaths, on the average of eighteen years, 1861-78, were 21.07 per 1,000, ranging between 16.9 in 1864, and 28.1 in 1871. The number cast averaged 98 per 1,000 and ranged between 76 in 1871, and 156 in 1878. The mortality was lowest in the Household Cavalry, and highest in the Cavalry of the Line; whilst the casting was lowest in the Royal Engineers, and highest in the Military Train and Army Service Corps, the Household Cavalry furnishing the next highest proportion. There was no information available as to the causes of death and casting. The author called attention to the valuable results obtained by the statistical method of investigation as applied to the horses of the army in France, and suggested that a similar course should be followed in our service. He also pointed out the importance, as shown by the French returns, of stamping out glanders by killing all infected horses as soon as the nature of the disease was verified.

Russian Vital Statistics.—The fourteenth number of the second series of the *Statistische Jahrbuch* gives some interesting details concerning the population of Russia. A careful series of investigations extending over years gives the average annual number of births in Russia as 3,163,405; of the children born, 1,619,108 were males, and 1,587,297 females. The average annual deaths were 2,382,196—viz., 1,214,467 males, and 1,167,729 females. This gives a net annual average increase to the population of 781,209, which assuming the population in the fifty governments to be about sixty-five millions, would be a mean increase of 1.2 per cent. The marriages average annually 646,971. If the present average rate of increase be maintained during the next fifty-eight years, the population of Russia will, at the end of that period, have been doubled. The corresponding increase goes on much more slowly in some other European countries. Thus, for example, according to the present rate of increase in the several countries, the population would be doubled in Sweden at the end of 68 years; in Belgium at the end of 79 years; and in Austria at the end of 95; but the same result will not happen in Italy till the end of 141 years; and in France till 165 years have passed. The greatest increase is to be observed in the western and southern (Polish) governments, where it is over 1.5 per cent., while the least, or less than 1 per cent., is in the north-eastern and Baltic districts. In the governments of Esthonia and St. Petersburg, there is actually a decrease of population amounting to about 0.6 per cent. in the former district, and 0.33 per cent. in the latter. Three per cent. of all the children born are illegitimate, which is only one-third of the proportion existing in the neighbouring Sweden. The greatest number of births occur in autumn, and the least in spring. In the mass of the population, the proportion of boys to girls, is 102 to 100; but among the Jews the state of things is reversed, there being 128.9 girls to every 100 boys.

International Sanitary Conference in America.—The following joint resolution, authorising the President of the United States to call an International Sanitary Conference, to meet at Washington, has been introduced in the Senate, and also in the House of Representatives, and has been referred to the Committee on Epidemic Diseases: "That the President of the United States is hereby authorised to call an International Sanitary Conference, to meet at Washington, District of Columbia, to which the several powers having jurisdiction of ports likely to be infected with yellow fever shall be invited to send delegates, properly authorised, for the purpose of securing an international system of notification as to the actual sanitary condition of ports and places under the jurisdiction of such powers, and of vessels sailing therefrom."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.– Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

THURSDAY.—Harveian Society of London, 8.30 P.M. Dr. Cavafy, "A Case of Urticaria Pigmentosa"; Mr. Malcolm Morris, "A Case of Pemphigus cured by Arsenic"; Mr. Reeves, "Rectal Stricture, with special reference to Rectotomy and Twenty-five Colotomies".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

NOTICE TO ADVERTISERS. — Advertisements for insertion in the BRITISH MEDICAL JOURNAL should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

INTRAPROFESSIONAL OBLIGATIONS.

SIR,—Will you permit me to take exception to your "ruling" as not being strictly applicable to the case related by Dr. Beatty in the last number of the BRITISH MEDICAL JOURNAL. I entirely agree with you "that it is not the recognised custom of the medical profession to take payment from a medical man for attendance on a member of his family". But the question arises, Who are the members of a medical man's family? Assuredly not his grandchildren; for, if so, why not his nephews, and nieces, and cousins, and so on to the remotest consanguinity?

Dr. Beatty's illustration of his argument, "that one member of his family was attended by a country physician of high standing, who spurned the idea of remuneration, although he received a present", and that he himself had five operations performed on him by an eminent London surgeon, without fee or reward, is obviously beside the mark, and does not touch the case of grandchildren. My idea is, that your ruling applies to the doctor himself, his wife, and children, and to none besides.—Yours faithfully,
AN OLD MEMBER.

Cheltenham, March 22nd, 1880.

SIR,—Dr. Beatty does not make it clear who the father of his grandson may be; if he be a medical man, I agree with Dr. Beatty; if not, I cannot see the just cause of his complaint. We must, I think, draw the line somewhere, and that line has, I believe, limited the free attendance to the widow or children of a medical man.

Your note does not explain whether we may be expected to attend, gratis, grandchildren, aunts, cousins, nephews, and nieces, or sons-in-law, of any professional brother. Would it not be convenient to settle this point?—I am, sir, yours truly,

Coventry, March 22nd, 1880.
MILNER MOORE.

⁂ Our note on Dr. Beatty's letter was, we observe, not sufficiently explicit; and we would supplement it by saying, that no ethical rule or custom can be laid down with regard to charging fees for attendance on the more remote relations of a member of the medical profession.

WE have received from D. C. a post-office order for ten shillings as a contribution to the Dalton Fund.

HELP IN STREET-ACCIDENTS.

SIR,—A stranger passing for the first time through the large thoroughfares of London cannot but be struck with the imminent risk that threatens the public on account of the great amount of traffic; while a resident accustomed to the crowd of vehicles and foot-passengers must have wondered, not so much at the number of casualties occurring daily, but rather how it is that so many escape. No little credit is doubtless due in this respect to excellent police-arrangements and control of the traffic; but still accidents, preventable or otherwise, constantly happen. The annual summary of the Registrar-General for 1878 states that, during that year, 237 persons were killed in London by horses and vehicles of different kinds; many of these were possibly maimed and subsequently died of their injuries; but many more were injured and yet survived. A recent statement makes the relative numbers for 1879, killed 236; run over 3,390.

Add to street-accidents the multitude of casualties that occur in factories, in workshops, by machinery, during building, excavation, and other works, by falls, fires, etc., and we shall have a fearful array of injured persons, to say nothing of those suffering from fits, disease of heart or other organs. A large number of these require means of conveyance to their homes, the hospital, or the workhouse; but for this purpose, beyond the police-stretcher, a cab, or some improvised shutter, no means are available. The police-station where the stretcher is possibly kept may be at a considerable distance, and much valuable time will in such case be lost before the injured person can be removed; while a cab, when it can be had, is seldom the easiest or best means of carriage.

The Royal Humane Society provides drags and ropes at spots where they are likely to be of use; the Society for Protection of Life from Fire has a well organised staff and apparatus for their purpose; in foreign cities, there are stations where help can be obtained for the wounded, drowned, and insensible. Is it too much to hope that in this great and populous city, some means for ready help in cases of necessity should be supplied?

The establishment of ambulance classes for instructing men and women in the methods of rendering first aid to injured persons has wrought a thoroughly good work by popularising much valuable information in the manner of dealing with accidents and casualties of all kinds until proper medical aid can be had. As a means of making more profitable the knowledge thus acquired, it would be well if some simple apparatus, say, of bandages, tow, common splints, and above all a litter, could be had quickly and readily at some well known spot. There are, both in the city and in the metropolitan district, certain positions called "fixed points"—about 150 and 270 respectively in number—where a police officer is to be found during sixteen hours of the twenty-four, and at a few during the whole day and night. It would doubtless be unnecessary to furnish all these with the ready apparatus, but certain central, well known, and busy situations might at first be selected, where, under the charge of the police officer on duty, a locker or depository containing the simple helps might be kept. The police have very generally profited by ambulance teaching, and many have gained certificates of capability to render first aid to the injured. In this way, prompt and efficient help would be speedily obtainable in all cases, while the bungling though well intentioned kindness, or the delay, which converts an accident at first of a simple nature into one of a more dangerous character, would be avoided, at the same time that a great amount of pain and suffering would be obviated by the easy carriage and position of the injured person, time would not be lost before professional aid could be obtained, and many a life would thus be saved.—I am, etc.,

130, King Henry's Road, N.W.
G. CARRICK STEET, F.R.C.S.

THE English sparrow has been introduced into American cities to destroy the worms on the trees. "Which would you rather have", asked a young lady of an exquisite, "sparrows or worms?" The young man answered, "Really, I—I don't know. I never had—sparrows".

POLITICAL DEVOTION.

THE physician attending Representative Beklen, in Washington (Dr. Garnett), is a stout Democrat. Somebody asked him if it were true that his patient was dying. "Dying!" ejaculated the doctor; "do you think I would let a vote die when we have only one majority, and no time for a special election to fill the vacancy? Erebus, no. I'd take his medicine and die myself first."

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. **Francis Fowke**, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Professional Etiquette.

Sir,—A retired physician, A., living in the country, has an invalid wife, whom he takes up to London to consult B., an eminent physician, who prescribes for her, but says nothing about seeing her again. On his return home, A. asks C., a general practitioner living near him, to call and see his wife with him from time to time, to watch the effect of B.'s treatment, and make any suggestions that might occur to him, knowing that it would be a satisfaction to his wife as well as to himself for C. to do so. Has B. any ground for complaint against A. and C. for this?—Yours, etc.,
C.

*** We think not.

T. M.—B. may, consistently with medical etiquette, continue to attend the child, at the special request of the parents, during the absence of A. It will, however, be right for him to report the circumstances to A. on his return, and to hand over the case to him; unless the family specially desire that he should continue his attendance.

Volunteer Surgeons.

Sir,—As one of the first volunteer surgeons who responded to the invitation of the War Office to undergo an examination on the treatment of the sick and wounded in the field, and in ambulance hospital work in time of war, etc., and thus become "efficient" and entitled to the same capitation grant as other officers of the force who have "*p*" to their names in the *Army List*, I can answer the queries of your correspondent on the above subject.

My examination was arranged through the usual channels of official communication, viz., the captain commandant of my corps and the adjutant and lieutenant-colonel of the battalion. A telegram summoned me to Whitehall, where Surgeon-General Sir A. D. Home and Surgeon-Major J. Marston, M.D., sat as an examining board. The method of examination was *vivâ voce;* and the principal subjects were: the percentage of casualties on the march out of barracks, in hot weather, of a column of troops, on the first day, on the second, and so on; name the casualties, their treatment, *e.g.*, sore feet, diarrhœa, sunstroke, etc.; symptoms and treatment (when in barracks) of typhoid, cholera, ophthalmia, etc.; general treatment of gunshot wounds on the field; management of a case of smashed femur in action, temporary and subsequent. The text-books I used were Longmore's *Ambulance*, Porter's *Surgeon's Pocket-Book*, and Sir Garnet Wolseley's *Soldier's Pocket-Book for Field Service*.—I am, sir, yours faithfully,
March 23rd, 1880. G. M. Lowe, M.D., 1st Lincoln R.V.

A.—Although his degree is not registered in the *Medical Register*, he may still hold it, but have omitted to register it. It is not necessary to register every diploma. Of course, he is legally entitled to use it.

The Treatment of Ozæna.

Sir,—I have a case of ozæna which has resisted all treatment so far. The unfortunate patient occupies a confidential position, which she is obliged to give up in consequence of the unpleasant smell. She is almost in despair. I have used iodine, mercury, iron, tannin, iodides, douches, carbolic acid, arsenic, phosphorus, cod-liver oil, with little present and no permanent benefit. Can any of your readers tell me what to do?—Yours respectfully,
Joseph Welsh, Fellow F.P.S.G., L.S.A.
Knighton, Radnorshire, March 11th, 1880.

The Treatment of Drink-Craving.

Sir,—Would E. H. F. kindly inform me, through the medium of your columns or otherwise, of the way in which to prepare cinchona rubra for administration?—Yours faithfully, George Richmond Moore, M.R.C.S.
Hastings Lodge, Hartlepool.

Enteric Fever in India.

Sir,—With reference to the question, whether enteric fever does or does not exist in India, the answer has been unhesitatingly given, by medical practitioners of lengthened experience in that country, in the affirmative. Amongst these, however, there would appear to be some who are sceptical as to the origin of the poison. It is well known that the genuine typhoid or enteric fever of Murchison, Jenner, etc., is to be met with from time to time in the hills as well as in the plains—I have myself seen it in both localities—of India, and in all classes of society; as are also cases of remittent fever with enteric complications—the former caused by an animal poison, the latter by malaria. And, in the preparation of young medical officers for their Indian career, I would venture to suggest (perhaps it is already done) that they should be instructed, not only to be on the *qui vive* for such distinctions (the treatment of the one will not do for the other), but especially to search for and study the *fons et origo* of typhoid fever. Mistakes in diagnosis bring no discredit upon the young practitioner in the case of tropical diseases that nearly resemble one another, and that are seen for the first time. Take, for example, Peshawur fever. So closely does this disease, in a certain form of it, resemble cholera, that young medical officers have occasionally, in their returns, designated it as cholera. It was a wise order on the part of the East India Company—an order which, from constant paucity of medical officers and the exigencies of the service, has unfortunately been allowed to fall into desuetude—that required the young surgeon, on first arrival in the country, to remain at the Presidency town attached to one of the large hospitals, in view to learning the diseases and the ordinary languages of India.

The caprice—so to call it—of the enteric poison is well known. Murchison failed to inoculate pigs with it, as he failed to impregnate snakes with the diphtheritic poison; and as one only out of a score or more who swallowed some of the excreta of cholera in Calcutta was attacked by this disease—a very negative proof, by the way, of its contagiousness—we need not, therefore, be surprised at enteric fever not appearing where we have every reason to expect it, and *vice versâ*. It selects the well ventilated and sanitary (?) barrack of the present day (I am not aware if it have been seen in those with double storeys) as readily as it does the palatial residences of Calcutta, etc. The cause may not be appreciable outwardly by any senses, but it may be there, nevertheless, as surely as it was in the royal residence when, nine years ago, it nearly terminated the life of the Heir to the Throne. In India, the seeds of disease are sown broadcast, requiring only a combination of favouring circumstances to germinate, blossom, and be sown again. Sanitary laws are framed with deliberation and care; but, in the very cantonment where a board of officers sits month after month to frame them, they may be readily evaded; and the British soldier may stagger home from an "outing", drunk, to his barrack in the midst of pestilential surroundings. Let cholera appear in the neighbourhood of a cantonment, and, in view to isolation, let arrangements be made to locate all the poorer classes of natives who are stricken in one or more cholera hospitals temporarily erected for the purpose. Natives, not unnaturally, object to be so located, especially if it be hot weather, and the hospital be constructed, as it usually is, of thatch and bamboo—a sanitary, but not, at such a season, very cool, building. If taken ill, therefore, they prefer remaining in their own houses, with or without medical attendance; and they have no hesitation in burying their dejecta on the premises immediately in front of their dwellings. The cantonment rules allow house-visitation; but there is such a dread, on the part of the magisterial authorities, of undue coercion and interference with the liberty of the subject, that it is not always carried out with the necessary strictness; and such irregularities as the foregoing are, therefore, discovered only by accident. Again, a native cavalry regiment (without any Government hospital attached) has encamped on the line of march for the night, and the medical officer may learn, on the following morning, that a noncommissioned officer, who was stricken with cholera a few hours previously, had made an excavation in the ground within his tent, and eased himself into that. We know that there is no more prolific source of disease in its worst and most fatal types than the "offscourings" from the human body, and that overcrowding is especially likely to produce it. What medical practitioner of experience amongst large bodies of men cannot bear testimony to the improvement in the health of those bodies when, disease having appeared, segregation has been fully carried out? How much better have the sick fared in huts capable of accommodating only a couple, or so, than in large hospitals, even though built on the model of a Lariboisière. What, for the most part, ensures the success of our cottage hospital system in England, the "limited occupation" idea of which originated, I believe, some years ago, with Baron Mundy of Austria? The officer of the day "passes", at 12 noon, on a tour of inspection through an airy and but half occupied barrack. Nothing can be better. But, let the same officer visit the same barrack, now full, at midnight. Will he not be reminded of the emanations from the lower deck of a crowded vessel with the ports closed? Of what avail the establishment of suitable and well governed latrines? of the dry-earth system? and of the removal of human excreta from the cantonment to the country, there to be sun-dried or utilised as manure, if there be rottenness at the core? The poison of disease in India is diffused through the water that we drink; it floats in the air that we breathe; it lurks on the surface of, and is embedded within, the earth upon which we tread; and it is conveyed to us in our intercourse with each other. It is ubiquitous. Whence do our young European soldiers—for they are, too many of them, the victims—derive the poison of enteric fever? That is the question, and it is a vital one.—Very faithfully yours,
C. R. Francis,
Clapham Common, March 8th, 1880. Surgeon-General (retired).

The Dental Act.

The question of the Dental Act has now been fully discussed; and in our recent numbers, Mr. Cattlin's address has stated the case fully on the one side, and to that Mr. Tomes has replied. There can, therefore, be no object in further discussion on this subject; and we would advise both parties to devote their energies to developing and controlling the operation of the Act.

A Case for Diagnosis.

Sir,—In answer to S. H., on a case for diagnosis, I may state that the herpes was a thin patch in the middle and upper part of the left thigh, and not apparently from its form following the course of any superficial nerve. In my first communication, I should have written more carefully, "pulse and temperature unaffected". It seems to me that, before the herpes appeared, the diagnosis was clear, and the symptoms could only be referred to something in the nature of gravel or a spicula of gravel passing down the left ureter. The onset of the pain in the lumbar region, passing down to the left testis, constantly present yet subject to exacerbations so agonising, accompanied with little or no constitutional disturbance, aggravated by the motion of walking or that of a cab, and the history of the patient, seem to me to point to what I have said. Was the supervention of the herpetic patch a coincidence, or should all the urinary symptoms and the frequent micturition be referred to the pain consequent on that?—Your obedient servant, X. M.

Dr. Maurice G. Evans (Cardiff) will probably find the information which he requires in the Journal for December 13th, 1879, page 963.

Professor Parker's Lectures.

The following errata occurred in Professor Parker's lectures published in the Journal of March 20th. In Lecture viii, line 16 of second paragraph, *for* "Madascene" *read* "Mascarene"; and in the last line but one, *for* "five" *read* "four" and in the last line, *for* "with three phalanges" *read* "with from two to five phalanges". In Lecture ix, first line of second column, *for* "not the homologue of mammalian turbinals" *read* "the only homologue of mammalian inferior turbinals. The orbito-nasal nerve supplies the inferior turbinals, and is an excito-motor nerve. The huge turbinal of the bird is not the homologue of the principal part of the labyrinth of the mammal, which is supplied with the olfactory nerve, but is merely the homologue of the inferior or maxillary turbinal, which is supplied only by the orbito-nasal nerve".

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. G. Taylor, Derby; Mr. Joseph Welsh, Knighton; Dr. Walter G. Smith, Dublin; Mr. E. Hamilton, Dublin; Mr. G. Abbott, Tunbridge Wells; Mr. W. Fisher, Kendal; Mr. S. F. Murphy, London; Mr. J. C. Richardson, Leamington; Mr. G. R. Moore, Hartlepool; Mr. James Spence, Edinburgh; Dr. C. C. Cocks, Ross; Dr. E. Haughton, London; Captain Chisleton, London; T. M.; Dr. Mitchell, Muirkirk; Mr. F. Manser, Tunbridge Wells; Dr. Munro, Kilmarnock; Mr. Edward Thompson, Omagh; Dr. Crichton Browne, London; Dr. R. S. Hudson, Redruth; An Old Member; Mr. Hodgson, Brighton; Dr. Maurice Evans, Cardiff; Mr. R. S. Fowler, Bath; Mr. Peter Tytler, Manchester; Dr. G. M. Lowe, Lincoln; Mr. M. Moore, Coventry; Mr. G. Terry, Mells; Mr. T. W. Trend, Southampton; Mr. S. M. Bradley, Manchester; Dr. H. Ashby, Manchester; Mr. Black, London; Our Edinburgh Correspondent; Dr. Macewan, Dundee; Mr. J. Lloyd Roberts, Denbigh; Dr. Thompson, Leamington; A Poor and Disgusted Member; Dr. Gray, Castlewellan; Mr. J. May, Devonport; Mr. Alban Doran, London; Our Glasgow Correspondent; X. M.; Our Dublin Correspondent; Dr. E. G. Barnes, Eye; etc.

THE GULSTONIAN LECTURES ON EPILEPSY.

Delivered before the Royal College of Physicians of London.

By W. R. GOWERS, M.D., F.R.C.P.,
Senior Assistant-Physician to University College Hospital; Physician to the National Hospital for the Paralysed and Epileptic.

Lecture III.*

The last question is, What is the nature of the tissue-change? Can we form any opinion as to the character of the alteration in the grey matter which permits its sudden, explosive discharge? This problem is essentially the same, whatever theory of epilepsy is adopted. The violent muscular contractions suggest a corresponding overaction of the nerve-cells; and it has seemed to some, as Dr. Hughlings Jackson, that such repeated overaction can hardly be other than an indication of increased functional activity—of increased, if abnormal, nutrition. On the other hand, others, and foremost among them is Dr. Radcliffe, have maintained that the general conditions of epileptics and the phenomena of epilepsy suggest impairment of functional power, and that a symptom so abnormal as an epileptic fit can hardly result from normal nutrition, to whatever excess it may be carried.

Modern physiology teaches us, I think, in what direction an answer is to be sought. It is necessary, in the first place, to avoid too direct an inference from the outward manifestation to the internal process. No one probably now imagines that the nerve-force, which sets a muscle into action, forms part of the force liberated by the muscle; and, although the two are no doubt proportioned, the difference between them may be as great as between the energy liberated by an electrical spark and by a charge of gunpowder which it fires. We may easily overrate the amount of nerve-force needed to cause violent muscular action, and may also overrate the relation which the nerve-force bears to the potential energy of the cells concerned.

Every nerve-cell may be described as a storehouse of latent energy, and may be compared by analogy to a charged Leyden jar, or, what is more convenient for our present purpose, to a bent spring. The energy of the spring is due to the force which has bent it, and depends on the resistance which keeps it bent. The recognition of the resistance to action in nerve-cells, and of the part which it plays in normal processes, is a most important step in modern physiological thought. Of the nature of the resistance, we can form perhaps no idea, but its existence in nerve-cells may be taken as hardly needing proof; for we are unable to conceive of their action without it, and the idea has underlain such expressions as "nerve-tension", and the like, which have been long employed. The fact is probably only the highest instance of a series of relations which runs through the whole of organic nature. The formation of every organic compound, for instance, consists in, so to speak, the bending back of the spring of chemical affinity in a process by which force is held latent by some unknown resistance.

The application of this mode of thought to the morbid action of the nervous system promises to yield clearer views of many problems of disease, and for this step we are chiefly indebted to some important and suggestive papers by Dr. Ringer. The state of a nerve-cell, whether at rest or in action, may be regarded as depending on the proportion which its tendency to liberate energy bears to the resistance within it. The action of a nerve-cell may depend on the production of force within it being increased, in excess of the resistance, or on the resistance being unduly lessened. The cessation of its action may depend on the tendency to liberate energy being diminished, or on the resistance being increased. It is highly probable that all the phenomena of "inhibition" depend on increase of resistance by the action of one cell upon another. It is, indeed, conceivable that the interaction of the nerve-cells of the brain may be such that their mutual influence is a balanced resistance, and the amount of force in the brain nascent, but restrained, may be infinitely greater than any manifestations of energy which we perceive could possibly suggest. We may, perhaps, ultimately learn to regard the effect of stimuli in developing nerve-action, not after the analogy of the mechanism of a piano, each blow upon a key directly exciting the sound, but rather after that of an organ, in which the movement of a key merely lessens the resistance to the action of a pent-up force.

Do not, I would ask, the phenomena of epilepsy best accord with the theory that the unstable equilibrium of grey matter depends on instability of resistance, rather than on any primary change in the energy-producing action of the cells? When loss of blood develops general convulsions, by its action on an otherwise healthy nerve-centre, can we conceive, I would ask, as Dr. Radcliffe has asked before, that it acts by increasing the production of nerve-force? It appears far more intelligible to regard its effects as a sudden diminution of resistance, by which the pent-up nerve-force is suddenly released, the nascent energy developed. The arrest by the ligature of fits which begin deliberately seems to point in the same direction. A strong peripheral impression causes such a change in the grey matter to which the discharge is advancing, that the discharge is arrested there, and passes no further. We can hardly conceive the effect of the impression except as causing a local increase of resistance, so that the liberation of energy ceases at the spot, and can no longer occur. Once arrested in this way, it is arrested for a considerable time. If the discharge depended on a primary increase in the energy-producing action of the cells, we should expect it to recur when the ligature was removed. It does not. I have a patient who has for a long time arrested every fit, commencing in the hand, by a ligature above the elbow. At first, if he did not apply the ligature, the attack went on into a general convulsion. He now finds that the sensation, beginning as before, stops, of its own accord, at the spot at which the ligature used to be applied, and never goes on to a fit. According to the view I have suggested, the repeated increase of resistance has led to a corresponding permanent change, resting on an alteration of nutrition, so that the unstable grey matter is limited by a zone of greater stability, where the discharge is arrested.*

Analogy suggests that the internal resistance to action is a higher function of the nerve-cells than the mere transformation of energy. The control is a higher function than the production of the force. Hence the fact that there is an apparent overaction becomes consistent with the theory that there is imperfect nutrition.

The discussion of the real nature of these influences—the liberation of energy, and the resistance to action—how far they are ultimately to be referred to vital, chemical, or electrical changes, is beyond the scope of these lectures. The recognition of one point only appears to me essential—that nutritive changes may underlie them, and that from them nutritive changes may result.

Two other points in pathology remain for mention. I have suggested that failure in resistance, permitting the liberation of energy, constitutes the essential element in discharge, and that such discharge causes the symptoms of the epileptic paroxysm. Physiological considerations make it probable that the resistance in cells may be raised and lowered by the action of cells at a distance. There are a few phenomena of minor attacks of epilepsy which seem best explicable by assuming that the resistance in a centre is suddenly raised (perhaps by the action of other cells) instead of being lowered. A patient, for instance, whose severe fits affect one side only, may have slight attacks which consist only of sudden transient weakness in the side. We have seen that, while visual sensations, due hypothetically to discharges in the visual centres, are frequent warnings, sudden inability to see may also be part of an aura, and such inability to see must be regarded as a sudden inhibition of the visual centre, that is, a sudden increase of resistance within it. A slight increase of resistance affords the best explanation of the apparent diminution in the size of objects. The increase of resistance is equivalent to a diminution in the sensitiveness of the centre, and the effect upon it of the stimulation of a given area of the retina is less than normal, and corresponds to the effect of a similar stimulation of a smaller retinal area. The object appears smaller and farther off, and as the resistance in the centre increases, the object may appear to recede. It is the opposite process to that which occurs in lessened resistance in the centre. This commonly results in such liberation of energy as affects consciousness. There is a visual impression, and perhaps a sense of a ball of fire, and as the discharge spreads, this seems to become larger and larger. The effect is the same as if an increasingly large area of the retina were stimulated. There is one centre which is usually inhibited, rather than discharged, in epilepsy—the centre for the motor processes of speech.

The phenomena of hystero-epilepsy seem to point to an instability of grey matter of different seat and perhaps different kind. The excessive violence of the muscular spasm in that disease is comparable only to the convulsions of epilepsy and tetanus. The phenomena appear due to the more deliberate and sustained overaction of centres which are concerned in specialised, co-ordinated movements, in emotions, and also in intellectual processes. The fact that some patients in these attacks fall suddenly, and remain still for a few moments before the co-ordinated movements commence, has been regarded by Dr. Hughlings Jackson (adopting a theory of the late Dr. Dickson) as evidence that the "co-ordinated" phenomena are always due to the release of lower centres from the control of the higher by the temporary discharge of the latter. He has urged that an actual discharge of grey matter can only give rise to inco-ordinate "brutal" effects. That co-ordinated convulsive action may succeed attacks of true epilepsy is beyond all question; but it is also, I think, beyond question that the co-ordinated phenomena are not always preceded by epileptic symptoms. In some cases which I have watched, the attacks commenced with the co-ordinated movements which characterised them throughout. The tonic rigidity, which initiates the attacks in other cases, cannot be regarded as a true epileptic symptom; it is rather part of the hystero-epileptic attack, and may recur during its course. Thus I think that there is in many cases no evidence of true epileptic symptoms, that the co-ordinated convulsion, which constitutes the chief symptom of the hystero-epileptic attack, may exist alone.

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* Continued from page 467 of last number.

* That variations in tissue-resistance may influence the *spread* of a discharge which has already commenced, has been recognised by Dr. Hughlings Jackson (Brit. Med. Journal, January 11th, 1879).

Even for the cases in which this symptom succeeds a true epileptic seizure, it may be doubted whether the hypothesis of "loss of control" affords an entirely adequate explanation. We can discern no difference between epileptiform attacks which are, and those which are not, followed by such symptoms. This suggests that this occurrence depends upon some other condition, a condition pertaining to the nervous organisation of the individual and not to the form of attack. This is supported by the fact that cases in which epileptic attacks are succeeded by "co-ordinated convulsions" present (as we saw in the first lecture) distinct characteristics in age, sex, causation, conditions under which the fit occurs. In these respects, they resemble the patients in whom such attacks of hysteroid character occur without any preceding epileptoid symptoms. These facts make it probable that there is in these epileptics, in addition to the instability of nerve-tissue which causes epilepsy, also the instability, whatever it may be, which gives rise to hysteroid attacks. "Loss of control" may be the immediate mechanism by which this instability is thrown into operation, but will not alone account for its existence, and is no necessary condition for its manifestation. Nevertheless, in some patients the hysteroid tendency may be so slight that it never manifests itself spontaneously—never except during the post-epileptic state. Hence I think that the old conclusion is the true one; that all patients who present these co-ordinated convulsions after epileptic attacks are really the subjects of both epilepsy and hysteria. The existence of the epileptic symptoms may be obvious, or may be most difficult to detect; initial simple tonic spasm cannot be regarded as evidence of their existence, and it may be practically impossible to say in many cases, without the rare opportunity of witnessing the onset of the attacks, whether there is or is not an initial truly epileptiform seizure. This is the explanation of a point in the method of these lectures which may have occasioned surprise; while endeavouring to distinguish the two diseases, I have not ventured to separate them. Such a separation I believe to be practically impossible; to attempt it would entail an error, the amount of which would be unknown, and certainly large. I have therefore considered each fact with regard to the entire series; endeavouring to ascertain, however, the extent to which it is true of the cases with and those without hystero-epileptic or co-ordinated convulsion. The former term, "hystero-epileptic", has been employed in its popular meaning, without reference to theory, as a designation for the severer forms of hysteroid attack, in which their violence, severity, and recurrence bring them practically nearer to the disease which we call epilepsy than to that which we designate hysteria. I cannot but think that it would be a gain if we were to discard the dubious word hysteria, even in its modification, as a designation for such attacks, and call them simply "co-ordinated convulsions".

Such forms of attack, in which the convulsive phenomena are violent in degree and disorderly in sequence, are in the lowest grade of co-ordinated phenomena; while the highest are those forms of involuntary action which we call automatic. In these, complex actions are performed, sometimes with considerable skill, of which the patient is subsequently entirely unconscious. Dr. Hughlings Jackson has long maintained that these are really post-epileptic phenomena. That they are commonly such, all must, I think, agree. The older view was that these were true epileptic events, the result of such changes in the brain as might in another degree or part constitute an ordinary epileptic attack. While recognising that they are commonly post-epileptic, I doubt whether the older view must be entirely discarded. Many of the phenomena mentioned in the first lecture may make us hesitate to assent to the conclusion that the discharge of epilepsy must always cause inco-ordinate symptoms. What, for instance, is the vision of an old woman making ugly faces, which one patient had sometimes as the aura of a fit, sometimes as an attack of *petit mal*, but an automatic action of a co-ordinated discharge in the centre for visual ideas? The remarkable aura which I detailed at length suggests the same explanation, and so do many others that were alluded to. I have seen a patient suddenly, while being watched, without the slightest pallor, hesitation, or any symptom to indicate a discharge in the highest centre, proceed to empty his pockets, take off his coat, or to perform some action which in him characterised, and I think constituted, his attacks of minor epilepsy. With regard to the attacks of post-epileptic automatism, the same difficulties face us as in the case of the co-ordinated convulsion. We have the facts that in one individual attacks may always be followed by automatic action, and in another similar attacks may never be so followed. This suggests that there is, underlying the phenomenon, a condition of the centres on which it depends. Were it not for this condition, the epileptic attack would not lead to it; and this condition may, in rare cases, cause its primary manifestation.

[*To be concluded.*]

THE CROONIAN LECTURES
ON
SOME POINTS IN THE PATHOLOGY AND TREATMENT OF TYPHOID FEVER.

Delivered before the Royal College of Physicians of London.

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Lecture II.

When we proceed to consider the clinical and pathological phenomena of typhoid fever, and to compare them with those of allied diseases, it is evident that we may divide them into two classes—1. Those which are peculiar to this form of fever; 2. Those which are common to it with many other febrile diseases;—the first being the characteristics of the species, the second those of the genus. To the former class belong the etiology and mode of dissemination, the period of incubation, the intestinal lesions, the roseola, and the type and duration of the fever; to the latter, the high temperature, the febrile consumption and wasting, the albuminous infiltration and softening of many organs and tissues, and various disturbances of the principal functions of the body.

I propose first of all to consider the pathology of some of these secondary phenomena, which are indeed of primary importance in the treatment; for our control over the former is so restricted that, when once the system has become infected with the typhoid poison, it is out of our power to prevent it from producing the typical lesions. If we examine carefully the organs of a fatal case of typhoid fever, or of any of the infective fevers, or even of other febrile diseases which are not due to an infective process—though here the changes are less constant and less marked—we shall find some or all of certain morbid conditions.

The first is a granular or albuminous infiltration of the cells of most of the glandular organs, especially the liver, the kidneys, the salivary glands, the pancreas, the gastric glands; and also a similar change in the striped muscular fibres, both of the heart and of the voluntary muscles. The change consists in the appearance in the protoplasm of the cells and fibres of extremely minute granules, soluble in acetic acid, giving a clouded appearance which has been compared to that of ground glass; this obscures the nuclei, and causes, when advanced, some enlargement and irregularity of form. In extreme cases, the cells thus affected disintegrate into a detritus, this being usually, though perhaps not necessarily, associated with fatty degeneration. Unless the change is very extensive, the affected organs do not show any marked alteration to the naked eye; they may be somewhat enlarged, of diminished consistency, and, unless congested, paler than usual, with their normal shiny appearance somewhat dulled. Virchow, as is well known, regarded this granular infiltration as an inflammatory parenchymatous exudation; and in many cases these changes are associated with processes which are unquestionably inflammatory, but they may occur independently, and must probably be looked upon as essentially of a degenerative nature; often, indeed, they are but the first stage towards fatty degeneration. A change, which is probably of the same nature, occurs in the nerve-cells of the central nervous system; they become granular, with an increased deposit of granular pigment.

It can hardly be doubted that the result of a large number, if not of the majority, of fatal cases of typhoid fever is due to these changes. If we exclude those deaths which are directly caused by the intestinal lesions, as perforation and hæmorrhage, which after all are the minority, the remainder may for the most part be ascribed to failure of the heart and central nervous system. And of these, failure of the heart, with its concomitant congestion of the lungs, plays the most important part.

The affection of the heart, then, is of primary importance, and its pathology and symptoms have been most carefully investigated by many observers. Very often the heart presents no obvious changes to the naked eye; in other cases, it is more or less softened and altered in colour; but, without a microscopical examination, it is impossible to pronounce with any certainty on its condition. The changes may affect both the muscular fibres, the interfibrillar connective tissue, and the vessels. The fibres present to a greater or less degree the granular changes which I have described; the striæ are more or less obscured, and frequently with the albuminous granules oil-globules are present. The muscle-nuclei often show indications of proliferation, and a small-celled infiltration is frequently visible between the fibres, due either to an exudation or to proliferation of the connective tissue. M. Hayem also describes a proliferation of the cells of the tunica intima of the small arteries, which he ascribes to an endo-arteritis. Not unfrequently there is a diffused sanguineous infiltration of the intermuscular connective tissue. Side by side with the altered fibres, we commonly find others which are quite normal. These changes are frequently scattered in patches through the walls of the heart, and are often well marked in the musculi papillares of the mitral valve. We have, then, here evident signs of an irritative lesion as well as of degeneration, and M. Hayem regards the process as essentially a myocarditis.

The symptoms of this degeneration of the heart are well known, and had attracted the attention of all the great writers on fever before the intimate pathology of the affection was studied. They consist in feebleness of the cardiac impulse, which sometimes becomes almost imperceptible; an alteration in the character of the first sound, which becomes short and faint; and to this must be added the soft systolic apex-murmur which is frequently present in severe cases of typhoid, and which disappears again during convalescence, and is probably due to want of tone in the musculi papillares of the mitral valve allowing some regurgitation. This systolic murmur is often present before the other signs are very pronounced.

Corresponding changes occur in the pulse; the usual febrile dicrotism becomes exaggerated, and, although the pulse may remain for a time tolerably full, it becomes extremely compressible, undulating, and shows more or less irregularity, not so much of rhythm as of force.

When death is caused by this condition of the heart, it is usually preceded by a gradually increasing hypostatic congestion of the lungs, and takes place slowly; but occasionally it is quite sudden, from syncope. Usually the symptoms of this degeneration of the heart in typhoid do not show themselves till the later stages of the disease. But there are reasons for believing that the affection may begin quite early, and run a very rapid course. Last year, a woman in the London Fever Hospital died quite suddenly from syncope about the twelfth or fourteenth day of the disease, before any intestinal sloughing or ulceration had taken place; and the heart was found in an advanced stage of granular infiltration. These cardiac changes are by no means peculiar to typhoid fever; they are met with in typhus, small-pox, erysipelas, scarlatina, diphtheria—where they are usually extremely well marked; and in this disease, as is well known, sudden death by syncope is by no means uncommon.

The next change which is common to typhoid and many other fevers, is the so-called vitreous or waxy degeneration of the striped muscles, described by Zenker. The fibres swell, lose their striation, and the tube of sarcolemma becomes filled with a semitransparent, colourless, homogeneous material, which has been compared to wax in appearance. These altered fibres present transverse cracks and fissures, and ultimately break up into irregular fragments, which become smaller and smaller, and at last disappear, leaving the sarcolemma empty. Then, if the patient recover, the fibre is regenerated by a cell-growth within the sarcolemma. Most probably the process consists primarily in a coagulation of the contractile muscle-substance analogous to that which takes place in the rigor mortis. This change is common to many fevers, as typhus, small-pox, scarlatina, tuberculosis. In typhoid, it is often very extensive, and may cause considerable temporary destruction of muscle. It may affect all the striped muscles, but is most frequently met with in the muscles of the abdominal wall, the adductors of the thigh, the diaphragm, and the tongue. Though not very often present in the heart, it does occasionally occur here also.

Another change which is common to all febrile diseases is the diminution of the red blood-cells, probably due to increased disintegration on the one hand, and to diminished formation on the other.

A fourth change is the wasting of the body. This is usually proportionate to the intensity and duration of the fever; and in typhoid, the serious lesions of the digestive canal tend still further to increase it. Leyden reckons the average daily loss of weight in high continued fever at about 7 per 1000 of the total weight of the body, which is about half that which takes place in total deprivation of food; and Chossat has shown that death takes place from inanition when the body has lost 40 per cent. According to this calculation, it would take eight weeks of high continued fever to reduce the weight 40 per cent. and cause death from inanition; but in chronic fever, a much greater loss can be supported, in consequence of the febrile process maintaining the temperature, and so preventing death from cold—inability to maintain the temperature being one of the causes of death in inanition. It rarely happens that death takes place in typhoid merely from the febrile wasting, though this is often very great, and exceeds the daily average given by Leyden. I have recently had under my care a case where the weight was reduced in about four weeks from eleven stone to eight stone —a loss of nearly 30 per cent. Supposing the fever to have continued for eight weeks, this would have produced a loss of nearly 60 per cent. It would, however, seem that the amount of wasting is greater in persons who are muscular and corpulent than in those who are spare and lean: the latter class, it is well known, bear an attack of fever better than the former. The causes of this wasting of the body in fever are twofold. The first is simple inanition, due to diminished ingestion and assimilation of food, the result partly of failure in the appetite, partly of impaired digestive and assimilating power, and partly of restriction of the diet in consequence of certain theories as to the injurious effects of food in fever. The influence of this last cause varies, of course, with the mode of treatment which happens to be in vogue. In this country, in consequence of the teachings of Graves, Stokes, Todd, and other authorities, fever-patients are for the most part given as much food as they can assimilate; but there have been times, especially on the Continent, when the routine fever-diet would barely suffice to ward off death from inanition. Under any circumstances, it is probable that the amount of food assimilated in fever does not amount to half that taken in health.

This wasting from inanition takes place chiefly at the expense of the adipose tissue and of the store-albumen, *i.e.*, the albumen of the blood, lymph, and interstitial fluids; to a less degree, and chiefly in the later stages, at the expense of the tissue-albumen.

The second cause of the wasting in fever is the increased consumption due to the febrile process. This in man affects both the fat and the albumen, though in the artificial septic fever of dogs it appears that the consumption of the hydrocarbons is not increased. The consumption of albumen is measured by the amount of the urea discharged, which in fever very much exceeds that which could be produced by the metabolism of the nitrogenous food, and, notwithstanding the restricted diet, often exceeds the amount passed in health on a full diet. This great increase in the discharge of urea is always most marked in the earlier stages of the fever, and in protracted fevers, as typhoid, becomes much diminished in the later stages. There are strong reasons for believing that this increased formation of urea takes place at the expense of the tissue-albumen, and not of the store-albumen; for it is found that it is accompanied by an increase of the salts of potash in the urine, while the salts of soda are commonly diminished: hence it is probable that the urea is derived from albumen which is associated with potash, and not with soda. Now, this is the case with most of the tissues, especially the muscles and red blood-cells; while, in the liquor sanguinis and lymph, the salts of soda predominate: hence in all probability the former, and not the latter, are the sources of the urea produced by the febrile consumption. The colouring matter of the urine appears also to be increased in fever, and this must necessarily be derived from the coloured tissues, especially the red blood-cells, which we have seen to undergo great diminution; and, as extensive degenerative changes are commonly found in the muscles, it is probable that these tissues especially suffer in the febrile process.

The consumption of hydrocarbons, as shown by the increase of carbonic acid in the expired air, does not admit of so exact a determination —the proportion in each expiration is always diminished, but, owing to the increased frequency of the respirations, the total amount expired in twenty-four hours is always increased. Senator reckons this increase at 37 per cent.—a far larger quantity than could be afforded by the carbon set free by the increased disintegration of the albumen.

We have now to consider what is perhaps the most important phenomenon of fever: the temperature. The maintenance of the temperature of the body depends, of course, on a balance being kept up between the production and dispersion of heat, this balance being maintained by a regulating apparatus; in consequence of which, in a state of health, the production of heat on the one hand, or its dispersion on the other, may be very greatly modified without producing more than slight and temporary alterations of temperature. There can be no doubt that this regulation is effected through the nervous system, though the exact mode of operation is still somewhat obscure.

When the influence of the intracranial part of the nervous system is removed, as by the crushing or division of the spinal cord below the origin of the phrenics, the temperature of the body, as is well known, cannot be maintained; it has become *labile* instead of *constant*. Sometimes a great rise takes place, sometimes a fall. In man, the former is the more common effect, though several cases have been recorded where the temperature has fallen to extremely low degrees. In small animals, the effect seems to depend very greatly on external conditions. Under the influence of external warmth, the temperature will rise to extreme heights; if the external conditions favour cooling, the temperature will sink to such a degree that the animal dies of collapse. These alterations of temperature, due to injury of some part of the nervous system, are probably produced by alterations in the dispersion of heat, which is effected chiefly by the lungs and skin, and consequently regulated by the respiratory and vaso-motor centres, together with the special nerves (if such there be) which control the sweat-glands.

What part the nerve-centres play in the regulation of the production of heat is a question of great difficulty, and one about which physiologists are by no means agreed. There can be no doubt that the chemical processes by which heat is produced in the animal body are independent of the nerve-centres. This is shown by the fact that heat continues to be produced after the complete destruction of the spinal cord; nay, the production goes on for some time after death has not only destroyed all nervous influence, but has brought the circulation itself to a standstill. It has been proved by Valentin that the *post mortem* production of heat is a constant phenomenon; and, in consequence of the diminished dispersion from arrest of the cutaneous circulation and respiration, we often see an actual rise of temperature. Generally, however, this *post mortem* formation of heat is only indicated by a retardation of the cooling of the body. Nevertheless, it can hardly be doubted that the production as well as the dispersion of heat can be greatly modified by nervous influence, though we are not, perhaps, justified in assuming the existence of a special heat-exciting and heat-depressing centre. The phenomena are most probably vaso-motor. It is evident that if more or less blood flow through the more active heat-producing organs, more or less heat will be produced.

When we proceed to consider the cause of the high temperature in typhoid fever, where it often remains above normal for several weeks, we can hardly doubt that there is some disturbance of the regulating function; for no mere alteration of the conditions, either of the production or dispersion, will cause more than slight and temporary changes in the temperature; but the nature of this disturbance is still very obscure. That the vaso-motor system is rendered more unstable in typhoid is shown by the phenomena of the so-called *tâche cérébrale*, which are almost always well marked. Now, in a disease like typhoid, in which the temperature usually runs such a typical course, with regular diurnal variations, corresponding, though in an exaggerated manner, to the diurnal fluctuations in health—with so steady a rise to the fastigium, and decline to the defervescence, so that from a mere inspection of the chart we can generally diagnose the disease—it is quite certain that the regulating apparatus has not ceased to act. The view has been put forward, and widely accepted, that in typhoid fever the regulating point has been simply raised and adapted, as it were, to a temperature, say five degrees above the normal. If, however, we compare the behaviour of the temperature in this disease and in health, this view becomes untenable. In the first place, the temperature has become more labile; it can easily be raised and depressed by causes which would have no effect in health. Thus, changes in diet, slight exertion, mental emotion, will often cause great temporary alterations. The same point is shown by the effect of remedies. A dose of thirty or forty grains of quinine will hardly affect the temperature in health, but in typhoid fever will generally reduce it three or four degrees, and keep it down for several hours.

Secondly, we miss in fever that compensatory reaction which Jürgensen has shown to occur in health when the temperature is artificially reduced. According to his observations, if a healthy man be placed in a cold bath, the temperature may be reduced many degrees, in proportion to the coldness and duration of the bath; and it continues to sink for some time after removal. Soon, however, it again rises, and continues to do so till it has gone above the normal point. If the bath be repeated, the same phenomena show themselves; but, after a certain number of repetitions, the reactive rise counteracts the chilling effect of the bath, so that further immersion no longer reduces the temperature of the rectum. In typhoid fever, this compensatory rise does not take place, or at any rate to a much less degree; and, after fifty or even a hundred and fifty repetitions, the last bath reduces the temperature as effectually as the first. Hence, in typhoid fever, we regard the regulating influence as weakened, or at any rate rendered insufficient for the new conditions caused by the fever, but neither abolished nor set at a higher point.

We, however, not unfrequently meet with cases where the temperature appears to follow no law, but where the regulating function seems to be entirely suspended: where sometimes the temperature will rise to hyperpyretic heights, far exceeding those that are ordinarily met with in fever, and incompatible with the continuance of life; at other times it will fall far below the normal, and the patient will sink into a state of collapse.

There can, I think, be little doubt that these hyperpyretic temperatures are due to a paralysis of the heat-regulating functions of the nervous system, and are mostly an indication of a general failure or paralysis of the nerve-centres. Usually, therefore, their occurrence is a certain sign of approaching death; and in this form hyperpyrexia is very often seen at the termination of all febrile diseases, including typhoid. In these cases, the patient does not die from hyperpyrexia, but he has hyperpyrexia because he is dying; and no lowering of the temperature by the abstraction of heat, as by a cold bath, has any effect in retarding the fatal event. Indeed, where there is complete paralysis of the regulating centres, it is not possible to lower the temperature except quite temporarily; it rises again immediately the abstraction of heat is desisted from. In other cases, however, hyperpyrexia may occur without any general or irremediable failure of the functions of the nervous system, though the high temperature itself will, if not reduced, soon lead to fatal coma. In these latter cases, if we can succeed not only in lowering the temperature, but also in stimulating the nerve-centres to a resumption of their functions, the patient will recover. Such cases are most frequently seen in acute rheumatism. In the zymotic fevers—as typhoid—extreme hyperpyretic temperatures, as 108 to 110° Fahr., commonly indicate a general paralysis of the nervous centres and impending dissolution. The regulating function being thus weakened relatively or absolutely, and the temperature rendered more labile, we have now to consider what is the factor which causes the temperature to maintain itself above the normal point, mere liability being as likely to cause depression as exaltation. The liability, indeed, often continues longer than the fever; and very commonly, for some time after complete defervescence has become established, extremely slight causes, which would have no effect whatever in health, will send up the temperature many degrees.

The opinion generally entertained is, that the cause of the fever-heat is increased combustion of the tissues, which we have seen to be the most characteristic phenomenon of fever. But, although in fever the combustion is excessive in relation to the amount of fuel supplied by the food, it is not necessarily in excess of that which takes place in health, where the supply of food is abundant and the muscles are well exercised; and it has not been found possible to establish any definite relation between the discharge of urea and carbonic acid on the one hand, and the temperature on the other. Attempts have been made to clear up this point by estimating the amount of the dispersion of heat in fever: if this be lessened, the temperature may of course rise, though the production of heat be not increased, or even be diminished; if, on the other hand, the dispersion of heat be increased, and at the same time the temperature rise, it is evident that the production must be increased in a still greater degree. The results obtained by different experimenters are conflicting, but on the whole there can be little doubt that for the most part the dissipation of heat is increased in fever. During the initial rigors, indeed, it is most probable that the dissipation of heat is much diminished from contraction of the cutaneous capillaries; and in all cases there is reason for believing that the dissipation as well as the production of heat is subject to very great fluctuations. Senator considers that periodic contractions and dilatations of the cutaneous capillaries take place, favouring the retention or dissipation. It is, however, quite conceivable that the balance may be disturbed in the other direction; the combustion, though increased relatively to the amount of food taken, may be actually below that in health, the dissipation may not be diminished in proportion, the labile temperature may yield readily to external conditions which favour cooling, and so we may have the paradox of an afebrile fever.

In the artificial septic fever produced by the injection of pyrogenetic substances, if small animals, as rabbits and guinea-pigs, be experimented on, and if the temperature of the air be below 75°, and means be not taken to prevent the dissipation of heat, the temperature will fall below normal; if, on the other hand, the air be above 75°, or the animal be wrapped up in wadding, the temperature will rise to febrile heights. In larger animals, as dogs, the influence of the surrounding conditions is less marked, and under ordinary circumstances their temperature always rises; but if they be shaved and exposed to a cold atmosphere, then here also a fall takes place. Similar phenomena occur in the human subject, and many cases and even epidemics of typhoid have been met with in which the temperature has been subnormal throughout the whole course of the disease.

One such epidemic has been reported by Dr. Strube. During the siege of Paris by the Germans in 1870, an epidemic of typhoid fever broke out among the troops, beginning to show itself during the march to Paris, and attaining its greatest height in October. In November, a decline took place, which was followed by a fresh outbreak in December. These two outbreaks differed greatly in their characters: the later one resembled in all respects the ordinary form of typhoid; the earlier one presented very different features. In many of the cases, the temperature throughout was subnormal, and in others never exceeded the normal point. The roseola was unusually profuse; the nerve-symptons were of marked severity, and were in inverse ratio to the temperature, consisting of violent delirium alternating with stupor; the duration of the fever was very short, defervescence usually taking place at the end of a fortnight. Of the twenty-three fatal cases, in twenty death took place during the first fourteen days. The abdominal symptoms were slight, but the characteristic lesions were found on *post mortem* examination. All the cases were characterised by great prostration. These cases presented some features which were probably due to this peculiarity of the temperature; thus, the pulse was but little accelerated, seldom exceeding a hundred; the tongue did not become dry and brown, and the enlargement of the spleen was either absent or much less marked than usual. Dr. Strube attributed the peculiar features of this epidemic to the depressed condition of the troops; they had been exposed to great hardships on the way to Paris, over-fatigued by forced marches, and very insufficiently supplied with food, and the supply continued deficient for some time after their arrival, owing to difficulties of transport. In the later outbreak, these conditions were no longer present.

It now becomes an interesting subject of inquiry, whether the mode of production of heat is the same in fever as in health, *i.e.*, whether it is produced in the same organs and by the same kind of combustion.

The source of the animal heat is, of course, the combustion of the food and the tissues; wherever metabolism of food or protoplasm is going on, *i.e.*, wherever there is living tissue, heat is being set free. Hence every living cell of the body contributes to the production of heat; but heat is set free more abundantly in some organs than in others, and, taking the body as a whole, the principal sources of heat are the muscles and abdominal viscera, especially the liver, the temperature of the blood in the hepatic vein being the highest in the body. The heat set free by the muscles depends largely on their functional activity; when in exercise it is very great; when they are at rest it is small. The production of heat by the abdominal viscera is probably much more constant, but is necessarily dependent on the assimilation and metabolism of the food.

Now, in fever, the production of heat by the abdominal viscera, so far as it is due to the metabolism of the food, must necessarily be diminished in consequence of the restricted diet, and the production by muscular contraction is also much less than in health, as the muscles are for the most part kept at rest. As to how far the heat-producing functions of the liver and other abdominal viscera are modified in fever, little is known. It is possible that an increased production takes place in the spleen, which is so constantly found enlarged and softened, and where it is probable great disintegration of red blood-cells takes place. It is remarkable that, in the cases recorded of apyretic typhoid, this enlargement of the spleen was either absent or less marked than usual. With regard to the muscles, however, we have evidence that, notwithstanding the diminution of functional activity, the production of heat in them is very active. It has been found by direct measurements that, while in health, when the muscles are at rest, their temperature is below that of the blood in the left ventricle of the heart; in fever it is higher, and both clinical and pathological observations show that the metabolism of the muscular tissue is greatly increased. Thus there is the great muscular weakness so characteristic of fever, the increased discharge of the salts of potash and of creatine and creatinine by the urine, and the various forms of degeneration found after death in fatal cases. We have, therefore, strong reasons for believing that the muscles in fever, though for the most part in a state of rest, are an important source of the febrile heat, and that this production of heat takes place at the expense of the contractile tissue, and not, as in muscular contraction, from oxidation of hydrocarbons. In fever also, though the voluntary muscles are kept at rest, it must be remembered that the heart and respiratory muscles are more actively exercised.

[*To be continued.*]

ABSTRACT REPORT OF LECTURES

ON THE

COMPARATIVE ANATOMY OF MAN.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, LL.D., F.R.S.,
Conservator of the Museum, and Hunterian Professor of Comparative Anatomy in the College.

Lecture I.

The term "Anthropology" is now applied to the natural history of man, and is based chiefly on the sciences of anatomy, physiology, and on history, reports of travellers, and the remains of works of art of nations now extinct. The great scope and interest of the subject, as well as its most convenient subdivisions, are well illustrated by the prospectus of the teaching at the Anthropological Institute of Paris—an institution founded about eight years ago, in which there are at present no fewer than six chairs, all held by distinguished professors: 1. Comparative Anatomy, in relation to Anthropology, by P. Broca; 2. Biological Anthropology, or the application of Anatomy and Physiology to Anthropology, by Topinard; 3. Ethnology, or the Study of the Races of Men, by Dally: in this department, the differences in language, customs, and habits of the various races of mankind are described, and the mode in which these have originated is discussed; 4. Linguistic Anthropology, by Hovelacque; 5. Palæontological and Prehistoric Anthropology, by Mortillet; and 6. Demography, which includes what we commonly call social and vital statistics, and Medical Anthropology, by Bertillon. These subjects are publicly taught in a school, supplied with all the necessary appliances, founded partly by private munificence, but also liberally endowed by the municipality of Paris and the Department of the Seine. There is also in Paris a complete course of General Anthropology, given yearly by M. de Quatrefages, in connection with the Jardin des Plantes. To these institutions we have nothing comparable in Britain; and neither at our universities nor elsewhere is any branch of anthropological science systematically taught. The present lectures only embrace a small portion of one of the six subdivisions enumerated above, namely, that of Biological Anthropology. This science is one of observation purely; and, in proportion as the materials upon which our observations are founded are multiplied, so will the value of the observations be increased. These materials are collected in museums, which at present in this country are not so complete as might be desired, and as should be, considering the extent of our possessions and the amount of our intercourse with foreign races. Till lately, the British Museum entirely ignored anatomical anthropology; and it is only by the Royal College of Surgeons that anything has been done to forward the science. Our collection, which is considerably the largest in this country, was founded by John Hunter, who, simultaneously with Blumenbach in Göttingen, was the first collector of anthropological material. The collection of John Hunter has been increased at various times till it now contains about twelve hundred crania of different races. The largest private collection in this country is that of Dr. Barnard Davis of Shelton, in Staffordshire. It considerably exceeds that of the College, both in number and in variety of specimens. Happily, this collection is about to be united to that of the College; and, under the care of the Council of the College will be made accessible for all who may wish to pursue the study of anatomical anthropology. The officers of the army and navy have also made very good, though much smaller, collections for their respective hospitals at Netley and Haslar, but owing to those being wide apart and not situated in easily accessible positions, they have not been made so much use of as might have been the case had circumstances been different.

One of the most important additions which has been made to the museum since the last course of lectures, besides Dr. Barnard Davis's collection, only a small portion of which has arrived, is a series of skulls collected in the Fiji Islands, in 1876, by Baron Anatole von Hügel, forming part of a donation made by Mr. Erasmus Wilson. They consist of sixteen crania of the *Kai Colos* or mountaineers of the interior of the western portion of Viti Levur, and five crania from the western coast and small islands adjacent. The inhabitants of the Fiji group are generally described by ethnologists as a mixed race compounded of Melanesians and of brown Polynesians, as the islands are situated on the confines of the territories inhabited by these two races;

and the few crania hitherto accessible have favoured this view. Those, however, of the Kai Colos brought home by Baron von Hügel, and which probably represent the most primitive native population of the islands, show all the characters of the present Melanesian type without the slightest trace of Polynesian mixture. Their purity is shown by their wonderful similarity and by their very peculiar and strongly marked characters, discernible with equal facility in both sexes and in all ages. They are large; the average capacity of eight adult males being 1482 cubic *centimètres*, and with muscular ridges and impressions strongly developed. In proportion to their length, they are the narrowest crania known, having an average latitudinal index of only 66.3; not one has an index so high as 70.0; in one it descends as low as 61.9, which is below that of any other normal skull in the collection. The height in all very considerably exceeds the breadth, the average altitudinal index being 74.1. They thus belong to the most strongly marked hypristenocephalic type. The zygomatic arches are very wide compared with the cranium. The brow-ridges are strongly marked, though less so than in the Australians. The orbits are low and quadrangular; the nasal bones short, though rather prominent, and the nasal aperture wide (index 57.1); the jaws prognathous, though not to an extreme degree, and the teeth large. The skeleton of the face thus conforms with what is generally found in the Melanesian or Oceanic negroes; but the features are on a large scale, and more strongly pronounced than in the inhabitants of many of the Hebridean and Papuan islands. The skulls of Tongans and Samoans, living on islands scarcely three hundred miles from the Fijis, present the greatest possible contrast to that just described. They are short and round, the latitudinal index being 82.6; the orbits are round; the nasal bones long and flat and the aperture narrow, the index being 44.3; and the jaws are not prognathous. It is well known that for a long time the Tongans have been in the habit of visiting the Fijis, especially the smaller islands to the east of the group, and that there is in the inhabitants of that region a considerable infusion of Tongan blood. Five skulls of natives of the small islands of Vanua Balava, where this influence is supposed to prevail, show a distinct deviation in every character from that of the Kai Colos; and these deviations are, without exception, in the direction of the Tongan or Polynesian type. The average latitudinal index is raised to 71.9; the nasal index is 50.0; the orbit intermediate in form; and the prognathism much reduced. No skulls have as yet been examined from the second large island Vanua Levur, and the numbers of those just described are probably not sufficient to draw any great conclusions from; but, as far as they go, they tend to show that, so far from the Fijians generally being a mixed race, the mass of them that inhabit the interior of the large islands are remarkably pure, and of the Melanesian or Papuan type in its most characteristic, almost exaggerated, form, but that the natives of the coast districts and outlying islands to the east show certain tendencies towards the brown Polynesian type; and, as these are the people with whom European visitors to the Fijis have mostly come into contact, an undue impression has been created as to the extent of the mingling of the races. At all events, little countenance is given by these facts to the view, which rests chiefly on the interpretation of some ancient legend, that at a former time the Tongan influence was much greater in the Fiji Islands than it is at present.

THE CÆSAREAN OPERATION IN THE UNITED KINGDOM: WITH A CONTINUATION OF THE STATISTICAL RECORD OF DR. RADFORD, FROM 1868 TO 1879.

By ROBERT P. HARRIS, A.M., M.D., of Philadelphia,
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It may appear strange that an American writer should undertake the continuation of an English Cæsarean record; but the fact is, that the statistics were collected as a matter of necessity in the prosecution of another work, and not with any view to their being published abroad. They having been collected, it occurred to me that the table, which I have no intention of publishing here, should be presented for this purpose to the journal which contained, in 1868, the last tabular statement of Dr. Radford, amounting to a record of twenty-one cases.

After having tried in vain, on several occasions, to induce obstetrical workers in London and elsewhere to collect the Cæsarean statistics of the last ten years, I was obliged, in order to make use of the record, to search out the cases myself, and arrange them in tabular form. Having done this, I discovered some points of interest that I had not anticipated, and which must be new to many in Great Britain who have not examined thoroughly the records of mortality under this operation, which has been so much more fatal there than with us; and, for this reason, I have sent the table to England, where it will be of much more interest than it would be in America.

Where I make any comparisons with the results of the Cæsarean section in the United States, I wish it to be distinctly understood that no spirit of rivalry enters into the question. We are in search of facts, and must take them as we find them, and not as we would like them to be. In a work entirely in the interest of science and humanity, we are only to compare results in order to find, if possible, a reason for the differences of success. We have in this special operation attained far more encouraging results than our brethren in Great Britain; and the reason of this is what most concerns us. The question of relative skill fortunately does not enter here. Skill in operating has utterly failed in many instances on both sides of the Atlantic; but, aside from this, we stand upon a different prognostic basis in the two countries, as will be admitted after this paper shall have been read. There is no country in the world (unless it might be China, whose inhabitants are remarkably exempt from the dangerous sequelæ of surgery) where skill and promptness in the Cæsarean operation promise better results than they do in the United States, and where there is a greater disparity of success between very early and moderately late operations. Having searched for unpublished cases in the United States much more thoroughly than has been done in any other country, and until they stand as forty-eight in a list of one hundred and twelve, or as three unpublished to four published, I think I may claim that my record for the United States represents fairly the result of the operation under all the circumstances, favourable and unfavourable, in which it has been performed.

I wish I could say as much for the thoroughness of the search made for the United Kingdom, either under Dr. Radford or myself; but candour forbids it; as I cannot believe that nine cases against one hundred and nine represent the unpublished Cæsarean operations. A search for lost cases ought to be made by special inquiry, until a full representative record shall have been completed. It would no doubt add to the proportion of deaths, as it has very materially done in the United States, having reduced the percentage of recoveries from $59\frac{3}{13}$ to $42\frac{6}{7}$. But this is of little consideration when weighed against the increased value of the statistics thereby produced. We want to know how many perished; why they did so; how we can make the proportion less; and what would have been the probable result if the operations had been performed at a very early stage in the labour, or under different conditions in the physical health and habits of the subjects. On whom does the responsibility of failure rest? Is it the fault of the midwife, accoucheur, or surgeon from too long delay? or is the woman, by reason of previous bad health, exhausting poverty, or pernicious habits, so bad a subject for the operation, that there is almost no hope of saving her by promptness of action, skill in operating, and the greatest possible care in the after-treatment, antiseptic and hygienic?

After a careful study of the whole question in the United States, I am fully satisfied that the gravity of the operation rests much more with the midwife or the accoucheur than with the surgeon in our country; and that delay has much more to answer for than the previous condition of the subject up to the hour of labour. Let the operation be performed early here, and we ought to save a large percentage of the women and children, amounting to sixty-five or seventy, to judge from the record of the past. By the term "early", I mean as soon as the os uteri is sufficiently open for drainage. No exact measure of time can be set, but it ought not to be later, as a general rule, than ten hours; and, in dwarfed subjects, should be as early as three or four hours, or even earlier, as exhaustion with them commences very soon after labour sets in.

When we examine the statistics of the United Kingdom, we find a very different and puzzling condition of things. The general impression among the most celebrated British obstetrical writers is, that the main reason of failure lies in the fact that so large a proportion of the women have been operated upon at a late period of labour, and that their exhausted condition determines, in large measure, the fatality of the result. If this be so, then an examination of the early operations of the record should show a fair proportion of women saved.

Of the 118 Cæsarean operations tabulated by Dr. Radford and myself, but 20 can be fairly recorded as having been performed *early*, as follows. Labour was artificially or accidentally induced in 5; in 1, the operation is simply reported as "early", but no time is given; in 1, labour lasted "a few hours"; and, in 13, it had continued from 3 or 4 hours to 14. Of these 20 women, only 4, or 20 per cent., recovered.

Again, of the whole 118, there were 22 who recovered. These were operated upon as follows: "early", 1; within 24 hours, 5; on the second day, 3; on the third day, 5; in 4 days, 1; in 5 days, 1; in 6 days, 1; in 12 days, 1; labour not commenced, 2; and time not stated, 2.

Table of Cases of Cæsarean Operations in the United Kingdom.

No.	Year.	Locality.	Operator.	Hospital.	Cause of Difficulty.	Age.	Height.	Conj. Diam.	Time in Labour.	Uterine Sutures.	Result to Woman.	Result to Child.	Cause of Death in Woman.	Lived after Operation.	References.
99	1869	London.	Dr. J. Braxton Hicks.	..	Transverse position, with pelvic tumour attached to right side of the cervix.	40	..	..	Labour slow and long ; pulse 100 ; unfavourable.	2 wire sutures through uterus and abdomen.	Died.	Lived 7 months.	Peritonitis.	3¼ days.	*Trans. Obst. Soc. Lond.*, 1870, p. 99.
100	1869	Alvechurch, Worcestersh.	Mr. John S. Gaunt.	..	Malacosteon.	38	..	1¼	2 days, or a little less.	..	Lived.	Lived.	..	..	BRITISH MED. JOUR., Aug. 28, 1869, p. 240.
101	1869	Glasgow.	Dr. Arch. Neilson.	..	Deformed pelvis.	33	..	1½	3 or 4 hours' true labour pains.	12, carbolised catgut.	Died.	Alive.	Presumed embolism of the heart.	14 hours.	*Lancet*, March 1870, p. 336.
102	1870	Ellesmere.	Dr. John W. Roe.	Union Workhouse	Malacosteon.	35	..	..	3 days, at intervals.	..	Died.	Lived.	..	4 days 9 hours.	*Lancet*, July 30, p. 149.
103	1870	London.	Dr. Edwd. Head.	London Hospital.	Malacosteon.	35	4 feet 6 in.	..	Not stated.	1, of silk.	Died.	Lived 4 hours.	..	15½ hrs.	BRITISH MED. JOUR., Apl. 23, 1870, p. 409.
104	1871	Wolverhampton.	Mr. Henry Gibbons.	Wolverhampton Lying-in Ward.	Rachitic pelvis.	22	3 feet 10 in.	1¾	A few hours : 5 to 7	..	Died.	Lived 9 days.	Vomiting and exhaustion.	40 hours.	*Trans. Obst. Soc. Lond.*, 1876, p. 378.
105	1871	Kintore, Scotland.	Dr. Andrew Inglis.	..	Rachitic pelvis.	..	3 feet 6 in.	2⅛	Over 48 hours.	..	Died.	Dead in a few momnts.	Shock and exhaustion.	Not a day.	*Edin. Med. Journal*, Oct. 1871.
106	1871	Romford.	Mr. Norris F. Davey.	..	Rachitic pelvis.	30	3 feet 8 in.	1½	23 hrs. ; exhausted ; pulse 72 an hour afterwards ; well in 15 days.	8, of silver wire ; operation in a sitting posture.	Lived.	..	..	..	*Lancet*, June 8, 1878, p. 826
107	1872	Leeds.	Dr. Philip Foster.	..	Rachitic pelvis.	22	..	1 to 2 in.	Slight pains 2 days, with escape of liquor amnii.	..	Lived.	Dead.	..	..	*Lancet*, June 1, 1872, p. 753.
108	1872	Durham County.	Dr. G. E. Yarrow.	Workhouse.	Rachitic pelvis.	34	4 feet 2 in.	1½	Over 24 hours ; poor and badly nourished.	..	Died.	Lived.	Probably septicæmia.	4 days 12 hours.	*Lancet*, Oct. 12, 1872, p. 523.
109	1873	Wisbech.	Mr. D. C. Nicholl.	..	Cancerous tumour, filling the pelvis.	30	..	1	Over 26 hours ; was blanched and cachectic.	2 uterine sutures.	Died.	Dead.	Exhaustion ; no peritonitis.	41 hours.	*Lancet*, June 7, 1873, p. 802.
110	1874	London.	Dr. Alfred Meadows.	St. Mary's Hospital.	Rachitic pelvis.	21	4 feet 1 in.	1⅝	Not stated.	4, catgut ; knots all became united.	Died.	Lived 7½ mos.	Shock : reopening of ut. wound.	32 hours.	BRITISH MED. JOUR., Jan. 24, 1874, p. 106.
111	1875	London.	Dr. Wm. C. Grigg.	Queen Charlotte Lying-in Hospital.	Rachitic pelvis.	38	3 feet 6½ in.	1⅝	6½ hours ; pulse 130.	1, continuous silk suture.	Died.	Lived.	Slight peritonitis ; shock, vomiting, and exhaustion.	27 hours.	BRITISH MED. JOUR., May 8, 1875, p. 609.
112	1875	London.	Dr. C. H. F. Routh.	..	Rachitic pelvis.	29	..	1¾	All night, and next day to 4 P.M.	Carbolised catgut.	Died.	..	Septicæmia and heart-clot.	62½ hrs.	*Trans. Obstet. Soc. Lond.*, 1876, p. 378.
113	1875	Bury, Lancashire.	Mr. John Parks.	..	Rachitic pelvis.	32	..	..	"Early."	4, of silver wire.	Lived.	Dead.	..	..	*Lancet*, Feb. 12, 1876, p. 240.
114	1876	London.	Dr. A. L. Galabin.	Guy's Hospital.	Obstruction & induration of vagina.	41	..	..	6 days ; pulse 150 ; fœtus putrid.	..	Died.	Dead.	Shock.	Died on table.	*Trans. Obstet. Soc. Lond.*, 1877, p. 252.
115	1876	London.	Dr. James Edmunds.	Lond. Temp. Hospital.	Exostosis of ischium.	28	..	..	60 h. ; well fed ; circumstances good.	..	Lived.	Lived.	..	..	*Lancet*, Dec. 9, 1876, p. 818.
116	1877	London.	Mr. Henry Morris.	Middlesex Hospital.	Malacosteon.	40	..	Available 1⅝	32 hours.	5, catgut.	Died.	Dead ; craniotomy.	Peritonitis and exhaustion.	60 hours.	*Lancet*, April 6, 1878, p. 488
117	1877	Baslow, Derbyshire.	Mr. E. M. Wrench.	..	Rachitic pelvis.	28	4 feet 3¾ in. 73 lbs.	Infantile	35 hours.	..	Lived.	Lived.	..	..	*Lancet*, July 6, 1878, p. 4.
118	1878	London.	Dr. J. Braxton Hicks.	Guy's Hospital.	Cancer of vagina.	..	..	..	Labour brought on in 8th month ; 11th pregnancy.	..	Died.	..	..	24 hours.	*Trans. Obstet. Soc. Lond.*, 1879, p. 106.

Taking the record of the past ten years, we have 20 cases, with 6 recoveries, which is a much better proportionate result than that of the *early* operations taken by themselves. On examining the record of the 6 that recovered, we find that number 100 was in labour 2 days, or a little less, and that her child was saved; 106 was exhausted from a labour of 23 hours, yet recovered in 15 days, child lost; 105 was in labour over 2 days, child also lost; 113 is recorded as "early", but the child perished; 115 was in labour 60 hours, and was saved with her child; and number 117 was a dwarf of only 73 pounds' weight, and in labour 35 hours, and yet was saved and her child preserved.

Examining, again, the whole record, we learn that 10 women were saved out of 68 in the first 120 years, and 12 out of 50 in the last 20 years, or 1 in $6\frac{4}{5}$ of the former, and 1 in $4\frac{1}{6}$ of the latter; showing a decided improvement in the result of the operation in late years.

The causes which led to the operation in the 22 cases that recovered were as follows: cancer, 4; osteomalacia, 6; rickets, 5; fracture of the pelvis, 1; exostosis of the pelvis, 3; coxalgic ankylosis and spinal incurvation, 1; an erroneous puncture of a gravid uterus in ovariotomy, 1; and not stated, 1.

Thus we see the singular fact that all the promptly performed operations saved but 20 per cent.; and those of the last 20 years, without reference to time in labour, saved 24 per cent. As this may be considered the skilful period, let us note what happened under the "early operations" from 1859 to 1879. We find that 12 of the 50 operations were performed in good season, and that 9 of the children were found alive, 3 of whom soon died. Of the 12 women, but 3 were saved, or 25 per cent., as compared to the 24 per cent. out of the whole 50.

We have, then, $18\frac{39}{59}$ per cent. of women saved out of all the cases, 20 per cent. out of all the "early" operations, 25 per cent. out of the same class for the last 20 years, and 30 per cent. out of all the collected cases for the last 10 years.

I must confess that this calculation has a strange look. I had certainly formed a very different opinion with regard to the value of early over late Cæsarean operations in Great Britain, led by what I had discovered to be the case at home, and by the judgment of her own and continental obstetrical writers. England has been frequently censured by the latter for her delay in Cæsarean cases, and her great mortality has been attributed mainly to this assumed fact; but here we see that there must have been an error. Have I simply revealed a fallacy? or is it true that promptness in the Cæsarean operation in Great Britain brings only an exceptional result as compared with America and the continental countries?

I have held so forcibly to the opinion that delay was the great source of danger, that I am very loth to change it by making an exception in regard to any country. If promptness do not meet with its due reward of success in Great Britain, there must be some counteracting influence in the condition of the subject which neutralises it; for there has been no want of skill and care exercised in the management of the cases of late years. Antiseptic spray, dressings, and the douche; the uterine suture, uterine and abdominal drainage, etc., have all failed again and again. The suturing of the uterine wound, which has saved some desperate cases in the United States, has failed in eight out of ten operations in Great Britain in the last ten years, and is in consequence held in very doubtful repute. Skill is at a discount; the operation is denominated the "forlorn hope"; the prognosis is very unfavourable; and the knife is avoided as the weapon of death, which it very often proves to be.

There is only one conclusion to be drawn from these facts: *the women are in large measure unfit to endure the operation.* Where they are fit, promptness must meet with encouraging success; where they are not, the time of operation can be of little moment.

The great factors of the disqualifying condition I believe to be poverty; the want of proper nutrition; the existence of malacosteon; and, superadded to these, the habitual drinking of beer or gin.

Fifty women suffering under malacosteon, and 29 deformed by rickets, have been operated upon in Great Britain, as far as is known, in 140 years. Of the former, but 6, or 12 per cent., recovered; and, of the latter, 5, or $17\frac{7}{29}$ per cent. Of the last 20 operations, 10 were upon rachitic subjects; and 4 of the 6 recoveries were in this class. Of the whole 29 operations upon rachitic women, only 5 were early, and but 1 of these recovered. Of the other 24, 4 recovered, or 1 in 6. Cancerous subjects have recovered in larger proportion than either, 4 having been saved out of 10.

In the United States, no case of cancer or malacosteon has been operated upon; but rachitic subjects have constituted one-half of the cases (56 in 112), and 21 of these were dwarfs, from 3 ft. 2 in. to 4 ft. 8 in. Of the whole, 19, or $33\frac{13}{14}$ per cent., recovered; 29, or a fraction over 51 per cent. of the other 56 cases, were saved. Fifteen rachitic women were operated upon in good season, and 10 recovered. In 17 operations of the 112, the uterine suture has been used, resulting in the preservation of 7 women. Rachitic subjects endure delay with us very badly, but promise well under a very early resort to the knife. Unfortunately for the result, postponement seems to be the rule, instead of the exception; and hence the high rate of death, which ought not to be under a proper management.

It is very evident that the Cæsarean operation is much less fatal to women in this country than to those of Great Britain, under what would seem to be almost exactly the same conditions, so far as the character and measure of the dystocia is concerned. But, aside from these, there are other features to be considered in many cases that do not appear in the published reports, based upon the respective habits of the women of the two countries, belonging to the classes to which the operation is very largely confined. It is well known by our surgeons that the worst subjects for accident or operation, even of moderate gravity, are the constant consumers of beer. With gin-drinkers I have had no experience, as such are uncommon here; but a very large one with whiskey-consumers. Those who drink whiskey to great excess are often lost after a moderate injury, and the measure of the habit has an important bearing on the prognosis. Fortunately for our Cæsarean operations, the women upon whom they are to be performed very rarely have their systems undermined by the drinking habit. This, I believe, is far from being the case in England; hence an important difference in the results of the operation as recorded in the two countries; hence, also, the successes in the London Temperance Hospital as compared with the other British hospitals.

Result to Children.—By the 22 successful operations, 15 children were extracted alive, 2 of whom died in a few minutes, leaving 13. How many of these continued to live a reasonable time, we are not informed; but we can judge, in a measure, from the results in the 20 cases which compose the appended table. From the 20 women, 12 children were removed alive; of whom, 2 died in a few moments, 1 in 4 hours, 1 in 9 days, 1 in 7 months, and 1 in $7\frac{1}{2}$ months, leaving but 6 alive beyond this last age; 67 children were extracted alive from the 118 women, but a number of them must have soon died.

Laparo-Elytrotomy as a Substitute.—I cannot believe, with some writers, that this difficult operation has "a great future" before it: 7 cases and 4 deaths in 9 years do not indicate this. It has been tried twice in England with fatal results; and, in view of the local causes of fatality under the old operation, I cannot see that this one is likely to prove any less dangerous. The methods of Porro and Müller appear to have silenced it on the Continent.

Utero-Ovarian Amputation. — Porro's method of completing the Cæsarean section has, in contrast with laparo-elytrotomy, made a wonderful progress. Since the first Italian operation on May 21st, 1876, there have been 15 performed in Italy, with 7 women saved out of 16, one-third of the losses being due to the operation having been executed *in extremis.* In addition to these 16, there have been 20 others on the Continent, making in all 36, with 17 recoveries, 30 of the cases having been hospital patients, one-half of whom were saved. This, for three years and a half, is a very remarkable record, and shows how the new has taken the place of the old operation in European countries. Of 13 operations after labours lasting from 3 to 15 hours, 8 were successful, which is far in excess of all former results in lying-in hospitals. To what degree this more easily performed substitute is capable of counteracting the fatal tendency under the old operation in England remains to be determined by experiment. It is certainly worthy of a trial, and particularly in the very fatal cases of malacosteon. As this disease has been regarded as beyond remedy, and Professor Späth of Vienna has stated that he cured a case by Porro's method in 1877, it should certainly be tried by English obstetrical operators, and particularly in hospitals, where it has in all probability "a great future". This operation was first devised in England at Guy's Hospital, in 1828, by Dr. James Blundell; and was first performed in the United States, by Dr. Horatio R. Storer of Boston, in 1869. There have been 8 operations with 4 recoveries, in the Vienna Lying-in Hospital.

SUMMARY OF THE RESULTS OF FIFTEEN CASES OF BATTEY'S OPERATION.*

By ROBERT BATTEY, M.D.,
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THE peculiar surgical operation with which the name of the writer has been associated having been fully brought to the notice of the profession of Great Britain by Dr. Marion Sims, through the BRITISH MEDICAL JOURNAL, and having been twice, at least, practised by eminent British gynæcologists, it is presumed that a brief summary of the results thus far obtained at the hands of the originator will not be without interest to the British Medical Association. The writer is therefore emboldened to offer the accompanying statement of his cases, with deductions drawn therefrom.

Mortality.—Of the fifteen cases, two have died, and thirteen have recovered, showing a mortality of $13\frac{1}{3}$ per cent. In seven of the thirteen, the recovery was prompt and uninterrupted.

Secondary Results.—By this term is meant the results obtained at the expiration of six months from the operation.

Separating the thirteen recovered cases into three classes, we have three cases (*a*) wherein but one ovary was removed, three cases (*b*) of incomplete removal of both ovaries, and seven cases (*c*) of complete removal of both ovaries. Tabulating them in the order named, we find:

	a.	*b.*	*c.*
Morbid conditions disappeared	1	0	6
Morbid conditions partly disappeared	1	1	0
Not benefited	1	2	0
Too recent to determine	0	0	1
Total	3	3	7

Present Condition.—Continuing the same classification, we have:

	a.	*b.*	*c.*
Perfect health	1	0	4
Comfortable health	1	1	2
Not improved	1	2	0
Too recent	0	0	1
Total	3	3	7

If, therefore, we restrict the table rigidly to the seven cases of the operation proper, *i.e.*, those in which both ovaries were completely removed, we find that four of the patients are now in perfect health, two of them are in comfortable health, and one case is too recent for the result to be definitely determined.

Object of the Operation.—This is fourfold: first, to obviate the effects upon the general system of a vicious ovulation; secondly, to obviate the effects of an unrelieved menstrual molimen; thirdly, for the control of exhausting uterine hæmorrhages incident to ovulation; fourthly, to produce the vascular and nervous revolution in the system which attends upon the change of life.

Warrant for the Operation.—The writer foresaw from the first that this operation could not be laid down as the remedy for any particular disease or class of diseases; while, upon the other hand, in certain exceptional cases, the range of its applicability must be widely extended to a variety of diseased conditions. When asked, is it applicable to this disease or that disease? he found himself forced to answer both No and Yes. To escape this dilemma, he formulated the following proposition. It is indicated in the case of any grave disease which is either dangerous to life or destructive to health and happiness, which is incurable by other and less radical means, and which we may reasonably expect to remove by the arrest of ovulation or change of life. He is to-day equally impressed with the difficulty of defining precisely the field which it is to occupy in the cure of special diseases, and is still accustomed to decide his own cases by propounding to himself the following questions. 1. Is the condition to be remedied a grave one? 2. Is it incurable by other and less radical means? 3. Is it curable by the arrest of ovulation or change of life? If these three questions be answered affirmatively, the case is a proper one; but, if either of them had a negative answer, it is not.

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* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

Incision.—Two methods have been followed by the writer: first, a short abdominal incision in the linea alba; second, a much shorter opening in the median line of the posterior vaginal *cul-de-sac.* Whilst in his own cases the fatality has attended the vaginal method only, this is not true of the experience of others; for, of the fifty-four cases he is now enabled to tabulate, in thirty-four the abdominal section was made, with twelve deaths; whilst in twenty cases of the vaginal section, there were but three deaths. In other words, the mortality of the abdominal method was 35⅓ per cent., and of the vaginal method but 15 per cent.

Dealing with the Pedicle.—In but two of the fifteen cases has the ligature been left upon the pedicle. In twelve cases, the ovaries have been simply crushed off by the *écraseur* chain. In but one of the twelve was there any loss of blood to note; and, in this instance, the loss was inconsiderable, and was readily stopped by passing a small lump of ice into the *cul-de-sac.* Judging from his own experience, the writer is inclined to regard this method of treating the pedicle as quite safe when the details are properly carried out. Obviously, it is most desirable if safe. It is his custom to constrict the pedicle first with a temporary ligature in such manner as to isolate the ovary well from the broad ligament, and, adjusting the chain above the ligature, to bring away the latter with the ovary.

Antisepsis.—In but one of the series was the antiseptic method of Mr. Lister carried out, and this only in a modified way, as the incision was vaginal. The precautions consisted in a thorough cleansing and disinfection of all instruments, and keeping them immersed in the carbolic solution, in the frequent plunging the hands into the same solution, and in keeping the vagina well filled with the carbolic spray during the operation. No after-dressing was used, and no syringing the vagina. There was a marked absence of any vaginal discharge after the operation; and the convalescence was rapid, and uninterrupted by any notable rise of temperature or pulse. The contrast between the getting up in this case and the best of the other vaginal cases was rather striking, and spoke well for the method.

Effect upon Menstruation.—Without exception, when but one ovary was removed, or both ovaries incompletely removed, the menses have continued as before; and, without exception, when both ovaries were completely removed, the menses have ceased entirely. In one case, the patient did not menstruate prior to the operation, and had repeatedly and at long intervals uterine hæmorrhages for several years after the operation. These hæmorrhages have now ceased. It is curious to note, in some of the cases of partial removal of both ovaries, how small a fragment of ovarian stroma may keep up regular menstruation.

CASE IV.—A letter of inquiry failed to reach her. When seen two years ago, she was in comfortable health, suffering somewhat at her periods, but enjoying life. She was still barren.

CASE VII.—The family physician, Professor D. S. Reynolds of Louisville, Kentucky, in May 1879, said personally: "Her health is perfect. In your published reports, you have not drawn near so heavily upon this case as you ought to have done."

CASE VIII.—The patient writes under date June 10th, 1879: "As yet I have experienced no change from the operation, the menstrual flow coming at intervals of twenty-four to twenty-eight days; it being in colour, quantity, quality, and duration about normal. At each recurring period, there is the same constitutional disturbance. In addition to the troubles I have experienced for years at the periods, I now have the most exquisite sensitiveness and throbbing through the entire ovarian region. Any effort to bear even a fractional part of my weight produces a sensation as of rupture in this region, the tearing sensation being painfully distinct. The throbbing begins several days prior to the menstrual flow. The uterus continues to be thoroughly alive to every movement of the body, the position of the organ being such as to make the passage of anything through the lower bowel excessively painful. My life is a thoroughly quiet one, not having borne my weight for nearly four years. I sit up some little; but, situated as I am, it can never be a source of pleasure to me. The most difficult feature of my present condition for me to bear is a complete weariness of the entire body, and this in turn produces a depression of spirits that is wholly foreign to my nature. I am still buoyed by hope, feeling assured that time must certainly bear some healing on its wings for me." This case, it is believed, is still susceptible of satisfactory cure by removal of the remnants of ovarian stroma through the abdominal incision, but the patient cannot yet bring herself to the point of another operation.

CASE IX.—In consequence of imperfect removal of the ovaries, this patient continued to menstruate, and was not benefited. She was subsequently submitted to excision of the coccyx at the hands of Dr. Richardson of Louisville, but was still uncured.

CASE XI.—The removal of the ovaries was imperfect, and the operation set down as a failure. She writes, June 10th, 1879: "I have gradually grown better ever since your operation, until now I am, as Mr. —— says, almost a well woman.......You remember what a difficult task it used to be for me to walk, but now I go wherever I please, and feel no inconvenience therefrom. In fact, I never have any trouble except at my monthly periods, and then comparatively little. Sometimes I think I will finally get so I can pass through it without pain. Every time I suffer less than I did the period before."

CASE XII.—Reports by letter her perfect health.

CASE XIII.—Verbal report of Professor Eve of Augusta, Georgia: "She is entirely well; menopause is complete. She is actively employed, and earning full wages as a house-servant."

CASE XIV.—The family physician writes, June 9th, 1879: "The menopause is complete. She is, and has been since your operation last November, *entirely free* from the terrible sufferings which she previously experienced at each and every return of the menses. There is scarcely a day, however, that she does not suffer some pain of a neurotic character in some of the organs, more frequently the stomach, sometimes in the ovarian region. She still complains of some defective vision, and can only read a few minutes at a time. She rides out to visit her friends. Sometimes walks half a mile, and even a mile, and does not feel that weight and pressure in the pelvis, which she experienced previous to the operation. At last digital examination, the uterus was rapidly becoming senile." This case is of too recent date to have developed the full measure of relief from the operation.

TABLE OF CASES.

No.	Age.	Social State.	Morbid Conditions.	Method.	Ovaries Removed.	Treatment of Pedicle.	Primary Result.	Secondary Result.	Present Condition.
1	30	Single	Amenorrhœa and hystero-epilepsy	Abdomen	Both	Ligature	Recovered	Good	Perfect health
2	32	Married	Ovaralgia	Vaginal	One	,,	,,	,,	Good health
3	38	,,	Threatened insanity	,,	Both	Écraseur	,,	,,	Comfortable health
4	24	,,	Ovaralgia	,,	One imperfect	Finger-nail	,,	,,	,, ,,
5	35	,,	Ovaralgia and cocygodynia	,,	One	Écraseur	,,	Temporary relief	See Case 9
6	30	,,	Ovaralgia and threatened insanity	,,	Both	,,	Died	—	—
7	25	Single	Ovaralgia	,,	Both	,,	Recovered	Good	Perfect health
8	28	Married	Ovaralgia and cellulitis; cystic ovaries, etc.	,,	Both imperfect	,,	,,	Not good	Not improved
9	35	,,	See Case 5	,,	Other imperfect	,,	,,	,,	,, ,,
10	29	Single	Ovaralgia	,,	Both	,,	Died	—	—
11	22	Married	Hystero-epilepsy	,,	Both imperfect	,,	Recovered	Partial relief	Comfortable health
12	34	,,	Occlusion of vagina and uterus	Abdomen	Both	,,	,,	Good	Perfect health
13	28	,,	Hystero-epilepsy	,,	,,	,,	,,	,,	,, ,,
14	22	Single	,, ,,	Vaginal	,,	,,	,,	,,	Comfortable health
15	37	Married	Violent menstro-mania	,,	,,	,,	,,	Too recent	Improving mind & body.

CASE I.—This patient states personally that she is now in the enjoyment of health, such as she has never before known.

CASE II.—This patient bore a child from the remaining ovary, and is in excellent health.

CASE III is in comfortable health. She does regularly her cooking and housework, but is still at times a little hysterical.

CASE XV.—Operation was done March 27th, too recently to report anything more than the primary result. The husband, himself an experienced medical man, writes, June 10th, 1879: "The menopause is complete. I am very sanguine of a perfect recovery of mind, as soon as she is accustomed to the great change from the operation."

THERAPEUTICAL EXPERIENCES WITH THE DIGESTIVE FERMENTS.

BY F. ARNOLD LEES, L.R.C.P., M.R.C.S., F.L.S.;

WITH A REPORT OF EXPERIMENTS,

BY GEORGE BROWNEN, F.C.S.*

REPORT ON THE DIGESTIVE FERMENTS.

THIS research was undertaken with special reference to the observations of Dr. W. Roberts, published in the BRITISH MEDICAL JOURNAL of November 1st and 8th, 1879. It is therefore, as far as possible and necessarily, a repetition of his chemical experiments, supplemented by additional ones, in order that modifying circumstances and the variety of natural adjuncts to digestion might be considered and taken into account.

For convenience, the tabulated order of digestive juices and their ferments given in Dr. Roberts's paper was followed in the present research.

The experiments upon salivary digestion were performed with both human saliva and that obtained from the salivary glands of the pig, diastase, and extract of malt.

The first portions of saliva ejected from the mouth were almost invariably acid, possibly in consequence of oxidation of the ferment or of the food last taken; the freshly secreted juice was either neutral or feebly alkaline. The acidulous saliva was found, however, to act most powerfully on starch-paste, converting it rapidly into sugar and dextrine. Efforts were made to identify the acid, but the quantity was too minute for complete identification. We have reason, however, to believe it to be lactic acid, from the following experiments: (1) neutral saliva, feebly acidified with lactic acid, acted more rapidly on gelatinised starch than an equal volume of non-acidified saliva; (2) neutral saliva, acting upon starch-paste, rapidly became acid; and (3) neutral saliva, acting upon bread-paste, formed lactic acid as one of the products.

Five hundred grains of human saliva, when "scaled" upon glass below 80° Fahr., gave 6.1 grains of solid residue in the form of semi-transparent horny laminæ, producing a viscid albuminous fluid with water, and giving precipitates with aqueous solutions of mercuric chloride, tannin, and alum. For convenience, we call this substance ptyalin; it is obviously impure, but the impurities are the natural constituents of the saliva, and could not, therefore, be ignored or rejected from this investigation. With this ptyalin or saliva-residue, the following experiments were made. Temperature, 98° Fahr. Time allowed, four hours.

1. Ptyalin, 1 gr.; whole starch, 50 grs.; water, 500 grs.
2. Ptyalin, 1 gr.; whole starch, 50 grs.; soda bicarbonate, 2 grs.; water, 500 grs.
3. Ptyalin, 1 gr.; whole starch, 50 grs.; hydrochloric acid, *P.B.*, 2 grs.; water 500 grs.

These mixtures were frequently agitated to promote action or solution, but the greater portion of the starch-granules remained intact. When some of these were examined by a microscopic power of three hundred diameters, the cellulose appeared somewhat shrivelled, but it still protected the granulose cell-contents from the fermenting agent. The three fluids were separately filtered, and tested with the alkaline copper test, and small quantities of sugar were detected—perhaps derived from some preruptured granules, or from exosmose of granulose. These results were checked with the following solutions, kept at exactly the same temperature for the same time.

1. Ptyalin, 1 gr.; water, 500 grs.
2. Starch, 50 grs.; water, 500 grs.

We are therefore able to confirm Dr. Roberts's assertion of the indigestibility of uncooked starch; and it may be taken as an established fact, that the value of a farinaceous food depends greatly, if not exclusively, on the extent to which its starch-granules are broken, and their contents permitted to come into contact with digestive ferments.

A second series of experiments was commenced as follows.

1. Ptyalin, 1 grain; dilute lactic acid, 2 ♏; water, 500 grs.
2. Ptyalin, 1 grain; soda bicarbonate, 2 grs.; water, 500 grs.
3. Ptyalin, 1 grain; — water, 500 grs.

These solutions were again kept at a temperature of 98° Fahr., and into each was dropped from time to time gelatinised starch (one in ten), as often as a drop of the mixture, removed on the end of a glass rod, failed to give the blue reaction with iodine. After one hour, the following results were obtained.

1 had transformed 870 grs. of starch with acid reaction.
2 had transformed 610 grs. of starch with feeble acid reaction.
3 had transformed 716 grs. of starch with acid reaction.

The necessity for disruption of the starch-cellulose prior to ingestion of starchy food cannot therefore be overestimated; but it is suggestive and curious to observe that the salivary digestion was most rapid when the reaction of the fluid menstruum was feebly acid, least rapid when alkali was present, but that even the alkaline digestion (so to say) of experiment No. 2 generated acid of some kind.

It seems to follow from these experiments that the power of ptyalin may be checked or increased, as well as rendered inactive or inert; and that the blame of inactivity must rest on the nature and condition of the food presented to the salivary secretion, rather than on the saliva itself.

Diastase or vegetable ptyalin exhibits properties remarkably like animal ptyalin. They may possibly be absolutely identical bodies [or having relations to one another similar to those borne by gluten and animal albumen. F. A. L.]. Neither ptyalin nor diastase has yet been obtained sufficiently pure to establish their identity or even isomerism; yet diastase, in the form of malt-extract, may be fairly used as a solvent of starch, with this proviso: that (like ptyalin) it also requires the starch-granules to be broken up, or their solvency and its digesting power is very small and comparatively worthless.

Fifty grains of malt-extract were substituted for the one grain of ptyalin, and the behaviour with cooked and uncooked starch was found to be qualitatively similar in activity and inertness.

A third series of experiments was undertaken to determine the compatibility or incompatibility of the ferments of the saliva and the gastric juice. For this purpose, the following processes were adopted. Two ounces of pure dried starch were gelatinised with twelve ounces of boiling distilled water, and divided into six equal portions (like solid translucent jellies at 100° Fahr.), and they were treated as follows.

To jelly 1 was added diastase, 1 gr.; pepsin, 1 gr.
,, 2 ,, diastase, 1 gr.; pepsin, 1 gr.; lactic acid dil., 5 ♏.
,, 3 ,, diastase, 1 gr.; pepsin, 1 gr.; hydrochloric acid, [*P. B.*, 3 ♏.
,, 4 ,, pepsin only, 1 gr.
,, 5 ,, hydrochloric acid, *P. B.*, 3 ♏ only.
,, 6 was kept without addition, for comparison.

These mixtures were kept at a temperature of 98° Fahr. for four hours, the time prescribed for the pepsin action on albumen by the *Pharmacopœia*. A considerably shorter time was sufficient for this determination, as the jellies 1, 2, and 3 quickly liquefied, in consequence of the conversion of the starch, but Nos. 4, 5, and 6 remained sound and gelatinous. Ten volumes of a weaker starch-paste (6 per cent.), when treated with one volume of a three per cent. watery solution of diastase, liquefied in ten minutes, and was easily filtered.

The deductions from this series of experiments are that diastase, and presumably ptyalin, *will act* in the presence of pepsin; that diastase still acts even when the pepsin is feebly acidulated; and, therefore, that the combination of pepsin and diastase (in such compound preparations of digestive ferments as "peptodyn", for instance) *does not neutralise or destroy* the action on starchy food.*

To establish this proposition as a scientific fact, a small starch pudding was made, and a watery mixture (one-tenth volume) of "peptodyn" was added to it. In a few minutes, the whole was liquefied, and the filtrate reduced the copper-test for glucose, etc.

Before passing from the amylotic digestion, we must notice the process of Cohnheim for the preparation of ptyalin from saliva, given in Watts's *Dictionary*, vol. v, pp. 175-6. "If saliva be treated first with *dilute phosphoric acid*, and then with lime-water, the bulky precipitate of phosphate of calcium carries down with it the greater portion of the ferment together with the albumen. If the separated deposit be agitated with distilled water, it gives up the ferment, but not the albumen, and hence, by filtration, a clear liquid can be obtained, acting powerfully upon starch. From this the ferment may be precipitated by alcohol, forming, when carefully dried, an amorphous mass mixed with phosphates." We have repeated Cohnheim's experiments upon a small scale, and found that the ferment was not destroyed by the action of dilute phosphoric acid for some considerable time, provided the mixture was kept cool. We also noticed that phosphates exist naturally in normal saliva, as well as in association with the other digestive ferments, and most likely act as powerful auxiliaries to digestion. We have found alkalies affect diastase injuriously, and a markedly alkaline malt-extract we found quite free from starch-converting properties. We cannot do better than conclude these experiments and remarks upon ptyalic digestion by calling attention to a paper read before the Chemical Society by Mr. W. H. Watson; the conclusions drawn by him from his tabulated experiments being given as follows. "1. By the addition of the small amount of hydrochloric acid, the action of the saliva is decidedly increased. 2. The retarding influence of the alcohol (added) is not lessened by the presence of the acid. Hence it follows that the saliva will be more active upon farinaceous foods when mixed with the acid juice of the stomach than it would otherwise be." (*Journ. Chem. Soc.*, August 1879, page 543.)

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* Concluded from page 475.

* Further on, the necessity for the administration of bicarbonate of soda with a dose of pancreatine, to guard the latter from destruction in its passage through the stomach, is similarly disproved. F. A. L.

As regards the second digestive agent—the pepsin of the gastric juice—there is no room for doubt that this albuminoid acts in acidulous solution or as an acidulous salt; but there is a great difference between free and combined acid. Even when the specific acid is known, Bidder and Schmidt found more hydrochloric acid than was necessary to neutralise the inorganic bases of the gastric juice; but they did not calculate the organic bases, albuminoids, and even ammonia—the results of the oxidation of the zymogen and also of the transformed food. Pepsin acts in an excess of hydrochloric acid in watery solution (as in the official test for pepsin); but it does not follow that so simple a process in the testing-flask exactly represents the peptic digestion of the stomach. In fact, we know that gastric digestion is preceded by a certain amount of salivary digestion, and the substances and products of this must modify gastric digestion, especially if we admit without reservation the theory that the salivary digestion is neutralised and destroyed by the gastric juice; for then the gastric digestion itself would be weakened by neutralisation of the saliva, and the more perfect the mastication, the worse it should be for the gastric juice.

Combined hydrochloric acid unquestionably exists in the gastric juice, but we are not certain that the acid is also the same. Lehmann asserted that he found lactic acid in the gastric juice. Bernard and Barreswill denied that normal gastric juice contained free hydrochloric acid, on the ground that they could not recover it by distillation, but another acid, which failed to precipitate argentic nitrate; and von Grünewaldt confirmed these results, and attributed the acidity of the gastric juice to lactic and butyric acids generated by the stomach, or developed from the food. At the same time, Schmidt, and more recently Richet, assert the presence of free hydrochloric acid; Schmidt, however, thinking the ferment to be a conjugated acid, for which he coins the name peptohydrochloric acid (see Kühne's *Lehrbuch*).

Among the results of the action of pepsin and acids upon albuminoids are the formation of leucin and tyrosin—substances possessing basylous characters, and capable of combination with hydrochloric acid. After numerous experiments upon the fresh stomach of the pig, and also upon the glycerine extract prepared by the process of von Wittich, we have invariably found leucin and tyrosin present in solution in the acidulous gastric juice, and consequently modifying the action of the acids upon the one hand, and the ferments upon the other. As an example of modified albumen, it is possible to combine egg-albumen with hydrochloric acid; and, when the salts are removed by dialysis, the distinctly acid hydrochlorate of ovalbumen is not only soluble, but remains uncoagulated by a heat of 246° Fahr.

Not only do phosphates appear inseparable from active pepsin, but they cling with similar tenacity to ptyalin and pancreatin, as well as the biliary and intestinal juices—in fact, working as constituents in all digestion.

An energetic peptic action can be obtained by either of the following formulæ, in watery solution.

Pepsin, leucin hydrochlorate, sodium chloride.
Pepsin, leucin hydrochlorate, calcium lactophosphate.
Pepsin, leucin, tyrosin, sodium chloride, calcium lactophosphate.
Pepsin, lactophosphate of calcium.

By the following formulæ, we have obtained the starch-converting power of diastase and pancreatin in the presence of pepsin.

Pepsin, diastase, leucin hydrochlorate.
Pepsin, diastase, calcium lactophosphate.
Pepsin, pancreatin, leucin hydrochlorate.
Pepsin, pancreatin, calcium lactophosphate.

As the best neutral extractive and simple preservative of pepsin or pancreatin known at present seems to be glycerine, we extracted separately fresh stomachs and pancreas of the pig with this fluid, without the intervention of either acids or alkalies, and both fluids were tested and found very active.*

One drachm of pepsin glycerole dissolved one hundred grains of albumen, in three hours, at 98° Fahr.

One drachm of pancreatic glycerole emulsified one ounce of lard and two ounces of water.

One drachm of pancreatic glycerole converted one ounce of solid starch-paste into dextrin and sugar.

One drachm of pepsin and pancreatic glycerole together dissolved albumen and converted starch-paste.

One drachm of each together, again, after solution of albumen emulsified one ounce of lard and two ounces of water.

One drachm of each together dissolved equal parts of lean and fat beef, one ounce, in four hours.

The appearance of the latter fluid resembled a weak milk or chyle, possessed an acidulous reaction, and contained lactic acid.

These results are confirmed by the observations of Dufresne, who found that pancreatin could remain inert in pure gastric juice for two hours, and, after commixture with the mixed gastric juice and neutralisation (with alkaline bile?), would convert seven times its weight of starch into sugar. Pancreatin, therefore, does *not* undergo any alteration in chyme, and recovers all its activity in the duodenum; and one *gramme* of this substance can digest simultaneously thirty-eight *grammes* of albumen, seventy-five *grammes* of starch, and eleven *grammes* of lard.

From the similarity in mode of action between the salivary and pancreatic glands, it is not to be supposed that they are antagonistic. Some observers have even gone so far as to assert that the saliva recovers its activity after passing the pylorus; but whether such is the case we do not know, our experiments having been directed to show the compatibility of pepsin with the salivary and pancreatic ferments.

We have in part anticipated some of our results as to pancreatic digestion. We are ready to admit that the pancreatic secretion is sometimes either neutral or very feebly alkaline; but we have *most frequently found it acid*, even before the pancreas had entirely lost its natural heat. This acidity of the juice does not interfere with the emulsification of fat; but, on the other hand, it emulsifies fat more quickly and completely, and the resulting emulsion can be more easily (and for a longer period) preserved.

As with the other processes of digestion, this one has also its limits; and when the pancreatic ferment has done its peptonising work, or has become widely diffused through viscid aliment, it refuses to digest more, and nature wisely passes it forwards into the intestinal tract. We have found it one of the most imperative necessities in the manufacture of a pancreatic emulsion that shall keep good for any length of time, to obtain the maximum digestive power of the pancreatic juice on the fat employed; for if an excess of juice (with powers unexpended on fat-molecules) were allowed to remain over, intermingled with the emulsified fat, the emulsion would rapidly deteriorate, and become offensive. We are, therefore, not surprised that a pancreatic emulsion refuses to convert starch into dextrine and sugar, for the emulsion is really a peptone or food; and just as we do not expect a pepsin, after it has exhausted itself by dissolving albumen, to resume its powers and dissolve another hard-boiled egg, so we do not think it fair to expect fatty peptone (only suitable as it is fully ready for assimilation) to be transformed into a digestive agent, and perform the work of amylotic digestion.

Podolinsky, following up the researches of Heidenhain, found that the albumen-dissolving ferment of the pancreas does not exist in the gland, but appears first in the secretion. It can, however, be rapidly formed in the gland after death, and this conversion takes place—firstly, on exposing the organ to atmospheric influences, secondly, on diluting the glycerine extract of the fresh gland with water, and thirdly, on treating the gland with acids. The results of the experiments show that the active ferment is formed from zymogen by oxidation (Pflüger's *Archiv*, 1876). These results were confirmed almost immediately by Kühne's remarkable research on trypsin (*Verhandlungen der Naturhistorische Verein zu Heidelberg*); and the results of our extended operations on large quantities of fresh pancreas have proved to us most conclusively that, concurrently with the formation of the active pancreatic ferments, sarcolactic acid is also formed; and the natural deduction from this circumstance is, that the acidulous reaction, at least of this substance, is favourable, if not really essential, to true pancreatic digestion.

The peptones obtained from albumen or fibrin by means of pepsin or pancreatin have acid reactions, and contain, amongst other matters, leucin, tyrosin, and glulamic acid both free and associated with hydrochloric acid.

A series of experiments on the intestinal juice is in progress, and promises interesting results. At the present time, our experiments seem to show that this juice will not emulsify fat. It acts more slowly upon albuminoids than the gastric juice, but very rapidly converts starch-paste. We hope to be able to separate the peculiar ferment more completely from the tissues, and then to study its reactions more thoroughly.

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* The thought suggests itself: Do not the quality and quantity of ferment secreted by, and obtainable from, fresh stomachs and glands vary greatly? May not a great deal depend upon the length of fasting to which the animal has been subjected before death? Is this point at all attended to by the suppliers of the materials?—F. A. L.

DISLOCATION OF THE WRIST.

By FRANCIS G. HAMILTON, M.R.C.S.Eng.,
Assistant-Surgeon to the Central London Throat and Ear Hospital.

A CASE of dislocation of the wrist having been reported in the JOURNAL for March 13th, by Mr. R. Anderson, induces me to send the following notes of a similar case. At the time when it occurred, I was Senior House-Surgeon to the Royal Free Hospital, and the notes are reproduced from those then taken.

W. M., aged between 14 and 15, was brought to the Royal Free Hospital on August 12th, 1876, at 6 P.M. The boy, when playing on a railway viaduct, had been chased by an official of the line, and had fallen from the viaduct, a distance of sixteen feet, striking his left side, and doubling his left wrist under him. On examination, a distinct semicircular projection was visible on the extensor aspect of the left fore-arm, about an inch and a half above the normal position of the wrist-joint, the convexity pointing upwards. There was another similar projection on the flexor aspect, in the normal position of the wrist-joint, with the concavity downwards. The fingers were semiflexed and flaccid. Both styloid processes could be plainly felt, immovable, and in the right position, as proved by comparing the two fore-arms, and by following down the subcutaneous lines of the ulna and radius. The convexity of the carpal articular surface and the concavity of the radio-ulnar could be distinctly felt, the hand itself being slightly drawn to the ulnar side. The diagnosis of dislocation of the carpus on to the extensor surface of the forearm was indubitable.

Reduction was effected without any difficulty by simple extension; it was sudden, and the deformity was at once removed, and did not return in any degree when extension was removed, and the movements of the joint could be then all elicited with but slight pain. The hand and forearm were placed on a straight splint, reaching from the elbow to the metacarpo-phalangeal joints on the flexor surface.

Twelve days later, the splint was removed, and the joint was found rather abnormally lax, and slightly swollen over the flexor tendons. The patient could supinate and pronate the forearm freely, and could also lift a light chair with the affected hand without pain. He said that, since the reduction, he had experienced no pain, and he had slept well.

A similar case of dislocation of the wrist backwards was reported by Mr. Alder Smith in the JOURNAL for June 24th, 1876.

Mr. Holmes states, in his *Surgery*, that "dislocation of the wrist occurs almost always backwards", and that "dislocation in the other direction (*i.e.*, with the hand in front of the forearm) hardly ever occurs as a traumatic lesion". There is, however, a good illustration of a traumatic forward dislocation in Erichsen's *Surgery*, taken from a cast of a case of Mr. Cadge of Norwich.

Dr. Frank H. Hamilton, in his classical work on *Fractures and Dislocations*, relates a case of backward dislocation which he himself saw in an old man aged 75. He also quotes another case, that of a lad about thirteen years old, who dislocated both wrists by being thrown from a horse, one wrist being dislocated backwards, and the other forwards.

The accident certainly but very seldom comes under the observation of surgeons; but Hamilton states, on the authority of Professor F. L. Parker of South Carolina, that there are thirty-three cases of wrist-dislocation on record, and of this number only ten were forwards, and the remaining twenty-three backwards; but he declares that only five of the backward, and two of the forward, dislocations are free from all objection. The cases reported by Mr. Alder Smith, Mr. R. Anderson, and myself agree in the following particulars. The patients were all aged about fifteen years, the diagnosis and the reductions were very easy, and the dislocations were all the result of great violence.

LOCH KATRINE WATER.—The monthly report of the quality of Loch Katrine water, prepared by Professor E. J. Mills of Anderson's College, has been issued. The results are returned in parts per 100,000: Total solid impurity, 2.90; organic carbon, 0.158; organic nitrogen, 0.017; ammonia, 0.000; nitric hydrogen, 0.008; total combined nitrogen, 0.025; chlorine, 0.63; hardness, 1.15. The water when sampled was light brown in colour, and contained little suspended matter.

CLINICAL MEMORANDA.

NOTES ON THREE CASES OF PARACENTESIS THORACIS.

THE first case I ever saw occurred when I was assistant-surgeon to the Newcastle Dispensary some years ago. A man, aged 48, had been suffering from chronic pleurisy of the right side, gradually followed by effusion of fluid therein. At a consultation of two physicians and myself, an operation was deemed necessary, as the only means left of affording the poor man any relief or chance of life. Accordingly, paracentesis thoracis was performed by introducing a fine trocar and cannula into the chest, between the fifth and sixth ribs, at the insertion of the serratus magnus muscle, and about one pint of straw-coloured fluid was carefully drawn off; that quantity being thought quite sufficient to remove at one time. After the lapse of a few days, the man died. At the *post mortem* examination, more than a gallon of fluid was found in the chest. The lung was compressed into a very small space against the vertebral column.

The second case happened in a strong and active woman aged 33, a person engaged behind the counter in a cocoa-room. She was attacked by acute pleurisy of the right side, followed by effusion of serum. Blisters, iodine (internally and externally), diuretics, and all sorts of drugs were used, but were of no avail. At the end of eight weeks, she was too ill to be moved out of bed. Assisted by my friend Mr. Angus, I removed, by means of Potain's aspirator, eighty ounces of clear straw-coloured fluid; this was all we could get through the needle. This patient recovered without a single bad symptom, except a rather protracted convalescence.

The third case was in a young and strong railway porter, aged 27, suffering from pleurisy, followed by effusion. I assisted my friend Dr. W. T. Wilson, of this town, to perform the operation by means of the aspirator, and we removed at one time one hundred and forty ounces of serum. The chest was not completely emptied; but a severe fit of coughing seizing the patient, we removed the needle for fear of injuring the lung tissue. This patient also completely recovered.

REMARKS.—Niemeyer recommends an early interference in such cases, whilst Tanner speaks very doubtfully of the operation at all. In the two last cases, much valuable time was lost by trying various medicaments, which were of no avail; and the result was to reduce the patients' strength, and render the convalescence more protracted. There is now little doubt that, as soon as the chest is detected to be full of fluid, an early paracentesis by means of the aspirator gives the patient the best and quickest chance of recovery. If carefully done, there is little danger attached to the operation. Preserving the patient's strength, shortening the period of confinement in bed, and preventing the permanent collapse of the lung, are the results which are to be obtained by an early and complete aspiration of the pleural cavity.

ARTHUR T. WEAR, M.R.C.S.,
Honorary Surgeon to the Newcastle-on-Tyne Dispensary, etc.

SURGICAL MEMORANDA.

REMOVAL OF A FOREIGN BODY FROM THE ORBITAL CAVITY.

T. H. F., A SEAMAN, aged 28, came to me a few days ago with the following history. Three weeks since, when with his ship off Greenock, he went ashore, being somewhat the worse for drink at the time, to look for a shipmate. As he was gazing into the window of a factory, a workman thrust something into his eye. At first, he thought it had been merely his finger. Feeling pain in the eye, he applied to a medical man, who ordered him poultices and a wash of nitrate of silver. At times he felt a dull aching, which gradually became worse. A week later, on looking in the glass, he could see something in the eye, and pulled out a piece of pipe-stem broken in halves down the centre, which, from his description, would appear to be rather over one-third of an inch in length. He could see with the eye; but, still feeling pain, he was anxious to have something further done, and applied for advice at a hospital, but was told there was nothing the matter with the eye.

On examination, there was seen to be much chemosis, the conjunctiva—chiefly over the lower part of the globe—being swollen into thick projecting folds; and, on depressing the lower lid, a prominence of the membrane was observed, situated near the inner canthus, but covered by the lid when *in situ*. A hard body could be felt under this conjunctival swelling. The eye itself was forced somewhat backwards and upwards, but, as far as could be seen, was itself uninjured. A speculum was introduced to keep the lids well apart; and, on snipping through the mucous membrane with a pair of scissors, I was able to see occasionally a white object, which constantly vanished and reappeared with the movements of the eyeball. After several trials, I succeeded, with a fine sinus-forceps, in getting a good hold of it, and withdrew a piece of clay pipe-stem over three-quarters of an inch in length. One end was rounded, the other was broken sharp and somewhat jagged. A graduated wet compress was applied over the eye, and the man was ordered to return next day. The subsequent progress of the case was satisfactory. Two minute particles of the pipe were removed a few days later from the mouth of the wound, which shortly afterwards closed, leaving the eye entirely uninjured. The exact dimensions of the piece of pipe-stem were as follow: greatest length, seven-eighths of an inch; diameter at broad extremity, a quarter of an inch; at narrow end, three-sixteenths of an inch.

The eye in this case had undoubtedly a narrow escape from complete destruction. From the way in which the injury occurred, the globe of the eye must, in my opinion, have been first struck by the pipe-stem, and, by its elasticity, slipt aside and escaped puncture, while the stem, gliding past it, perforated the conjunctiva near its point of reflexion from the lid to the globe, and buried itself beneath the eye, breaking short at the moment. However, it may have been with the fragment which the man himself removed, the larger piece which remained had become completely covered by the conjunctiva, the wound having healed, and the fragment being fairly embedded in the soft submucous tissue lying between the globe of the eye and the floor of the orbital cavity. It seems remarkable that this large foreign body could have been so situated for a period of three weeks without having caused a great amount of irritation, and that the eye itself and the structures surrounding it should have escaped with nothing more than the comparatively slight inconvenience which the patient seems to have experienced.

A. Midgley Cash, M.D.Ed., M.R.C.S., Torquay.

REMARKABLE INJURY FROM THE BURSTING OF A SHELL.

Not very long ago, there was brought before one of the London medical societies, by Sir James Paget, a case in which the clothing was completely stripped off a person by the action of lightning. The fact excited a good deal of interest at the time, and was noticed in the different journals. Very recently, there has come under my notice an occurrence which resembles that incident in some particulars, inasmuch as a portion of clothing was removed from a limb by the agency of gunpowder, without inflicting any injury on the tissues of the part.

The following are the circumstances of the case. On the afternoon of March 6th, while I was engaged, along with several other officers of the 1st Lanarkshire Artillery Volunteers, at shell-practice in our Battery at Irvine, a very disastrous accident happened, namely, the explosion of two shells in our midst. No fewer than eight officers and one sergeant-instructor were severely wounded. It is to the case of the latter that I wish to refer. When the accident occurred, he was engaged in fixing fuzes into the shells, and it was the shell at which he was working that first exploded. It was placed on a plank on the ground, and he was in a sitting posture beside it. The immediate effects of the bursting of the shell were most disastrous to him. He received very severe injuries to his left upper extremity, and his left leg was almost completely torn off midway between the knee and the ankle; the foot and lower third of the leg being, however, still attached by some portions of muscle and skin. The point to which I wish to draw special attention is that the boot and woollen stocking were completely removed from this left foot without any abrasion or injury of the skin. When I came to the sergeant's assistance, a moment or two after the accident, I found the foot quite naked and uninjured; and I learned afterwards that the stocking was found lying in the Battery, while the boot struck a person who was standing some considerable distance off. Both the boot and stocking were brought to me, and I examined them carefully. The latter was very much torn and singed in its upper portion; but the lower part of it, along with the foot, was quite whole, and apparently not even scorched. The boot, which was an ordinary laced-up soldier's boot, had the heel missing, and at one part the sole was separated from the upper leathers; while the lace in the upper holes was broken, but was still present in the three lowest holes. The boot was in no other respects damaged. The man subsequently died of the injuries received.

Strange as the above incident may appear, very careful inquiries have elicited the fact that the boot and stocking were on the injured man's foot previously to the explosion, and that afterwards they were found as I have described. The only explanation that at present occurs to me is, that the gas generated by the explosion found its way between the limb and the stocking, and thus stripped or peeled it off along with the boot. I may say that Professor George Buchanan, who saw the wounded in consultation with me, holds the same view.

The projectiles which exploded were those known as "common shells". They are conical in shape, are made of cast-iron, and weigh about 40 lbs. each. They contain a bursting charge of 2 lbs. 4 oz. of powder.

Not having read or heard of such an occurrence as the above, with the exception of Sir James Paget's case alluded to, I have thought that it might be interesting to bring the facts under notice, and this must be my excuse for publishing them.

George T. Beatson, M.D., Lieut. 1st Lanark Artillery
Volunteers, 2, Royal Crescent, Glasgow.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

EAST LONDON HOSPITAL FOR CHILDREN.

CASES OF STERNO-MASTOID TUMOUR OR INDURATION.

(Under the care of Mr. Robert William Parker.)

Case i.—Wm. E. L., aged 8 weeks, had a tumour involving the right sterno-mastoid muscle in its lower half. It was first noticed when the child was two days old. The mother was rather a small woman, and the child was a large one; breech-presentation. The labour was not long, but painful. It was the second child. Instruments were not used. The tumour was well marked. At the end of two months, the mother thought it had decreased somewhat in size. It slowly but completely disappeared.

Case ii.—S. B., aged 8 months, had localised induration of the lower half of the right sterno-mastoid muscle. The mother noticed the tumour when washing the child for the second time. The child was then about a fortnight old. The monthly nurse had previously either not noticed the tumour, or had not referred to its presence. The labour was instrumental; head-presentation. There was no history of syphilis.

Case iii.—M. H., aged 7 weeks, a boy, had induration of the right sterno-mastoid muscle. The labour was easy; head-presentation. No instruments were used. It was noticed immediately after birth.

Case iv.—Wm. F., aged 8 weeks, had induration of the right sterno-mastoid. The child was born at full term. It was a large baby. The labour was long and tedious. Instruments were not used. The induration was noticed when the child was two weeks old. It involved the middle third of the muscle, its two extremities being free. The swelling was ovoid in shape. Manipulation seemed to cause pain.

Case v.—Wm. J. S., aged 7 weeks, had induration on the right side. It was noticed when the child was fourteen days old. It was a second child; head-presentation. No instruments were used. The child can move its head in all directions. There was no history of syphilis.

Remarks by Mr. Parker.—In only one of the foregoing five cases were instruments used at the labour, but in two others the labour was long and tedious. It would be difficult to disprove Mr. T. Smith's view, that these tumours may depend on rupture of some fibres of the sterno-mastoid muscle, in consequence either of the use of instruments or of traction at the labour. They are, however, noticed as a rule very shortly after birth, and are then very hard and firm. The questions naturally arise, whether a ruptured muscle would be so firm and indurated so shortly after the occurrence, and whether there are cases on record of "induration" in other muscles under similar circumstances. No such cases have come under my own observation. Then again, as a rule, the induration is most marked, according to my experience, close to the sternal origin of the muscle, which is tendinous and very strong; in only one of my cases (Case iv) was an induration situated at some distance above the insertion of the muscle. The child in each case was otherwise healthy, and there was no history of syphilis, thus bearing out Mr. Holmes's view, that these indurations are not syphilitic. Dr. Taylor (Pathological Society's *Transactions*, 1875, vol. 26, page 224), who has had the privilege of describing the first and only *post mortem* examination of such a tumour, disproves their syphilitic nature. He, however, does not advance any other theory as to their nature and mode of formation. Whatever this be, all observers agree in this point, that the tumours disappear spontaneously in the course of time, and leave no appreciable changes behind them. Dr. Taylor seems to think that it would have been impossible in his case for the fibrous elements to have become converted into muscular tissue. The case is interesting in relation to some experiments which have recently been published. Dr. Paul Kraske, of the University of Halle,* has been engaged in an experimental investigation into the reparative power of striped muscles. He applied violence in various forms to different muscles. Some were divided subcutaneously; some were cut down upon and cut across, under antiseptic precautions; into others, strong carbolic acid was injected, while others again were constricted, so as to interfere with their continuity and nutrition. The results may be summarised as follows. 1. The regeneration, after injury, of striped muscular fibre is the more complete, in proportion as the infiltration of the surrounding tissue with leucocytes is limited. 2. The many divergent opinions expressed by authors in regard to this process can be explained by want of attention to the above fact. 3. The reformation of new muscular fibres depends entirely on pre-existing muscular elements. 4. Each muscular cell gives origin to a muscular fibre; the latter does not depend on the union of several cells. Dr. Kraske's observations are exceedingly interesting; his pamphlet will well repay study, for he gives good reasons for his belief that even large portions of muscles may be replaced by new muscular tissue, so as finally to leave few traces of the old mischief. It seems to me that the ordinary sterno-mastoid induration comes well within his category of subcutaneous injury, and in the light of the experiments just quoted, we shall be quite able to follow, mentally, the changes by which the repair is so completely brought about. The woodcut in Dr. Taylor's paper, however, does not at all resemble any of those in Dr. Kraske's memoir, and Dr. Taylor himself points out the absence of any "early cell-growth". In all my cases, and in three or four others that I have observed in the practice of other surgeons, the tumour occurred on the right side. In Dr. Taylor's case, it was on the left side.

MANCHESTER CLINICAL HOSPITAL FOR DISEASES OF WOMEN AND CHILDREN.

A CASE OF CERVICAL CARIES.

By SAMUEL BUCKLEY, F.R.C.S., Assistant-Surgeon to the Hospital.

JOHN ISHERWOOD, aged 7, had been admitted into the Prestwich Workhouse Hospital in a debilitated condition and suffering from an attack of bronchial catarrh. After having been under treatment for a month, his condition was very much improved, and on the day before his death he expressed himself as feeling quite well. Whilst at tea with the other convalescents, during somewhat boisterous laughter, with a mouthful of food, he had a fit of coughing followed by symptoms of suffocation, apparently due to the irritation of food having gone the wrong way. To relieve him of these threatening symptoms, one of the inmates administered a few slaps on the back, a commonly recognised treatment in such cases, when, to his astonishment, the lad fell dead. Upon learning the above facts, and being unable to certify the cause of death (at the time suspecting it to be due to spasm of the glottis produced by the irritation of food), I deemed it expedient to report the case to the coroner, who thought fit to hold an inquest, and gave an order for a *post mortem* examination.

At the necropsy, the usual signs of death from asphyxia were found to be present—right cavities of heart engorged with black blood, congested lungs, etc.; the contents of the thorax and abdomen being in other respects healthy. Upon dissecting up the trachea, an abscess was found lying behind the larynx and pharynx. It was seen to bulge up from between the longus colli, lying upon the anterior vertebral muscles, with a flattened contour, and extending down to the fifth cervical vertebra. Its walls were thick and unbroken in front, being formed by the anterior vertebral ligaments *plus* adventitious tissue. It contained about five or six teaspoonfuls of a thick, pultaceous, cream-coloured, purulent liquid, slightly mixed with a gritty detritus. It was found to arise from caries of the bodies of the second and third and slightly of the fourth cervical vertebræ, with disorganisation of the intervening intervertebral fibro-cartilages. The axis was found to be fractured at the junction of the odontoid process with the body, being at this point partially eaten through with caries; the atlo-axoid ligament had burst away from its attachment to the body of the axis, the atlas with the odontoid process below and the cranium above being dislocated forwards over the axis, producing pressure upon the cord, and in consequence fatal asphyxia. The disease did not implicate the atlo-axoid articulation, nor were the ligaments in relation with the bodies of the vertebræ posteriorly involved beyond displacement. The cord and its membranes presented a healthy appearance.

REMARKS.—The interest of this case lies in the fact that there were no symptoms present during life to attract attention to the serious lesion found after death. Pains—local or reflex—cervical swelling, stiffness, or rigidity had never been observed, although, from inquiries afterwards made of the mother, he appears to have suffered at times from stiff-neck. He had never complained of dyspnœa, nor of dysphagic symptoms, that might have led to the suspicion of a retropharyngeal abscess; but I am inclined to think that fluctuation could not have been detected behind the pharynx with any certainty in this instance, owing to the flattened contour of the abscess, its thick walls, and thick contents.

I believe the quiescence of symptoms during the period he was under observation to have been principally due to the fact of his having been in bed for a month, and the rest he thus obtained in the horizontal posture. I am aware of the fact that cancellated bony tissue does not enter so largely into the structure of the cervical vertebræ as into the other components of the spinal column; and to this also may perhaps be attributed a more slow and indolent process of disintegration than would have taken place in the lower and more cancellated vertebræ, lessening in a directly proportional ratio both objective and subjective symptoms. The lad was of a strumous habit, having had enlarged cervical glands in infancy and a strumous father.

SALFORD ROYAL HOSPITAL.

A CASE OF CHOREA OCCURRING DURING PREGNANCY.

(Under the care of Dr. A. M. EDGE.)

CHOREA occurs so rarely in pregnant women, that I feel justified in publishing a short report of the following case.

Ann M., a woman aged 27, was admitted into the Salford Royal Hospital under my care, on May 31st, 1879, suffering from a severe attack of chorea. I was informed that there was no history of nervous disorders in the patient's family, and that she herself had never suffered in childhood from any similar affection. At seventeen years of age, she experienced a severe fright, causing nausea and vomiting, but no choreic symptoms. A few months after this, she had an attack of rheumatic fever, which confined her to bed for some weeks; she appeared to recover perfectly from this illness. She was married when eighteen and a half years old. Soon after marriage, she came in one evening from her work, complaining of feeling very ill, without being able to assign any cause. She lay down on the sofa, and her limbs began to twitch, and continued to do so all night. During the course of the next day, the attack subsided in a great measure, but still she had occasional twitchings during the entire period of the pregnancy, and things, her mother said, used to fly out of her hands in an unaccountable manner. She had also several of the more acute attacks. Her confinement was natural, and she was much better after it was over, but still had occasionally slight twitchings in the hands and face. During the second and third pregnancies—in both of which she went her full time—these symptoms continued without any aggravation.

The patient was admitted into the hospital in her fourth pregnancy, after having missed three monthly periods. She had then been suffering for a week from chorea, the attack being more severe than any of the previous ones. On admission, she presented all the symptoms of acute chorea, the movements being universal, but rather more marked on the right side than on the left. The face, chest, and hips, were chafed from the incessant motion, in which almost every part of the body shared. Her speech was almost entirely incoherent, and the difficulty evidently depended not only on disordered action of the tongue and lips, but also on spasm of the larynx, producing various kinds of grunting sounds. There was a basic systolic murmur, best heard over the aortic area. She was ordered twenty grains of bromide of potassium three times a day, and twenty grains of hydrate of chloral every evening. Under this treatment, the patient improved slightly, until June 5th, when abortion took place.

The choreic movements were less marked on the following day. On the 7th, however, she became much worse; deglutition was very difficult, and sleep almost impossible. I now ordered, in place of the bromide, four minims of liquor arsenicalis three times daily, and directed the chloral draught to be given every four hours. She continued much the same till the 12th, when, as she appeared very thirsty, and the tongue was coated and dry, her temperature was taken for the first time, and was found to be in the evening 101.4°, and, on the following evening, 100.2°. There was no delirium. The specific gravity of the urine was taken daily, and was found high, but never exceeded 1030. On the 15th, the evening temperature rose to 102.2°. After this day, a great change for the better suddenly took place. On the 16th, she was able to hold a cup to her lips, and her powers of articulation and deglutition were much improved. Her evening temperature was 100.8°. She continued to progress rapidly, the temperature being found normal on the 18th. She was finally discharged on June 28th, with no choreic signs except occasional nervous movements of the fingers. The cardiac murmur was persistent.

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* *Experimentelle Untersuchungen über die Regeneration der quergestreiften Muskeln*, von Dr Paul Kraske, Halle, 1878.

Kirkes has pointed out that, when chorea occurs in pregnancy, it usually, as in this woman, comes on between the third and fifth months; the spasms followed the general rule, also, in being bilateral, as Jaccoud and Romberg have stated to be the case in the large majority of instances. Also, the disease attacked a woman who had been married at an early age, as has been noticed in many cases. One peculiarity about the instance I have narrated is the fact that the first onset of chorea occurred during pregnancy; whereas Dr. Barnes, who has paid much attention to this subject, has shown that, usually, there has been an antecedent attack in childhood, pregnancy being only a "renewing" cause. Another point to be noted is that the disorder was not arrested, as it usually is, by the emptying of the uterus. We may learn from this not to be too confident of being able to cure the chorea by inducing abortion. The only other point to which I shall direct attention is the marked pyrexia which accompanied the affection. Dr. Ringer has observed one or two cases of chorea with elevation of temperature, and he believes that in them rheumatism probably existed, but was latent in respect of every other symptom except the pyrexia. Dr. Radcliffe, in Reynolds' *System of Medicine*, asserts that chorea is "essentially a feverless malady"; and, again, that it "is connected with a state which must be looked upon as the very opposite of inflammation and fever". He also mentions two cases of chorea ending in cerebral meningitis, in which the involuntary movements ceased when the symptoms of the brain-affection came on. There seems to be a general agreement among authors as to the almost universal absence of pyrexia in this disorder.

Whether the raised temperature in my case was owing to the state of the uterine system, to some latent inflammation, or, according to Ringer's idea, to the presence of the rheumatic poison, there was no doubt of its existence at the same time as well-marked chorea.

CHELTENHAM GENERAL HOSPITAL.

CASE OF HYDATIDS OF BOTH LUNGS AND THE LIVER.

(Under the care of Dr. WILSON.)

FOR the report of this case, we are indebted to Mr. G. A. CARDEN, House-Surgeon.

A little girl, six years old, was admitted into this hospital, under the care of Dr. Wilson, on December 9th, 1878, suffering from what was supposed to be tubercular phthisis. She had been ill for three years, and had been under many medical men. Three months before her admission, she was an out-patient, suffering from pleuropneumonia.

On admission, her breathing was oppressed, difficult, and short, and she had a peculiar hollow cough. Owing to the shortness of breath, she was unable to say much at a time. Occasionally, there was a streak of blood in the sputa. There was great loss of expansion of the thorax, more marked on the left side, with absolute dulness over the apex and front of the left lung, and over the posterior and lower portion of the right one. Fine crepitation could be heard over both lungs. The syrup of the iodide of iron and cod-liver oil were administered, and the child's general health much improved. On the evening of February 5th, 1879, the child sat up in bed with a coughing fit, which ended in vomiting, and then fell back and expired.

Post Mortem Examination.—The right pleura was adherent, the left one partially so, with no fluid in either one. The apex and middle lobe of the right lung were healthy; the lower lobe was one large fluctuating tumour, with a little healthy uncompressed lung at the very base. On cutting into the tumour, about a pint of perfectly clear watery fluid escaped. The cyst-wall was a pearly-white membrane, one-sixteenth of an inch thick, and the whole could be lifted out entire, not being adherent to the cavity which it had formed in the lung. The cyst-wall was very friable, and somewhat granular on its inner surface. Another large cyst, having the same characteristics, occupied the whole of the upper lobe of the left lung, there being only a little fringe of healthy lung round it. All the lung-tissue on both sides, which was not compressed, was very much congested, and a muco-sanguineous fluid exuded from the cut surface of it. In the longitudinal fissure of the liver, another cyst was found, containing about six ounces of fluid. This one, however, contained about a dozen secondary cysts, about a quarter of an inch in diameter; these were more or less oval in shape, translucent, and floated on the surface of the fluid. The fluid was slightly alkaline, containing a trace of albumen; the specific gravity being 1,010. The deposit from the fluid revealed hooklets, and small but perfect specimens of the *Echinococcus hominis;* and scrapings from the surface of the cysts gave some excellent specimens.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 12TH, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Fish-Bone impacted in the Œsophagus.—Mr. FREDERIC S. EVE read notes of this case. A man aged 59, while partially intoxicated, ate some fish for supper. The next day, he went to the nearest hospital on account of pain in the throat and chest. The house-surgeon passed a dilating horsehair probang. On leaving the hospital, the man was extremely faint and ill, and complained of severe pain in his chest. He then took to his bed; the pain in the chest was severe, and he vomited all food. On the third day, the pain had slightly diminished. In the evening, he left his bed, stretched himself, and immediately fell back dead. A lance-shaped fish-bone, about two inches long, had penetrated the anterior surface of the œsophagus about a quarter of an inch above the cardiac orifice, and transfixed the diaphragm; the sharp extremity projected through the posterior portion of the pericardium. The opposed surface of the left ventricle was wounded, but not penetrated. The fish-bone was directed obliquely upwards and forwards. The pericardium was distended with blood-stained serum, and contained some blood-clot.

Case of Typhoid Fever with Acute Nephritis, and Profuse Hæmaturia without Dropsy.—The PRESIDENT communicated notes of this case. A porter, aged 21, was admitted into the Middlesex Hospital, under Dr. Greenhow's care, on November 25th, 1879, the fifth day of a fever which set in with considerable severity—the second day of the attack being marked by vomiting, cough, and slight sore-throat; and in the night he began to have painful micturition, and noticed that his urine was almost black in colour. On admission, his pulse was 108; temperature 103.2°; urine specific gravity 1012, of a deep red colour from admixture with blood, containing albumen one-half, numerous blood-corpuscles, and blood and epithelial casts. He was very prostrate, and suffered from muscular pains; there were impaired resonance with bronchial breathing and scanty crepitation in the region of the right lung, but no *râles* elsewhere. The cardiac second sound was reduplicated; the abdomen was tympanitic, and there were tenderness and gurgling in the right iliac fossa. The liver and spleen were not enlarged. There was no diarrhœa nor rose-spots. Cold sponging was ordered, and a fluid diet. At 9 P.M., pulse 126; temperature 104.8°. The illness ran a rapid course; prostration increased; the pulse-rate ranged between 100 and 130; the temperature 97.0° to 104.8°. Restlessness and delirium, passing towards the close into somnolence, and occasional subsultus in the arms and legs, were observed. The tongue became dry and fissured. The urine continued to be blood-stained, but the amount of blood and albumen diminished. The abdominal distension persisted, and characteristic diarrhœa appeared on the 27th, continuing till death, which took place on December 8th, the thirteenth day of his illness. The necropsy revealed mitral thickening and enlargement of the heart; there was marked pulmonary hypostasis. Two or three sloughing ulcers occurred at the lower end of the ileum, and were in the healing stage; Peyer's glands and the solitary follicles being elsewhere swollen. The liver and spleen were greatly swollen and softened. The kidneys weighed twelve and fourteen ounces respectively and were intensely engorged; their secreting tubules were filled with swollen granular epithelium, and between the tubules there were small-celled infiltration. Dr. Greenhow remarked that he had not met with a similar instance. Albuminuria, when it occurred, was usually a late event in typhoid fever; according to Liebermeister, not until the fever had reached its height; and Murchison said it rarely appeared sooner than the third week, and was due either to congestion or to parenchymatous degeneration, not, as here, to acute nephritis. Dr. Murchison also said that, when copious hæmaturia occurred, it was generally associated with other hæmorrhages. The only parallel instance to the present case which Dr. Greenhow had found on record, was a reference by Liebermeister to two cases of uræmia from acute parenchymatous nephritis in the Basle Hospital, in 1872, soon after admission, and during the height of an attack of typhoid fever. The most careful inquiry failed to elicit any history of previous disease in the present case; so that it seemed as if the trivial cardiac hypertrophy and mitral thickening were due to the very intense nephritis. The points of chief interest were: the concurrence of typhoid fever with intense nephritis; the entire absence of dropsy; and the severe and rapid course of the disease.—Dr. CAYLEY said that such cases were rare. There had only been in recent years, in the Fever Hospital, one case of typhoid complicated with nephritis, and the latter came on during convalescence after the fever. Another case occurred some time ago, when there was profuse hæmaturia; but he had never seen a case so rapid as that described by Dr. Greenhow.—The PRESIDENT hoped some future advances in the knowledge of such cases might be made; and commented on the significance of Dr. Cayley's admission that his experience had not familiarised him with the conditions described.

Case of Rapid and almost Universal Paralysis.—Dr. BUZZARD brought forward notes of this case, which had terminated in complete recovery under treatment. The patient was a man, aged 44, whose illness had commenced with some drawing of the face to the right, followed shortly afterwards by loss of power and sensation in both upper and lower extremities. On admission into the National Hospital for the Paralysed, he was found to be paralysed on both sides of the face, in both external recti muscles, and also to a great extent in all four extremities, in the movements of respiration and deglutition, and in the sphincters. There was anæsthesia to touch and pain in the face (especially on the right side), with apparently increased sensibility to heat and cold. Below the middle of each forearm, there was almost entire loss of sensibility to touch and pain, whilst heat and cold were distinctly recognised. The sensibility of the trunk was preserved. There was loss of smell and taste on the left side. Electric excitability (by induced currents) was almost absent in the muscles of the face, hands, and lower extremities, and was much reduced in the forearms. There was atrophy of the interosseous muscles. Respiration was mainly upper thoracic, the lower part of the chest not expanding, and the movements of the diaphragm being scarcely perceptible. No lesion of the spinal column could be found. The patella tendon-reflex was entirely absent in both knees. Under iodide of potassium at first, and later mercurial inunction, the patient began to improve so rapidly that, on the next day but one after admission, he had regained some power over the external recti muscles, and the sensibility of the face to touch and pain was increased. There was gradual and steady amelioration in all his symptoms, and, four months after his admission, he returned to his work (tailor's cutting) quite well. The patella tendon-reflex returned about this time in both legs. Twenty years previously to his attack, the patient had suffered from a chancre, the scar of which remained visible. With the exception of this, he declared that he had never had a day's illness. In his remarks, Dr. Buzzard compared the case with those first described by Landry, to which the title "acute ascending paralysis" had been given, which were usually fatal, and in which there were no marked *post mortem* changes. The present case differed from this type in the extensive affection of sensibility, in the greatly reduced electrical excitability of the muscular system, and in the implication of the ocular muscles. It resembled, however, most strikingly a case brought to this Society by the author in 1874, which presented almost precisely similar symptoms, in which, as in this, there was an old history of syphilis, and which recovered under similar treatment in about the same time. A diffuse myelitis, involving the cord, the medulla oblongata, and the pons, might give rise to the symptoms. So also, perhaps, would a lesion of the intracranial and spinal membranes with effusion compressing the nerves. Was it possible that there might be some thickening of vessels of the pia mater, an endarteritis of syphilitic origin giving rise to disordered circulation? All the cases that Dr. Buzzard had seen recovered, and he could add nothing positive in reference to the pathology of the disease.—Dr. ALTHAUS inquired as to the condition of the mucous membranes supplied by the fifth nerve, especially as regarded ammonia, sapid substances, and pain on irritation.—Dr. STEPHEN MACKENZIE thought there must have been some lesion of the cord to account for the atrophy. In the case of a girl who had suffered from headache and then from vertigo, there was, when she was brought to the London Hospital, complete paralysis and partial insensibility. She was seen by Drs. Ramskill, Sutton, and Hughlings Jackson. She was livid, and was bled to thirty ounces, as the symptoms pointed to some mischief about the pons Varolii. She was relieved for the time, but died some hours afterwards. No coarse change was found in the centres. Another case occurred about the same time. Paralysis of all the limbs was followed by spasms almost tetanic in their character. The patient died in a few days, and no notable central change could be made out.—Dr. MAHOMED had seen a case like Dr. Buzzard's some years ago. A young man was suddenly taken ill. He was sick, had hiccup, headache, and vertigo. His lower limbs became more or less paralysed, and he could not distinguish heat from cold. He had suffered from sore-throat, and had been treated with antisyphilitic remedies, and under the renewed use of these he rapidly recovered. But for some time after, his sensations were disordered, especially as regarded heat and cold. In the course of the disease, the urine passed was intensely offensive; and this not from retention.—Dr. BUZZARD, in reply, said the anæsthesia of the face had been complete, but the mucous membranes had not been noted. Was there any history of syphilis in Dr. Mackenzie's cases? In his own case, there had been no particular change in the urine.—Dr. MACKENZIE said that, as far as he could remember, there was no history of syphilis.—The PRESIDENT had seen a case of severe diphtheritic paralysis, where there was complete loss of power in the limbs, face, and tongue. The case just recorded was essentially similar, but was due to syphilis, and not to diphtheria.

Fracture of the Base of the Skull.—Mr. FREDERIC S. EVE communicated notes of this case. A boy, aged thirteen months, fell off a bed and struck his head against a mangle. On admission to St. Bartholomew's Hospital, he was insensible, and vomited, and there was bleeding from the right ear. The next morning there was a profuse discharge of clear watery fluid from the ear, which continued until he died, on the third day after the accident. At the *post mortem* examination, lymph was found in the subarachnoid space over the whole surface of the brain, but most abundantly over the right hemisphere. A fracture passed vertically through the squamous portion of the temporal bone and the petrous bone, cutting across the external and internal auditory meatus, and terminated at the foramen lacerum posterius. A coloured injection thrown into the external auditory meatus passed out through the internal meatus, issuing from within the sheath of the nerves, thus demonstrating that the watery discharge in this case was the cerebro-spinal fluid.

Femoral Aneurism treated by Ligature of the External Iliac Artery.—Mr. H. CLUTTON read notes of this case. A patient, aged 46, was admitted into St. Thomas's Hospital on December 9th, 1878, with an aneurism of the right femoral artery, about the size of a walnut, immediately below Poupart's ligament. It had been noticed three or four months. There was no history of syphilis or of injury. There was slight arterial degeneration, but no marked affection of the heart. He was placed under the influence of iodide of potassium and a restricted diet. Every variety of pressure was tried with the exception of compression of the abdominal aorta, but they all failed. In these circumstances, the external iliac artery was ligatured antiseptically by Mr. Clutton, on January 11th, 1879, with a thoroughly carbolised silk ligature, of which the two ends were cut short. A catgut-drain was then inserted, and the wound closed with silver sutures. Pulsation in the tibial arteries returned in three days. As the temperature never rose above normal, and there was no oozing, the dressing was not changed for a week; the wound was then found completely closed; pulsation, however, could be felt in the sac. At the end of another week, the dressing was removed for the second time, and the wound was found soundly and firmly healed. Pulsation in the aneurism, however, continued till February 15th (five weeks after the operation), when he was suddenly seized with pain in the right groin. Shortly afterwards, the aneurism was found quite solid, and never again pulsated. But on February 23rd, exactly six weeks after the operation, there were slight pain and swelling in the wound, and a few days afterwards a thimbleful of sero-purulent fluid was evacuated from the centre of the cicatrix. This little opening continued to discharge only sufficient fluid to keep a scab of about the size of a split pea adherent to the centre of the scar. In this condition, he left the hospital on March 15th, with the caution carefully to watch for the little loop of silk. On May 22nd, four months and a half after the operation, he came to the hospital with the silk loop in his hand, and the wound again soundly healed without any scab. Mr. Clutton remarked that, considering the number of silk ligatures which were now often used in a case of ovariotomy in this manner, and the few, if any, that had subsequently appeared by suppuration or otherwise, it did not seem at first sight too much to expect from antiseptics that the silk might become encapsuled in the tissues around the artery as efficiently as had been the case in the peritoneal cavity. In this case, the ligature was not placed amongst the muscles of a limb, where a certain amount of movement must take place, but in the abdominal cavity; thus differing only from the ligature of the ovarian pedicle in its position with regard to the peritoneum: in the case of the artery, the ligature was in the subserous tissue; in the case of the ovarian pedicle, the ligature was lying on the epithelioid surface of the peritoneum. He thought that in this fact was to be found the explanation of this apparent discrepancy.—Mr. EVE had examined the pedicle of an ovarian tumour a year after the removal of the mass, and found the silk ligature almost entirely gone. The fibres which remained were infiltrated with leucocytes.—Dr. BARCLAY thought that restricted diet had no influence in the cure of aneurisms. Rest and good diet were the chief measures on which he relied.—The PRESIDENT said that here Dr. Barclay's views were opposed to those of Mr. Joliffe Tufnell and others. He had just seen a case where the patient had been under restricted diet for four months, and the aneurism had not extended. He hoped Dr. Barclay would bring forward some cases.—Mr. CLUTTON thought some of the fibres of the silk ligature had disappeared. In Mr. Lister's cases, where the ligatures had been examined some months after application, none of the fibres had disappeared, though some had become somewhat disintegrated.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

TUESDAY, FEBRUARY 20TH, 1880.

JOHN SYER BRISTOWE, M.D., President, in the Chair.

Etiology of Summer Diarrhœa.—**DR. G. B. LONGSTAFF** read a paper on this subject. Many circumstances might predispose to diarrhœa, such as the character of food, foul air, bad water, high temperature, overcrowding, etc.; but it was at least not improbable that there existed some special and specific cause at present unknown, which must be superadded to one or more of the predisposing causes. This specific cause might be a meteorological condition, a peculiar form of pollution of air or water, some animal or vegetable matter in a state of change, or even a living germ. The term diarrhœa was to be understood to mean fatal diarrhœa, as the arguments to be brought forward were all derived from the statistics of death collected in the Registrar General's office. In the ten years ending 1879, the average summer diarrhœa death-rate over the whole of England and Wales was 2¼ per 1,000; in the fifty other towns of the Registrar-General's report, a little below 3 per 1,000, while nearly 1 per 1,000 higher than that of the twenty largest towns of England. The death-rate of all the rest of the country, *i.e.*, of the registration districts not included in these seventy towns, was 1½ per 1,000. Diarrhœa in the summer was, therefore, twice as fatal in the fifty towns, and more than twice as fatal in the twenty towns, as it was in the country districts. When the death-rate of the several towns was investigated, very striking differences came to light. Thus the death-rate in Leicester was over 8 per 1,000; in Preston, 7 per 1,000; next to Preston came Salford, Leeds, Hull, Yarmouth, Bolton, Liverpool, and Birmingham; the London rate was almost exactly the same as that of the fifty towns. When the seventy towns were arranged in the order of their death-rate from summer diarrhœa, the twenty towns at the top of the list were found to have an average rate of 5.2, while the twenty towns at the other end had an average of only 1.8. Mortality from diarrhœa was below the mean from the beginning of October to the end of June, while it greatly exceeded the average during July, August, and September. From December 1st to May 31st, the deaths from diarrhœa in London were practically constant, averaging between fourteen and fifteen per week; three weeks after the mean temperature of the air rose above 50° Fahr., *i.e.*, about June 1st, the deaths began to be more numerous; and a fortnight after the temperature exceeded 60° Fahr., the deaths rose to fifty-two per week. The greater number of deaths occurred in the first week in August. Diarrhœa was most fatal in years with hot summers, especially if they were at the same time dry, and was least fatal in cold summers, especially if also wet. The number of rainy days appeared to be at least as important as the amount of rainfall. The temperature of the water of the Thames had a closer relation to the mortality from diarrhœa than the temperature of the air. The temperature of 62° Fahr. was more critical than that of 60° Fahr. All attempts to express the diarrhœa mortality as a function of temperature alone had failed. Diarrhœa was probably a communicable zymotic disease, which throve best during hot weather. From fifteen to twenty-five years of age, the death-rate from diarrhœa was only .04 per 1,000 living at that age; from five to fifteen years, it was little greater; and from twenty-five to fifty-five, only 1 per 1,000. From two to five years, it was 6 per 1,000; over fifty-five years, it was 1.2 per 1,000; during the second year of life, it was 5.1 per 1,000; and during the first year, 17 per 1,000. These figures were derived from the means of the years 1847-78. Dr. Longstaff concluded that there was a specific poison of diarrhœa which made its appearance in the summer months; that bad water, fruit, artificial feeding, etc., might be excluded as causes. There only remained then bad air, either (1) as a locally bad miasm, or (2) sewer air. He suggested that the exciting cause of summer diarrhœa was intimately connected with the process of putrefaction, however and wherever arising, but that, in a large proportion of the cases, the infective material had its source in the public sewers, and was introduced into the system through the lungs.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

FRIDAY, FEBRUARY 27TH, 1880.

G. F. BODINGTON, M.D., in the Chair.

Trephining for Fractured Skull.—Mr. **MESSITER** (Dudley) exhibited an individual whom he had trephined successfully for depressed compound fracture of the skull.

Granular Kidney.—Dr. **SAUNDBY** exhibited microscopical specimens and drawings to illustrate the histology of granular kidney. The principal point insisted upon was the share taken by the renal epithelium in the formation of fibrous tissue.

Abscess in Head of Tibia.—Mr. **FURNEAUX JORDAN** showed a specimen of a circumscribed and well-defined abscess in the head of the tibia, near to its popliteal aspect, and about an inch from the articular surface. The cavity was about the size of a walnut, was lined with granulations, and contained healthy pus.

Popliteal Aneurism.—Dr. W. G. **LOWE** (Burton-on-Trent) brought forward a specimen of popliteal aneurism, for which he had successfully ligatured the femoral artery about two years and a half previously.

Aneurism of Aorta.—Mr. **MILNER MOORE** (Coventry) exhibited an aneurism of the ascending aorta, which had become diffuse, and had extended as far as the clavicle and axilla on right side. The aorta was enormously dilated, and adherent to the posterior surface of the sternum and ribs. The third rib was so eroded that its cartilage floated loosely in the mass of coagulated blood. The aorta was extensively atheromatous. Galvano-puncture had been performed on two occasions, but without benefit. Death ultimately occurred from exhaustion, consequent on the pain and distress caused by the great size of the tumour and its interference with the circulation.

Corneal Growths.—Mr. **LLOYD OWEN** showed two living cases of corneal growth. One was a dermoid tumour, of the size of a large pea, in an infant. It was situated on the outer aspect of his cornea, in the palpebral fissure, and was growing slowly. Its origin was probably due to the fact that the part of integumental structure which, in the growing forward of the eyelids over the globe, should become changed into conjunctiva, preserved the character of skin, and, as in the example shown, had hairs on its surface. The other case was one of corneal tumour in a man aged 74, occupying the upper and outer third of the corneal surface. It did not extend deeply into the corneal tissue proper, and was distinctly limited. It presented an irregular warty appearance, and was nourished by well marked vessels from the conjunctiva and the subconjunctival layers. It had been of very slow growth, and painless. The question was whether it was papilloma or epithelioma; Mr. Owen believed it to be the former. Operation was contraindicated by the patient's age, the slow growth of the tumour, and the fear of exciting more rapid growth by interference.

SOUTHERN BRANCH: SOUTHAMPTON DISTRICT.

FEBRUARY 27TH, 1880.

F. B. DE CHAUMONT, M.D., F.R.S., in the Chair.

Notes on Midwifery Cases.—Dr. **HENRY VEALE**, Assistant Professor of Medicine in the Army Medical School, read a paper in which he gave the statistics of 818 cases of parturition and of 34 cases of abortion attended in the Chatham Hospital for Soldiers' Wives between the years 1863 and 1878. About 70 per cent. of the women were between the ages of twenty and thirty years; they were consequently, for the most part, in the prime of life; and in no case was there observed such an amount of pelvic distortion as would be likely to interfere with parturition. The abnormal presentations scarcely exceeded 3.6 per cent. The still-births amounted to 4.1 per cent., and the infantile mortality during the puerperal period was exceedingly small. *Post partum* hæmorrhage occurred in 4 per cent. of the cases, but never proved fatal. There were only 21 cases in which the duration of labour exceeded twenty-four hours, and in nearly all of these the delay was in the first stage. Dr. Veale related a case of undilatable os in a primipara which lasted 105 hours; and, with reference to the question of incising the os under such circumstances, he considered it safer to trust to time and to the subsequent use of the forceps. The total mortality of the mothers was in the ratio of 4.89 per 1,000, there having been only four deaths within the puerperal period, of which, however, two were due to scarlet fever. Setting these aside, the mortality barely exceeded the rate of 2.4 per 1,000. In the other two cases the cause of death was septicæmia and peritonitis, of which the antecedents were vaginal and perineal lacerations resulting from precipitate labour. The forceps was used in only one case, and Dr. Veale considered that, although his statistics were too small to afford a general rule of practice, the remarkable paucity of the accidents of parturition, and the small mortality among the cases adduced, were arguments in favour of the policy of "non-interference", and supported the old adage that "meddlesome midwifery is bad". In all cases of laceration of the maternal passages, Dr. Veale advocated local antiseptic treatment, but preferred vaginal to intra-uterine injections, and recommended the application of disinfecting pads of cotton-wool to the os and cervix uteri. Notwithstanding the favourable character of his statistics, he was of opinion that lying-in hospitals should be abolished; for he believed that, except for the small amount of aggregation in the Chatham Hospital, which rendered the conditions more comparable with those of women delivered in their own homes than with those of the lying-in hospitals of large cities, and, but for constant and most minute sanitary supervision, puerperal fever would probably have become epidemic on more than one occasion.—An interesting discussion followed, in which the PRESIDENT, Drs. CÆSAR, LILLY, TURNER, and TREND joined. The rare use of the forceps in the cases recorded was much commented on, it being suggested as a reason for this that soldiers, as a rule, pick out fine women as their wives.

MANCHESTER MEDICAL SOCIETY.

MARCH 3RD, 1880.

DAVID LITTLE, M.D., President, in the Chair.

Compound Dislocation of the Astragalus.—Mr. WALTER WHITEHEAD showed a patient in whom the astragalus had been torn away by a machinery accident, and who had recovered with an useful foot. The case had been treated with antiseptic precautions, and illustrated the fact that, by strict rest and Listerism, limbs may be saved which otherwise would require amputation.

Sacculated Aortic Aneurism bursting into the Right Auricle.—Dr. BRADSHAW showed a specimen removed from a bricklayer aged 38, who died suddenly two days after admission into the infirmary. The aneurism was about the size of a racquet-ball, and sprang from the commencement of the aorta, immediately above the posterior sinus of Valsalva, by a nearly circular opening, one inch in diameter. It had flattened out the right auricular appendix, and slightly encroached upon the cavity of the right auricle, into which it opened by an aperture about the size of a pea, with ragged everted edges, situated midway between the superior cava and the base of the appendix. The semilunar valves were healthy, but the aorta was extensively atheromatous. The heart weighed fourteen ounces and a half, and was dilated and hypertrophied; its walls were fatty. There were bronchitis and emphysema.

Instrument for remedying the Deformities produced by Scars in the Neck.—Mr. BISHOP showed an ingenious instrument which he had designed for exercising traction upon recent cicatrices of burns in the direction of their diameter of greatest contraction, by means of India-rubber springs. The arrangement was more especially suited for cicatricial deformities in the neck.

Lactation and Uterine Disease.—Dr. SINCLAIR read a paper, illustrated with cases, on the relation between lactation and some diseases of the uterus and ovaries.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, MARCH 5TH, 1880.

G. M. HUMPHRY, M.D., F.R.S., Vice-President, in the Chair.

Deficiency of Bone at Vertex of Head.—Mr. WHERRY brought forward a patient with deficiency of bone at the vertex of the head. The patient was a man aged 62. There were irregular deficiencies in the skull-cap, the largest of which was on the left side of the sagittal suture, and measured two inches and a half in the long diameter. The edges were irregular, and the gap was crossed in the middle by a narrow bar of bone apparently belonging to the outer table. There was no scar in the skin, nor any sign of inflammatory thickening. The depth of the hollow was greatest on the side nearest to the suture. The inner table could not be felt to be perforated at any spot. Venous blood filled the gap when he was made to stoop; the swelling was felt to bulge under the hand, and fluctuation might be made out under the bridge of bone that crossed the gap. The blood that could be made to enter the hollow was presumably in communication with the veins of the diploë. The lesion might be taken to be absorption of the outer table. There was a slight depression in the left frontal region, which also felt as if it were occupied by veins. He had had tenderness of the scalp for twenty years, and he had observed the present deficiency becoming gradually larger. His memory was somewhat impaired, and he suffered from headache and giddiness to such a degree that he had given up his work as a cellarman. He was the father of nine children, the first six of whom were alive, and there was no suspicion whatever of syphilis. He had, besides, a lobulated tumour, of the size of an egg, near the tuberosity of the right upper jaw, and extending towards the hard palate; also double hernia. Mr. Wherry pointed out that the deficiency of bone in this case was different from that in another class of cases, where the inner table was first absorbed by pressure of the Pacchionian bodies, and subsequently more or less of the outer table. He quoted a case of the latter kind reported by Meschede in Virchow's *Archiv*, vol. lvii, 1873; the deficiency, as in the present case, existed in the parietal bone to the left of the sagittal suture; it was found, after death, that the inner table had disappeared, and part of the outer, and that the cavity was occupied by a sac filled with blood-clot, and communicating with the longitudinal sinus by an irregular opening. The patient had suffered from melancholia and epileptic fits over a period of thirty-one years; the case was regarded as one of varix of the longitudinal sinus.—Dr. HUMPHRY had had his attention directed for a long time to these cases of deficiency in the outer table of the parietal bone, but he had formed no opinion as to their origin. He had referred, in his *Treatise on the Human Skeleton*, to the specimens of the deficiency that he had seen in museums; one had been placed in the Cambridge Museum by the late Professor Clark, in which there was a deficiency in the outer table of the parietal bone of each side, with no evidence of disease preceding. In the museum of St. Thomas's Hospital, there was a similar specimen catalogued as "Successful Healing after Trephining"; and it so happened that the exactly corresponding piece of bone of the other side was sawn out. He had observed the other day, in the index to a German work, a reference to "senile atrophy of the parietal bone", which might be the same condition under another name.

Cases of Undescended Testicle.—Mr. CARVER gave an account of two cases of undescended testicle in well-developed young men. In the one case, the half-sized left testicle lay just within the external ring, which was open. The scrotum of that side was represented by a small sac of the size of a cherry, into which the testicle could readily be brought down. Some fluid remained in the sac after the testicle was returned. A horseshoe-truss was recommended to be worn in such a way as to retain the testicle outside the ring. In the other case, the external ring was closed, and the scrotum of that side undeveloped. The testicle had been apt to come down in childhood; it had appeared in the canal again at the age of fifteen, and two or three times since (when the truss had been laid aside); and its presence in the canal gave rise to violent pain of a sickening character, which an ice-bag relieved instantaneously.—Dr. HUMPHRY pointed out that the testicle was the only organ of the body which changed its place; and it appeared that it did not acquire its proper function unless the change of position occurred. In the account of one of the museum-specimens of undescended testicle, it was noted that the epididymis of the normal and descended testicle contained spermatozoa, while the small and undescended testicle, with a disproportionately large epididymis, contained only sperm-cells. In some animals, the periodical activity of the function was associated with the appearance of the testicle outside the abdomen.—Mr. CARTER remarked that it was a common opinion among grooms that a horse in which only one testicle had descended, and that had been removed, might still be fertile with the undescended testicle.

Relation of Local to General Tuberculosis.—Dr. CREIGHTON showed the organs and microscopical specimens from two cases illustrating the relation of local to general tuberculosis. In the first case, the primary disease was cystitis (the interior of the bladder being covered with strips of caseous epithelium, like shreds of lymph) and caseous thickening in the pelvis and calices of one kidney, the whole length of ureter intervening being much dilated, and its walls thickened and caseous. The secondary disease was as follows. Both lungs were full of grey translucent miliary tubercles, and were otherwise perfectly healthy. The other kidney was also functionally sound, but contained a very few small white tubercles at wide intervals in its substance. Sections of a small projection of substance in the pelvis of the primarily affected kidney, being the apex of a pyramid with a thick coating of caseous epithelium, showed, under the caseous surface, the characteristic embryonic connective tissue, and, here and there, the giant-cells of tubercle. The tissue so composed extended uniformly over the affected surface. The caseous layer on the surface contained opaque necrotic masses corresponding in their size and isolation to giant-cells. The lungs contained, in the nodular form, precisely the same tissue-elements as did the pelvis of the kidney in the uniformly diffused form. The nodules or miliary tubercles were secondary, and their structure was simply a mimicry of the primarily diseased tissue. The second case was primarily a disease of the lung, in which bronchiectasis was conspicuous, confined to one lung, along with caseous peribronchitis and caseous bronchopneumonia. The secondary disease was grey translucent miliary tubercles in the sound lung, and also in the primarily diseased lung in the immediate neighbourhood of the caseous bronchiectasis and bronchopneumonia. In the deeper and not yet caseous layer of tissue that formed the thick walls of the dilated bronchi, embryonic connective tissue and giant-cells were found. The occurrence of the same structure in the miliary tubercles of the functionally sound lung was attributable to infection, and to mimicry of the primary diseased tissue by the secondary. In the case of cystitis and pyelitis, the primary disease would doubtless be referred to the category of inflammation, the products becoming caseous; but, in the case of bronchiectasis, etc., there would be a disposition to call the disease tubercular in its primary as well as in its secondary form. The modern school of French pathologists (Charcot, Grancher, and others) alleged that they had resuscitated Laennec's pathology of pulmonary phthisis. They found the same structural elements in common phthisis of the lung, in the "infiltrated" tubercle, as in the miliary tubercle. But, in their analysis of the so-called infiltrated tubercle, they found precisely those factors into which Virchow, twenty-five years before, had resolved common phthisis of the lung, the chief of these being *peribronchitis caseosa;* and, next to that, caseous catarrh of the epithelium, both of the bronchi and of the alveoli. Laennec, on the other hand, said (as quoted by Niemeyer): "Pulmonary phthisis is a constitutional disease; it can never develop itself out of acute or chronic pneumonia, or take its rise from a bronchial hæmorrhage, or from a neglected or protracted cold." The structural features of the local or primary tuberculous tissue are not very different from those of anæmic or fungous granulations, which arise as a sequel to inflammation. Dr. Creighton referred to, and showed, the specimens illustrating two papers in the *Journal of Anatomy and Physiology* for January 1879, in which he had pointed to the giant-cells found in the deeper layers of the placenta as the physiological type of the giant-cells of tubercles and granulations. In the placenta, they had an obvious vaso-formative significance; and it happened, even in the normal physiology of that organ, that, when they failed to form themselves into new blood-vessels, they suffered a necrotic or caseous break-up. Precisely the same giant-cells occurred in granulations and tubercles, and, on the pathological evidence alone, it had been concluded by Brodowski, Ziegler, and others, that they stood for pieces of abortive blood-vessels. In the well-marked class of scrofulous subjects, the products of inflammation, whether granulation-tissue in the strict sense only, or also in an extended sense, are apt to fail in attaining to that rich vascularisation which all granulation-tissue required if it were to heal well; and the occurrence of giant-cells was the evidence and the index of the feeble power of the new tissue to provide itself with blood. The tissue in which they occurred differed from simple inflammatory tissue only in degree, and not in kind. It might be convenient to call it tuberculous, more especially as the name had been given, from the earliest times, to that miliary formation which was in reality its progeny or its secondary product. It was due to the remarkable principle of structural mimicry, which was somehow part of the essence of infection, that the miliary nodules, occurring in an organ functionally healthy, were made up of exactly the same kind of tissue as had grown up, owing to particular causes, in the local disease. The mimicry of infection is best seen in tumour-infection. The lungs were especially liable to be the seat of infection from caseous centres, just as they were the favourite seat of infection from sarcomatous tumours. The question had been complicated by the circumstance that the lungs were themselves also the most liable of all organs to those caseating inflammations from which the miliary infection sprang.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 6TH, 1880.

E. H. BENNETT, M.D., President, in the Chair.

Abnormality of the Great Cardiac Veins.—Dr. F. E. LITTLE exhibited a specimen, in which the right (ordinary) superior vena cava was completely absent, the vessel being functionally replaced by a large vein on the left side—a pervious left superior vena cava. The parts were from the body of an elderly female, of whose clinical history nothing could be gathered. On throwing back the pericardium, the right auricle was found to be of small size, ending above in a blunt conical extremity, from which passed upwards a small fibrous cord and fold of the pericardium, which became lost in the anterior wall of the right pulmonary artery. The two innominate veins (the right being the longer and more horizontal) united in front of the root of the left carotid; from which situation the large left superior vena cava descended. In its course, it lay in front of the transverse aortic arch and in front of the left pulmonary artery and veins, and, thence passing to the back of the heart, it lay in the posterior auriculo-ventricular groove, occupying the situation of, and here replacing, the coronary sinus. It eventually opened into the right auricle, at the orifice of the coronary sinus. This course, it would be observed, corresponded exactly to the situation of the recognised vestigia of a left superior vena cava, as ordinarily described and met with. The vena azygos major was absent; the left vena azygos was of large size, and ascended upwards in contact with the aorta, and, arching over the root of the left lung, entered the abnormal vena cava. The heart otherwise, and the rest of the vascular system, presented nothing abnormal.

Coxo-femoral Arthritis: Successful Amputation through the Hip-Joint.—Mr. STOKES presented bony specimens from a case of coxo-femoral arthritis. In 1846, the patient (a mason) met with a fall on his hip, and repeated injuries in subsequent years induced the arthritic disease, which developed to a great extent, and was accompanied by considerable feverishness, bed-sore, night-sweats, and agonising pains whenever he moved. Amputation was performed through the hip-joint, and the patient made a good recovery. The upper portion of the femur was extensively diseased—necrosed and carious. The acetabulum contained no loose pieces of bone, although it was completely denuded of the cartilage of incrustation. Two sequestra lay in the acetabulum. These were portions of the head of the bone which had become detached. A cloaca existed in the femur, and led into a large cavity in the upper portion of the bone.

Thoracic Aneurism.—Dr. A. W. FOOT presented an aneurism, engaging the ascending and transverse portions of the arch of the aorta. There was a singular absence of the physical signs and symptoms of thoracic aneurism. The man suffered apparently from chronic broncho-pneumonia of six months' standing. He was a finely developed handsome man of forty-four years of age. A few days before death, the expectoration became tinged with blood intimately mixed with it. Dyspnœa and cyanosis ushered in death. A minute slough existed in the mucous membrane of the trachea, and had paved the way for rupture of the sac into that tube. Absence of stridor was probably to be explained by the facts that the sac impinged directly upon the crown of the arch of the trachea, and that cartilage offers a great resistance to aneurismal pressure.

Tubercular Fever.—Dr. J. M. FINNY showed the viscera of a man aged thirty-eight years, who died of acute general tuberculosis. Aphonia was the symptom which principally led the patient to seek admission into hospital. The mouth, pharynx, and larynx were all of a dark livid hue. There was right pleuritis, but there were no evidences of pneumonia—only subcrepitant *râles* over the chest. The case was recognised as one of tubercular fever. The illness lasted thirty-six days. There was commencing cirrhosis of the liver. The spleen was large and firm. It was sanded over with minute miliary tubercles. There was commencing tuberculosis of the cortex of the kidneys. The surface and section of the lungs were likewise studded with miliary tubercles. The meninges of the brain were similarly affected, and so was the choroid plexus in the lateral ventricles.

SATURDAY, MARCH 13TH, 1880.

E. H. BENNETT, M.D., President, in the Chair.

Thoracic Aneurism communicating with Right Pulmonary Artery.—Dr. J. M. FINNY showed the heart and aorta of a cab-driver, aged fifty-four years, who had been admitted into the City of Dublin Hospital on February 28th, complaining principally of difficulty of breathing on exertion and of cough. Evidences of pulmonary emphysema were present, and a loud single murmur was heard from the suprasternal notch, all down the sternum. It was determined not to be in the tricuspid opening, as the jugular veins were not pulsating, or even overfilled. After death, the lungs were found emphysematous, and bright red lines were seen in the interlobular spaces. The heart was in no way hypertrophied. A large aneurism engaged the ascending portion of the thoracic aorta, and the sac communicated with the right pulmonary artery through an aperture between the back of the sac and the anterior wall of the artery, half an inch from its origin. The mode of death was rapid, due probably to weakening of the muscular fibres of the heart depending on over-exertion a few days before death.

Wound of Eyeball: Suppurative Panophthalmitis.—Mr. J. B. STOREY exhibited an eyeball, enucleated by Dr. Arthur H. Benson, on March 10th, in St. Mark's Ophthalmic Hospital. A piece of metal from a set, or the hammer with which the set was being struck, flew up into the man's right eye, on March 4th, causing a vertical incised wound of the lower lid, just internal to the puncture, and inflicting a crescentic wound on the sclerotic. The metal remained in the eye. A commencing suppurative panophthalmitis necessitated enucleation six days after the accident. The cornea, the anterior chamber, and the lens were normal. There was no synechia posterior. The anterior portion of the vitreous was filled with a filmy, floculent, white substance, consisting entirely of pus cells, with a few red blood-corpuscles. The retina was adherent to the sclerotic and choroid at the seat of the wound, but elsewhere it could be easily detached.

MEDICAL MAGISTRATE.—Mr. C. A. Newnham has been appointed a justice of the peace for the borough of Wolverhampton.

STIMULANTS IN ST. PANCRAS WORKHOUSE.—A return has been made to the St. Pancras Board of Guardians, showing that the total cost of porter, wine, and spirit for the year in the workhouse was £1,218 13s. 9d. The average number on the medical books was 860, the average cost per head *per annum* of stimulants £1 0s. 10d., and the death-rate 18⅞ per 1,000.

REVIEWS AND NOTICES.

Physiology and Pathology of the Sympathetic System of Nerves. By Dr. A. Eulenburg, Professor of Medicine in the University of Greifswald, and Dr. P. Guttmann, Privat-Docent in the University of Berlin. Translated by A. Napier, M.D. London: J. and A. Churchill. 1879.

To the essay of which this book is the substance was adjudicated the Astley Cooper Prize for 1877; but, on it transpiring that it was the work of two authors, the award was overthrown, as the terms of Sir Astley Cooper's will require that the essay shall be the production of a single author.

We ought, perhaps, to be grateful to the trustees of the Astley Cooper Prize Fund for choosing as the subject for the prize the Sympathetic System of Nerves, for thereby has been elicited this valuable essay, which clearly defines our existing knowledge on this difficult subject. By some, no doubt, the book will be read with a feeling of disappointment, from finding how slender and uncertain is the evidence on which some diseases are regarded as affections of the sympathetic system. No fault, however, is to be found with the authors, who have discharged their task in an honest and able manner. Dr. Eulenberg is well known as a neurologist, and as the writer on vaso-motor diseases in Ziemssen's *Cyclopædia;* and he and Dr. Guttmann had previously written conjointly on the diseases of the sympathetic nervous system.

The method adopted by the authors is admirably suited for the treatment of a subject on which our knowledge has been chiefly gained by physiological research. The book is divided into two parts; the first dealing with the Physiology, the second with the Pathology, of the Sympathetic System of nerves.

The first part is an able *résumé* of the work and observations of other investigators, to which are added the results of the authors' experimental observations. The physiology of the cervical sympathetic is gone into at great length; first is given the results of experimental observations on animals, and then those of the experimental observations of the function of the cervical sympathetic in man. Few as the latter are, they support the view that its functions in man coincide with those of other mammalia.

It is pointed out that the centres for the oculo-pupillary branches and for vaso-motor branches are not identical, and that, whilst the lower limits of each are tolerably well defined, the upper limits are indefinite vaso-motor branches, and, at least as regards the latter, can probably be traced to the cerebral cortex. In treating of the vaso-motor branches of the cervical sympathetic, the question of vaso-dilator nerves is discussed in the light of some recent experiments of the authors. These seem to have been very carefully performed, and the employment of electro-thermic apparatus rendered the observations more complete and exact than those of some previous investigators. The result of these experiments proved that irritation in the continuity of the sympathetic and of its peripheral cut end causes an immediate fall in the temperature, which goes on for some time after the discontinuance of the irritation, and is followed by a gradual rise; it does not, however, reach its original point. Exactly similar results were obtained with regard to the sciatic nerve, which therefore contradict the results and inferences of Goltz. "All these experiments", they say, "speak in a decisive manner against the doctrine of the existence of vessel-dilating nerves in the trunk of the cervical sympathetic or of the sciatic nerves, as both irritation in the continuity and of the peripheral end, after division, always resulted in a primary lowering of temperature, of varying intensity and duration. Further, these experiments also show that the appearances occurring after the division cannot be ascribed to a persistent irritation caused by the incision; the irritation produced by the section is unimportant, inconstant, and very transitory, manifesting itself in the primary lowering of temperature, whilst the long, lasting, and considerable rise in temperature is plainly the consequence of paralysis." It will thus be seen that the authors adopt the old view as to vascular turgescence, etc., following division of the cervical sympathetic being paralytic phenomena, as opposed to the recent views of Goltz, to which Claude Bernard and Brown-Séquard have given a limited adhesion. The vaso-motor branches of the eye, the brain, and the ear, are next considered, and intraocular and intracranial pressure are discussed in connection with the first and second. Next follows the consideration of the trophic branches, in reference to the salivary glands, the nasal mucous membrane, the nutrition of the eye and of the brain; after which the cardiac excito-motor branches are dealt with. The thoracic and abdominal parts of the sympathetic are then treated of, less fully, but sufficiently for considering their diseases.

The second part of the work deals with the Pathology of the Sympathetic System, and a number of diseases are considered which, in the opinion of the authors, are certainly or probably connected with the sympathetic nervous system. This connection may result, they show, first, from the presence of symptoms which resemble, or are identical with, those which we recognise as expressions of the physiological function of the sympathetic; and secondly, from pathological changes in the sympathetic. First are considered functional disturbances in the domain of the cervical sympathetic, in connection with compression of the nerve by tumours, injuries of the nerve, and injuries of the spinal cord in the neck, and of the brachial plexus. It is shown, especially with regard to the first category, that, whilst the oculo-pupillary phenomena are of a constant and persistent nature, those in the domain of the vaso-motor fibres—as reddening, and pallor—are inconstant and transient. This is ascribed by Vulpian to the vaso-motor symptoms often existing only at the beginning, but he believes there are vaso-motor symptoms at some period in every case of affection of the sympathetic. It may be, too, that in a few cases the vaso-motor filaments only are involved in the morbid process. Hutchinson's observation that, in case of traumatic paralysis of the brachial plexus, there is usually a simultaneous paralysis of the cervical sympathetic, is confirmed by Seeligmüller and Bärwinkel; but the association is asserted by the authors not to be constant. Unilateral hyperidrosis, hemicrania, glaucoma, neuroretinitis, progressive facial hemiatrophy, progressive muscular atrophy, are next successively treated; and following them, exophthalmic goître, angina pectoris, Addison's disease, diabetes, the hyperæsthesiæ and anæsthesiæ of the sympathetic system, sympathetic paralysis, and the pathological changes in the sympathetic, in some infectious and other diseases. More space is devoted to some of these diseases than to others. As might be expected, Graves' disease comes in for a large share of attention; and the symptoms referable to the thyroid gland, the eye, and the heart, are discussed in the light of our knowledge of the functions of the cervical sympathetic. The authors endeavour to show how the seeming contradiction of the paralytic phenomena of the thyroid body and the irritative phenomena of the eye may be reconciled. The proptosis they ascribe to the co-operative action of the three factors to which this symptom has been ascribed—spasm of the unstriped orbital muscles, venous hyperæmia, and increase of the fatty tissue of the orbit. Lastly, in connection with this curious affection, they have collected as many cases as they could—though certainly not all those published—with records of the condition of the sympathetic system as revealed by *post mortem* examination. Though the numerical balance (nine to four) inclines to the side of a lesion of the sympathetic system, the number in which no changes have been found is sufficiently large to destroy much of its value. We would remark in this connection that, change or no change found in the cervical sympathetic, the *rôle* of the latter in the production of the symptoms is undoubted. As the authors state, the sympathetic nerves may be functionally affected without suffering any gross change: in the same way, we would remark, as the spinal cord is affected in strychnia poisoning, or the liver in diabetes. A very valuable section is that which treats of angina pectoris. The relationship of Addison's disease to the sympathetic system is discussed, and, whilst it is shown that physiology does not lend much support to the connection of the two, pathological evidence is gradually being collected which tends in this direction. The observations as to changes being found or absent are ranged against each other, and the authors summarise the position. "Thus the results of examination of the sympathetic still remain antagonistic to each other, at one time negative, at another positive. But even should the positive evidences accumulate in the future, or if it be shown that the changes in the plexuses of the sympathetic are primary, and those in the suprarenal capsules secondary phenomena, the question would still be how the symptoms of Addison's disease are caused by such changes—a question towards the solution of which we have not advanced one step." Diabetes is comparatively shortly discussed; for, however necessary it is to invoke the sympathetic to explain the phenomena of the disease, the evidence on which its implication rests is wholly physiological and not pathological.

In conclusion, we would remark that great credit is due to the authors for the way in which they have handled a very difficult matter. The book is a faithful reflection of our existing knowledge of a very intricate subject, and those who call in the sympathetic system to explain puzzling phenomena will do well to consult it. They will find therein no warrant for going beyond our actual physiological and pathological knowledge, and they will find also how very slight this is in many cases. Unfortunately, our knowledge of the sympathetic in health and disease so far affords but little help to therapeutics, and, as this is the standard by which a work is judged by practical men, the book will have a greater value to those engaged in the scientific study of disease than to those who have to battle with it daily at the bedside. Still it is a book which it will amply repay all to read. The work of the translator is well performed, but in spite of a long list of errata at the end of the book, other mistakes remain uncorrected.

NOTES ON BOOKS.

Experimental Researches on the Regional Temperature of the Head. By J. S. LOMBARD, M.D. (London: H. K. Lewis. 1880.) This is a masterly research, and our only regret is that such good work should have been bestowed on so ungrateful a subject. The conditions under which the investigations were necessarily made are not sufficiently accurate to admit of our placing much confidence in the results. The author attempted to judge of slight differences of temperature in different parts of the brain, under the influence of various kinds of work and various emotional states, by taking delicate thermo-electric observations of the temperature of the integument of the head. The author himself says: "Bearing in mind all the uncertainties and difficulties which have been mentioned, the author does not feel inclined to place much reliance on the examination of the relative temperatures of different parts of the integuments of the head as a means of medical diagnosis." In this we fully agree with him, and we should be inclined to extend his observation to the physiological aspect of the question as well.

How to Use a Galvanic Battery in Medicine and Surgery. By HERBERT TIBBITS, M.D., F.R.C.P.E. Second Edition. (London: J. and A. Churchill. 1879.) This little work contains a good deal of valuable information on the subject of which it treats. We believe that all the knowledge required by a general practitioner to enable him to avail himself of the advantages of electricity, so far as it is of everyday practical use in medicine, may be contained in a small space; and that a small book giving the requisite details clearly and concisely is of greater value to the practitioner than a large monograph on the subject. On the whole, Dr. Tibbits's volume meets this want sufficiently well. He is not quite so clear on the questions of diagnosis as he might be, and he introduces a certain quantity of the unpractical element into his sections on treatment. We would advise our readers to avoid any experiments upon the cervical sympathetic, as advocated by Dr. Tibbits, and also not to attempt to pass the voltaic current through the head; for this also is a method of treatment of very doubtful use, and very unsafe except in skilled hands. There are several other forms of application of electricity mentioned by Dr. Tibbits which may be discarded at once, so far as their general use by practitioners is concerned. We think, however, that it may be safely left to the common sense of medical men to select from the author's description those cases where the use of electricity will at any rate be unattended by danger. We need scarcely say that it is only in such cases that electrical treatment should be generally tried.

Student's Primer on the Urine. By J. TRAVIS WHITTAKER, M.D. (London: J. and A. Churchill. 1880.) It is a pity that the authors of primers frequently think that, when subjects are treated in an elementary way, it is less necessary to be accurate than in more ambitious works. The present little work is no exception to this rule. The plates are good, but we are unable to accord the same praise to the letterpress. It is meagre, and carelessly compiled; some of the chemical formulæ are written according to the old notation—*e. g.*, uric acid is given as $C_{10}H_4N_4O_6$; others by the new—*e. g.*, urea, CH_4N_2O. Fully one half of the formulæ are, however, not correct, either according to the old or the new notation. As instances, we would mention the formula for the triple phosphate, which is written partly according to the old and partly according to the new, and those for murexide, oxalate of lime, albumen, and cystine. The formula for water appears as HO or H_2O indifferently. The only chemical equation in the book appears as follows: $CN_2H_4O = (NH_4)_2CO_3$.

DEATH OF MR. CARTTAR.—The death, after a lingering illness, of Mr. Charles Joseph Carttar, coroner for West Kent, took place at his residence in Greenwich on March 19th. He had been coroner between forty and fifty years, one of his early inquests having been at the Tiger's Head, Lee Green, on the body of Cocking, the aeronaut, who fell from a parachute in 1838. Mr. Carttar also held the inquiry at Penge in the Staunton case, and at the Town Hall, Woolwich, on the bodies of the victims of the *Princess Alice* and *Bywell Castle* collision. It is stated that Mr. Carttar's death is to some extent due to the great fatigue he underwent during this inquiry, which extended over thirty-one days. Mr. Carttar also filled the office, for many years, of Secretary to the Royal Kent Dispensary.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 3RD, 1880.

TRICHINOSIS ON BOARD THE *CORNWALL*.

WE have had, on former occasions, to congratulate Mr. Power, of the Local Government Board, on the skill and success with which his investigations into the causes of outbreaks of disease have been conducted; and his last inquiry deserves that praise in an even greater degree than any in which he has been previously engaged. By dint of much perseverance and careful investigation of many perplexing and apparently contradictory facts, Mr. Power has succeeded in proving that what was regarded as an outbreak of enteric fever on board the reformatory school-ship *Cornwall* was, in fact, an outbreak of trichinosis. His reasons for arriving at this result are so conclusive and so full of interest, that we take the earliest opportunity of laying them before our readers. This outbreak is the first of its kind that has been recognised in this country (with the exception of a small outbreak at Workington in 1871), although considerable epidemics of trichinosis are common enough abroad. A special interest therefore attaches to the *Cornwall* outbreak, the more especially in view of certain of its characteristics which lead to the almost inevitable conclusion that many cases of disease which have hitherto been ascribed to enteric fever ought more correctly to have been referred to trichinosis, to which enteric fever in some of its symptoms bears a marked resemblance.

The circumstances of the outbreak are briefly as follows. Up to the middle of September of last year, the health of the boys had, during a long period, been satisfactory. But, on September 23rd, seven boys reported themselves to the medical officer of the ship for the sick-list; on the next day, two boys; and by the 29th, ten other boys. On September 30th and October 1st, six boys; between the 3rd and the 6th, nine boys; and, on October 11th, one boy, came under the doctor. From the 14th to the 17th, six boys, on the 21st one, and 23rd October another boy, came under treatment. In all, therefore, there were forty-three cases. Eighteen boys suffered from decided, most of them from serious, illness, and one of them died on the eighteenth day of his disease. Twenty-five other boys were slightly ill, most of them for a few days only; and some of these twenty-five may not, it was thought, have been ill at all, but, owing to panic, may have imagined themselves ill. All the serious cases, and some of the slighter ones, had a disease which was properly described as a "continued fever". In most instances, the symptoms were clearly indicative of enteric disturbance, and in some cases there were, in addition, persistent diarrhœa, rose-coloured spots on the abdomen, and hæmorrhage to a greater or less extent from the bowels. From these data, the outbreak was regarded as one of enteric fever, presenting, perhaps, an unusual number of abortive cases, and possibly complicated by malingering.

Regarding it for the moment in this light, Mr. Power set himself to search for causes of enteric fever; but without success. It is not necessary to follow him in the discussion of the various possible causes as to which evidence had to be weighed and carefully sifted; it may suffice to say that all were examined, and had eventually to be set aside. After these lines of inquiry had been exhausted, certain circumstances in connection with the question of food of the boys began to attain prominence. The food supplied to and cooked for the boys was distinct and separate from that of the officers, who escaped illness; the incidence of the first outburst of the disease had been exceptionally on a particular mess; and the more serious cases arranged themselves in groups, which were attacked mainly on Tuesdays or Wednesdays, at weekly or fortnightly intervals. Inquiry respecting the regular diet of the boys extended to all articles of food used on board, the days of the week on which they were habitually consumed, and the dates on which articles of food other than fresh meat and vegetables (which were received day by day) were taken on board. Breakfast and supper offered no hint as to the cause of the outbreak. Dinner, however, seemed to suggest a clue. The animal food of the boys, though varied day by day, was the same on every day but Monday, when it varied from salt beef to salt pork. Either salt beef and salt pork might, by this method of consumption, have been related to the grouping of the graver cases on or about certain Tuesdays; and further, it was ascertained that a fresh cask of each came into use shortly before the outbreak. At this stage, Mr. Power seems to have been struck with the idea that, if pork had to do with the outbreak, some of that of the cask newly taken into use *might have been trichinised; and that the disease, therefore, from which the boys suffered, might not have been enteric fever at all, but trichinosis.* A theory of trichinosis seemed exactly to fit the conditions assumed as requiring fulfilment. A newly broached cask of pork came into use shortly before the occurrence of the outbreak. The pork was consumed by the boys alone. Portions of the pork, not thoroughly well cooked, might form but a small proportion of a total dinner for the boys; and might, therefore, have been consumed on particular days within the limits of one or two messes; and thus (if such portions happened to be infested with trichinæ) the incidence of the severer cases on a particular mess or messes might have been brought about. Again: pork might have been consumed on two successive Mondays, and after that not until a fourth Monday; and thus the specialities of the time-distribution of cases, notably a peculiar grouping of the graver attacks, might be accounted for; while the great diversity of duration of illness would be quite intelligible. Moreover, it was ascertained that the use of pork on board the *Cornwall* had, owing to misgiving as to the wholesomeness of such food, been discontinued shortly before the cessation of the outbreak; and that the pork in question was "American pork", exceptionally obtained from a firm in Bristol; and that it consisted solely of "belly-pieces", and therefore of parts of many pigs, and of those parts most likely to be infested with trichinæ. Inquiry, however, respecting the actual consumption on particular Mondays of the pork in question, the pathological condition of that pork, and the clinical records of the cases attacked by illness, failed in attaining any other than a negative result. As to the latter, though study of the records failed to elicit information directly suggestive of trichinosis, it failed to a like degree to support a theory of enteric fever. An attempt was, therefore, made to obtain, by inquiry of the boys themselves and of their attendants, more extended particulars of the clinical history of the cases attacked. On the whole, trichinosis could not, from this clinical history, be set aside, though evidence affirmative of it was thus far wanting. On the other hand, as the questioning of the boys of the ship's staff proceeded, it became increasingly evident that a large proportion of the fever cases might be more safely ranged under some general name—such as simple continued fever—than under the specific name of enteric fever; and it was observed, too, of the less febrile cases, that they, like the more febrile, were accompanied by pain in the abdomen and nausea, sometimes with, though commonly without, looseness of bowels.

At this stage of the inquiry, it was evidently imperative, for a proper understanding of the outbreak, that direct evidence of the nature of the disease should be obtained; and for this purpose, permission was obtained for the exhumation and pathological examination of the only fatal case of the outbreak. This, which was in effect a test-case, was that of a boy who was one of the first group of sufferers attacked on September 23rd. He in particular exhibited symptoms (persistent diarrhœa, copious eruption of rose spots, and even free hæmorrhage from the bowels) believed at the time to be those of enteric fever. In addition, he, in dying on the eighteenth day of his illness, appeared to be the subject of bowel-perforation. At the necropsy, the body, though much decomposed externally, was found to have fairly retained its normal proportions. There was no œdema of the feet, limbs, or trunk. Internally, the effects of decomposition were less manifest; the various viscera were easily made out, and so far as naked-eye appearances went, were not much changed. It appeared, after detailed examination of the viscera habitually implicated in enteric fever, that the boy's fatal illness certainly had not been this disease, and this conclusion was confirmed by the results of microscopic investigation. In the first specimen examined, a few fibres from one of the abdominal muscles, was found a wandering and living trichina; and further search revealed the presence of the parasites in most of the muscles examined. Although tolerably abundant, the trichinæ could not be said to "infest" (in the common sense of the word) any of the muscles, except perhaps the diaphragm, and in none of them had the parasite reached the stage of encapsulation. Except the first found, no trichinæ exhibited active movement, and comparatively few had obtained, as had that one, their full growth as muscular parasites.

In these circumstances, doubt could no longer exist that the boy had died from acute trichinosis. Not only was the presence in his body of the actual parasite demonstrated, but the results of microscopic examination were precisely such as might have been anticipated in a case of early death from trichina disease. Death took place in this instance on the eighteenth day after appearance of symptoms, at a period that is too short to have allowed universal migration of blood-trichinæ, and insufficient also for the attainment of full growth in the muscles of any but early migrants. At the same time, the period was not nearly long enough to suffice for the full evolution and encapsulation of many (if, indeed, of any) muscular parasites.

This demonstration of the nature of the fatal illness in a test-case was in effect demonstration of the nature of the outbreak itself. The evidence adduced indicated that the cause which produced this boy's illness, produced also the illness (so far as that was specific) of his shipmates; that his case, forming one of the first and most severe occurring on September 23rd, was representative of the earliest and most intense operation of that cause; and that it was representative, n a high degree, not of the anomalous but of the enteric class of cases; of those, namely, whereon the diagnosis of the outbreak had been in the first instance based.

Here the medical history of the outbreak might well stop; for, as Mr. Power remarks, in a highly suggestive footnote to a detailed memorandum by himself and Dr. Cory on the microscopical examination of the muscles and viscera from the body of the dead boy, doubt as to the identity of the wandering muscular parasite (and, consequently, upon the outbreak being in fact trichinosis), if seriously raised at all, involves considerations of supreme importance. The identity or non-identity of the parasite with trichina spiralis would not alone be in question; for, in view of the symptoms exhibited by the sufferers in the *Cornwall* outbreak, possible relation of enteric fever to ravages of a muscular parasite would have to be investigated and dealt with; and current views as to the etiology and pathology of that disease might require to be studied. One of the most important of the numerous outcomes of Mr. Power's inquiry, both immediate and prospective, is the circumstance that an outbreak of trichinosis has in many essential features "aped" an outbreak of enteric fever. This occurrence is without recognised precedent in this country. No doubt in other countries something similar has occurred; but in those instances, so far as we hear of them, no sooner does the cause of the outbreak seem to have been hit on, than abundant and undoubted symptoms of trichinosis are found to have been observed in the patients. In the present case it was not so, for, although symptoms doubtless referable to trichinosis could be elicited from many of the boys, still such symptoms had been seemingly very imperfectly developed. It is especially noteworthy, that in no single instance had many of these symptoms together been present, even in a minor degree.

Possibly the absence of defined symptoms of trichinosis may have been in some degree due to the youth of the patients, for some authorities assert that children suffer less severely from the disease than do adults. But it became apparent that no better designation for the majority of the cases (pathology apart) would be found than "simple continued fever". Therefore it has been the custom to regard fevers that could be thus designated as partaking of the nature of either typhus or enteric fever, and as having no particular significance of their own. But the experiences recorded by Mr. Power point to other states of disease as being properly described under the name of continued fever. In particular cases where the evidences of typhus, enteric, or relapsing fever are inconclusive, and in outbreaks that are not capable of being surely designated by any one of these names, trichinosis (among other diseases) will now claim to be considered.

The small mortality in this outbreak is in accord with observations on the continent; for, although trichinosis has on many occasions proved very fatal, there are on record very considerable outbreaks of the disease with but trifling mortality. Probably enteric fever, in outbreaks of any magnitude, rarely occurs with a mortality of less than 10 per cent. Henceforward, therefore, outbreaks of so-called enteric fever characterised by exceptional paucity of fatal cases must be regarded with peculiar interest. No suspicion could well have arisen respecting the nature of this outbreak, if the disease, instead of occurring on shipboard, had attacked members of families living in town or country. In regard of enteric or of "continued" fever under such circumstances, it is unlikely that the source of the meat-supply of the sufferers would have been inquired about; and, had inquiry in such direction been made, it is altogether doubtful whether, in view of the small proportion of attacks to escapes, community of meat-source would, when found, have been deemed to be evidence of material value, even if the meat had been pork.

There remains a practical question to deal with—viz., how it happened that the method of cooking salt meat on board the *Cornwall* had failed to destroy the infectivity of the American pork, which was undoubtedly the source from which the trichina disease had been derived. Here, unfortunately, but little positive evidence is forthcoming. Salt meat is cooked on board in bulk, 96 lbs. being packed in a covered galvanised iron vessel of size just sufficing for the meat and the necessary water; the latter, when the meat is added to it, being nominally at boiling-point. The iron vessel with its contents is then placed over the central fire-area of a stove of the kitchener type, and is assumed to be retained there from 8.30 A.M. until 12.30. Meat thus cooked on a large scale and in bulk cannot, except after very prolonged boiling, be equally cooked throughout. And the larger the mass of meat and the more closely the mass is packed into the cooking-vessel, the longer will be the time necessary for the heat to penetrate into the interior of the meat, so as to ensure complete cooking. Hence, in the case of 96 lbs. of meat, packed into a vessel of not many gallons' capacity, it may well be that pieces in the interior did not, during four hours' cooking, attain a temperature adequate to destroy the life of trichinæ.

Mr. Power suggests that it seems desirable that direct experiment should forthwith be made to settle what are the precautions requisite to be taken for the thorough cooking of meat in establishments wherein such food is cooked in bulk; and we quite endorse his suggestion. A matter prior to this, needs, however, first consideration—viz., that if efficient examination of imported pork had been matter of rule and duly enforced, this outbreak would in all probability not have occurred.

THE NURSING AT GUY'S HOSPITAL.

In the current number of the *Nineteenth Century*, an article is devoted to the question of nursing. "The Present Crisis at Guy's Hospital" is the subject professed, but nursing in general is the scope attained; and in this aspect we allude to it. The writer takes very early occasion to say that a typical struggle has been started, showing symptoms of a combined and resolute attempt on the part of the medical profession generally to retain the old system of employing untrained women as nurses in our hospitals, instead of making use of the trained labour which is now at their disposal. The two systems—the only two, apparently, that exist for the writer—"the old" and "the new", are contrasted. The one, said to be "still in full force at the London Hospital, and until a few months back to have been maintained at Guy's Hospital", employs as its nursing agents untrained, undisciplined, overworked women of the charwoman type, with moral character, as a rule, none too good; the other makes use of the well educated severely trained woman, who, if she show herself in any way unfitted for the calling of a nurse, is dismissed at the end of a month. The "sisters" under the two systems are hardly less opposed; for, while in the new we have to do with highly trained gentlewomen, in the old there is an experienced housekeeper, who keeps and gives out the wine and spirits ordered by the doctor, and either partakes or not of them herself, as she feels disposed. The curious point in the narrative is, that this would-be filcher of wines and spirits is, even at the hand of her adversary, not such a despicable nurse after all; for, "in spite of a want of general education and a total absence of any special training, she would become expert in various ways, especially in attendance upon the medical staff, and in prompt and skilful obedience to their orders. She would learn to watch critical cases in the doctor's absence, and to act with ability under his orders." Whether or not the writer is correct in her judgment that her picture is a fair one, is a question that may well be left to those who will read the entire article; but we agree that, if it be so, the conclusion arrived at is a legitimate one. It virtually amounts to this: that doctors must be either fools or knaves; and of the two alternatives, the latter has been selected, perhaps as being possibly less repugnant to the feelings of educated men. It is asked, that is to say, how it comes that certain members of the medical profession, who are on the acting staff of hospitals in which there is a large medical school, are opposing the employment of the intelligent class of trained women who are supporting the new system? And the answer that commends itself to the judgment of the writer is, that the old system allows "tacit understandings" of practices and experiments indulged in by the medical men, and permitted by them to the members of medical schools, which it is understood had better not be mentioned beyond the walls of the hospital. Further, the presence of refined intelligent women in the wards imposes a kind of moral restraint upon the words and ways of both doctors and students, which some of them desire to "get rid of". It is strange, indeed, that, speaking with the authority of some experience, as would appear to be the case, the writer should have so failed to see the point of the many recent discussions upon nursing systems; that any fancy should be so distorted as to come to believe in such a representation as this being a fair one of the questions at issue. Miss Lonsdale has evidently much yet to learn regarding the medical profession and her relations to it as nurse; and we can almost wonder that she has not already fallen under the ban of her own system. But nursing is a subject upon which the public claim to have an opinion; it is therefore necessary at once to repudiate all such one-sided statements. It is not, and never has been, of late years at any rate, a question in the medical profession whether trained or untrained women make the best nurses; we do not suppose there is a single member of our body who would not gladly have women of the highest training. To lead off in the public press upon such an issue, is an attempt to catch a momentary success by an appeal to popular feeling, like the party dodges rife at election time, but which will surely be followed by reaction by-and-bye.

The real question is, how and whence the trained material may be best obtained; how it may be utilised for the successful nursing of large institutions to which medical schools are attached. Here are points which are open to discussion, upon which the medical profession as a body would no doubt not be entirely unanimous, and which we should gladly see aided by a calm discussion by the public. It is not a mere alternative between an old system and a new. We very much question the existence of "the old", as defined by Miss Lonsdale; and her "new" system, based as it is upon individual capacity and training, embraces so many substantial differences when it comes to be applied to a combination of units at various hospitals, that no adequate notion of nursing, as carried out at all our large hospitals, is conveyed by it. It is the systematising which determines the friction; and it is the opinion of many well informed in the matter that, in any case where this is in excess, it will be found, as a rule, that the nursing system is not fully under the control and guidance of the medical staff. The question of systems is the main one. It embodies others of considerable although subsidiary importance. Such are the respective merits of what has been called the ward system, or fixed establishment system, and the circulating system, upon which nurses and sisters are moved from ward to ward at certain intervals; from what class of women the best nurses are drawn; etc. Upon these and such-like questions let illustration and argument be lavished until, if as yet it be not so, opinion gives no uncertain sound. We cannot hope for peace till then; as now each of the contending parties claims to be judge of the cause, and the public is incompetent to decide the matter. We venture, however, to insist once more that medical men—considering as they do that nursing is an integral part of their treatment; that it is not an independent element of which they have no knowledge, as is contended, in so many words, by Miss Lonsdale and those who think with her—have a right to claim to be judges, upon that assumption, not only of the results of nursing, but also of the method of its performance upon their patients; and to be the directors of its aims. Nursing is the first step in—often the most important, sometimes, indeed, the only—treatment; and a doctor is, or ought to be, a nurse before he is a physician. From him, much of the information which the nurse possesses must in the first instance be derived; to him she should look for much of her teaching. But, according to opinions now in vogue, pupils and teachers would appear to have changed places; and we have even intelligent women practically claiming perfection of knowledge for a nurse after three years' "severe training", and denying all but ignorance or worse to the doctor, whose work in the same calling may be ten times as long. Can any good come of such a line of action? Is it not just possible that "the torrent of public opinion" appealed to is one of sentiment, and not of judgment? And is not the fact, if it be one, as the writer says, that able and scientific physicians and surgeons are gladly steering their course into the current, an indication of the precipitateness and weakness of the movement? At any rate, that is our conviction. Able and scientific physicians and surgeons should be at the helm in such matters; they ought to be the controllers, not controlled.

BENEVOLENT FORGERY.

THAT Mr. Caleb Charles Whitefoord, who pleaded guilty to a charge of forgery at the Central Criminal Court on the 24th ultimo, had really committed that offence in the common acceptation of the term, can scarcely be maintained; but that he had perpetrated a most foolish and reprehensible act will not be disputed. In order to save the life of a convict, in whose case he had taken a vehement interest, and of whose blood-guiltiness he was not satisfied, he wrote out a reprieve, and signed it in the name of the Hon. A. F. O. Liddell, Under-Secretary for the Home Department. This document he enclosed in an envelope bearing the stamp of the Local Government Board, and delivered personally at the gaol of Newgate a few minutes previous to the hour fixed for the execution of the criminal. The Governor, however, was not deceived by the elaborate artifice, which, instead of achieving its object, has redounded against its author, and consigned him to two months' imprisonment, with a fine of £50. It appears, from statements made at the time of his arrest, that Mr. Whitefoord did not think that he was transgressing any legal prohibition in counterfeiting Mr. Liddell's signature; his notion being that, where no personal benefit was sought, no forgery was involved in the most careful imitation of a sign-manual. Of this error he has been sharply disabused; but, even had his reading of the law been accurate, his conduct was still blameworthy. Public safety and social order would be at an end if such attempts to interfere with the course of justice could be practised with impunity; and Mr. Whitefoord erred greatly when he condescended to such a trick. So strange, indeed, do his proceedings in this matter seem to have been, that we are disposed to accept the explanation of them offered in his defence, and believe that they took place when he was not altogether master of himself, but was suffering from cerebral excitement. The plea of insanity which it was apparently proposed to set up in his behalf was very properly not persevered in. It would have been impossible to show that an act involving preparation and nice calculation, and unpreceded by ostensible signs of mental derangement, was committed by an irresponsible agent; and, as Mr. Justice Denman pointed out, the success of such a defence would have been a worse calamity to Mr. Whitefoord than his conviction on the misdemeanour with which he was charged, for then he would have been detained during Her Majesty's pleasure, which might be of very unpleasant duration in the case of a person whose aberration to some extent jeopardised the public welfare. But, short of actual insanity, there are temporary states of mental disturbance that transcend emotion and diminish self-control; and these, while they cannot be admitted as grounds of irresponsibility, may at least be regarded as extenuating circumstances. Mr. Whitefoord had, from the first, concerned himself in an earnest but entirely disinterested manner in the case of the man whose execution he tried to avert. He had come to the conclusion that that man was not guilty of murder, and he tried in every possible way to give effect to his views. Up to a certain point, his exertions were not only justifiable, but laudable; but ultimately he seems to have been carried away by his convictions beyond the controlling influence of rational considerations. He concentrated his thoughts and endeavours on one object, and, insulated from the sense-giving influences of every-day life, he worked himself into a state of mono-ideaism, and became excited, sleepless, and reckless. His father, who called on him two days before that on which his offence was committed, found him greatly excited; and Dr. Sydney Lloyd, who had many opportunities of seeing him, described him as suffering from intense irritation of the brain, for which he prescribed a sedative. His mind seemed a blank to everything but the case of the man whose cause he had espoused. At the time, he admitted that he was "half off his head"; and, on his trial, while pleading guilty, he professed that he had no recollection of the circumstances of his offence, although, perhaps, this statement is scarcely reconcilable with the fact that, while awaiting trial, he had published a pamphlet in vindication of it. His state, however, as represented by his father and Dr. Lloyd, is just what we find constantly depicted in the history of fanaticism. He had made himself intoxicated with an idea, and could not properly regulate his mental movements, nor withhold himself from the illicit indulgence of his desires. He was not unaccountable for his actions, for he had voluntarily brought himself into the plight in which he stood, and might have been restored to sobriety and self-command at any moment by a strong impression; and yet his condition was worthy of some commiseration, and some indulgence might fairly be shown to any escapades or improprieties into which it might lead him.

It is certainly in Mr. Whitefoord's favour that there was no self-seeking in his transgressions; and that, even when he was not exactly master of himself, his errors leant to the side of mercy and humanity. He clamoured at the doors of the Home Office for the life of a man whom he believed to be unjustly condemned. It may be thought that all applications made to the Home Office in the case of a capital sentence are of the same complexion, but this is not so; for we may state, what is not perhaps generally known, that, whenever a movement is made for the commutation of the death-penalty, the Home Secretary receives a large number of communications in favour of a spirited hanging policy, urging him to pay no heed to the representations of mad-doctors, quakers, and humanitarians, but to let the law take its course. Mr. Whitefoord, however, was not on the side of severity, but yielded weakly and indiscriminately to the professional instinct to save life, being not over-scrupulous as to the means which he employed or as to the more remote consequences of his actions. His misdeeds were assuredly less distasteful and dangerous, and less likely to secure imitators, than those of the "prisoners of Parliament", of whom we have heard so much; and it is to be hoped, therefore, that a severer measure of punishment will not be meted out to him than was awarded to the gentlemen who pretended for a substantial bribe to suborn a Committee of the House of Commons. Dr. Sydney Lloyd thought that imprisonment would be highly injurious to Mr. Whitefoord's health, and that the best remedy for the brain-excitement through which he has just passed would be a visit to the sea-side. Considering this, and also that the position in which Mr. Whitefoord is placed entails a terrible professional loss and much future misery, we trust the Government will feel warranted in remitting some portion of the sentence of imprisonment passed on him.

THE Queen has been graciously pleased to confer the honour of Companion of the Civil Division of the Most Honourable Order of the Bath on Dr. William Farr.

DR. LUSH has decided not to offer himself for re-election as Member of Parliament on account, we believe, of his general state of health. The profession will much regret the loss of Dr. Lush's valuable services in the House.

MR. ARTHUR MILLS has failed to obtain re-election as Member of Parliament for Exeter. It will be remembered that he had charge in the late Parliament of the Medical Acts Amendment Bill of the Association. His services in that capacity, which were long continued and most valuable, render his defeat a matter for much regret.

DR. SYMES THOMPSON will deliver a course of lectures on Digestion and Indigestion at the Gresham College, Basinghall Street, E.C. The lectures will take place on April 6th, 7th, 8th, and 9th, at 6 P.M. Lectures will also be delivered by the Gresham Professor of Medicine on October 12th, 13th, 14th, and 15th.

WE learn from the Cape of Good Hope that fever has broken out in the Waterboer district, and has assumed alarming proportions. The Government have sent a surgeon and some hospital corps men to the districts.

THE death-rate in Bombay is stated, in the latest returns, at 37.84 per thousand of the population *per annum;* that of Calcutta at 27.2; and of Madras, 45.2.

SURGEON-GENERAL C. A. GORDON, M.D., C.B., principal medical officer, British Forces, in the Madras Presidency, has offered a prize of 500 rupees for the best essay on the subject of fevers as affecting British soldiers in India.

ADVICES from Buenos Ayres state that the yellow fever has greatly increased at Rio, and that there is a rumour of a fatal case at Montevideo. There is also great dissatisfaction with the quarantine arrangements, the lighter used for quarantine purposes being so small that an outbreak of disease is feared when it is, as is frequently the case, overcrowded with ships' passengers.

THE Paris correspondent of the *Daily News* notes, in reference to M. Gambetta having been ordered by his physician to leave off smoking, that all the tough old Frenchmen still in the enjoyment of unimpaired mental faculties never smoked. M. Dufaure, M. Barthélemy St. Hilaire, Victor Hugo, M. Étienne Arago (brother of the astronomer), belong to the non-smoking school of public men. So did M. Thiers, M. Guizot, M. Crémieux, M. Raspail, and the octogenarian Comte Benoit-d'Azy, who lately died in full possession of his mental faculties.

M. LABBÉ has been elected a member of the Academy of Medicine in Paris, in the Section of Surgical Pathology.

A NEW journal of clinical medicine, under the name of the *Centralblatt für Klinische Medicin*, has appeared in Bonn, under the editorship of Professor Ruhle and Dr. Finkler.

STUDENTS' MEDICAL UNION.

A LARGE meeting of medical students and others connected with St. Bartholomew's Hospital was held in one of the new lecture-rooms on Wednesday, March 24th, to consider the advisability of forming a Medical Union Club on the plan of the Oxford and Cambridge Unions, for medical men and students in London. The meeting was addressed by Mr. Luther Holden and Mr. Butlin. A resolution was passed that "the meeting consider it desirable to establish a Medical Union Club".

LEPROSY IN INDIA.

A NEW series of Reports on Leprosy have been published by the Indian Government, some of which contain statements of considerable interest. Dr. Fitzgerald of Sháhjahánur records three cases of leprosy in Europeans resident in India which have come to his knowledge; one the case of a lad, son of a warrant officer at Agra; the second, the case of a lady; the third, the case of a colonel in the Indian Service. In 855 cases, the histories expressly state that, in 831 the disease was not communicated to the healthy husband or wife; and that, in 24 cases both husband and wife were lepers, or became lepers. In a summary of thirty-one reports, Dr. Beatson states that "fish, whether fresh, or salted, or putrid, has evidently no influence *(in the production of the disease);* for it is nowhere shown *(in the reports)* that the leprous are consumers of these articles, and the non-leprous not so. There is, indeed, some evidence to the opposite effect."

DEATH OF DR. J. D. HEATON.

WE regret to hear of the death of Dr. John Deakin Heaton of Leeds, which took place this week. Dr. Heaton was for many years in extensive practice as a physician in Leeds, and was at the time of his death Senior Physician to the Infirmary of that town. He was also Treasurer of the Leeds Medical School, in which he held for some years the office of Lecturer on Medicine. We hope to be able to give an obituary notice of him in an early number.

SURGEON-GENERAL H. H. MASSY.

A COMPLIMENTARY dinner was given to Surgeon-General H. H. Massy, M.D., C.B., on the 30th ult., in the mess-room of the officers' quarters at Netley, on the occasion of his retirement from the army. A considerable number of officers of different branches of the service and private friends assembled to meet Dr. Massy, and much regret was expressed at the cessation of his official connection with the Army Medical Department. Surgeon-General Massy, who has always held a high character in the service, acted for some years as Head of the Sanitary Branch of the Director-General's Office in London, but, since his return from India in 1877, has been the principal medical officer of the Royal Victoria Hospital at Netley. This is the second army medical officer of the surgeon-general's rank who has left the army under the terms of recent warrants within the last few days; the retirement of Surgeon-General W. G. Watt, principal medical officer at Malta, having been notified in the *Gazette* of the 26th March.

DEVONSHIRE HOSPITAL, BUXTON.

IT is proposed by the Committee of Management of the Devonshire Hospital and Buxton Bath Charity to complete the buildings of the hospital, now in course of extension, under the grant of £24,000 from the governors of the Cotton Districts Convalescent Fund, by the erection of a portico and clock tower at the principal entrance, and an additional lodge, in accordance with the strongly and repeatedly expressed wish of Dr. Robertson, consulting physician to the hospital, and chairman of the board of trustees and committee of management, in recognition of his assiduous services to the institution. The design will necessitate the additional expenditure of £3,000; and it is hoped by the members of the committee that the appeal now made may be adequately responded to. Communications may be sent to any member of the committee of management, to the Buxton Branch of the Sheffield and Rotherham Banking Company; the Treasurers of the Hospital; or to Mr. Joseph Taylor, the secretary, Devonshire Hospital, Buxton, Derbyshire.

BIRMINGHAM MEDICAL INSTITUTE.

AT the recent annual meeting of the members of the Birmingham Medical Institute, Mr. D. W. Crompton, F.R.C.S., Consulting Surgeon to the General Hospital, was elected President; Dr. Wade and Dr. T. Underhill were chosen as Vice-Presidents; Mr. Priestley Smith and Mr. W. G. Archer were re-elected Honorary Secretaries; and Mr. Lloyd Owen and Dr. Saundby Honorary Librarians. The following retiring members of the Committee were reappointed: Drs. Russell and Wade, and Messrs. J. Archer, Alfred Baker, and T. H. Bartleet. The other members of the Committee are: Drs. Fowler Bodington, Balthazar Foster, Johnston, Richards, Savage, and Sawyer; and Messrs. Berry, Sampson Gamgee, W. C. Garman, Greene, Oakes, Oliver Pemberton, and Watkin Williams. The annual report of the Institute is very satisfactory. The building subcommittee announce that the fine structure in Edmund Street, designed to be the home of the Institute, is rapidly approaching completion, and that it will be ready for occupation at Midsummer, when the tenancy of the rooms at present used in the buildings of Queen's College will terminate. The library subcommittee report that the library now contains 6,660 volumes, exclusive of 2,108 duplicates. During the past year, 575 volumes have been added. Among the books presented were some handsome parcels of new publications from Messrs. Churchill, Messrs. Macmillan, and Messrs. Smith, Elder, and Co., through Mr. Sampson Gamgee; and a large number of valuable old books, copies of which were not previously in the library, from the collection of the late Dr. Birt Davies, through Mr. Oliver Pemberton. Thirty-seven periodicals, twenty-one foreign and sixteen British, are regularly supplied to the reading-room. That the new buildings will be opened practically free from debt reflects great credit upon the Committee. Under their energetic management, the property of the Institute has grown, in the short space of seven years, from the original endowment of £6,000, to an estimated value of about £15,000. The election of the veteran surgeon Mr. Crompton as President for the year which will be marked by the ceremonial opening of the new buildings, has given great satisfaction to his *confrères* in the Midlands. He held the same office two years ago; in now recalling him to the presidential chair, his medical brethren have sought to mark their appreciation of his devotion to the welfare of the Institute, and especially of his successful and indefatigable work in raising the funds, which have placed the undertaking in a satisfactory financial position.

THE SHEPHERD MEMORIAL.

THE *Broad Arrow* states that the Committee of the Shepherd Memorial have completed their labours, and have notified to the Senatus of the University of Aberdeen that they will be ready to hand over the gold medal in time for competition in the next session. The medal bears on its obverse side, "Shepherd Memorial Medal for Surgery, instituted 1879", and surrounded on one edge by a wreath of cypress, and on the other by one of yew, emblematic of his death and of mourning for him. On the reverse runs "University of Aberdeen, awarded to ——", with blank space for the name of winner and date, and surrounded with a laurel wreath, suggestive of the success of the competitor.

ARMY HOSPITAL CORPS TRAINING-SCHOOL AT ALDERSHOT.

THIRTY-SIX surgeons are now going through the courses of instruction at the above-named training-school in bearer company drill and in military law, to fit them for their future duties in the army. For the first time at Aldershot, an army medical mess has now been established. Hitherto, the young medical officers at this station have lived in any way they best could; and as they have only in rare and special instances been offered the opportunity of joining any of the established messes at the camp, the consequently isolated mode of life they have had to lead has not only proved a source of great personal discomfort, but in too many instances has led to evils of a worse kind. Now that a mess has been formed, at which the young army-surgeons will meet together and be associated with their brother-officers of older standing, there is every reason to believe that most of the inconveniences and evils alluded to will be prevented, a higher tone of social feeling promoted, and, together with these advantages to the medical officers themselves, benefit will accrue to the public service at large. It seems most strange that such an establishment as a medical officers' mess should not have been formed long ago; for, even in the days of the regimental system, although a certain number of medical officers then had a right to be partakers in the advantages of the regimental messes, a considerable proportion of staff medical officers were left without any common quarter in which to take their meals, or general place of meeting for social intercourse. Great credit is due to Surgeon-Major Moore, who commands the training-school, for having successfully organised the present mess-arrangements.

VACCINATION AT THE ELECTIONS.

IT is greatly to be deplored that candidates for Parliamentary honours should so readily fall into the snares of the antivaccinators without taking the trouble to ascertain, as they might easily do, the actual facts as to vaccination which antivaccinators delight to misrepresent. We have observed, with regret, that candidates of both political parties have, apparently with the sole object of catching a few stray votes, promised to vote for a Royal Commission to inquire into the subject and similarly vague proposals. Nothing can possibly be gained, and incalculable mischief may be caused, by indecision and vacillation like this. Such candidates will find it impossible to justify in the House of Commons their promises to antivaccination constituents. The evidence in favour of vaccination is absolutely conclusive, though it has unfortunately till very recently been chiefly contained in blue-books and hospital reports of difficult access. This difficulty, however, now no longer exists; and, with a modicum of trouble, candidates may inform themselves as to the actual facts of the case. The smallest and least important adhesion to their cause is seized upon with avidity by the antivaccinators, and magnified in a fashion at which they are adepts. To support a proposal for a Royal Commission or an inquiry into compulsory vaccination may seem at first sight a very innocent sort of promise; but, in reality, it is very mischievous. The question of vaccination has been repeatedly before the House of Commons, who, it may be quite safely assumed, would not have passed a measure involving so much interference with the freedom of the subject as the Compulsory Vaccination Act without the strongest and most cogent reasons. On each occasion that the House has dealt with the question, it has made the law more stringent; and, in 1871, it went at great length and with much care into the allegations of the antivaccinators. After a most patient hearing, the Committee unanimously reported strongly in favour of vaccination, and no further inquiry could possibly lead to any other but the same result. Moreover, such an inquiry would give distinct encouragement to the antivaccinators, to persist in their wrong-headed opposition to a law which has for its beneficent object the saving of the nation from the ravages of one of the most loathsome and deadly of human diseases.

THE BRITISH DENTAL ASSOCIATION.

ADOPTING as their model the British Medical Association, a large number of the dentists registered under the Dentists' Act have formed an association for the purpose of maintaining and carrying out the spirit and provisions of that Act. So closely has the model been followed, that branch associations are in process of formation in the Western and Midland Counties, and a journal has been established. Feeling strongly the necessity of having ready means of authoritatively publishing the views held by the Association, and of keeping its members informed of topics which concern their interests, as well as recognising that there was scope for a carefully conducted dental journal, the Council of the Association decided upon purchasing the *Monthly Journal of Dental Surgery*, which appeared for the first time under their auspices on March 15th. The editorship has been kindly undertaken by Mr. A. Coleman, dental surgeon to St. Bartholomew's Hospital, and Dr. Walker, dental surgeon to the Westminster Hospital; and associated with these gentlemen is a publication subcommittee of the Council of the Association. The first number contains leading articles upon the principles of the Dentists' Act and upon the Association itself; and, amongst other matters of interest, a full report of a valuable paper on "Nervous Diseases connected with the Teeth", read before the Odontological Society by Dr. T. Lauder Brunton, F.R.S.

THE NORTHUMBERLAND LUNATIC ASYLUM.

THE nineteenth annual report of the Northumberland County Lunatic Asylum at Morpeth, which is now being circulated, affords conclusive evidence that that establishment, which accommodates upwards of four hundred patients, is in a very satisfactory condition. The Commissioners in Lunacy express their belief that there is no abatement of the efforts made in it to keep pace with the demands of the times in regard to the proper treatment of the insane poor, and pay a gratifying compliment to the energy of its medical superintendent, Dr. McDowall, who obviously performs his duties in no mere perfunctory manner. In addressing the Committee of Visitors of the Asylum, that gentleman makes some exceedingly judicious remarks on the treatment of chronic cases. "It is painful to observe", he says, "in discussions on this subject, that the main idea seems to be how to keep the incurably insane in decent comfort on as little as possible. It seems to be forgotten that their hopeless state is a rebuke to science and philanthropy, which should urge every effort to prevent others from lapsing into a similar condition. If, in every asylum, there were, according to its size, from four to twelve clinical clerks studying mental diseases under the instruction of the medical superintendent; if the staff of attendants were at least doubled, and included schoolmasters, drill-masters, etc.; and if the medical staff were compelled to study annually a given subject, and to send in a report to a Government or other Board, then we might hope for good results; chronic lunacy would diminish, and what remained would not be such a burden on the country."

ASSMANNSHAUSEN.

THE large number of springs in the Duchy of Nassau has been increased by the opening of this spa in May 1879. It is situated in one of the most beautiful parts of the Rhine country, on the right bank, near Rudesheim, just beneath the rocks and beautiful woods of the Niederwald, from which, looking in the direction of Maintz, the river expands into the proportions and aspect of a beautiful mountain-lake. Assmannshausen is well protected by the rocks from high winds, while the Rhine, which at this point is very swift, brings to it a constant current of fresh pure air, which cools the summer heats. The springs have been known from the middle ages; but the work of perfect restoration has only been begun during the last seven years. The handsome bathing establishment stands in its own grounds. The garden extends to the river bank, and just opposite is the beautiful old castle of the Rheinstein. Every social comfort and amusement is provided in the house, and private accommodation can be had in the village. Dr. H. Mahr, the medical director, lives on the spot during the season for the purpose of advising the visitors in the use of the baths. The water contains a large amount of carbonate of lithium; and, according to Professor Fresenius, is likely to obtain a high place among alkaline thermal springs, and a reputation for all those diseases for which treatment by this kind of mineral water is advantageous. A *litre* of the water contains, on the average, three *centigrammes* of carbonate of lithium. Great claims are put forth for the Assmannshausen water—especially for its beneficial action on the mucous membrane of the digestive and respiratory tracts, and on the secretions of the kidneys and skin, as well as on effusions into the joints depending on the gouty diathesis. The best season is during the summer months; and visitors have the advantage of the varying scenery of the great river, of delightful inland excursions, and proximity to a great number of places of interest. Assmannshausen is for many reasons a place well worthy of a visit, not the least of which is the excellent red wine of the district.

FORGED DIPLOMAS.

A MANUFACTORY of false diplomas of the University of Naples has been discovered in that city. The principal forger, a man named Luigi Carbone, has been arrested; and his confederates are known to the police. The forgeries assumed two forms; either the diplomas were directly counterfeited, or the certificate of the Chancellor of the University was attached to spurious diplomas. The pretended doctors were actually smuggled on the register of the Faculty of Medicine. The forged diplomas cost from 2,000 to 2,500 *lire* each (£80 to £100). In a number of cases, they have enabled the holders to obtain appointments as district sanitary officers. Similar falsifications of diplomas were detected in Naples some years ago.

INDIAN GAOL DIETARY.

A LOWER scale of diet than has hitherto been allowed has been introduced into all the gaols of the North-West Provinces and Oudh for short term prisoners. The general opinion of all the medical superintendents of gaols is that the lowered diet scale is sufficient to keep prisoners in health for a few months, provided no hard labour is exacted from them; and that though the prisoners, naturally enough, fall off a little in weight, no evil effects will follow as regards general health.

WILD BEASTS IN NORTH-WEST PROVINCES.

DURING the past year, 1,051 persons and 7,214 head of cattle were killed by wild animals, and 3,168 persons died from snake-bites in the North-West Provinces and Oudh. Wolves and leopards were most destructive both among men and cattle. The total number of wild animals returned as destroyed is 4,495, and the number of snakes killed is set as 1,697; the amount paid away in rewards for their destruction being about 11,000 rupees. The number of snakes returned as destroyed (1,697) gives a very imperfect representation of the number actually killed.

A DISPENSARY IN CABUL.

THE Calcutta *Pioneer* says:—"After the capture of Cabul, in October, it was found that there was a vast amount of disease and suffering among the poorer inhabitants of the city, and that native surgery never attempted to cope with these except in the rudest way. Sir F. Roberts, therefore, ordered a charitable dispensary and hospital to be opened in Cabul, and Dr. Owen, staff-surgeon, was placed in charge of the institution. The Kotwal's house, vacant by reason of the execution of that official for complicity in the massacre, was turned into a hospital, and work was begun at once. The rooms were cleaned and put in order, wards for men and women arranged, the tottering walls shaken by an earthquake made safe and sound, and then patients were invited to attend. On November 21st, Dr. Owen was first 'consulted', twelve wretched beings, suffering from various ailments, coming to him for treatment. They were all carefully treated; and although, on account of the scarcity of English drugs in camp, no elaborate prescriptions could be made up, the best bazaar medicines were freely given. The news of the Sircar's latest eccentricity soon began to spread throughout Cabul, and for several days the place was visited by little crowds of persons, who were either sick, or had sick friends who needed treatment. With the suspicion always at work in Afghan minds, that every act of the stranger has some obscure tendency to harm them, the citizens were full of mistrust. They could not appreciate the generosity of their conquerors, and argued that it was absurd to suppose that men who had come to destroy Cabul would sink their ideas of vengeance, and, instead of taking life, would save life and make it worth living. Gradually their ideas changed; they believed in the disinterestedness of the English *hakeem*, and the number of patients increased; but no women were permitted to seek relief. Eventually, however, some women also were found waiting at the hospital doors. A room was set apart for them; a middle-aged woman, a Cabulee, acted as matron, and reassured them when their fears overcame their desire to be made whole. By December 11th, the daily attendance had risen to 118, of whom fully two-thirds were women; and Dr. Owen's services were sought after by well-to-do citizens, in whose zenanas were sick wives or favourite concubines pining under mysterious ailments. Just when attendances were daily growing more numerous, came the rush of Mahomed Jan's host upon Cabul. The city was occupied, and, in the stupid madness which prompted the Ghazi to destroy all marks of our occupation, the dispensary was looted and partly wrecked. Fortunately, the few cases of instruments which Dr. Owen had to leave behind were taken away by one of the attendants, and buried in a neighbouring house. But the bottles of medicines still on the shelves were broken; chairs, tables, and partitions smashed to pieces; and even doors and windows pulled out. This was in the outer courtyard of the late Kotwa house; the rooms grouped about the inner yard were not much interfered with, as they bore but few signs of the stranger's hand. When, on Christmas Day, Dr. Owen once more visited the place, nothing but empty rooms greeted him, and so filthy that they could scarcely be entered. However, those in the outer courtyard were soon cleaned, and, on the following morning, patients were again found waiting at the doors.......Dr. Owen is now freely admitted even to houses where Afghan exclusiveness is most severe, and thus imperceptibly an influence is being gained over the minds of the people which cannot fail to do great good. The jealousy of Mahomedans where the women are concerned is quite disarmed when they see how entirely devoted our English surgeon is to his profession, and how little it affects him whether his patients are street-beggars in the lowest depths of misery, or ladies of the zenana, surrounded with every comfort."

FALSE QUEBRACHO BARK.

DR. J. BIEL of St. Petersburg, in the *Pharm. Zeitung*, calls attention to a false white quebracho bark which came to Hamburg. The first lot of white quebracho bark received in Hamburg was a very small quantity, and the second lot consisted of three serons. Dr. Biel therefore supposes that what is being used in Germany at present is not the true drug, and therefore sounds this warning note, lest a drug which promises well should be unjustly condemned before it has had a fair trial.

SANITATION AND INSANITY.

IN commenting upon the fact that the number of curable admissions into the Hereford County and City Asylum has fallen off of late years, Dr. Algernon Chapman, the careful medical superintendent of that institution, offers a theory in explanation of it, which, although as yet little more than a hypothesis, is certainly deserving of further investigation and study. The so-called curable cases are, he says, largely acute cases; and acute cases have recently been rarer than usual, and especially have those cases become rare which present evidence of much weakness and exhaustion.

> "Now, whatever may be the special causes", says Dr. Chapman, "that lead to a case of illness being one of insanity, instead of other disease, it is certain that broadly the causes of insanity, and especially of acute insanity, are the same causes as those of other diseases; and my hypothesis is this: that the higher wages that have ruled in the country for some years, and the greater attention to sanitary matters, have really diminished the annual production of acute insanity as well as of all other diseases. The increased wages act by improving the general well-being, and especially the dietary, of the labouring classes. I distinctly demur to the theory that increased wages are a curse by increasing intoxication; they unquestionably are to some, and to more in some districts than others; but, taking the mass, these cases are exceptional. We do not hear of the nineteen or ninety-nine, whatever the number is, to whom they are an unmixed advantage; the twentieth or one hundredth, who is prepared to make any blessing into a curse, thrusts himself on our notice, but this is certainly not a case for applying the rule *ex uno disce omnes.*"

With the view of partially testing his theory, Dr. Chapman obtained from Dr. Sandford a return of the rates of mortality in certain districts of the county for the last six years, in order to see whether higher wages and improved sanitation have really had an effect on the general health of the population, such as his observations on insanity had led him to anticipate. The returns obtained bear out his hypothesis. They show a remarkable decline, steadily and gradually going on from 1874 to 1878, and a sudden and great rise in 1879. This is opposed to the statistics of the Registrar-General—the small mortality of the third and fourth quarters of 1879 balancing the high mortality which the first quarter owed to the severe winter; in Herefordshire, the severe winter no doubt had its effect, but the wet summer was a health-giver to towns rather than to the country, and no doubt failed to diminish mortality in Herefordshire; whilst there was a strong factor on the other side, viz., the lowness of wages, which had then fallen to nearly their old point. The acute cases of insanity admitted into the Hereford Asylum, which had been falling in number up to 1878, suddenly increased in 1879, especially in the last half of the year; showing, Dr. Chapman thinks, that the county of Hereford is less prosperous, and is consequently yielding a large harvest of death and diseases, and, amongst others, of insanity. Dr. Chapman's reasoning points to the cheering conclusion that an improved condition of the people and increased attention to the requirements of sanitary science will diminish the burden of mental disease which we have now to bear.

REFRIGERATING APPARATUS.

THE apparatus devised by MM. Dumontpallier and Galante for lowering the temperature of the body, referred to by our Paris correspondent in the JOURNAL of March 20th, consists of two parts. One part is a refrigerating wrapper, for the purpose of diffusing uniformly over the surface of the body a layer of flowing water at a fixed temperature. This envelope may be so reduced in size as to cover merely the chest and abdomen. It is composed of two pieces of cloth, sewed together in such a manner that an India-rubber tube, forty *mètres* (about four yards) long and one *centimètre* in diameter, runs through all the parallel spaces left between the rows of stitches. The wrapper envelopes the body from the armpits to the groins, and the current of water is not interrupted by the weight of the patient or by his movements. A distributing apparatus, with graduated stopcocks, is placed in communication with the entrance and exit orifices of the tube. By the stopcocks, the rate at which the water flows is regulated; and the temperature of the water entering and escaping is indicated by thermometers placed in the vicinity of the stopcocks. According to M. Dumontpallier, the thermometer at the point of exit is capable of affording practical indications as to the amount of reduction of the general temperature of the body. The apparatus is fed by a syphon plunged into a reservoir placed about six feet above the patient's bed. When the water is allowed to flow by opening both the stopcocks, the temperature is at first equal at both ends; but soon a rise is indicated at the point of escape of the water; after this, the temperature gradually falls, indicating that the production of heat in the body has been subdued. Successive thermometric observations in the rectum and axilla show a gradual fall of temperature, until, at the end of an hour or an hour and a half, the general temperature of the body is lowered by from two to three and a half degrees Fahrenheit. If the stopcocks be now both closed, the thermometers at the ends of the tube both indicate a gradual rise of temperature, due to the communication of heat from the body to the wrapper; at the same time, the temperature in the rectum and axilla remains stationary for a quarter or half an hour, or it may even fall in the rectum for half an hour or an hour, while the axillary temperature remains stationary or tends to rise. M. Dumontpallier thinks it probable that, in this case, the surface of the body borrows heat from the central parts.

MEDICAL PSYCHOLOGY IN THE UNITED STATES.

OUR public lunatic asylums in this country must look to their laurels, for a movement has been inaugurated in the United States, which is likely to convert some of the great lunatic hospitals there into centres of scientific research and medical discovery. The trustees of the Willard Asylum in the State of New York, which contains 1,550 patients, have applied to the Legislature for an appropriation of five thousand dollars, for the building of a laboratory and the purchase of the instruments and appliances necessary for experimental investigation. This sum is only an instalment of what it is in contemplation to ask, and will be applied almost exclusively to defray the cost of one special pathological inquiry, which representatives of the medical profession in the district, acting in concert with the professional staff of the asylum, have recommended to be undertaken. The trustees—eight laymen of high social position, and evidently of enlightened views—express their belief that their action in this matter will meet with the approbation of the best minds in as well as out of the medical profession, and they confidently predict that the results and benefits of such investigations will reach beyond the asylum, and supply useful knowledge as to the causes and treatment of insanity. The Willard Asylum is already provided with a valuable medical library, and the trustees cannot be wrong in anticipating that the addition to it of a laboratory, with all the needful arrangements and appliances, will draw towards it young physicians of aspiring tendencies and studious tastes. This will be certain to occur if they carry out their intention of founding a department for nervous diseases, which are intimately connected with mental derangements. The Willard Asylum has taken the most effectual way to silence that abuse of lunatic asylums which has lately been so loud in America, and to discharge its obligations to its patients, the public, and the medical profession.

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SCOTLAND.

THE vacant Lectureship on Natural History in the Minto House Medical School, Edinburgh, has been filled by the appointment to it of Mr. Geddes, formerly Demonstrator of Physiology in University College, London, and more recently of Zoology in Aberdeen.

UNIVERSITY OF EDINBURGH.

THE matriculation returns of the University for the year 1879 show an increase in all the Faculties over the returns for 1878. The aggregate number of students who matriculated during the year was 2,856, being 239 more than in the previous year. In the Faculty of Medicine, the number of matriculations during the year was 1,442—an increase of 149. The entries show that 622 of the students are from Scotland, 492 from England, 25 from Ireland, 89 from India, 174 from various British colonies, and 40 from foreign countries. Thus the increase appears to be in great measure due to the number of students who are attracted to the school from foreign countries.

ABERDEEN DISPENSARY.

THE annual meeting of the directors of and subscribers to the Aberdeen Dispensary was held last week. The income for the year amounted to £740, while the expenditure amounted to £644, showing a balance of £96. During the year 1879, there were 7,165 patients treated at the dispensary, an increase of 470 on the numbers treated in 1878. The vacancy caused by the resignation of Dr. Simpson, who is leaving Aberdeen for the Indian Medical Service, was filled by the appointment of Dr. J. Mackenzie Booth to be one of the medical officers. The report was considered satisfactory. Lord Provost Jamieson presided at the meeting.

EDINBURGH DEAF AND DUMB INSTITUTION.

THE seventieth annual meeting of the subscribers to the Edinburgh Deaf and Dumb Institution was held on Monday. The report submitted showed that the health of the institution during the last year had been good. At the vacation in July last year, there were fifty-four children in the house, of whom eight had since left; twelve new admissions had occurred, so that there are now fifty-eight in the house. The financial report was not so satisfactory as it might be desired, as it showed that, excluding legacies, the income was less than the expenditure by £400. The reserve fund, however, amounting to £9,000, is larger than ever it was before, while, notwithstanding the depression of trade, there was an increase of £30 in the subscriptions. The progress of the teaching for the year was considered most satisfactory.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General, for the week ending Saturday, March 20th, it appears that the death-rate in the eight principal towns, during the week, was 24.2 per 1,000 of estimated population. This rate is 0.5 above that for the previous week of the present year. The lowest mortality was recorded in Paisley, viz., 17.0 per 1,000; and the highest in Dundee, 27.2, and in Perth, 27.3 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.3 per 1,000, almost the same as for last week. The proportion of deaths from measles is still high in Dundee. Acute diseases of the chest caused 130 deaths, being an increase of 18 on the number for the previous week. The mean temperature of the week was 40.8°, being 1.6° lower than that of the week immediately preceding.

HEALTH OF EDINBURGH.

THE death-rate in Edinburgh last week amounted to 25 per 1,000, a considerable increase on that of the same week last year. Zymotic diseases caused 23 deaths, of which 12 alone were due to measles, and 10 to whooping-cough. This is one of the largest mortalities from measles recorded for a long time.

PHARMACEUTICAL SOCIETY.

DR. F. W. MOINET, Lecturer on Materia Medica, Edinburgh, delivered a lecture to the North British Branch of the Pharmaceutical Society last week on "Food and Work". In his lecture, he showed the necessity for a knowledge of food as regarded flesh formation and heat production, and of proper methods of cooking it. He was accorded a vote of thanks for his lecture.

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IRELAND.

LAST week, there were eighteen small-pox patients under treatment in the Belfast Union Workhouse; and the steady increase in the number of admissions from this disease has required the occupation of an additional ward, in order that the convalescent may be separated from the sick.

THE LATE DR. DANIEL DONOVAN OF SKIBBEREEN.

AN influential committee has been formed for the purpose of raising a fund in memory of this gentleman, whose death from typhus fever we recently recorded; and to show the esteem and respect in which he was held by his friends and acquaintances. Subscriptions amounting to £283 have already been received, and it is confidently expected that a considerable sum will be obtained.

DEATH OF DR. ROBINSON OF SKIBBEREEN.

WE regret to announce the death of this gentleman, which took place on last Sunday evening from typhus fever of a malignant type. The deceased was little more than a week ill, and took a very active part in the recent outbreak of fever in Hare Island, to which we recently drew attention. Dr. Robinson was a great favourite among all classes; and we regret to state that, owing to his untimely death, a large family have been left totally unprovided for.

THE QUEEN'S UNIVERSITY IN IRELAND.

A MEETING of the Senate of this University was held in Dublin, on Tuesday last, to elect Examiners, in the Faculty of Medicine, to hold examinations during the ensuing year. The following were elected:—*Examiner in Medicine:* Denis Charles O'Connor, M.D., President of the British Medical Association, Cork; *Examiner in Surgery:* William Thomson, M.D., Dublin; *Examiner in Midwifery and the Diseases of Women and Children:* William K. McMordie, M.D., Belfast; *Examiner in Materia Medica:* George F. Duffey, M.D., Dublin; *Examiner in Medical Jurisprudence:* Matthias O'Keefe, M.D., Cork. These gentlemen have been appointed subject to such measures as may be in contemplation by the Government under the recent Irish University Education Act (42 and 43 Vic., cap. 65), which provides for the replacement of the Queen's by the proposed new university. At the same meeting, Dr. John T. Banks, Physician in Ordinary to the Queen in Ireland, and a member of the Senate of the Queen's University, was elected its representative on the General Medical Council, in the place of the late Sir Dominic J. Corrigan, Bart.

THE GENERAL ELECTION AND THE PROFESSION IN IRELAND.

IN view of the general election, the Council of the Irish Medical Association have issued a circular, reminding its members that there are several very important measures affecting the interests of the profession in Ireland which are to be brought under the early notice of the new Parliament. The measures and proposals which the Council especially put forward are :

1. A Bill to amend the "Medical Charities (Ireland) Act". 2. A Bill to amend the "Registration of Births and Deaths (Ireland) Act, 1863". 3. Lord O'Hagan's "Neglected Lunatics Bill". 4. The following principles in connection with medical reform, to be brought forward upon consideration of the various Bills now before Parliament to amend the "Medical Act of 1858", viz. : *a*. A thorough revision of the constitution of the General Medical Council ; *b*. The compulsory establishment of a single conjoint examination for each division of the United Kingdom, which examination should be essential for admission to the licence or degrees of any of the medical authorities ; *c*. The enforcement of absolute uniformity in standard of examination, extent of curriculum, and amount of fees payable, required by each and all of the conjoint examining bodies. 5. A Bill for Regulation of Public Laundries. 6. Extension to Ireland of the English system of awards for excellence in results of vaccination. 7. A proposition to award equitable remuneration for the services of the medical officers of health under the "Public Health (Ireland) Act, 1878".

The Council accordingly recommend that the medical electors in each city, borough, and county should be summoned to meet together, and consult as to what pledges connected with the above measures they can agree to ask from the candidates. Resolutions having thus been agreed to, and pledged to be acted upon, it is advised that a deputation should wait upon each candidate to submit the views of the medical electors, and to inform him that they have agreed not to vote for any candidate, seeking to represent them in Parliament, who does not consent to give a general support to the measures thus brought under his notice. It appears to us that this action of the Council of the Irish Medical Association is one which, if adopted, would be of much benefit.

DR. LYONS.

DR. ROBERT D. LYONS, one of the physicians to the House of Industry Hospitals, and Professor of the Theory and Practice of Medicine in the Medical School of the Catholic University of Ireland, is a candidate for the representation of the City of Dublin in the Liberal interest. In his address to the electors, Dr. Lyons appeals specially to the members of his own profession for their support. The want of adequate representation in Parliament on the many questions on which not alone the interests of the profession are affected, but on which it is of advantage to the State that medical science and skilled knowledge should be brought to bear, is undoubted; and in the daily growing importance of sanitary science and of State Medicine, and the imminence of legislation on medical subjects, the accession of such a member as Dr. Lyons to the small number of medical men likely to be returned to the new Parliament, would—apart from all party considerations—be a matter of much congratulation to the profession.

BELFAST OPHTHALMIC AND AURAL HOSPITAL.

THE annual meeting was held last week at the hospital, Great Victoria Street, Belfast, presided over by Mr. William Ewart, J.P. Erected by the munificence of Lady Johnson, this institution has done good work, and it is satisfactory to find that it continues to prosper, as tested not alone by the number of persons receiving relief, but also by the pecuniary support it has received. From the surgical report for the past year, we learn that, at the extern department, 898 cases of eye-disease and 217 cases of aural disease were treated; while 98 patients were received into the hospital. There were 424 operations performed, very many cases obtaining permanent relief, and being prevented from becoming hopelessly blind or deaf. As usual, a large proportion of the internal cases were treated as free patients, and where payment is made in the case of pay-patients, the cost of maintenance is alone charged for. During the present winter, eighteen students have attended the clinical instruction of the hospital, a matter of gratification, as the institution is the means of enabling those studying medicine to become acquainted with a very important but neglected portion of their professional education. A vote of thanks to the medical officers for their valuable services during the year was adopted, and shortly afterwards the proceedings terminated.

OPHTHALMOLOGY AND THE IRISH COLLEGE OF SURGEONS.

THE lead which the University of Dublin and the King and Queen's College of Physicians in Ireland have made in being the first licensing bodies in the United Kingdom to require a certificate of attendance on a course of ophthalmic surgery for the degree of Bachelor in Surgery, and for the membership of the College, respectively, has, we are glad to see, been followed by the Royal College of Surgeons in Ireland. At the instance of one of its members, who is well known to take a warm interest in raising that branch of the profession, of which he is an able professor, to the position it merits, the Council of the College have passed the following resolution. "That, after January 1st, 1881, candidates for the Letters Testimonial of this College be required to produce a certificate of attendance upon a three months' course of clinical instruction in Ophthalmic Medicine and Surgery."

THE INTERNATIONAL MEDICAL CONGRESS IN 1881.

A MEETING of the delegates appointed to take into their consideration the proceedings to be adopted in view of the International Medical Congress in London, 1881, was held on Tuesday last at the Royal College of Physicians; Dr. Risdon Bennett, F.R.S., President of the College, in the Chair. There were also present, Dr. Acland, F.R.S. (University of Oxford); Dr. Paget, F.R.S. (University of Cambridge); Dr. Robert Smith (University of Aberdeen); Dr. T. R. Fraser (University of Edinburgh); Dr. Alfred Hudson (University of Dublin, and King and Queen's College of Physicians in Ireland); Dr. Rutherford Haldane (President of the Royal College of Physicians in Edinburgh); Mr. Luther Holden (President of the Royal College of Surgeons of England); Mr. F. B. Imlach (President of the Royal College of Surgeons of Edinburgh); Dr. A. Buchanan (Faculty of Physicians and Surgeons of Glasgow); Professor Huxley (Secretary of the Royal Society); Mr. Jonathan Hutchinson (President of the Pathological Society); Dr. Headlam Greenhow, F.R.S. (President of the Clinical Society); Dr. W. S. Playfair (President of the Obstetrical Society); Sir Joseph Fayrer, M.D. (President of the Epidemiological Society; also representing the Indian Medical Department); Dr. Alfred Carpenter (President of Council of the British Medical Association); and Dr. Balfour (Army Medical Department).

It was resolved that the meeting be held in London between the 4th and 15th October, 1881; and that the subscription be one guinea.

The delegates present formed themselves into a General Committee with power to add to their number, and to appoint an Executive Committee for the purpose of making the necessary arrangements for the organisation and work of the Congress. It was determined that the following gentlemen be invited to join the Committee: W. Bowman, Esq., F.R.S.; Dr. Matthews Duncan; Sir William Gull, Bart., F.R.S.; Professor Humphry, F.R.S.; Sir William Jenner, Bart., F.R.S.; Professor Lister, F.R.S.; W. Mac Cormac, Esq.; Sir James Paget, Bart., F.R.S.; Professor Rolleston, F.R.S.; Dr. Sieveking; Dr. Storrar; Dr. Allen Thomson, F.R.S.; Dr. Hermann Weber; and Erasmus Wilson, Esq., F.R.S.

EPIDEMIC OF ULCERATIVE STOMATITIS.

A REMARKABLE outbreak of aphthous stomatitis, which occasioned during 1878 more than one-third of the total admissions into the hospital at the district gaol, Coimbatore, has recently been made the subject of special report by Dr. Ogg, the medical officer. The affection presented several forms. In a large proportion of cases, the disease appeared first at the margins of the upper or the lower gums, sometimes in front, sometimes under the molar teeth. Occasionally the whole gums were congested, swollen, and spongy, bleeding readily, and appearing separated from the teeth; but in most cases the gums were perfectly normal, except at the ulcerated spot. If treated early, the ulcers healed readily; but if they were neglected, the ulceration spread rapidly, and soon affected the whole of the gums. The ulcers were usually irregular in outline, with raised margins; the surrounding membrane being congested, swollen, and œdematous. As the disease advanced, the breath acquired a peculiar offensive odour, and salivation became profuse. In some cases, the disease appeared first in the shape of white or yellowish-white patches on the lips, cheeks, palate, or tongue. On removing these patches, the mucous membrane beneath was found abraded or ulcerated. In a third class of cases, fortunately not numerous, the disease assumed the form of "gangrenous stomatitis" or "cancrum oris". When these cases came under observation, there was usually a circumscribed hard swelling in the cheek, with surrounding œdema. The mucous membrane, which was red at first, became discoloured and gangrenous, and a slough formed which sometimes extended rapidly, involving the entire cheek. In a few cases, portions of the lower jaw became carious or necrosed. In the two forms first described, the disease was rapidly amenable to treatment by the frequent use of caustic (nitrate of silver or sulphate of copper), with antiseptic lotions of carbolic acid, etc. In the gangrenous form, sloughing spread in spite of the application of the strongest caustics. In these cases, chlorate of potash was given internally, with iron, quinine, opium, etc., according to circumstances, full hospital diet, and alcoholic stimulants. In some of these cases, an intractable diarrhœa carried off the patient.

All the prisoners in jail had fresh vegetables daily and fresh meat three times a-week, but many of them had been suffering before admission from prolonged privation. In a limited number of the cases, there were clear indications of scurvy in the condition of the gums. Dr. Ogg is disposed to think that, in some of its forms at least, the disease is of parasitic origin, and that, when fully developed, it spreads by contagion. The fact that, in a large proportion of the cases, ulceration appeared first along the margin of the gums, or at the angles of the jaws, may perhaps be explained by supposing that the food lodged in those parts of the mouth afforded a favourable nidus for the development of the germs of the disease. That some local exciting cause was in operation seems indicated by the fact that many men in good health were affected, and that some of the police-constables on jail-guard were attacked. Twice during the past year, the temporary jail and the old district jail buildings were vacated, thoroughly ventilated, and fumigated. On both occasions, this proceeding was followed by temporary benefit; and the reappearance of the disease may have arisen from the fact that the process was not carried out long enough to ensure the thorough destruction of the disease-germs. On December 13th, the occupants of the temporary and district jails were again moved into tents, and this time they were encamped at a distance from the jail. They were kept in tents for about two months, and before their return to jail, aphthous ulceration had almost entirely disappeared. During the three weeks preceding their return to jail, only four cases of stomatitis occurred among the prisoners in the tents; whereas, before their removal into tents, the number of admissions averaged fifteen weekly. On the return of the prisoners to jail, the number of cases of stomatitis began to increase; but the number of admissions never rose so high as before the men went into camp. Every measure likely to be of service for the complete eradication of the disease was carried out (including daily inspection, with a view to the early detection of the affection); but Dr. Ogg is not very sanguine of its entire disappearance. He believes that certain seasons of the year and certain states of the atmosphere favour its propagation.

ENTERIC FEVER IN INDIA.

A CORRESPONDENT writes to us from South Africa:

The President of the Epidemiological Society lately brought under the notice of his audience the new theory of the Sanitary Commissioner with the Government in India as to the origin of enteric fever in that country, viz., that it is due to heat and climate, and not to pollution of the drinking water. In support of this, he alluded to the fever now prevalent in the army in South Africa as being of a similar character, and arising probably from the same influences; remarking, at the same time, that the differences of opinion among the medical officers might be thus explained.

As to the nature of the fever, it must be admitted that there were good grounds for reasonable doubts as to the type of some of the cases that occurred in the Lower Column, where the conditions favourable to the development of the malarious fevers were in existence. But in North Zululand, Natal, and the Transvaal, not a single fatal case occurred in several of the large hospitals, in which the history, symptoms, clinical and *post mortem* observations did not prove, beyond the possibility of a doubt, that the disease was pure enteric fever. Kaffirs employed by the transport departments, civil as well as military, suffered equally with Europeans; and, in two instances, the diagnosis was verified by *post mortem* examination.

As to the cause, the previous notoriously healthy character of the climate of South Africa almost forbids Sir Joseph Fayrer's conclusions, and points more to local causes than to general climatic influences. Nor are local causes far to seek or difficult to find. Every camping-ground, with rare exceptions, presents evidences of filth-pollution of the drinking-water. Where there is no running stream, the only water procurable is got from pools in the dry beds of water-courses, the vicinity of which is invariably defiled, and the exception is not to find the putrid carcase of an ox, the victim of pleuropneumonia, in the pool. Therefore, whether the origin of enteric fever is caused by a germ or by pythogenesis, its widespread existence is easily accounted for in the present instance. The universal prevalence of this fever in South Africa certainly gives an air of likelihood to the theory of a climatic cause for it, and has probably led to much doubt and hesitation on the subject; but it is a matter of constant remark among the medical officers, many of whom have seen malarious diseases in every form and in all quarters of the world, that no case of ague or allied disease has come under observation, excepting in an old Indian or other soldier who had previously served in the tropics, and in whom the attack was evidently of the nature of a relapse. Further, the fever ceased in every body of men after they had been settled some time at a station, while it continued among men just off the march at the same station. This has been often observed, and the following is a good illustration of its cessation soon after a march under such circumstances.

A party of soldiers nearly seven hundred strong arrived at Pretoria on May 4th, 1877. On May 15th, the medical officer, Surgeon Cotter, reported "that there were four cases of typhoid fever, and that the men attacked had complained of malaise during the last few days of the march, from which he concluded that the disease had arisen from causes acting previously to arrival at Pretoria, the most probable being the water at the camping-grounds, which was defiled by man and beast". Twenty-two cases, in all, of fever were admitted into hospital by the end of June, and the *post mortem* appearances in all the fatal cases (three in number) confirmed the diagnosis. Subsequently to this, no other fatal cases occurred; and long before the end of the year, there was not a severe case of fever under treatment.

This outbreak of enteric fever occurred in the coldest season of the year, and in a regiment which had been over two years in South Africa after a three years' residence at Malta. Both these circumstances are at variance with the "heat and climate" theory of its development in India, which is, in fact, mainly supported by the great prevalence of the disease among young soldiers during the hot season of the first year's residence.

Notwithstanding the instances of its origin from local causes in India referred to by Sir Joseph Fayrer, this theory of Cunningham and Bryden, through the great array of figures brought to support it, appears to have carried conviction to the minds of the medical administrators in India; the natural result of which must be a fatalistic impression, which will neither be conducive to inquiry nor to improvement in the sanitary condition of the troops in India, South Africa, or elsewhere.

PUBLIC HEALTH.—During last week, being the twelfth week of this year, 3,767 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 23 deaths annually in every 1,000 persons living. The annual death-rate was 26 in Edinburgh, 25 in Glasgow, and 37 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Brighton 12, Portsmouth 18, Leicester 19, Wolverhampton 20, Hull 20, Leeds 20, Newcastle-upon-Tyne 21, London 21, Salford 22, Sheffield 22, Oldham 23, Birmingham 23, Bristol 23, Sunderland 23, Bradford 23, Liverpool 24, Norwich 24, Manchester 24, Nottingham 27, and the highest rate 32 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.0 per 1,000 in the twenty towns, and ranged from 0.0 and 0.4 in Brighton and Portsmouth, to 6.6 and 8.4 in Nottingham and Plymouth. In London, 1,505 deaths were registered, which were 266 below the average, and gave an annual death-rate of 21.4. The 1,505 deaths included 4 from small-pox, 20 from measles, 46 from scarlet fever, 5 from diphtheria, 115 from whooping-cough, 18 from different forms of fever, and 9 from diarrhœa—altogether 217 zymotic deaths, which were 20 below the average, and were equal to an annual rate of 3.1 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 315 in each of the two preceding weeks, were last week 334, and 141 below the corrected weekly average; 207 resulted from bronchitis, and 85 from pneumonia. Different forms of violence caused 49 deaths; 40 were the result of negligence or accident, including 15 from fractures and contusions, 5 from burns and scalds, 4 from drowning, 2 from poison, and 9 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 42.4°, and 0.3° above the average. The air was dry. The general direction of the wind was E.N.E., and the horizontal movement of the air averaged 11.7 miles per hour, which was 0.9 below the average. No rain fell during the week. The duration of registered bright sunshine in the week was equal to 56 per cent. of its possible duration.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 14th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 22nd, 1880.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING will be held in the Board Room of the Brighton and Hove Dispensary, Queen's Road, Brighton, on Tuesday, April 6th, 1880, at 3.15 P.M.; JARDINE MURRAY, Esq., in the Chair. Members from the country who may arrive too soon for the meeting will be at liberty to use the library of the Brighton Medico-Chirurgical Society, also at the dispensary.

All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce professional friends.

The following communications have been promised.

1. Some Pathological Specimens will be shown.
2. Dr. Hollis: A Case of Locomotor Ataxy in a Boy (patient shown).
3. Dr. Withers Moore: Two Cases of Disseminated Sclerosis (patients shown).
4. Dr. Fussell: Case of Paralysis in a Girl, with unusual Symptoms (patient shown).
5. Dr. Ewart: Primary Cancer of the Liver.
6. Mr. W. Furner: A Case of Elephantiasis (patient shown).
7. Mr. N. P. Blaker: Two Cases of Colotomy.
8. Mr. Hodgson: The Effects of Inherited Syphilis on the Ear.
9. Mr. J. Murray: A Case of Poisoning by Atropine.

Messrs. Millikin and Down will exhibit a few recent improvements in Surgical Instruments.

Dinner at the Grand Hotel, punctually at six o'clock. Charge (not including wine), 6s. 6d. Members intending to dine are requested to inform the secretary by Saturday, the 3rd of April.

THOMAS TROLLOPE, M.D., *Hon. District Secretary.*

9, Maze Hill, St. Leonard's-on-Sea, March 27th, 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE next ordinary meeting of this Branch will be held at Aberdare on Thursday, April 22nd. Gentlemen desirous of reading papers, etc., are requested to send titles without delay to one of the honorary secretaries.

ALFRED SHEEN, M.D.
J. HANCOCKE WATHEN. } *Honorary Secretaries.*

March 16th, 1880.

BATH AND BRISTOL BRANCH.

THE fifth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, April 15th: J. BEDDOE, M.D., President.

R. S. FOWLER,
E. C. BOARD, } *Honorary Secretaries.*

Bath, March 1880.

NORTH WALES BRANCH.

THE intermediate meeting of this Branch has been deferred until after the General Election.

The subject for discussion at the meeting will be "The Zymotic Influence in Disease".

J. LLOYD ROBERTS, *Honorary Secretary.*

NORTH OF ENGLAND AND BORDER COUNTIES BRANCHES: CONJOINT MEETING.

A CONJOINT meeting of the above Branches will be held at Gilsland, on Thursday, April 29th, at 3 P.M. The Chair will be occupied by Dr. PHILIPSON, President of the North of England Branch, who will give a short address.

Gentlemen desirous of reading papers are requested to communicate with their Branch Secretaries at their earliest convenience.

J. SMITH, M.D., Dumfries.
J. K. BURT, M.B., Kendal.
T. W. BARRON, M.B., Durham.

SOUTHERN BRANCH: SOUTHAMPTON DISTRICT.

A MEETING of this district was held on February 27th, at the house of the President, Professor DE CHAUMONT, F.R.S., who took the chair at 8.30 P.M.

New Members.—The SECRETARY announced that, since the last meeting, Surgeon-Major Martin, M.D.; Wm. Cubitt Lucey, M.D.; Charles Langstaff, M.D.; Surgeon-Major R. R. Scott, and R. T. Cæsar, who were previously members of Association, had joined the Southampton District. Surgeon-Major Richard F. Tobin, A.M.D., was proposed as member of the Association and Branch.

The late Surgeon-General Porter.—The PRESIDENT alluded in feeling terms to the death of Deputy Surgeon-General Porter, who represented the district on the Council of the Association before leaving for the seat of war.

Paper.—Dr. H. VEALE read a paper entitled Notes on Midwifery Cases.

WEST OF IRELAND BRANCH: ORDINARY MEETING.

A MEETING of this Branch was held at the Queen's College, Galway, on Thursday, March 18th; the President, Professor KINKEAD, occupying the Chair.

Papers.—The following were read.

1. Dr. Deely: On a Case of Intestinal Obstruction, in which the Bowel had been successfully aspirated.
2. Dr. Rutherford: Some Peculiar Symptoms connected with the Eruption of the Permanent Molar Teeth.

A discussion followed each paper, in which the President, Drs. Payne, Clayton, O'Dea, and Lynham, took part.

WEST SOMERSET BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, March 18th, at five o'clock; THOMAS CLARK, Esq., President, in the chair. Sixteen members attended.

Discussion on Medical Education.—After dinner, the Question, as settled by the Council, viz.: "What are your views on the Resolutions with regard to Medical Education passed by the Metropolitan Counties Branch, as published in the JOURNAL of January 24th, 1880?" was put from the Chair. Before inviting answers from the meeting, the President read the resolutions; also a letter from Mr. Fowke, the General Secretary, conveying a request from the Committee of Council of the Association, that the said resolutions should be submitted to this Branch and be reported on. The Secretary explained, in reference to this question, that the subject of the professional education of the general practitioner had been taken up by the Metropolitan Counties Branch in June last, when Dr. Andrew Clark (the President) expressed his opinion that the present system of education was defective, in that it did not sufficiently provide for the instruction of the student in ordinary practical matters, and that too much attention was required to be devoted to the acquirement of knowledge of comparatively little importance to the general practitioner. A committee was appointed to collect information and to report on the subject to a future meeting of the Branch. The committee issued a list of questions to the members of the Metropolitan Counties Branch and to the teachers of various schools (these questions may be found at page 58 of the number of the JOURNAL for July 12th, 1879), to which several hundred replies were sent in; and the committee reported thereon, at a meeting held on December 6th, when the resolutions now under consideration were passed.

Replies to the Question proposed having been given by the members present, and written answers from Dr. Cordwent and Mr. E. Stephens, read by the Honorary Secretary, it was resolved to report to the Committee of Council as follows.

Assuming that the resolutions are intended to give in outline what may be suggested by the Association to the General Council as a minimum standard of medical education for the United Kingdom, on the basis of the existing regulations of the "College" and "Hall", it would appear to this meeting that the resolutions require some verbal alterations and remodelling, in order that their meaning should be made quite clear; in short, a complete curriculum should be given. It is the opinion of the meeting:

1. That two out of the four subjects named in Resolution No. 1, at the option of the candidate, should be included in the "preliminary examination" which intending students are now required to pass.
2. That, in Resolution No. 2, "twelve" months should be substituted for "six" months.
3. That, in Resolution No. 3, the age should be "twenty-one", and not "twenty-two".
4. That, in Resolution No. 4, respecting an examination in elemen-

tary anatomy and physiology, it would suffice, if certificates from teachers were required, so as to show that students were making satisfactory progress in the study of these subjects at the end of the first year.

5. That, in Resolution No. 5, it should be specified that the "primary" pass examination is not to take place until the end of the second year; and that there should be included, with the prescribed clinical study, "the responsible charge of patients, under supervision, for a period of not less than six months".

Papers and Cases.—The following were read.

1. On Hernia through the Obturator Foramen, with a case in a female aged 80, successfully operated on. By Wm. Liddon, Esq.
2. A case of Osteo-sarcoma and Amputation at the Shoulder-Joint. The diseased parts and microscopic preparations were exhibited by G. W. Rigden, Esq.
3. Broken Needles, which had been in a Woman's Knee some years, removed by wearing a Magnet over the part. Exhibited by F. J. C. Parsons, Esq.
4. On Aspiration of the Urinary Bladder. By G. Cordwent, M.D. (This paper was read, in Dr. Cordwent's absence, by the Honorary Secretary.)

Votes of Thanks to the gentlemen who had contributed papers and cases were passed.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

THE third meeting of this District was held at Dartford Union, on Tuesday, March 23rd, at 3 P.M.; JOHN M. BURTON, Esq., in the Chair.

New Members.—The following new members were elected: H. H. McNaul, Esq., Dartford; John Albert Bell, Esq., Rochester; and John Elliot, Esq., Belvedere.

Discussion.—Dr. ARMSTRONG introduced the subject of Rheumatism, which led to a lively discussion.

Mr. J. ARMSTRONG recorded a case of Typhoid Fever.

Dinner.—The members, to the number of ten, afterwards adjourned to dinner at the Bull Hotel.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.

A MEETING was held at the Bush Hotel, Farnham, on Thursday, March 25th, 1880; S. G. SLOMAN, Esq., in the Chair.

Dr. BRUSHFIELD read a very interesting paper on Medical Certificates of Lunacy (which will be published at a future date).

Dr. PEARCE read a paper on the Disorders of the First Dentition and their Treatment. A good discussion ensued.

Fifteen members and friends dined together afterwards.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

VACCINATION.—Mr. John Deans of North Tawton, Devon, has received a Government grant of £11 18s. for efficient vaccination in his districts of the Okehampton and Crediton Unions. This is the second grant which Mr. Deans has obtained.

PUBLIC VACCINATION.

SIR,—Would you please inform me if a public vaccinator is required to make a house-to-house visitation for the purpose of vaccinating defaulters; or if the provisions of the Vaccination Act (Scotland) are complied with when he regularly attends at convenient stations in each district appointed by the Parochial Board? My reasons for asking the foregoing questions are, that the Board seems desirous of putting a very peculiar construction on that clause of the Act which says, that, though it is compulsory on paupers' children to attend at stations, it is optional on the part of ratepayers' to do so; therefore, says the Board, it must be compulsory on the vaccinator to visit defaulters' houses (when they do not voluntarily attend the stations), and offer vaccination, before a conviction can be obtained.—Yours truly, L.R.C.S.E. AND MEMBER.

March 22nd, 1880.

POOR-LAW MEDICAL APPOINTMENTS.

COLEMAN, Henry W., L.R.C.P., appointed Medical Officer and Public Vaccinator to the Wortley District of the Bramley Union, *vice* F. Long, M.R.C.S.Eng., resigned.

DONOVAN, John I., M.D., appointed Medical Officer to the Skibbereen Dispensary District.

ELLIOT, John, L.R.C.P.E., appointed Medical Officer to the First District and Workhouse of the Bellingham Union, *vice* James Hill, M.D., resigned.

*GANGE, F. A., M.D., appointed Medical Officer of Health to the Faversham Union Rural Sanitary Authority.

McCLURE, Henry, M.D., appointed Medical Officer to the First District of the Romford Union, *vice* Alfred Wright, M.R.C.S.Eng., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL SERVICE.—The following appointments have been made:—Fleet-Surgeon—Maxwell Rodgers, to the *Royal Adelaide*, for Plymouth Hospital; Staff-Surgeon—T. C. Hickey, to the *Resistance*; Surgeons—J. Dunlop, to the *Orwell*; R. W. Williams, to the Plymouth Division of Royal Marines.

MEDICAL officers on half-pay, or otherwise retired, who are appointed to the medical charge of brigade depôts, are, while so employed, to wear the uniform of the Army Medical Department as laid down in the Dress Regulations, 1874 (amended by General Order 3 of 1880), according to their rank on retirement, or the honorary rank they now hold.

THE ARMY AND INDIAN MEDICAL DEPARTMENTS.

SIR,—The following extract from a letter received by a recent mail from a surgeon in the Indian Medical Department will prove of interest, and should be carefully considered by all intending candidates for the Indian Medical Service. Hitherto there has been a plethora of candidates for this Service and a dearth in the Army Medical Department. In future, I presume, this state of things will be reversed. "Showing how the new amalgamation scheme for Indian and Army Medical Departments will work, let me relate the following. An Indian and an Army Medical Department man were together at ———. They were at Netley together: and on leaving that place, the Indian Medical Department man was, as has been usual the past few years, a long way ahead in marks of his Army Medical Department brother, so that, had they been in the same service, he would have been his senior in the *Army List*. When these two came together at ———, the Principal Medical Officer of the district, by a stroke of the pen, makes the Army Medical Department man senior to the Indian Medical Department man. One had to be senior for smooth working of things. This is what I expect for the future. I think, for economy's sake, amalgamation and reduction were necessary, but, that allowed, the least they could have done was to put Indian and Army Medical Department men all in one list, without the invidious distinction of Army Medical Department men solely being able to become Surgeon-General, and giving the same Department the majority of Deputy Surgeons-General. I am only waiting now to know what they intend to do with the Civil Department of the Indian Medical Department. I do not at all relish the idea of always going to the wall before Army Medical Department men, with the bitter reflection that, had I elected their Department in preference to my own, I should have been senior to all but one man of the Army Medical Department of my time at Netley; whereas now, if we come together, they will probably be made my seniors."—Yours, etc., X.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, March 25th, 1880.

Honman, Andrew, 26, Weymouth Street, W.
Newnham, Ernest Edmund, Charing Cross Hospital.
Permewan, Arthur Edward, Redruth.
Rout, Charles, Selwood Place, South Kensington.

The following gentlemen also on the same day passed their primary professional examination.

Adams, Joseph, Edinburgh Royal Infirmary.
Crane, Charles Robert, Charing Cross Hospital.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

*ABINGDON UNION—Medical Officer and Public Vaccinator for No. 3 District. Salary, £95 per annum. Applications, with testimonials, to the Clerk of the Guardians, on or before April 10th.

ALNWICK UNION—Medical Officer to the Lesbury District. Salary, £25 per annum.

BETHLEM HOSPITAL—Two Resident Medical Students. Applications, with testimonials, before April 10th.

BRECKNOCK UNION—Medical Officer of Health and Medical Officer to Devynnock District.

BRISTOL GENERAL HOSPITAL—Consulting Physician.

CARLISLE UNION—Medical Officer to the Dalston District. Salary, £10 per annum.

CELBRIDGE UNION—Medical Officer for Lucan Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health. Registration and Vaccination Fees. Election on April 12th.

*CHILDREN'S HOSPITAL, Birmingham—Resident Medical Officer and Assistant Resident Medical Officer. Salaries, £80 and £40 respectively, with board, washing, and attendance. Applications on or before the 22nd instant.

CHORLTON UNION—Assistant Medical Officer to the Workhouse. Salary, £120 per annum, with residence and attendance. Applications, with testimonials, not later than April 9th.

CRANBROOK UNION—Medical Officer to the Benenden District. Salary, £43 per annum.

CREDITON UNION—Medical Officer to the Mochard Bishop District. Salary £52 10s. per annum.

*DENTAL HOSPITAL OF LONDON—Dental House-Surgeon. Salary, £40 per annum. Applications to the honorary secretary on or before April 14th.

HOLYWELL UNION—Medical Officer to the Second District of the Whitford District. Salary, £42 per annum.

HUDDERSFIELD UNION—Medical Officer to the Marsden District. Salary, £18 per annum.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT—A vacancy in the Honorary Medical Visiting Staff. Election on April 15th.

INVERNESS NORTHERN INFIRMARY—Consulting Physician and Surgeon. Salary, £50 per annum. Applications on or before April 8th.

ISLE OF WIGHT UNION—Medical Officer to the Carisbrooke District. Salary, £80 per annum, with fees for Vaccination. Applications on or before April 14th.

KELLS UNION—Medical Officer for Kilskeer Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health; registration and vaccination fees. Election on the 6th instant.

LEEDS GENERAL INFIRMARY—Physician.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN—Consulting Physician.

*METROPOLITAN FREE HOSPITAL—Assistant House-Surgeon. Board. lodging, and washing. No salary, but an honorarium at the end of six and twelve months. Applications, with testimonials, to the Secretary.

NEWCASTLE-ON-TYNE DISPENSARY—Resident Medical Officer. Salary, £250 per annum, with furnished apartments, coals, and gas. Applications, with testimonials, to the honorary secretary on or before April 3rd.

NOTTING HILL PROVIDENT DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished apartments, firing, lighting, and attendance. Applications, with testimonials, to the honorary secretary on or before May 25th.

QUEEN CHARLOTTE LYING-IN HOSPITAL, London—Resident Medical Officer. Salary, £60 per annum, with board and lodging in the hospital. Applications, with copies of testimonials, to the Secretary before April 5th.

*QUEEN'S HOSPITAL, BIRMINGHAM.—Resident Physician. Salary, £50 per annum, with board, residence, etc. Applications, with testimonials, to the Secretary, on or before April 8th.

*SHEFFIELD GENERAL INFIRMARY - Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications, with testimonials, on or before April 10th.

*SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Junior Assistant House-Surgeon. Salary, £65 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary, on or before April 7th.

SMITHSON ASYLUM AND POORHOUSE, Greenock—Assistant Resident Medical Officer. Salary, £80 per annum, with board and residence. Applications, with testimonials, on or before April 13th.

SUDBURY UNION—Medical Officer to the Fourth District. Salary, £62 per annum.

*SUSSEX COUNTY HOSPITAL—Dispenser. Salary, £75 per annum, rising at the discretion of the Committee to £100 per annum. Applications, with testimonials, to the Secretary, on or before May 5th.

UNIVERSITY OF EDINBURGH—Additional Examiner to the Clinical Surgery Department. Applications, with testimonials, to the Secretary not later than April 5th.

WESTMINSTER HOSPITAL—House-Surgeon. Board and residence. Applications to the Secretary not later than April 10th.

WESTMINSTER HOSPITAL—Pathologist and Curator of the Museum. Salary, £52 10s. per annum. Applications, with copies of testimonials, to the Secretary, on or before April 10th.

WETHERBY UNION—Medical Officer to the Harewood District. Salary, £15 per annum.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BROOKFIELD, John Storrs, B.A., M.D., appointed one of the Honorary Physicians to the Kilburn, Maida Vale, and St. John's Wood General Dispensary, *vice* J. J. Gawith, M.R.C.S.Eng., resigned.

*COOPER, W. White, F.R.C.S., appointed Consulting Surgeon to the Hospital for Epilepsy and Paralysis.

FOWLER, J. K., M.B., appointed Assistant-Physician to the Middlesex Hospital.

*LILLEY, G. Herbert, M.D., appointed Assistant-Surgeon to Her Majesty's Convict Prison, Parkhurst, Isle of Wight.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

ROSS.—On March 18th, at Stornoway, N.B., the wife of Roderick Ross, L.R.C.P. and L.R.C.S.Ed., of a daughter.

DEATHS.

*BARNES, James H., L.R.C.P.Ed., at Liverpool, aged 47, on March 19th.

NASH, Joseph, M.D., Major 1st Somerset Engineer Volunteers, at 59, Pulteney Street, Bath, aged 58, on March 24th.

POWEL, Evan, L.R.C.P.Edin., at Senny Bridge, near Brecon, aged 36, on March 7th.

ROBERTS, William A., M.D., at 47, Queen Street, Edinburgh, aged 70, on March 23rd.

DR. WILLIAM COLLINGRIDGE is giving a series of lectures, in connection with the St. John's Ambulance Association, at St. John's Gate, Clerkenwell, in the riverside district of Wapping, and elsewhere, the object of which is to afford the officials and others some practical knowledge on the immediate treatment of all kinds of street accidents.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.— Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.— Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Odontological Society of Great Britain. Casual communications: Mr. H. Sewell, on "Dental Diseases as a Cause of Epilepsy"; Mr. G. H. Harding, on "A Simple Contrivance to be employed in the Insertion of certain Gutta-Perch Fillings". Discussion on Mr. Oakley Coles' paper on "Deformities of the Jaw", etc.—Medical Society of London, 8.30 P.M. Dr. C. T. Williams, "On a Case of Gastric Ulcer treated by Nutritive Injections"; Mr. Malcolm Morris, "On the Therapeutical Value of Arsenic in Cutaneous Disease".

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Startin: Section of Molluscum Contagiosum. Dr. Thin: Sections and Photographs of Elephantiasis. Mr. Walsham: Horny Growth from Eyelids. Mr. Godlee: Melanosis of Finger. Dr. Barlow: Congenital Syphilitic Disease of Larynx. Dr. Vincent Harris and Mr. A. Doran: Section of Spinal Cord from a case of Tetanus after Ovariotomy. Dr. Allen Sturge: Congenital Syphilitic Disease of Larynx. The President: Multiple Ivory-patch Morphœa in process of rapid recovery (living specimen). Mr. Morrant Baker: Skin-Disease—probably Lichen-Ruber (living specimen). Mr. Samuel G. Shattock: Recent Division of the Tendo Achillis. Dr. Wm. Ewart: Ramifying Cyst in the Brain. Mr. Eve: 1. Calcareous Tumour loose in Abdominal Cavity; 2. Aneurism by Anastomosis of the Ear; 3. Laryngeal Perichondritis in Typhoid Fever and in Small-Pox. Mr. Sydney Jones: Elongation of Limb in connection with Knee-Joint Disease. Dr. Pearson Irvine: Aortic, Mitral, and Tricuspid Constriction.

WEDNESDAY.—Hunterian Society, 7.30 P.M., Council Meeting. At 8 P.M., Mr. Jacobson will show a case of Gastrostomy; Dr. Fletcher Beach will read a paper on "Types of Imbecility".—Epidemiological Society of London, 8 P.M. Dr. G. B. Longstaff, "On some Statistical Indications of a Relationship between Scarlatina, Puerperal Fever, Erysipelas, and certain other Diseases".—Obstetrical Society of London, 8 P.M. Specimens will be shown by Drs. Galabin, Bantock, Godson, Murphy, and Roper. Papers: Dr. Godson, "Removal of Fibroid Outgrowth from Fundus Uteri: Recovery"; Mr. Knowsley Thornton, "Removal of Uterine Fibroids by Laparotomy"; Dr. John Williams, "On some Periodical Changes which occur in Fibroid Tumours of the Uterus, and their Significance".

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Nettleship, "Two Cases of Sympathetic Ophthalmitis, setting in three weeks after Excision of the other Eye"; Mr. Marsh, "Some Cases of Bone-setting, with Remarks"; Mr. Barwell, "On Section of the Femur above the Small Trochanter for Angular Ankylosis of the Hip"; Mr. Clutton, "A Case of Acquired Hypertrophy of one Limb". Dr. Stephen Mackenzie will exhibit a case of Elephantiasis treated by elastic bandages.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should **authenticate them with their names—of course not necessarily for publication.**

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Medical Officer of Health to the Port of London.

Sir,—In your issue of the 6th March, you state that two of the candidates have been pupils at the lately established hygienic laboratory at University College; but surely candidates for such an important office should not be mere pupils, but men of matured judgment—capable, even, of instructing *professors* in sanitary science.—Faithfully yours,
M. O. H.

⁂ We may suggest to our correspondent, that attendance as a pupil at a hygienic laboratory is perfectly compatible with the possession of mature judgment and considerable knowledge of hygienic matters.

"H. M. D." asks where he can obtain particulars of the gynæcological chairs exhibited by Mr. McIllroy at the Birmingham and Midland Counties Branch meeting on March 12th.

The University of St. Andrew's.

Sir,—In your issue of the 27th March, you published, under the above heading, a statement to the effect that, owing to bad harvests and depreciation, etc., in College lands, the revenues of the United College and of the United College professors are being seriously curtailed. As the situation is critical, it may interest your readers to learn that an "Association for the better Endowment and Extension of the University of St. Andrew's" has been formed, and that those who are disposed to befriend the Arts and Medical Chairs of the College, will have an opportunity of doing so by communicating with one or other of the secretaries of the association, viz., Professor Birrell, D.D.; Professor Knight, LL.D.; and Professor Pettigrew, M.D., F.R.S.—I am, sir, your obedient servant,
A St. Andrew's Medical Graduate.

F.R.C.S.Eng. by Exam.—The annual election of Fellows into the Council of the College of Surgeons will take place the first Thursday in July. There are 1,233 Fellows; of which number 549 are by examination. There are nearly 16,000 members of the College.

The Eucalyptus Globulus.

Sir,—I notice, in a recent number of the Journal (January 24th), under the title of "A Rapid Cure for Cold", that Dr. R. Rudolf reports in the *Gazzetta Medica Italiana*, some observations he has made on the remedial action of the eucalyptus in cases of catarrh. I presume he alludes to the eucalyptus globulus, or Australian blue-gum tree, which flourishes in and around this city and throughout Southern California, where I have been travelling, and has quite a reputation as a medicinal tree. An infusion made from the green leaves and young twigs is, I am informed on good authority, a well tried and very efficacious remedy in attacks of catarrh, which are of frequent occurrence here, and which, under its use, as a rule, quickly disappear. The leaves apparently contain a great deal of volatile aromatic matter, and, on fracture, give off a strongly camphoric odour. The trees are said to have a very salutary effect in counteracting any malaria which may exist in districts where they grow; they are also very handsome in appearance, and of rapid growth.—I am, sir, yours faithfully,
J. Higham Hill, M.D.
San Francisco, March 8th, 1880.

Veritas.—It must be borne in mind that a patient has a right to the services of the medical man he prefers. B. was, therefore, justified in taking charge of the case.

R. S. T.—Littré's *Dictionnaire de Médecine.*

Ether and Chloroform.

Sir,—We hear so much of the danger of chloroform *versus* ether, that the following facts have induced me to forward them to you for publication at your discretion.

T. C., aged 14, was, on November 18th, 1879, being placed under the influence of ether by means of an Ormsby's inhaler, when, after three or four inspirations, respiration suddenly ceased, and he became lifeless. The usual remedies were instantly applied, with the fortunate effect of bringing him to life again. The patient being an emaciated and feeble person, suffering from a soft-celled sarcoma of the tibia, was, for a week afterwards, subjected to the reinvigorating influence of fresh air and full diet; and small doses of ether and chloroform internally were given, with a view to getting his constitution accustomed to these drugs. Being placed again on the operating-table, chloroform was administered on lint. The patient never showed a bad symptom during the whole operation (amputation through the knee-joint).—I am, sir, yours truly,
J. R. Salter, House-Surgeon.
The Infirmary, Kidderminster, March 23rd, 1880.

P.S.—A really good book on anæsthetics, containing the methods of preparing different constitutions for receiving the different anæsthetics, etc., would be a great godsend to many a house-surgeon.

No Medical Evidence.

Sir,—About a week ago, I was called up at 5.30 A.M., to see a child who had been found dead in bed. I was informed by the parents that "they had sat up with the child till three o'clock, as it had been ill"; then they went to bed, taking it with them. At five o'clock, the mother awoke and found the child dead. From the appearance of the child's body, I came to the conclusion that death was the result of "overlaying", so I told them an inquest would be necessary. An inquest was held by the deputy coroner. No medical evidence was called; and I understand, from the police-constable in attendance, that a verdict of "Death from natural causes, no blame being attached to anyone", was returned.

The coroner for this district seems to ignore the utility of medical evidence at inquests: for during my residence here (over five years), many cases of sudden death have occurred from different causes, and in only one has medical evidence been considered necessary. I am of opinion that, if cases like the one I relate are allowed to pass by without proper investigation, infant mortality will be on the increase in this district.—I am, sir, your obedient servant,
George H. Ormsby, L.R.C.S.I., L.K.Q.C.P.I.
Aberford, March 31st, 1880.

Tolerance of Morphia.

The *New York Medical Record* has the following. Dr. F. Powers of Westport, Connecticut, writes that a woman about sixty years old entered a drug-store in the town a short time ago, and called for forty-five grains of morphine. The druggist weighed it out. She then called for a glass of water, put the drug in it, and swallowed the whole. The anxiety of the druggist was somewhat relieved by her saying that she had taken morphine for forty years, and that forty-five grains was now her regular dose.

Notice to Advertisers.—Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. Fowke, not later than *Thursday*, Twelve o'clock.

Factories and Medical Officers.

Sir,—Is it right and proper that the owners of a large textile factory should employ and pay by fees a surgeon to attend to such accidents as may occur in their factory, while they at the same time recognise the right of their *employés* to refuse the services of the surgeon employed by them if they prefer to have and pay one of their own? In the event of calling in the first surgeon that can be laid hold of in an emergency, they—the factory owners—pay him his fee, and do not expect him to continue his attendance, unless such attendance be specially requested by the patient. Is it, then, a breach of medical etiquette for the surgeon to the factory to supersede the one who is thus called in and who has no other relation to the case?—I am, etc.,
Alpha.

Croup or Diphtheria.

Sir,—I desire to bring the following facts, involving a question of ethics, before your notice for authoritative adjudication. On or about the 27th ultimo, a child, L. R., three years of age, was brought to the out-patient department of the Children's Hospital in this city, seeking admission thereinto, and accompanied by a certificate from her medical attendant outside—a duly qualified practitioner, but in nowise associated with the hospital—stating that she was "suffering from croup after a severe attack of measles". On examination, it was found that the child was exceedingly prostrate, with weak pulse, enlarged cervical glands and tonsils, and a small round excavation in the centre of the dorsum of the tongue, filled with pus, and capable of containing a small split-pea. Moreover, the child's voice was suppressed and, the mother said, had been absent for nearly two weeks. No examination of the fauces was made on account of the prostration. An extensive epidemic of measles prevails in the city, and a good many cases of diphtheria are likewise met with at present. On inquiry of the mother as to any expression of opinion by J. F., the outside attendant, it was stated that to her he called the disease croup, but to the father membranous croup. The treatment, she said, besides general medication, consisted in lime-water sprays and inhalations of steam.

It being contrary to the rules of the institution to receive any infectious cases, and the hospital having already suffered from the spread of zymotic affections so introduced three times in the last four years, the admitting physician, believing in the identity of croup and diphtheria, declined to take the child in on account of the infectious nature of its affection. Complaint was forthwith personally made to the chief authorities of the hospital by J. F. and a professional colleague, W. B. G., who, it seems, also saw the case outside, that one of the visiting physicians refused to admit a case duly certified by J. F. as fit and proper, and that J. F. suffered loss and damage in reputation by such refusal and by the statement made to the mother that the case was regarded as being diphtheritic and infectious.

Will you kindly give expression, in an early issue of the Journal, to your view of the conduct, from a professional standpoint, of J. F., W. G. B., and the admitting physician respectively, and oblige, your obedient humble servant,
Toronto, Ontario, Canada, March 4th, 1880. J. H. Cameron, M.B.

P.S.—One of my colleagues on the hospital staff, who happened to be present and who saw the case, concurred in the diagnosis and approved the course adopted.

⁂ Considering the difference of opinion which still prevails with regard to the identity or non-identity of croup and diphtheria, we do not think that any of the medical men engaged in this case ought to be stigmatised as having acted in an improper manner. No doubt each of them formed his diagnosis in perfect good faith. If any suspicion existed that the case was one of diphtheria, the medical officer of the hospital was justified in refusing admission to the patient. We would suggest a withdrawal of all complaints, and a mutual agreement to differ in a friendly manner on a matter of diagnosis, regarding which there is not yet agreement among many eminent members of the profession.

Help in Street-Accidents.

Sir,—Mr. Carrick Steet's suggestions in the Journal of this date, though apparently practical, in so far as recommending consideration should be given to doing something, seem to lack a full explanation of his proposed *modus operandi.* In the first place, he proposes to create a fresh division of responsibility without removing objectionable causes of complaint. Next, in the absence of an uniform method, it is difficult to see how anything can be done as it ought to be. Thirdly, in the absence of a distinct method, or of a mode of explaining how that method will work, it runs the risk of fouling armed parties in search of standards they have lost, or commissariat columns in search of troops they are supposed to feed, and no doubt would do so, if they could only find them. If the police cannot undertake the work of managing the traffic and at the same time attend to the accidents that occur, it seems to me they might as well say so; then we should know what we were about, and might ask them to inform us how much they were prepared to undertake in the way of regulation and what amount of neglect and incompetence ought to be deemed *lâches* on their part? The public would then be in a position to judge, which they can scarcely be in now, who was in fault when anything went wrong, or at any rate would see for themselves the main issue, viz., what body of paid officials ought to be organised to perform duties which are now either neglected or erroneously supposed to be part and parcel of regular police duties.

Not to prejudice the case, however, it should be remarked no evidence is offered that either police or volunteer regulation of traffic is one of the chief things required to reduce street-accidents to the smallest limits. I certainly think proof ought to be offered on this point.—I am, etc.,
F. P.
March 27th, 1880.

Sir,—Having read the letter on the abovenamed subject in the Journal of the 27th instant by Mr. Steet, I beg to state that an ambulance is now kept at most, if not all, the police-stations in London, and is commonly used instead of the stretcher. Since reading Mr. Steet's letter, and having only once casually seen the ambulance, I have since inspected the one kept at the station in Tottenham Court Road. It has a canvas bed similar to the stretcher. The shoulder and head part is on an incline, and the other end has a footboard. It has a collapsing canvas hood, and a canvas cover to meet the hood when elevated, which will protect the occupant from heat or rain. The extreme length is about seven feet six inches. The platform is upon springs, and upon two wheels, which can, however, readily be detached, and the occupant conveyed anywhere while on it. It is sufficiently strong, and yet altogether of so light a construction that a boy can easily wheel it with a full-grown person upon it.

With some improvements (in breadth, etc.) and additions, such a vehicle, I be lieve, would be admirably adapted for the conveyance of injured persons to hospitals or their homes. It might be supplied with an air-bedtick, which could soon be inflated. A small airtight box or receptacle could be attached to the ambulance to contain bandages or whatever else is considered desirable. The ambulance would require a waterproof covering, and some of them would require also to be enclosed in a wood case, and placed on wheels, which need not occupy much space. All might be painted red, as a distinguishing mark.

Depositories for such ambulances would require to be regulated by convenient places. One, inclosed in a wooden case, might be placed at every cabstand where there is a cabmen's shelter, and left under the care of the waterman, and the key kept in the shelter. One might be deposited in every fire-engine station under the care of the fireman, and with the fire-escape man when out on night-duty. One might be placed at the Royal Exchange, at the General Post Office, in St. Paul's Churchyard, and other public places. Though left in care of persons previously named, yet some interested persons should, however, be appointed to occasionally inspect all the ambulances.—I am, yours faithfully, E. Nock.

16, Bloomsbury Street, W.C., March 29th, 1880.

Wanted a Diagnosis.

Sir,—I enclose notes of a case which has been of considerable interest to me. The patient is a woman, eighty-four years of age, of sallow complexion, about the average height, stout but flabby, and weighing approximately fifteen stones. She has been unusually healthy and active, only occasionally suffering from an ill-defined pain in the right side, and, the day before her illness began, found herself capable of doing a washing large enough, it would seem, for any ordinary young woman, experiencing apparently no ill effects therefrom, unless it might be a slight pain in the back. About noon on the following day, however, she began to suffer from an extremely severe pain more particularly in the left hypochondriac and epigastric regions, as also, during the day, a less intense pain in the right iliac region. Though she had passed a full motion shortly before, she took a dose of salts and senna, which was no sooner swallowed than it was vomited. This was followed for some hours by an almost incessant and causeless vomiting of mouthfuls of a disagreeable but not fæcal smelling fluid with a darkish flocculent sediment. Tested for bile it gave negative results, and the sediment examined by the microscope showed nothing definite, other than glandular and squamous epithelium. During the first sixty-four hours, she was unable to retain anything, not even the mixture prescribed, which contained bismuth, hydrocyanic acid, and calumba. Nor did the application of a bandage and poultices over the abdomen have any effect in allaying it. Till towards the end of this period, the abdominal pain continued unabated, and was accompanied by very severe cramps of both lower extremities, more particularly when she lay on her back, and which were only partially relieved by lying on the right side, and by the use of hot applications and vigorous shampooing. Associated with these symptoms were also constipation and suppression of urine, with considerable œdema of the lower extremities, but none in the face. Examination failed to discover any hernia, tumour of the abdomen, or paralysis. The pulse was weak, but normal in rate; and examination of the heart revealed a murmur accompanying the first sound. Delimitation was rendered impossible from the obesity of the patient and large development of the mammæ. The tongue was red and irritable-looking.

Ice having been procured, the vomiting was gradually subdued, and finally ceased on the evening of the fourth day, after which the patient was able to take milk, beef-tea, and other liquid foods. Previously to this, the abdominal pain was entirely relieved. Notwithstanding the frequent use of large purgative enemata, the bowels remained constipated; and it was not till the seventh day that a motion, and then only a small one, was passed. Hot cloths to the kidneys and bladder having failed to determine a flow of urine, it was drawn off on the evening of the third day of her illness, although she experienced no inconvenience from its retention. Four gills were thus removed. The urine was of a dark sherry colour, with slight sediments; specific gravity 1020; reaction neutral; albumen slight, with hyaline tube-casts and renal epithelium. After it had been drawn off four times, she herself desiring it should be done, she was able to micturate naturally; the albumen, after a few days, disappearing altogether.

Thinking the above association of symptoms unusual, and being unable to come to any diagnosis, I should like the opinion of some of your readers on the case.—I am, etc., Ayrshire.

Intraprofessional Obligations.

Sir,—Two members writing under this heading seem to have difficulty in determining who are properly members of a medical man's family with relation to payment of fees. The answer is simple, if the test adopted be whether the fee comes from the pocket of a medical brother or not. Nephews or grandchildren more or less dependent on a member of the profession may thus be exempted, while a son or daughter independent of the father may very properly be expected to pay a fee. When there is proper feeling on both sides, such cases readily settle themselves.—I am, etc., Chios.

The following is the rule on this subject given in the *Code of Medical Ethics*, published by Messrs. Churchill (page 28, chap. ii, sect. 2): "All legitimate practitioners, their wives, and children while under the paternal care, are entitled to the gratuitous (travelling expenses excepted), services of any of the neighbouring faculty, whose assistance may be desired".

Doctors' Conveyances.

Sir,—Much interest was taken by several of the members of the British Medical Association here in the correspondence anent the usefulness of the tricycle in private practice as a means of economy and speed in getting over the ground. A letter appeared some time ago in the *Field* from Mr. Tegetmeier, highly commendatory of the "Blackburn steam-car", the invention of a Mr. Blackburn of 14, Victoria Road, Kensington. It would be of very great value to many of your readers circumstanced like myself, to whom a bicycle or tricycle is of no use, were you to obtain an unbiassed opinion of the "Blackburn car", after a proper trial, in which the speed, capability of going up steep gradients with a load, safety, and economy of working, were tested, and the prices of the different sizes of engines, consumption of fuel per working mile, and if engines could be fitted to existing dog-carts of ordinary build.—Yours faithfully, Serendib.

Ceylon, January 19th, 1880.

Ancient Hindoo Wit.

The number of the *Transactions of the Odontological Society of Great Britain* for March contains a photograph of a curious Hindoo bas-relief, representing a group of monkeys engaged in extracting a man's tooth. The unfortunate individual is bound, and the tooth is held in the grasp of a very primitive looking extracting instrument (resembling somewhat the large claw of a crustacean), to which a small elephant is attached by means of tackles. The piece of sculpture was found in a ruined temple near Allahabad, known as the Stupa of Bharbut, and was more than 2,000 years old, the temple having been built about the year 200 B.C.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

The Habitual Drunkards' Act.

Sir,—I have just read with pleasure Dr. Clarke's letter in a recent issue of your Journal, and am happy to add my testimony in favour of the voluntary system, as carried out at Mrs. Theobald's House at Leicester, and as opposed to the compulsory provisions of the abovenamed Act. A dear relative of mine, who, through long and unwearied attendance upon an invalid sister, had fallen into the habit of taking opium and brandy in order to secure sleep at night and support during the day, was persuaded by her friends to try what assistance she could obtain in getting quit of the habit by a residence at Mrs. Theobald's House. She submitted voluntarily to the temporary withdrawal from the temptations of the outside world; and during her residence at Tower House, I paid several visits there, and carefully observed the method adopted by Mrs. Theobald, which consisted mainly in avoiding all opportunities for procuring intoxicants, and in providing pleasant amusements for her patients. My friend's case was, professionally speaking, a bad one, owing to the opium-taking; but I am glad to say that her stay at Tower House restored her to health, and gave her a mastery over her enemy, which is a source of wonder and gratitude to her friends.

I trouble you with these lines, as they may encourage other ladies suffering from the same failing to give this system a fair trial.—I am, sir, yours obediently,

A Grateful Man.

Dr. T. B. Partridge has sent us a satisfactory repudiation of the circular with his name appended, which was published in the Journal of March 13th. His letter shall appear next week.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. S. S. Roden, Droitwich; Mr. A. Austin, London; Mr. H. H. Mackenzie, London; Mr. J. R. Salter, Kidderminster; Dr. W. C. B. Fifield, Boston, Mass., U.S.A.; Dr. J. S. Brookfield, London; Dr. H. M. Duncan, London; Dr. J. J. Welply, Bandon; Dr. D. Foulis, Glasgow; Mr. G. Foote, Kington; Mr. Steel, Abergavenny; Mr. F. S. Manisty, Wrexham; Dr. Sawyer, Birmingham; Dr. A. P. Stewart, London; Mr. F. Jordan, Birmingham; Mr. E. Nock, London; Mr. J. H. Craigie, London; Mr. W. A. Smith, York; Mr. A. H. Benson, Dublin; Mr. W. K. Treves, Margate; Dr. Archibald, St. Andrew's; Dr. Crichton Browne, London; Dr. Kelly, Taunton; Dr. J. Higham Hill, San Francisco; Mr. F. Long, Wells-next-the-Sea; Dr. Claye Shaw, Sutton; Mr. J. L. Green, Salisbury; Dr. Forbes Dick, Colchester; Dr. Allchin, London; Mr. Wm. Berry, Wigan; Dr. W. E. Steavenson, London; Mr. James Green, Portsmouth; Mr. H. Master, Bungay; Dr. R. Daniel, London; Dr. Jas. Stewart, Greenock; Mr. A. Campbell, Navenby; Mr. F. T. Paul, Liverpool; Dr. Godson, London; Dr. G. H. Ormsby, Aberford; Mr. R. Hargreaves, London; Dr. Louis Henry, Melbourne; Mr. T. W. Barron, Durham; Mr. Arthur Napper, Cranleigh; Dr. Thin, London; Dr. Styrap, Shrewsbury; Our Dublin Correspondent; Dr. G. Buchanan, Glasgow; Mr. S. M. Quennell, London; Our Edinburgh Correspondent; Dr. Partridge, London; Our Glasgow Correspondent; Mr. J. M. Fox, Lymm; Mr. Francis Hamilton, London; Mr. C. J. Wright, Leeds; Dr. Taylor, London; Dr. John Lynham, Galway; Mr. W. Fairbank, Windsor; Dr. J. H. Stowers, London; Mr. George Eastes, London; etc.

BOOKS, ETC., RECEIVED.

Indian Notes. By F. R. Hogg, M.D. London: J. and A. Churchill. 1880.

Notes on Diseases of the Testis. By Samuel Osborn, F.R.C.S. London: J. and A. Churchill. 1880.

General Index to the First Twelve Volumes of the Transactions of the Clinical Society of London. London: Longmans, Green, and Co. 1880.

Leprosy. By W. Munro, M.D., C.M. Manchester: John Heywood. 1880.

Transactions of the Obstetrical Society of London. London: Longmans, Green, and Co. 1880.

Water-Analysis. By E. Frankland, Ph.D., D.C.L., F.R.S. London: John Van Voorst.

The Diseases of Blood-Vessels of the Ovary in Relation to the Genesis of Ovarian Cysts. By E. Noeggerath, M.D. New York: W. Wood and Co. 1880.

Elements of Indian Hygiene. By J. C. Lucas, F.R.C.S. London: J. and A. Churchill. 1880.

Materia Medica and Pharmacy. By W. H. Griffiths. Edited and in part written by G. F. Duffey, M.D. Dublin: Fannin and Co. London: Baillière, Tindall, and Cox.

Illustrations of the Physiology of Religion: in Sections adapted for the Use of Schools. Part I. By Henry Lee, F.R.C.S. London: Trübner and Co. 1880.

Notes on Physiology. By Henry Ashby, M.D. Second Edition. London: Longmans, Green, and Co. 1880.

Practical Chemistry. The Principles of Qualitative Analysis. By William A. Tilden, D.Sc. London: Longmans, Green, and Co. 1880.

Transactions of the Cremation Society of England. London: Smith, Elder, and Co. 1880.

THE LUMLEIAN LECTURES
ON
THE DIGESTIVE FERMENTS, AND THE PREPARATION AND USE OF ARTIFICIALLY DIGESTED FOOD.

Delivered before the Royal College of Physicians.

By WILLIAM ROBERTS, M.D., F.R.C.P., F.R.S.,
Physician to the Manchester Royal Infirmary; Professor of Clinical Medicine to the Owens College.

LECTURE I.

DIGESTION has been usually regarded as the special attribute of animals. They receive into their alimentary canal the food which they require for their sustenance in a crude form. It is there subjected to the action of certain ferments which transmute its elements, by a peculiar chemical process, into new forms which are fitted for absorption. Looked at in this restrictive sense, plants have no digestive function. They possess no alimentary canal, nor any vestige of a digestive apparatus. But when the matter is examined more profoundly, it is seen that plants digest as well as animals, and that the process in both kingdoms of nature is fundamentally the same.

In order to understand this generalisation—which was first propounded by Claude Bernard, and constitutes one of the most important fruits of his splendid labours[*]—it is necessary to recognise digestion under two types or conditions, namely, a digestion which takes place exteriorly at the surface of the organism, and a digestion which takes place interstitially in the interior of the organs and tissues.

Exterior digestion is that common process with which we are familiar as taking place in the alimentary canal of animals, by which the crude food introduced from without is prepared for absorption.

Interstitial digestion, on the other hand, is that more recondite process by which the reserves of food lodged in the interior of plants and animals are modified and made available for the purposes of nutrition.

These two types of digestion are essentially alike, both as regards the agents and the processes by which they are carried out; and, although one type of digestion is more developed in the animal kingdom, and the other type more developed in the vegetable kingdom, both types are represented in the two kingdoms, and bear witness to the fundamental unity of the nutritive operations in plants and animals. I shall only be able to indicate in outline the facts and arguments on which Bernard sought to establish these propositions.

Exterior Digestion.—We all know that the alimentary canal is simply a prolongation of the external surface; that the skin is continued, at each extremity, without a break, into the alimentary mucous membrane. Accordingly, the processes which take place in the digestive tube are, strictly speaking, as much outside the body as if they took place on the surface of the skin. Upon this inner surface, if I may so call it, are poured out the digestive juices, charged with the ferments which are the special agents of the digestive processes. This is the common condition of exterior digestion as it occurs in animals; but it is not the only condition. Among some of the lowest members of the animal series, a permanent alimentary canal does not exist. In the amœba, any portion of the exterior is adapted for the reception of food. The morsel sinks into a depression formed on the surface at the point of impact; it is digested in this improvised stomach; and the indigestible portions are expelled through an improvised anus.

Among plants, exterior digestion is a much less prominent feature than among animals; but examples of its occurrence and evidence of its importance are not difficult to point out. In the lowest orders of plants—fungi and saprophytes, which are devoid of chlorophyll—exterior digestion is probably a function of prime necessity. In all likelihood, their carbon-containing food is only absorbed after undergoing a process of true digestion. The transformation of cane-sugar by the yeast-plant is a striking example—though a distorted one—of exterior digestion. Cane-sugar is a crude form of food both to plants and to animals, and requires to be transformed into invert-sugar (a mixture of equal parts of dextrose or grape-sugar and lævulose or fruit-sugar) before it can be made available for nutrition. The yeast-plant is no exception to this rule; and, when placed in a solution of cane-sugar, it is under the necessity of transforming that compound into invert-sugar before it can use it for its profit in fermentation. This transformation is effected by a soluble ferment attached to the yeast-cell, which can be dissolved from it by water. We shall see later on that a similar ferment exists, for a similar purpose, in the small intestine of animals, having the same property of changing cane-sugar into invert-sugar.

Even among the higher plants, exterior digestion is not quite unknown. The function may be said to be foreshadowed in the excretion of an acid fluid by the rootlets of some plants, which serves to dissolve and render absorbable the mineral matters in their vicinity. But genuine and most remarkable examples of this type of digestion occur among the so-called insectivorous plants, of which Mr. Darwin has given so interesting an account. In the sun-dews, the plant, by a peculiar mechanism provided on its foliage, seizes the insects which fortuitously alight on its leaves. A stomach is extemporised around the prey, into which is poured out a digestive fluid. The prey is digested, and the products absorbed, in essentially the same manner as in the gastric digestion of animals.

Interstitial Digestion.—Both animals and plants lay up reserves or stores of food in various parts of their tissues for contingent use, so that, if you suddenly withdraw from them their food-supplies, neither animal nor plant immediately dies—it lives for a certain time on its reserves. But, before these reserves can be made available for the operations of nutrition, they must first be converted from their inert and mostly insoluble state into a state of solution and adaptability to circulate in the nutritive fluid which constitutes the alimentary atmosphere of the protoplasmic elements. This conversion of inert store-food into available nutriment is brought about—certainly in some, presumably in all, cases—by the same agents and processes as the digestion which takes place in the alimentary canal of animals; and it is this identity in the agents and the processes which Bernard insisted on as the proof of the fundamental identity of the two kinds of digestion.

The storing up of food is carried on to a larger extent in the vegetable than in the animal kingdom, owing to the intermittent life of most plants. In their seeds, tubers, bulbs, and other receptacles, are laid up stores of albumen, starch, cane-sugar, and oil—designed primarily for the growth and nutrition of the plant or its offspring—but which are largely seized on by animals and utilised for their food. Owing to their more continuous life, animals store up food less than plants. Nevertheless, they accumulate stores of fat in various parts of their body—of animal starch (glycogen) in their livers and elsewhere, and of albumen in their blood. Birds also store up large quantities of albumen and fat in their eggs.

The transformation of store-food has been followed out most completely in regard to starch, its congener glycogen, and cane-sugar. Bernard worked out this subject with marvellous minuteness and success. It has long been known that the transformation of starch into sugar in germinating seeds was effected by diastase; and that a similar ferment, existing in saliva and pancreatic juice, performed the same office on the starchy food of animals. It has also been proved that the stores of starch laid up in the tuber of the potato and in various parts of other plants are changed at the periods of budding and growth in the same way, and by the same agent. Bernard showed that animal starch or glycogen is stored up largely, not only in the liver, but in a variety of other situations, and especially that it is widely distributed and invariably present in large quantities in embryonic conditions. In juxtaposition with the glycogen is found a diastatic ferment which transforms it into grape-sugar, as it is required for the active operations of growth and nutrition.

The stores of cane-sugar which exist in the beet-root and in the sugar-cane are transformed or digested in like manner into invert-sugar when the plants enter on the second phase of their life—the phase of inflorescence and fructification. Here, again, it has been proved that the converting agent is a soluble ferment, the same ferment which, as already mentioned, is attached to the yeast-cell, and the same ferment which exists in the small intestine of animals for a similar purpose.

The transformation of store-proteids and fats has not been followed out with the same success as that of starch and cane-sugar. But the evidence, as far as it goes, and analogy point to the conclusion that the stores of albuminous and oily matters contained in the seeds, bulbs, and other receptacles of vegetables are subjected to a digestive process before they are made available for the nutritive operations of the plants, and that the changes thus effected are of the same nature and accomplished by the same agents as those which take place in the digestion of proteids and fats in the alimentary canals of animals.

I have, I think, said enough to show the scope of the evidence and the analogies from which Bernard deduced certain far-reaching generalisations, which I have ventured to summarise in my own language in the following propositions.

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[*] Claude Bernard, *Leçons sur les Phénomènes de la Vie*, tome ii; edited after his death by Dastre. Paris: 1879.

1. Digestion, or the process by which crude food is changed into available nutriment, is a function of capital importance in every form of active life. 2. This function is exercised partly on food brought into proximity with the surface of the organism (exterior, chiefly intestinal digestion) and partly on reserves of food laid up in the interior of the organism (interstitial digestion). 3. The agents concerned in this function and their mode of action are essentially the same, whether the organism be a plant or an animal, and whether the action take place in the interior of the tissues or on the general or intestinal surfaces.

GENERAL CHARACTERS AND PROPERTIES OF THE DIGESTIVE FERMENTS.

The essential work of digestion is carried out by a remarkable group of agents, called soluble or unorganised ferments. These are found dissolved in the several digestive juices or secretions, which are thrown out on the path of the food as it travels along the alimentary canal. The physical and mechanical processes to which food is subjected in the mouth and stomach are all purely introductory or preparatory, and are solely intended to facilitate the essential work of digestion, which consists in the action of the digestive ferments on the alimentary principles.

The number of distinct ferments employed in the digestion of the miscellaneous food used by man is not accurately known; but there are at least seven or eight of them. The accompanying table presents in one view a scheme of the several digestive secretions or juices, and the ferments which they contain, together with an indication of the action of each ferment on the several alimentary principles.

Table of the Digestive Juices and their Ferments.

Digestive Juices.	Ferments contained in them.	Action on Food-Materials.
Saliva	Salivary diastase, or ptyalin	Changes starch into sugar and dextrin.
Gastric juice ..	*a.* Pepsin	Changes proteids into peptones in an acid medium.
	b. Curdling ferment..	Curdles the casein of milk.
Pancreatic juice	*a.* Trypsin..........	Changes proteids into peptones in alkaline and neutral media.
	b. Curdling ferment..	Curdles the casein of milk.
	c. Pancreatic diastase	Changes starch into sugar and dextrin.
	d. Emulsive ferment	Emulsifies and partially saponifies fats.
Bile	(?)	Assists in emulsifying fats.
Intestinal juice..	*a.* Invertin	Changes cane-sugar into invert-sugar.
	b. (?) Curdling ferment	Curdles the casein of milk.

An examination of the table shows that a long and complicated series of ferment-actions is required to accomplish the digestion of our food. Starch is attacked at two points—in the mouth and in the duodenum—by two ferments, salivary and pancreatic diastase, which are substantially identical. Albuminous matters are also attacked at two points, in the stomach and in the small intestine; but here the two ferments—pepsin and trypsin—are certainly not identical. The ferment, of which the only known characteristic is to curdle milk, is found in the stomach and in the pancreas, and I think also in the small intestine. The bile is not known to possess any true ferment-action; but it assists, by its alkalescent reaction and by its physical properties, in emulsifying and promoting the absorption of fatty matters. The ferment which transforms cane-sugar, strange to say, is not encountered until the food reaches the small intestine.

The known digestive ferments all belong to the class of soluble or unorganised ferments. They are sharply distinguished from the insoluble or organised ferments, of which the type is yeast, in not having the power of self-nutrition and self-multiplication. All living organisms possess this power either in a dormant (potential) or in an active (kinetic) state. Soluble ferments cannot therefore be said to be alive; but they are exclusively associated with living organisms, and take an essential part in their vital operations.

The digestive ferments are all the direct products of living cells, and may be regarded as detached repositories of cell-force. They are quite unknown in the domain of ordinary chemistry. Their mode of action bears no resemblance to that of ordinary chemical affinity, and has a distinctively physiological character. They do not derive their marvellous endowments from their material substance. They give nothing material to, and take nothing material from, the substance acted on. The albuminoid matter which constitutes their mass is evidently no more than the material substratum of a special kind of energy—just as the steel of a magnet is the material substratum of the magnetic energy—but is not itself that energy. This albuminoid matter of the ferment may be said to become charged, at the moment of elaboration by the gland-cells, with potential energy of a special kind, in the same way that a piece of steel becomes charged with magnetism by contact with a pre-existing magnet. The potential energy of the ferment is changed into the active form (*i.e.*, becomes kinetic) when it is brought into contact with the alimentary substance on which it is designed to act.

The chemical and physical characters of the digestive ferments appear to be tolerably uniform. In composition, they resemble proteid substances, and contain carbon, oxygen, hydrogen, and nitrogen in the same or somewhat similar centesimal proportions as albumen. But, as not one of them has yet been obtained in a state of absolute isolation and purity, this is, strictly speaking, a matter of inference rather than an ascertained fact. They are all soluble in water; they are all diffusible, though with difficulty, through animal membranes and parchment paper. They are also capable (all those I have tried) of passing through porous earthenware by filtration under pressure; but some of them pass through readily, and others with the utmost difficulty, and only in the smallest proportions. They are precipitated from their watery solutions by absolute alcohol; but, unlike other proteids (peptones excepted), they are not truly coagulated by alcohol. When the alcohol is removed, the ferments are still found to be soluble in water and to retain their activity unimpaired. They are coagulated and rendered permanently inert by the heat of boiling water; and, when in solution, they are coagulated and destroyed by a heat of about 160° Fahr. (71° C.)

Each digestive ferment has its special correlative alimentary principle, or group of principles, on which alone it is capable of acting. Diastase acts exclusively on amylaceous substances. Pepsin and trypsin act only on the azotised principles; the emulsive ferment of the pancreas is only capable of acting on fatty bodies; the inversive ferment of the small intestine has no activity except on cane-sugar.

The changes impressed on alimentary principles by the digestive ferments are not, chemically speaking, of a profound character; and they affect much more the physical state of these principles than their chemical composition. In the main, they are processes of deduplication and hydration; and the result is to render the substances operated on more soluble and more diffusible, to diminish their colloidal state, and to make them approach, or even to reach, the crystalloid state. This does not appear to be an invariable event, however. Cane-sugar is a marked exception; it is converted in the small intestine into invert-sugar (a mixture of equal parts of grape-sugar or dextrose and fruit-sugar or lævulose). But invert-sugar, though more highly hydrated than cane-sugar, is neither more diffusible nor more soluble.

It does not appear to be absolutely true that all food requires digestion before it can be absorbed. Fat is largely taken up by the lacteals in its unaltered state, except in so far that it is finely divided or emulsified. Grape-sugar (dextrose) is not known to suffer any digestive operation, but to be absorbed unchanged. Perhaps it would be more correct to say that grape-sugar is an article of food predigested for us by the agency of plants.

Although the mode of action of digestive ferments is special and peculiar, the results of that action are not peculiar, but can be obtained in other ways by ordinary chemical forces. By long continued boiling in water—and more rapidly by boiling with acidulated water—starch is converted into dextrine and sugar, and albumen is changed into a substance resembling peptone. The peculiarity of the action of ferments consists in this: that the ferments are able swiftly and without violence to produce changes which by ordinary chemical agencies can only be produced either by strong reagents or by long continued and very slow action of weaker reagents. It is interesting to remark that the changes produced in food by digestion are, in their ultimate results, very similar to, if not identical with, those produced by protracted cooking.

THE PREPARATION OF ARTIFICIAL DIGESTIVE JUICES.—The study of the digestive ferments has been immensely facilitated by a method first introduced by Eberle. Eberle discovered that an aqueous infusion or extract of the digestive glands possessed the same properties as the natural secretions or juices of those glands. The reason of this is, that the glands which secrete the digestive juices contain within them a reserve stock of their respective ferments. Accordingly, when the glands are infused in water, their reserve stock of ferments passes into solution. These infusions or extracts then constitute artificial digestive juices, which operate in a flask or beaker in the same way as the corresponding glandular secretions act in the alimentary canal. Solutions of organic matters are, however, extremely perishable; they pass quickly into putrefaction. In order to obviate this inconvenience, and to obtain an extract which is always handy for use, various preservative means have been employed. Bernard used carbolic acid; others have used glycerine or common salt. These preservatives, although perfect for the purpose intended, have a pronounced taste which it is impossible to get rid of. I have made a good number of experiments on this point. As the ultimate object I had in view was to obtain a solution which could be administered as a medicine by the mouth, or which could be employed in the preparation of artificially digested food, I sought for a preservative which had either little taste or smell, or one which was volatile and could be got rid of by vaporisation. After a good many trials, I adopted the three following solutions as, on the whole, the best suited for the purpose.

I. *Boracic Solution.*—This solution contains three or four per cent. of a mixture of two parts of boracic acid and one part of borax. An extract of the stomach or of the pancreas made with this solution keeps perfectly, and has little taste and no smell. For experimental purposes, this extract is, I believe, all that can be desired; it is neutral in reaction and is chemically inert. It answers well also for administration by the mouth when the dose does not exceed one or two teaspoonsful. But when larger quantities are required for the preparation of artificially digested food, and when food thus prepared has to be used day after day in quantity sufficient to sustain nutrition, larger quantities of boracic acid and borax are taken into the stomach than that organ can always comfortably tolerate.

II. *Dilute Spirit.*—The second solution is water mixed with twelve or fifteen per cent. of rectified spirit. This solution makes a most excellent extracting medium, and the quantity of spirit in it is so small as rarely to be an objection to its use. In the preparation of artificially digested food, a final boiling is usually requisite, and in this final boiling the alcohol is dissipated. On the whole, this is, perhaps, the most generally useful of the three solutions.

III. *Chloroform-Water.*—Chloroform dissolves in water in the proportion of about one in two hundred; these are the proportions employed in the preparation of the *aqua chloroformi* of the *British Pharmacopœia.* This forms a perfect solvent for the digestive ferments, and its keeping qualities are unrivalled. But, though the quantity of chloroform dissolved is so minute (about two and a half drops in a fluid-ounce), it communicates a somewhat powerful smell and taste to the solution. This taste and smell are agreeable to most persons, but not to all. It is, however, quite easy to get rid of the chloroform. If the dose to be used be first poured into a wineglass or saucer, and left exposed to the air for three or four hours, the chloroform passes off almost entirely in vapour, and leaves behind a simple aqueous solution of the ferments; or, if the solution be employed for the preparation of artificially digested food, the chloroform, being very volatile, disappears in the final boiling. It is, perhaps, well to mention that chloroform-water has the property of reducing Fehling's solution, and that this property has to be taken into account in making experiments on digestion which involve testing for sugar.

Alimentary substances fall naturally into three well-marked groups; namely, *Carbohydrates, Proteids,* and *Fats.* I propose to consider the digestion of the three groups in the order here indicated. I have, however, no intention of dealing systematically with these subjects, but rather to take up certain points and questions in regard to which I have myself made observations, or which have a bearing on the preparation of artificially digested food and its administration to patients. I shall treat the digestive transformation of starch in some detail, because this has been worked out almost to completeness, and because it probably furnishes a type which will hereafter be of service as a guide to the study of the more complex problem of the digestion of proteids.

Diastatic Ferments: Digestion of Starch.

The importance of starch as an article of human food has, perhaps, scarcely been duly recognised. If we regard the enormous proportion in which the seeds of cereals and leguminous plants, and the tuber of the potato, enter into our dietary, and the immense percentage of starch in these articles, it is probably not too much to say that fully two-thirds of the food of mankind consists of starch. In the raw state, starch is to man an almost indigestible substance; but, when previously subjected to the operation of cooking, it is digested with great facility.

Diastase has only a feeble action on the unbroken starch-granule, even at the temperature of the body. In the lower animals, and in germinating seeds, the starch-granule is probably attacked in the first instance by some other solvent, which penetrates its outer membrane, and thus enables the diastase to reach and act on the starchy matter contained within. By the aid of heat and moisture in the process of cooking, the starch-granule is much more effectively broken up. Its contents swell out enormously by imbibition of water, and the whole is converted, more or less completely, into a paste or jelly or mucilaginous gruel. It is in this gelatinous form exclusively, or almost exclusively, that starch is presented for digestion to man. The digestion of starch is accomplished by the saliva and pancreatic juice, both of which are rich in diastase. Diastase also exists abundantly in the liver, and in smaller quantities in the intestinal juice, in the blood, the urine, and apparently in all the interstitial juices. Diastase from all these diverse sources appears to act substantially in the same manner as starch, changing it by a progressive hydrolysis into sugar and dextrine.

If the action of a fluid containing diastase—say saliva or extract of pancreas—on starch-paste be watched, the first effect observed is the liquefaction of the paste and the production of a diffluent solution. This change is effected with great celerity; in two or three minutes, the stiff paste becomes a watery liquid. This is evidently a distinct act, and antecedent to the saccharifying process which follows. By operating with small proportions of diastase and large proportions of pure starch-paste, it is possible to hit on a moment when liquefaction is complete and saccharification is not yet begun. At this moment, the solution yields a pure starch reaction, and no reaction of dextrine nor of sugar. The process of saccharification follows immediately on the heels of liquefaction; and, in ordinary manipulations, the one process runs into the other.

The speed of the action depends primarily on the proportion of the diastase. By adjusting the proportions of diastase and starch in such degrees that saccharification will be completed in about a couple of hours, the successive steps of the process can be leisurely followed by applying from time to time the appropriate tests.

If you test as soon as liquefaction is complete, you get a pure blue with iodine and a slight reaction of sugar with Fehling's solution. In a few minutes, the sugar-reaction becomes more decided; and, although you still get a pure blue with iodine in the ordinary way of testing, you will get, by greatly diluting the blue solution and then adding more iodine, a deep violet tint—showing the presence of erythro-dextrine mixed with starch. The next step is the total disappearance of the blue reaction with iodine, and the substitution for it of an intense reddish-brown coloration of erythro-dextrine. By-and-bye, the reddish-brown colour is replaced by a yellowish-brown, indicating the preponderating presence of a different kind of erythro-dextrine. Meanwhile, the sugar-reaction goes on increasing. The next step is the entire disappearance of any kind of coloration with iodine. But the action is still very far from complete; the proportion of sugar goes on increasing for a considerable time after iodine has ceased to tint the solution. At length, however, matters come to a standstill, and the proportion of sugar ceases to increase.

The explanation of this series of reactions is impossible on the old view of the constitution of starch. Until recently, it was supposed that the starch-molecule was represented by the comparatively simple formula $C_{12}H_{20}O_{10}$; and that, under the influence of diastase, this molecule was resolved by hydration into two molecules—one of dextrine and one of grape-sugar.

The researches of Musculus and O'Sullivan* have shown that this is not a correct account of the transformation. In the first place, it was found that the sugar produced was not grape-sugar (dextrose), but another kind of sugar called *maltose.* It was also found that the dextrines first produced, and which were coloured red or brown by iodine, were progressively changed, with simultaneous production of sugar, into a series of dextrines of a lower type, which did not yield any coloration with iodine. To these latter kinds of dextrine the term achroo-dextrines has been applied.

As maltose is now ascertained to be the kind of sugar which is mainly produced in the digestion of starch by diastase, this body assumes a new and considerable importance in physiological chemistry; and it will not be out of place here to give some description of its properties. Maltose is a fermentescible crystalline sugar of the saccharose (cane-sugar) class, having very little sweetening power, and possessing one atom less water than grape-sugar. Its formula is $C_{12}H_{22}O_{11}$. It possesses more rotatory power on polarised light than grape-sugar, but has considerably less power of reducing cupric oxide. The rotatory power of maltose is +150, that of grape-sugar +58. The reducing power of maltose is 61, compared to that of grape-sugar as 100. Maltose can be hydrolysed into grape-sugar by prolonged boiling with dilute acids. Malt-diastase does not possess this power; but we shall presently see that the diastatic ferments of the small intestine are able slowly to effect the same change.

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* O'Sullivan's papers are published in the *Journal of the Chemical Society* from 1872 to 1876. A full account of these researches is given in a paper in the same journal for September 1879, by T. H. Brown and J. Heron.

The researches of Musculus and O'Sullivan have rendered it necessary to assume that the molecule of soluble or liquefied starch is a composite molecule, containing several members of the group $C_{12}H_{20}O_{10}$, which is to be regarded as the constituent radical of the composite starch-molecule. The starch-molecule must in the future be represented by the formula $n(C_{12}H_{20}O_{10})$—the value of n not being yet definitely agreee upon.

Two able chemists of Burton-on-Trent, H. T. Brown and J. Heron, have extended these researches, and fully confirmed the main conclusions of Musculus and O'Sullivan. In a recent publication (*Journal of the Chemical Society*, September 1879), they have for the first time presented a fairly complete scheme of the succession of changes undergone by starch under the action of diastase. These chemists assume that the molecule of soluble starch consists of ten members of the group $C_{12}H_{20}O_{10}$, and that its formula should be written $10(C_{12}H_{20}O_{10})$. This view greatly facilitates the comprehension of the progressive hydrolysis of starch by diastase.

We have seen that starch in the condition of paste or jelly is distinguished sharply by its physical properties from liquefied or soluble starch. There must, therefore, in all probability, be some difference of molecular aggregation between starch in these two states; and it will not be a very bold assumption to suppose that starch in the gelatinous state consists of still more complex molecules than soluble starch, and that several molecules of soluble starch are grouped together to form the molecule of starch in the gelatinous state.

On the ground of these assumptions, we may represent the successive steps of the digestion of gelatinous starch by the following series of equations.

The molecule of gelatinous starch $= n(C_{12}H_{20}O_{10})$ is first resolved into n molecules of soluble starch. The molecule of soluble starch is then resolved by progressive deduplication and hydraticn into dextrine and maltose by the following succession of steps.

One molecule of soluble starch $= 10(C_{12}H_{20}O_{10}) + 8(H_2O) =$

1. Erythro-dextrine α $\overbrace{9(C_{12}H_{20}O_{10}) + (C_{12}H_{22}O_{11})}$ maltose.
2. Erythro-dextrine β $8(C_{12}H_{20}O_{10}) + 2(C_{12}H_{22}O_{11})$,,
3. Achroo-dextrine α $7(C_{12}H_{20}O_{10}) + 3(C_{12}H_{22}O_{11})$,,
4. Achroo-dextrine β $6(C_{12}H_{20}O_{10}) + 4(C_{12}H_{22}O_{11})$,,
5. Achroo-dextrine γ $5(C_{12}H_{20}O_{10}) + 5(C_{12}H_{22}O_{11})$,,
6. Achroo-dextrine δ $4(C_{12}H_{20}O_{10}) + 6(C_{12}H_{22}O_{11})$,,
7. Achroo-dextrine ϵ $3(C_{12}H_{20}O_{10}) + 7(C_{12}H_{22}O_{11})$,,
8. Achroo-dextrine θ $2(C_{12}H_{20}O_{10}) + 8(C_{12}H_{22}O_{11})$,,

The final result of the transformation is represented by the equation

$$\underset{\text{Soluble starch.}}{10(C_{12}H_{20}O_{10})} + \underset{\text{Water.}}{8H_2O} = \underset{\text{Maltose.}}{8(C_{12}H_{22}O_{11})} + \underset{\text{Achroo-dextrine.}}{2(C_{12}H_{20}O_{10})}$$

We must conceive that the energy of the ferment is exercised in gradually pulling asunder the component groups or radicals of the unstable molecule of soluble starch, detaching one after another from the parent molecule; each radical, as soon as detached, assuming an atom of water and becoming an atom of maltose. At each detachment, the parent molecule draws its remaining groups together to form a new kind of dextrine. As the process goes on, the dextrine-molecule becomes smaller and smaller—that is, contains fewer and fewer component radicals; the higher dextrines giving a red or brown coloration with iodine, but the lower dextrines giving no reaction with iodine. It is to be noted that, after the transformation has reached its final term, there still remains a portion of achroo-dextrine unconverted into maltose. Upon this remnant, diastase has only a very slow action. The percentage result, when the reaction is completed, gives, in round numbers, eighty parts of maltose and twenty parts of achroo-dextrine. The eight varieties of dextrine indicated in the above table of equations have not all been obtained in the separate state; but there is strong evidence of the existence of at least several of them as distinct bodies.

The account just given of the transformation of starch has been deduced from a study of the action of diastase derived from malt. The question arises—physiologically an important question—whether the action of salivary and pancreatic diastase is identical with that of malt-diastase. The researches of Musculus and von Mering* give an affirmative answer to this question. These observers found that saliva and pancreatic extract act on starch-paste in the same way as malt-diastase; the final products in all cases being achroo-dextrine and maltose, and not dextrose (grape-sugar). At my suggestion, Mr. H. T. Brown was good enough to submit the question to a fresh examination in regard to pancreatic extract. His results fully confirm the conclusions of Musculus and von Mering. He found, however, that there was a slight difference in the results when the action of pancreatic extract and malt-diastase on starch was continued a long time. The pancreatic ferment, in addition to the power, which it shares with malt-diastase, of slowly converting the lowest achroo-dextrine into maltose, exhibited a power of slowly changing maltose into dextrose (grape-sugar) which is not possessed in any degree by malt-diastase. Mr. Brown also informs me that there is in the small intestine a ferment which possesses similar properties.

The respective Shares of Saliva and Pancreatic Juice in the Digestion of Starch.—The respective shares of saliva and of pancreatic juice in the digestion of our farinaceous food are probably variable, and perhaps not quite identical.

As all our farinaceous food is eaten after being cooked, the starch in it is more or less completely gelatinised; it is, therefore, probable that one of the chief uses of salivary diastase in man is to liquefy starch-jelly. A very brief contact suffices for this; and it is manifest that the accomplishment of this change is an important advantage in the subsequent operations in the stomach. Our gruels, blancmanges, puddings, and similar farinaceous dishes, owe their thick pasty condition to starch in the gelatinous state; and nothing can be imagined more resistent to the rapid permeation of the meal by the gastric juice, and to the pulping of it into an uniform chyme, than the presence of coherent masses of starch-paste. If the saliva performed no other service than this, it would furnish an important aid to the digestion of a meal. There has been considerable dispute as to whether, and how far, the saccharification of starch goes on in the stomach. My observations lead to the conclusion that this depends on the degree of acidity of the contents of the stomach; and it is known that this varies within very wide limits. When a meal is swallowed, it takes some time for the gastric juice to permeate the mass, and the acidity of the gastric contents is for some time very feeble. As digestion proceeds, the contents of the stomach tend to become more and more acid. This is a point which each one can observe for himself. The stomach is by no means reticent of its doings. The posseting which we see in infants goes on in a less degree in the adult; and we are perforce made aware, sometimes inconveniently so, by our palates, of the ascending scale of acidity in the stomach. Saliva acts energetically in neutral and in slightly acid media; but its activity is checked and finally arrested when the acidity becomes pronounced. When digestion is proceeding comfortably and normally, a certain interval elapses before the acidity of the stomach becomes considerable; and during this interval the salivary diastase continues active, and has time to accomplish a good deal of work. But we must remember that our farinaceous food is, for the most part, not in the most favourable condition for rapid digestion. It is not generally in a state of mucilage, but in the form of a solid paste, as in bread, puddings, and pastry. A good deal of it, too, is imperfectly cooked. Consequently, the larger part of our starchy food reaches the duodenum still unchanged, or only partly changed; and this larger part of the work is consummated by the pancreatic juice in the alkaline medium of the small intestine. I shall have to return to this point in speaking of gastric digestion.

It has been noted as curious, that the saliva of man possesses more diastatic power than that of almost any other animal. Among the herbivora, which are large consumers of starch, the saliva has comparatively little diastatic power; and in some, as in the horse, it is almost or altogether wanting. I apprehend that this is due to the fact that man alone has learnt to cook his starchy food, and that the diastatic power of his saliva has become developed with the opportunity for its exercise. Diastatic power would be thrown away in the saliva of the horse, because he eats his food in the raw or uncooked state, and saliva is without action on raw starch.

When can Starch be said to be fully Digested?—Seeing that in the digestion of starch a number of intermediate products are evolved, the question arises, when can the digestion of starch be said to be accomplished? Is maltose the only product absorbed, or are not the dextrines, especially the achroo-dextrines, also absorbed? The dextrines, even those coloured by iodine, are highly diffusible, and pass freely through parchment-paper in dialysis. In this respect, they contrast strongly with starch-jelly, and even with liquefied (or soluble) starch, both of which are undialysable. It seems not improbable that the lower dextrines are largely absorbed. Because, if we follow the history of starch after it has been transformed by digestion and absorbed, we are confronted with the remarkable fact that, after absorption, the products of starch digestion, or at least a large portion of them, undergo a reconversion in the liver into a substance closely resembling undigested starch. Glycogen, in its essential features, is an exact counterpart of soluble starch. It forms an opalescent solution in water; it is undialysable; and it is transformed by diastase into dextrine and sugar.

It appears reasonable to suppose that it would be an advantage to the economy, if that portion of our starchy food which is destined to be stocked in the liver as glycogen should be absorbed at an early period of digestion, because, the less removed the digested product is from starch at the moment of absorption, the fewer steps it will have to retrace in recovering the amylaceous state after absorption.

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* Maly's *Jahresbericht für Thier-Chemie* for 1878, p. 40.

It is not necessary to suppose that the ascending steps of the reconversion are identical with the descending steps of digestion; but it is probable that they are fundamentally alike, seeing the close similarity of the products at the two ends of the journey. At any rate, there is no warrant in the present state of knowledge for the opinion that sugar is the only absorbable product of starch digestion.

Absolute Energy of Diastase.—The notion that the energy of diastase is not consumed in action seems, on *à priori* grounds, to be quite untenable; such a notion contravenes a general principle in physics, that energy in performing work is expended and finally exhausted. It is easy to show experimentally that diastase is no exception to this rule. Payen and Persoz estimated that malt-diastase was able to convert two thousand times its weight of starch into sugar. My own experiments with extract of pancreas indicate a much higher power than this. The following experiment illustrates at the same time the enormous diastatic power of pancreatic diastase, and the fact that this power is strictly limited.

A quantity of starch mucilage was prepared, containing one per cent. of pure potato-starch; one hundred cubic *centimètres* of this mucilage contained exactly one *gramme* of dry starch. The pancreatic extract employed was prepared in the following manner. Fresh pig's pancreas, freed from fat, was rubbed up with an equal weight of fine sand until it became a smooth uniform pulp. This pulp was spread out very thinly on sheets of glass, and allowed to dry in the open air for a fortnight. It was then scraped off with a knife, and formed a rough shreddy sort of powder. One hundred and twenty-five *grammes* of this mixture of pancreas and sand were infused, at the temperature of the room, in one thousand cubic *centimètres* of saturated chloroform-water, with a little more chloroform added to ensure against decomposition. The mixture was allowed to stand for four days with occasional agitation, and the product was then filtered clear through paper. The extract of pancreas thus prepared proved a very serviceable preparation, and most of my observations on pancreatic digestion were made with it.

This extract was found to be so extremely active, that it was necessary to dilute it largely in order to bring the quantities of starch operated on within due compass. Accordingly, a dilution was made of one cubic *centimètre* of the extract in one thousand cubic *centimètres* of water. Five numbered phials were then severally charged with one hundred cubic *centimètres* of the prepared starch-mucilage, so that each phial contained exactly one *gramme* of dry starch. One cubic *centimètre* of the diluted pancreatic extract was added to phial No. 1; two cubic *centimètres* to No. 2; four cubic *centimètres* to No. 3; six cubic *centimètres* to No. 4; and eight cubic *centimètres* of the same diluted extract to phial No. 5. The phials were then corked and placed in a warm chamber, where the temperature was steadily maintained by a Page's regulator at 100° F. (38° C.)

At the end of twenty hours, the contents of the phials were examined. All of them were perfectly transparent, and had entirely lost the opalescent appearance of the original starch-mucilage, and not a vestige of sediment existed in any of them. The following reactions indicated the progress of the transformation.

No. 1 gave an intense blue coloration with iodine, and, when the blue solution was largely diluted and more iodine added, it developed a violet tint which showed the presence of erythro-dextrine; it also reduced the cupro-potassic solution freely.

No. 2 gave a strong blue reaction with iodine, and, by diluting and adding more iodine, the colour changed to a deep claret-red, indicative of abundance of erythro-dextrine. This and all the rest gave a strong sugar reaction with Fehling's solution.

No. 3 yielded no blue reaction with iodine, but an intense port-wine coloration of erythro-dextrine.

No. 4 gave no blue reaction with iodine, and only the faintest possible brown coloration with that reagent, showing only traces of erythro-dextrine.

No. 5 exhibited not a vestige of reaction with iodine. It contained neither starch nor erythro-dextrine, but it yielded a strong sugar reaction.

The transformation of No. 5 might be regarded as complete, but the rest still contained starch or erythro-dextrine, or both. Nos. 1, 2, 3, and 4 were restored to the warm chamber and re-examined at the expiration of seven hours. No. 4 no longer gave the slightest reaction with iodine; but Nos. 1, 2, and 3 showed only slight signs of further alteration, and were returned to the warm chamber.

At the end of forty-eight hours from the commencement of the experiment, Nos. 1, 2, and 3 were examined again.

No. 1 showed a strong blue coloration with iodine, and also a strong reaction of erythro-dextrine.

No. 2 no longer gave any blue tint with iodine, but it exhibited an intense erythro-dextrine reaction.

No. 3 only gave a yellowish-brown reaction with iodine of moderate intensity.

After a further sojourn of seventy hours in the warm chamber, the contents of the three phials were not found to be sensibly altered; they gave exactly the same reactions as before. It was evident that in these phials the diastatic action had run its course to an end within the period of forty-eight hours, and that the solutions had then come to a state of rest, the ferment had liberated all its energy, the limits of its power had been reached, and the task allotted to it was left unfinished. Nevertheless, it had accomplished an amount of work which, considering its infinitesimally minute mass, appears marvellous. We shall now endeavour to measure approximately the amount of this work as indicated by the above experiments.

The original pancreatic extract, when evaporated to dryness in a water-bath, was found to leave a residue of 1.5 per cent. of organic matter. This organic matter included, besides diastase, a quantity of proteolytic ferment (trypsin) and a certain quantity of the milk-curdling ferment. It also included a certain quantity of digested proteid matter; for, in making an extract of the pancreas, there is always accomplished some self-digestion of the glandular tissue. Taking into account these various admixtures, it would appear a very liberal allowance to estimate the diastatic ferment as amounting to one-fourth of the total organic matter. This would give us for the original extract a proportion of disastase, in round numbers, of 0.4 per cent., and for the diluted extract, of 0.0004 per cent.

The proportion of diastase added to phial No. 4 seems to have hit oft with precision the limit of quantity required to transform one *gramme* (15.5 grains) of starch in forty-eight hours at a temperature of 100° F. (38° C.). The amount of diluted extract added to this phial was six cubic *centimètres*; and, on the basis of the above estimate, this represents a quantity of nett disastase amounting to 0.000024 *gramme*. This yields us, by an easy calculation, the astounding result that pancreatic diastase is able to transform into sugar and dextrine no less than forty thousand times its own weight of starch.

The speed at which a given quantity of starch is transformed by diastase depends essentially on the proportion of ferment brought to act upon it. In the above experiments, the proportion of diastase was very minute in comparison with the amount of starch, and the action went on slowly for forty-eight hours. But if we reverse these proportions, and mix a small amount of starch with a large amount of diastase, the transformation is instantaneously accomplished.

If a test-tube be half filled with an active extract of pancreas, and a few drops of starch-mucilage be quickly shaken therewith, you cannot detect the reaction of starch or dextrine in the mixture, however prompt you may be with the testing; the transformation has followed on the admixture as instantaneously as the explosion of the charge follows the fall of the trigger. Between these extremes there are all gradations. This mode of action differs entirely from what is seen in the operation of ordinary chemical affinity. If you add a drop of acid to an excess of alkali, the acid is instantly neutralised and the action comes to an end; and conversely, if you add a drop of alkali to an excess of acid, the action is equally instantaneous; the affinity of the two bodies for each other is a mutual affinity. But this is not the case with the action of diastase on starch. The starch appears entirely passive in the process; all the energy is on the side of the diastase, and this energy can only be liberated gradually. There is something in this strikingly suggestive or reminiscent of the action of living organisms. To illustrate my meaning, let us compare the particles of the ferment to a band of living workmen, whose function is to scatter little heaps of stones. If the heaps be few and the workmen many, all the heaps will be scattered at once, and the energy of the workmen will still remain sensibly unimpaired. But if the heaps be millions and the workmen hundreds, and if the workmen be doomed to labour on until they fall exhausted at their task, the scattering of the heaps will go on for a comparatively long time, and the process of exhaustion will be a gradual one.

I may here mention that the diastatic ferment does not exist in the saliva and pancreatic juice of young suckling animals, except in minute proportions. Its quantity increases when the teeth are cut. In the human infant, diastase does not appear to exist in sufficient abundance to digest starchy matters effectively until about the sixth or seventh month. Until this period, it is, therefore, not advisable to administer farinaceous food to infants.

Digestion of Cane-Sugar: Inversive Ferment.

Bernard[*] first called attention to the fact, already mentioned, that cane-sugar (saccharose) required digestion both in animals and plants before it could be utilised in nutrition. The cane-sugar stored up in beet-root and in the sugar-cane is changed by ferment-action into invert sugar before it is permitted to circulate in the sap, and take part in the nutritive operations of the plant. He found also that an analogous transformation was requisite before cane-sugar could be assimilated by animals. He states that, when cane-sugar is injected into the blood, it circulates therein as an inert body, and is in no degree used as nutriment by the tissues, but is eventually entirely removed unchanged with the urine. Cane-sugar is, however, an important article of food, and is consumed by us in large quantities every day; and we know that, when thus consumed, it does not behave like an inert matter, circulating awhile in the blood, and then being eliminated by the kidneys as a waste product. It is evidently absorbed and assimilated, and must, therefore, somewhere or other, be transformed or digested in animals as it is in plants. Reasoning this way, Bernard sought for an inversive ferment for cane-sugar in the alimentary tract; and after searching in the saliva, in the stomach, and in the pancreas in vain, he at length discovered it in the small intestine. In the small intestine, he found that cane-sugar was transformed into invert-sugar, and by a similar ferment with that destined for analogous purposes in yeast, in beet-root, and in the sugar-cane.

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[*] Claude Bernard—*Leçons sur les Phénomènes de la Vie*, tome ii, p. 36, Paris, 1879.

The transformation of cane-sugar into invert-sugar is represented by a very simple equation:—

$$2C_{12}H_{22}O_{11} + 2H_2O = C_{12}H_{24}O_{12} + C_{12}H_{24}O_{12}$$

Saccharose. Water. Dextrose. Lævulose.

The inversive ferment was detected by Bernard in the small intestine of dogs, rabbits, birds, and frogs. Balbiani found it in the intestine of the silkworm. It was recognised by myself in the small intestine of the pig, the fowl, and the hare. It does not exist in the large intestine.

But although my observations on this subject coincided in the main with those of Bernard, I noted two points which I think merit further attention. The first was, that, while a piece of small intestine infused in water yielded a mixture which was capable of inverting cane-sugar, the same infusion when filtered through paper until it was perfectly clear had no such power. It seemed as if the inversive ferment did not pass freely, if at all, into true solution, but remained attached to some of the formed elements contained in the intestine. The second point which I noted was the extreme slowness of the action. When cane-sugar was added to the unfiltered infusion of intestine, and the mixture maintained at blood-heat, it generally took a couple of hours before a reducing effect with the copper test could be obtained. Both these circumstances reminded one of the action of formed ferments, and I could not help thinking that there was here something which required clearing up at some future time.

Toxic Action of Oxalic Acid.—Drs. Kobert and Küssner describe in Virchow's *Archiv*, Band 78, the result of experiments made by them on nearly sixty animals, mostly dogs, cats, and rabbits, and in rare instances porpoises, hamsters, rats, and hedgehogs. They state that the symptoms of poisoning by oxalic acid have in many points a strong resemblance to those of poisoning by fungi, and suggest the possibility of a part of the phenomena of the latter being due to oxalic acid contained in the fungi. The authors thus sum up the results of their researches. Oxalic acid is not a cardiac poison, but its action is in the first place on the nervous system. In this way are explained the lowering of the blood-pressure, the loss of rhythm and the retardation of the pulse, and also the slow breathing. Further indications of the same effect are phenomena of irritation and of depression (the latter predominating) in the motor, sensory, and reflex nerves. These phenomena are most distinctly marked in rapidly acute poisoning, but are by no means wanting in subacute or even in chronic cases. Their mode of onset, and the manner in which the symptoms are combined, are not constant, and therefore not pathognomonic. There are, however, other signs which are typical of poisoning with oxalic acid. These are the changes in the urine during life, and those found in the kidneys after death. These changes are the only characteristic phenomena produced; they are present both in acute and in chronic poisoning, and only gradually disappear. The principal sign—one which has hitherto been quite unrecognised—is the appearance in the urine of a powerful reducing substance, the nature of which cannot as yet be described. The urine also almost always contains albumen; and microscopic examination reveals, besides numerous cylinders and a few blood-corpuscles, crystals of oxalate in very various forms. These crystals are found—and this is the special characteristic phenomenon—in the uriniferous tubules; sometimes only in the convoluted, occasionally also in the straight tubes.

THE CROONIAN LECTURES
ON
SOME POINTS IN THE PATHOLOGY AND TREATMENT OF TYPHOID FEVER.

Delivered before the Royal College of Physicians of London.

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Lecture II.*

We have next to consider what is the relation which these different processes bear to one another and to the symptoms of the disease. According to the views of many pathologists, the phenomena of typhoid fever are produced in the following manner. The poison is swallowed, and enters the system through the lymph-follicles of the ileum, on which it produces its primary effects; it then passes into the mesenteric glands, where it goes through a stage of latency or incubation, and at last enters the circulation and is deposited in other lymphatic organs and the spleen, and causes a rapid hyperplasia of their cells, and so produces the characteristic local lesions. The poison also acts on the heat-regulating centres, and produces the febrile temperature. The high temperature, in its turn, causes all the other morbid phenomena: the albuminous infiltration and softening of the heart and other organs, the vitreous degeneration of the muscles, the acceleration of the circulation and respiration, the febrile consumption of the body, and especially the disturbances of the nervous system, the delirium and stupor of the typhoid condition. The correctness or not of this view is, I need hardly say, of the utmost importance in the treatment of the disease. It is, therefore, very necessary that we should examine the arguments by which it is supported.

In the first place, it is urged that these phenomena occur in many febrile diseases which have nothing in common but the high temperature. Secondly, it is possible to produce many of them by artificially raising the temperature. Thus, the experiments of Dr. Wickham Legg show that, by raising the temperature of animals to 112° Fahr., albuminous infiltration of the liver and other organs is produced. Max Schultze, by means of his microscopic warming apparatus, directly demonstrated the injurious effects of high temperatures on living cells. We have, too, distinct evidence that raising the temperature of the body increases metabolism. By means of a vapour-bath, it is quite easy to raise the temperature many degrees, as the evaporation from the skin, and so the compensatory dispersion of heat, is prevented. Bärtels found that sufficiently prolonged vapour-baths raised the temperature, accelerated the pulse and respiration, increased the discharge of urea 16 per cent., and diminished the weight of the body. It is interesting to observe that the discharge of urea was greater in the second twenty-four hours after the bath, when the temperature was again normal, than during the time the temperature was raised. This is analogous to the epicritical discharge of urea which takes place in those fevers which terminate by crisis. In both cases, it is probably due to its partial retention and accumulation during the febrile period, in consequence of the unfavourable conditions for its elimination during this time. Similar results were obtained by Naunyn in experimenting on dogs.

Lastly, in support of this view, may be adduced the effects of treatment. If a patient in the typhoid state—*i.e.*, in a condition of delirium or stupor, with a dry brown tongue, tremulous muscles, greatly accelerated pulse, and other symptoms which are liable to occur in severe fever—be placed in a cold bath and the temperature reduced to below 100°, a remarkable improvement usually takes place in his symptoms: the stupor passes off, the delirium ceases, the tongue becomes moister, the pulse less frequent, and commonly he falls into a quiet sleep; the symptoms recurring in the course of a few hours, when the temperature has again risen to its former height. The effects of a cold bath in cases of hyperpyrexia, as in rheumatic fever, are still more striking, and are well known to all who have employed this mode of treatment. Hence there can be little doubt that the pathological changes and injurious effects of fever are largely due to the high temperature. But, notwithstanding these and other arguments which may be adduced to show that almost all the phenomena of fever are due to the high temperature, other facts, I think, prove decisively that this view is only in part correct, and that many of them may occur independently.

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* Concluded from page 507 of last number.

In the first place, there are strong reasons for believing that the increased metabolism, as shown by increase in the discharge of urea is, in part at least, due to the direct action of the fever-poison, and not solely to the high temperature. Thus, in the artificial septic fever of the lower animals produced by the injection of pyrogenetic substances, it is found that the increased excretion of urea precedes the rise of temperature. Dr. Ringer has shown that this also takes place in intermittent fever, and other observers have proved the same for relapsing fever. In typhoid fever, we are unable to produce similar proofs, as the attack cannot be predicted; but there can be no doubt that the same law holds good in this fever also.

We have next to consider how far the albuminous infiltration and softening of the heart and other organs are solely caused by the temperature. Against this view, it may be urged that these degenerations occur in conditions not attended by fever, as after severe burns, before any febrile reaction has had time to take place; the immediate effect of a burn, as of all stimulations of the sensory nerves, being to depress the temperature. A case has been recorded where death took place six hours after a burn affecting nearly the whole surface of the body, and, on *post mortem* examination, the kidneys and heart were found in an extreme state of granular infiltration. These degenerations have, moreover, been met with in cases of typhoid fever where the temperature has been but little raised; so that, on the whole, we must conclude that they may be in part produced by the direct action of the poison, though it cannot be doubted but that a prolonged high temperature not only greatly conduces to them, but is capable itself of their production. The vitreous degeneration of the striped muscles is probably entirely due to the high temperature.

The next question is, how far the characteristic symptoms of fever are due to the temperature, especially the nerve-symptoms, the restlessness, delirium, and stupor. I think we must answer that these symptoms, especially the delirium and stupor, are not necessarily dependent on the temperature, though they are largely influenced by it. Dr. Murchison regarded them as caused by the accumulation in the blood of the urea and other products of the disintegration of the albuminous tissues. The occurrence of cases of afebrile typhoid shows that they occur independently; and, moreover, we often see very high temperatures, as in relapsing fever, without any marked disturbance of the nervous system. But although it seems clear from these examples that many of the phenomena of fever which are ascribed by Brand and Liebermeister solely to the temperature may occur independently, yet it is quite certain that the high temperature exercises a most injurious influence, inasmuch as it increases the frequency of the pulse and respiration, augments the metabolism of the albumen, and consequently the febrile consumption of the body, adds an additional factor to the albuminous infiltration and softening of the heart, muscles, and glandular organs, and injuriously affects the nervous system, both indirectly by favouring the accumulation in the blood of the products of the disintegration of the tissues, and directly, when it reaches a certain degree, by causing delirium, stupor, and coma.

Another point of great practical importance in the pathology of fever is the effect produced on the digestion. Usually, though not invariably, when the temperature rises above 102° Fahr., the appetite becomes very much impaired, and, when the tongue becomes dry, it is entirely lost; and it has generally been assumed, though on imperfect data, that a state of fever more or less completely stops the secretion of the gastric juice, and so arrests the digestive function. Modern observations, however, show that this is by no means always the case. Dr. Pavy, in this country, and Hoppe-Seyler, in Germany, have proved that an active digestive fluid can be prepared from the stomachs of animals in a state of fever. And Manassëin has shown that, though in dogs affected with septicæmic fever the natural digestive fluid, procured by introducing sponges into the stomach, had a much inferior power to that of healthy animals, nevertheless, if hydrochloric acid were added, then the digestive power was equal to that in health. Hence it is probable that the impaired digestion in fever is rather due to a diminished secretion of acid than of pepsine; and this perhaps explains the beneficial effects often seen to attend the administration of hydrochloric acid. The disinclination, and even complete inability, to take food, are doubtless largely due to the partial or complete arrest of the secretion of the saliva, and the dryness of the mouth; and these symptoms, perhaps more than any others, are dependent on the temperature. No doubt in fever the stomach frequently rejects food, but the vomited matters are often a decisive proof that the gastric juice is still being secreted. How active the digestive power may be in typhoid, is shown by a case where Dr. Huebner fed a patient through a severe attack on beef-steaks, without any injurious consequences. On the whole, I think we need not be deterred from giving fever-patients sufficient food, with proper precautions, from fear that it is incapable of being assimilated. But although in fever the gastric juice may be formed in sufficient quantity, there are strong reasons for believing that the secretion of the saliva and pancreatic fluid is greatly impaired; hence starchy foods are not digested so well as albuminous foods; and I am of opinion that any considerable quantity of starch, given in the form of arrowroot, cornflour, and sago, is injurious, and tends to cause intestinal irritation.

I now propose to consider some of the phenomena peculiar to typhoid, among the most important of which are the type and duration of the fever.

The latter appears at first sight to be extremely irregular, and to differ remarkably from the much more regular course of the other zymotic diseases. The causes of this irregularity are, in the main, two. First, we have, in an ordinary attack of typhoid, two distinct fevers—a primary, due to the infection of the system by the typhoid poison; and a secondary, caused by gangrene and ulceration of the intestine, and consequent septicæmia. The first of these two processes has, I believe, as definite a course as the other zymotic fevers; the second, or septicæmic fever, is much more irregular. The second cause is the frequency of relapses.

The fact that we have, in typhoid, two forms of fever to deal with, is of considerable importance, both in the pathology and treatment of the disease, and it is one which, I think, is sometimes neglected. Many other fevers, of course, present an exact analogy in this respect to typhoid; thus, in small-pox, we have a primary fever caused by the direct action of the small-pox poison, lasting usually about three days, then a period of remission, which is followed by a septicæmic fever due to suppuration. In scarlatina, we have in uncomplicated cases a primary fever, lasting five or six days; but where there is ulceration of the fauces or implication of the glands, a septicæmic fever of indefinite duration, which usually comes on before the primary fever has subsided, but sometimes after a period of remission. In typhus, there is usually no secondary fever, and the primary fever subsides by crisis about the fourteenth day. Now, typhoid resembles typhus in the long duration of the primary fever, and scarlatina in the fact that the secondary or septicæmic fever supervenes before the subsidence of the primary, the two processes overlapping, so that there is no intervening remission. The change, however, shows itself by an alteration in the type of the fever, which, from being continuous in character with only slight diurnal fluctuations, becomes remittent with marked diurnal variations. This is at once seen on the temperature chart of a case of typhoid, where the fever has been allowed to run its course unchecked. This change in the type of the fever usually takes place during the third week, sometimes even as early as the fourteenth day. Generally, it is a gradual change, but not unfrequently it takes place very suddenly, and at the same time there is a perturbation of temperature—often an evening rise exceeding that of the previous days, and followed by a considerable morning fall. This resembles the critical perturbations of those fevers which terminate by crisis, and probably indicates a kind of crisis of the primary fever. Not unfrequently profuse perspirations now appear, and an eruption of sudamina; while, in the majority of cases, the roseola of typhoid ceases to appear after the middle of the third week. The phenomena of the disease are now made up of three factors; first, the local lesions; secondly, the septicæmia; thirdly, the high temperature. Sometimes one of these predominates, sometimes another.

The great resemblance which other forms of internal gangrene may bear to the later stages of typhoid fever was strongly impressed upon me by a case of gangrene of the lung, which was under my care in the Middlesex Hospital in 1876. The patient was delirious, very prostrate, with a dry tongue, diarrhœa, great enlargement of the spleen, a temperature varying from 105° to 101°, sordes on the teeth, and well marked *tache*. There were the physical signs of capillary bronchitis of both lungs posteriorly, with patches of bronchial breathing. These signs were attributed to hypostatic congestion and lobular pneumonia. In this case, all the signs of typhoid fever except the roseola were well marked, and for some days the diagnosis from this disease could not be made. The case was ultimately regarded as one of acute tuberculosis. After death, several circumscribed patches of gangrene were found in both lungs, evidently caused by embolisms blocking branches of the pulmonary artery, these embolisms being derived from thrombi of the prostatic veins. The ordinary signs of pulmonary gangrene—fœtor of the breath and expectoration—were absent throughout the whole course of the disease.

This question has some bearing upon treatment. First, with regard to the use of alcoholic stimulants during the first stage of the disease, when the patient is suffering from the effects of the specific typhoid poison, some difference of opinion prevails as to the advantage of stimulants. Some authorities are of opinion that alcoholic stimulants in all severe febrile diseases have a beneficial effect, by serving as a kind of food, and diminishing the febrile consumption of the tissues, and so tending to counteract the degeneration and consequent failure of the heart and central nervous system. Others, again, disbelieve in these effects, and only administer alcohol as a true stimulant when the heart actually begins to fail. But, in the later stages of the disease, when we have to deal with a septicæmia due to gangrene and ulceration, if we follow the established principles of surgery, we can have no doubt as to the utility of alcohol. I believe all surgeons, without exception, treat external gangrene, accompanied by symptoms of septicæmia and depression, by free stimulation; and the fact that the gangrene is internal, instead of external, cannot make any difference in the treatment.

So, too, with regard to the use of certain drugs, especially opium. Some physicians regard opium as contraindicated, on the ground that it produces constipation, and so tends to retain the decomposing fæces in the intestinal canal. Others, on the contrary, regard it as beneficial by checking the peristaltic movements, and so favouring the healing of the ulcers, and diminishing the risk of perforation. But, apart from its local action on the intestinal canal, it is evident that, according to the principles of surgery, its use in the second stage of typhoid fever is often indicated. External gangrene and phagedæna are unquestionably benefited by opium, which renders the system more tolerant of their injurious effects; and there can be no reason for treating internal gangrene on different principles.

The duration of the primary fever due to the direct action of the typhoid poison is probably between two and three weeks, occasionally about fourteen days, *i. e.*, the same length as typhus, but most commonly a few days longer. This is shown by the perturbations of temperature not unfrequently occurring at this time, and by the change of type of the fever from a continuous to a remittent form. Moreover, not unfrequently we see cases of what are known as abortive typhoid, in which the early stages of the fever are severe, the temperature very high, the onset sudden, and the febrile condition strongly marked; then, about the fourteenth day, defervescence rapidly takes place. The explanation of these cases is, no doubt, that, though the poison has powerfully acted on the general system, for some reason or another—possibly some idiosyncrasy on the part of the patient—the local intestinal lesions have been slight, the infiltration of the glands only moderate, and the deposit has become absorbed instead of sloughing. These cases are exactly analogous to a very common form of modified small-pox, in which we have the primary fever due to the effect of the small-pox poison on the system of great severity; but, in consequence of the slight local affection of the skin, the secondary or suppurative fever is absent.

In typhoid, as in small-pox, the intensity of the primary fever is not always a certain indication of the amount of the local mischief and consequent severity of the secondary fever; and, as in these abortive cases, the former may be severe and the latter slight, though usually a severe primary fever is accompanied by extensive infiltration and subsequent sloughing of the intestinal glands. The converse condition is much more common, in which we have a slight primary fever and mild constitutional symptoms early in the disease, with very severe intestinal lesions and consequent gravity of the later stages. Hence the well-known difficulty of forming a correct prognosis in the early stages of the disease, and the importance of treating the milder cases with the same precautions as the severe ones.

There can, I think, be little doubt that cases of typhoid which are from time to time described as having been cut short by special remedies—as by emetics or calomel—are really of this character, the observer ascribing to the remedy what is, in fact, one of the natural phenomena of the disease.

Another point of interest in the history of typhoid fever is the mode in which defervescence takes place. In most of the zymotic fevers, defervescence takes place either by crisis or a very rapid lysis. Thus, typhus, relapsing fever, uncomplicated measles, the primary fever of small-pox, usually terminate by crisis; scarlatina, when uncomplicated, usually by a rapid lysis. Crisis, therefore, or rapid lysis, would seem to be the natural mode in which zymotic fevers terminate. Typhoid presents an apparent exception to this rule. But here, too, I think we have indications that the primary fever tends to terminate in the same way; and the usual prolonged lysis is a phenomenon of the secondary or septicæmic fever. This is indicated by the perturbation of temperature often present about the middle of the third week, and the rapid defervescence of the abortive cases.

The second cause of the variable duration of typhoid fever is the frequent occurrence of relapses. Now, relapses in typhoid take place much oftener than is usually supposed. They may occur at any time to as late as three or four weeks after complete defervescence, the longest apyretic interval being, I believe, thirty-one days. Most commonly, it varies from one or two to fourteen or fifteen days. The frequency with which these relapses occur after an apyretic interval has been very variously estimated. At the London Fever Hospital, during a period of seven years, they occurred in about 3 per cent. of the cases; in the hospital at Basle, 8.6 per cent. Other authorities give numbers varying from 1.4 to 11 per cent. This great difference depends, perhaps, in part on a different estimation of what constitutes a relapse; but there can, I think, be no doubt but that the frequency of relapses is much influenced by treatment. If the fever be allowed to run its course unchecked, relapses are much less frequent than when the temperature is systematically kept down by cold baths and antipyretic medicines. Thus, at Basle, under the expectant treatment, about 8.6 per cent. of the cases relapsed. Since the introduction of the treatment by cold bathing, this proportion has been nearly doubled. About 10 per cent. of the cases treated by me in the same manner have relapsed.

It is of course necessary to distinguish between a true and a false relapse. In typhoid fever, long after defervescence has taken place, the temperature remains labile, and the vasomotor system very unstable, as shown by the continuance of the *tache*. I have long looked on the persistence of this latter phenomenon as a valuable guide, and as indicating that the intestinal ulcers have not yet healed, and that therefore the patient is still liable to the sequelæ of the disease. As long as the patient continues in this condition of labile temperature and instability of the vasomotor system, very slight causes, as errors of diet—nay, the mere resumption of solid food—mental emotions, slight exertion, will send up the temperature; so any extension of the local mischief will cause a fresh febrile paroxysm. These cases must be distinguished from true relapses, where there are a fresh infection of the blood with the typhoid poison, fresh deposit in the glands, and commonly a fresh eruption of the roseola.

But besides these relapses which take place after a distinct apyretic interval, and about which there can be no question, it is very common for the relapse to take place much earlier, during the secondary or septicæmic fever. These early relapses are often called recrudescences, to distinguish them from the later ones; but there can, I think, be no doubt that they are of exactly the same nature. They are indicated by an exacerbation of the fever, and usually by the appearance of a fresh crop of rose spots, which commonly cease to come out after the middle of the third week. It is well known that the later relapses may be repeated twice, or even thrice; and the same thing also occurs with the earlier ones or recrudescences. Hence we may have an attack of typhoid of an indefinite duration without any distinct remission.

The most prolonged case which has come under my own notice was one in which the temperature was maintained at febrile heights, without any distinct intermission, for nearly eighty days. The patient was a gentleman of middle age, who had a very severe attack with prolonged delirium and great prostration, and in the third week pretty free intestinal hæmorrhage; he then had pneumonia of the right base, which did not clear up for several weeks; then there was a distinct relapse, with a recurrence of the hæmorrhage. This was succeeded by thrombosis of the veins of the lower extremities, on which some serious cardiac lesion supervened, the nature of which was not quite clear, but which I attributed to thrombosis of the right cavities. This caused alarming dyspnœa and a tendency to syncope, and was followed by general dropsy, which lasted many months, but the temperature became normal about the eightieth day, and did not again rise. This patient ultimately recovered, but he could not be considered as convalescent for nearly twelve months; and when I saw him two years later, there were still some indications of obstruction to the return of blood from the head and upper extremities.

We may then, I think, regard those cases in which the fever lasts for many weeks without intermission as due to early relapse or recrudescence.

We have now to consider the pathology and causation of these relapses. There can, I think, be little doubt that in relapse there is a fresh infection of the blood by the typhoid poison; and the opinion has been entertained that this takes place from without, either from emanations from other cases in hospital practice, or from the patient's own dejections, where cleanliness is neglected or the sanitary conditions are defective. Relapses, however, not unfrequently occur among isolated cases, and where every sanitary precaution has been strictly observed. Hence there can be little doubt that the reinfection is usually an internal one, though an external affection is of course quite conceivable.

The opinion is widely prevalent that relapses may be caused by errors of diet, and doubtless they often follow such errors; but I believe this to be an accidental coincidence. In the first place, relapses or recrudescences are very common before the fever has subsided and the appetite returned; secondly, they occur later in cases where it is quite certain that the proper regimen has been strictly observed; lastly, errors of diet during convalescence from typhoid are, I believe, the rule, and not the exception—certainly this is the case among the uneducated classes, who are seldom willing to put any restraint upon their appetites. Even in hospital practice, where care is taken to exclude improper articles of food, every one must be aware how often this regulation is evaded, and all kinds of indigestible viands are smuggled in. When the poor are treated at their own homes, as a rule, directly the appetite returns they begin to gratify it with whatever most takes their fancy; yet it is very doubtful whether relapses are more frequent under these circumstances.

Some time ago, I had under my care, in the Middlesex Hospital, a boy about fourteen years of age, who passed through a very severe attack of typhoid, and whose appetite returned before the temperature became normal. He continued, of course, to be restricted to liquid food. He complained to his mother, who remonstrated with me. I endeavoured to explain to her the danger of beginning solid food too soon. She replied that she would rather see her boy die of fever than of starvation. She accordingly took him home, stuffed him with solid food, and he recovered rapidly—much sooner, I have no doubt, than if he had remained in the hospital on a restricted diet.

In fact, this error of diet, *i.e.*, the early resumption of solid food, is in most cases beneficial. After an attack of typhoid, a large amount of tissue has to be built up. The return of the appetite shows that the digestive and assimilating powers are again active; and, the more food the patient eats, the sooner will this be effected. Hence, by continuing to restrict the diet, we retard convalescence. We are, of course, unable to act upon this view; as we know that, in a certain number of cases, the intestinal ulcers are in such a state that the passage over them of any irritating particles might easily produce an extension of the ulceration, and so cause perforation; and, as we have no certain means of distinguishing between those cases where the ulcers are granulating and not likely to be injuriously affected by solid food, and those where they are in an irritable or an atonic state, we are compelled to restrict the diet of all cases for a time, the evil of somewhat retarding convalescence being of trifling importance when compared with the risk of causing perforation. I believe, then, that errors of diet, though they may cause a spurious relapse by increasing the local mischief, are incapable of reinfecting the blood with the typhoid poison, and so producing a true relapse.

Assuming the causes of the relapse to be the reinfection of the blood by a fresh absorption of the typhoid poison, there is every reason to believe that this takes place from the mesenteric glands and the glands of the ileum, in which there can be little doubt but that the poison is deposited. This reabsorption probably takes place in all cases; but generally the system is protected by having just gone through an attack. In some cases, however, it is probable that the zymotic process has not been complete, and then a relapse takes place; and it is remarkable that, when the fever is prevented from running its usual course by persistently reducing the temperature, the frequency of relapses is nearly doubled.

In scarlatina we have an exact parallel to the relapses of typhoid, though they occur much less frequently. During the past year, four cases of relapse in scarlatina occurred in the London Fever Hospital, at varying times, from five or six days to a fortnight, from the commencement of the primary attack, sometimes after an apyretic interval, sometimes before defervescence had taken place; and, as occasionally takes place in typhoid, the second rash has been more intense than the primary. As in typhoid, it is of course necessary to distinguish these true relapses with a recurrence of the eruption from the very frequent spurious relapses due to absorption of septic poisons from the throat or glands. In scarlatina, as in typhoid, there is very commonly infiltration of the lymphatic glands; and in all probability the relapse here also is due to reabsorption of the poison contained in them.

Syphilis also presents a close analogy. Here also we have reason to believe that the poison remains deposited in the lymphatic glands, and relapses are due to reabsorption from these; the great difference from the acute infectious fevers consisting in the fact that in syphilis the glands remain chronically enlarged, and hence relapses may occur after long intervals; whereas in typhoid and scarlatina the process runs a rapid course, and after the lapse of a few weeks the glands return to their normal condition, and the poison is entirely eliminated from the system. In those fevers, as typhus, where there is no affection of the glands, relapses are hardly ever met with.

Dr. R. S. Hudson of Redruth has been admitted, after examination, a Fellow of the Royal College of Surgeons of Ireland.

THE GULSTONIAN LECTURES ON EPILEPSY.

Delivered before the Royal College of Physicians of London.

By W. R. GOWERS, M.D., F.R.C.P.,
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LECTURE III.*

THE treatment of epilepsy is a subject on which numerical analysis gives little help. A large number of cases are under observation too short a time to enable the effect of remedies to be fairly estimated; and, of the cases in which benefit is derived, we have no means of ascertaining how many relapse when treatment is discontinued. My notes of the result of treatment in this series of cases extend to 562 cases only. In the remainder, either the period of observation was too short for a just conclusion to be drawn, or, in the press of out-patient work, the influence of remedies was not noted with sufficient precision. The effect of treatment is more likely to be recorded when it is distinct and considerable, than when it is slight. Hence the following figures have no relative value. Of the 562 cases, the attacks ceased while the treatment was maintained in 241; doubtless many of these relapsed when treatment was discontinued, but in a few I have been able to ascertain that the patients remained free from fits even for years after they ceased to take medicine. In 266 cases, improvement short of arrest was obtained; the fits being reduced in many to $\frac{1}{20}$, $\frac{1}{30}$, $\frac{1}{50}$, and even $\frac{1}{200}$ of their former frequency. In 55 cases, little improvement was obtained by any method of treatment.

Time forbids me to enter at any length on the details of treatment, and I can do little more than mention the remedies which in this series of cases were of most distinct service. The subject of possible modes of action it is better to leave almost untouched. It may be doubted whether a rational therapeutics of epilepsy is yet possible. At any rate, up to the present time, remedies used empirically have been of most service.

Although the results show that we must not only rely exclusively upon bromides in our treatment of epilepsy, they show also, as might be expected, that on these our chief trust must still be placed. Of the arrests of fits, 66 per cent., and of the improvements short of arrest, 62 per cent., were due to bromides given alone. Of the three alkaline salts of bromine, that of potassium deserves, I think, as it has popularly received, the first place. I have made a careful comparison between the salts of sodium and of potassium in a series of about fifty cases, substituting the one for the other. In a few cases, the sodic salt appeared to do better; in the great majority, it was distinctly less useful. Bromide of ammonium possesses slightly more power than bromide of potassium; but this is not greater than the larger quantity of bromine which it contains will account for.

The period after its administration at which the maximum effect of a dose of a bromide is obtained varies, I believe, with the dose. The larger the dose, the longer is the maximum effect deferred; the smaller the dose, the sooner does it occur, and the sooner is its action over. When small doses are employed in cases in which attacks occur at regular times, they should not therefore be given more than two or three hours before the attack is expected. This is contrary to some opinions which have been expressed; but I have several times known attacks arrested, when a dose was given about two or three hours before the fit was expected, which were not arrested when the same dose was given twelve hours earlier.

The effect of bromide upon fits appears to be for a time cumulative, just as is, indeed, its action in causing bromism. Attacks may continue under its administration for a time, and yet ultimately cease without any increase in the dose. On the other hand, still later, tolerance or rather indifference may be established, and attacks which have been for a time arrested may ultimately recur.

Drugs which increase reflex action, such as strychnia, are now believed to do so by lessening the resistance in the nerve-centres involved. Bromide diminishes reflex action, antagonises strychnia, and it is probable that it does so by increasing the resistance in the centres. If the view above expressed be correct, that the morbid state in epilepsy is essentially an instability of the resistance in the cells, it is also probable that bromide of potassium acts by increasing the stability of this resistance.

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* Concluded from page 504 of last number.

Bromide is commonly administered in a continuous course, in such moderate doses as will just suffice to keep the fits in check. Given thus, it needs to be given frequently. I have more than once observed that a daily quantity which, given in two doses, did not quite arrest the fits, arrested them completely when given in three doses. If, therefore, the greater convenience of unfrequent doses—one or two daily—be preferred, a somewhat larger quantity must be given.

When the bromide is thus given continuously, it has not seemed to me desirable to increase the daily dose beyond a drachm or a drachm and a half. If this do not arrest the fits, I have very rarely found that larger doses succeed so well as the combination of bromide with other drugs. But it is, I think, open to question whether this method of administration, using doses only just sufficient to arrest the fits, is the wisest in all cases. If bromide cure epilepsy, as without doubt it does sometimes, it must be by effecting a nutritive change in the nerve-cells corresponding to its action, whereby they are rendered permanently more stable. That it, or any other drug, does good in epilepsy by influencing the vascular state of the brain, appears to me to be improbable. Even if such were its action, we are only driven back to a similar influence in increasing the stability of the cells of the vaso-motor centre. There are, I think, many grounds for the belief that the change in the nutrition of the cells may be produced more effectually by subjecting the patient for a time to the full influence of bromide, giving doses much larger than are needed to arrest the fits, in the hope of producing more readily a permanent nutritive change. In giving bromide thus, I have preferred large doses at intervals of two or three days, gradually increasing the dose until it is as large as can be well borne, and then diminishing it. The largest single doses which I have given in this way have been doses of one ounce. This, in some patients, produces slight stupor, sometimes reaching its maximum on the second day after the dose. In other cases, it produces very little disturbance beyond headache. From the marked differences which patients present in their tolerance, it is not well to begin this method of treatment with a larger dose than four drachms.

The value of the various combinations of the bromide with other drugs was tested, as far as possible, on an uniform plan. First, bromide was given alone for several months, and the additional drug was added to the same dose of bromide, and the result watched for several months longer. Of the various combinations which are in common use, those with digitalis and belladonna unquestionably deserve, as they have commonly received, the first place. Digitalis is one of the oldest remedies for epilepsy. It was recommended by Parkinson two hundred years ago, and has been perhaps for a still longer time a popular remedy for this disease in certain rural districts in the West of England. I have met with no case in which, given alone, digitalis arrested the fits for more than a few months, but in several cases it effected very distinct improvement. The combination of digitalis and bromide, however, was distinctly more useful than bromide only, in no fewer than sixty-three cases. In more than half of these, thirty-seven cases, the attacks ceased under its use, although they had continued under bromide alone. In the cases in which cardiac disturbance was associated, the combination was almost always superior to bromide alone; but its use is not confined to these cases. Many cases of nocturnal and other forms of epilepsy yielded to the combination, although the attacks had continued under bromide, and this when there was no evidence of cardiac disease. I know of one patient with nocturnal epilepsy who, for two years, under this combination, has not had a single fit, although the attacks occurred every few weeks with bromide only.

In rare cases, belladonna alone will arrest attacks. I have met with only one case in which attacks, which continued on bromide, ceased entirely when belladonna was substituted, and this was a case with hystero-epileptic symptoms. The combination of bromide and belladonna, however, was distinctly better than bromide alone in thirty-five cases, and in fifteen of these arrest of the fits was thus obtained.

Indian hemp was first employed in epilepsy by Dr. Reynolds, and is sometimes of clear value. In one case, the attacks were invariably arrested for many months by its use, recurring only when the patient ceased attendance; but twice, on his resuming attendance, the drug instantly arrested the attacks. When bromide was substituted for the Indian hemp, the attacks at once recurred. Combined with bromide it is also sometimes useful, and seems to exercise most influence over attacks in cases in which there is persistent headache. The same fact has seemed true of the combination with gelseminum.

The use of opium in epilepsy has long been advocated by Dr. Radcliffe, and in some cases it is certainly effective. The combination of bromide and morphia I have rarely found to present special advantages. In the status epilepticus, in which attacks occur with great frequency and severity, and where bromide, even in large doses, was useless, I have found small hypodermic injections of morphia of great service.

The combination of bromide with aconite and hydrocyanic acid I have also tried, and found in some cases slightly better than bromide only. The addition of iodide to bromide has been lately said to increase its effect. Occasionally this is true, and in four cases of the series the combination was distinctly better than bromide only, but in many other cases it was ineffective. Even in the cases on the subjects of inherited syphilis, it has not appeared of special value.

Zinc unquestionably deserves some of the repute it has enjoyed for more than a hundred years as an antiepileptic. Of the cases of this series in which it was employed, it was distinctly useful in ten, but in only three did the attacks cease. In three other cases, attacks which continued under bromide ceased under bromide and zinc; and in a fourth, they ceased under zinc, digitalis, and bromide. The oxide of zinc was the form commonly employed. Its nauseating influence constitutes a serious drawback to its use, as toleration is difficult to establish, and I have rarely succeeded in giving more than twenty grains a-day. Bromide of zinc has seemed of small value, and is borne badly. The addition of arsenic to bromide in no case produced any marked effect on the attacks. It was used in a large number of cases on account of the readiness with which, it was found, the bromide rash could be prevented by its use.

Bromide of camphor, highly praised by Bourneville, was tried in a considerable number of cases, but without any good results. Turpentine has been recommended by Dr. Radcliffe, and I have seen it produce very striking benefit, but only in cases of hystero-epilepsy.

The use of iron in epilepsy has been discountenanced by high authorities, on grounds which are not altogether beyond question. In rare cases, it increased the frequency of attacks; in the majority of cases in which it was used, it was borne without any ill result; in many, the addition of iron to bromide was attended with a marked and permanent improvement, and in some cases iron alone arrested the fits. The series includes four cases which ceased under iron only, and eight others in which iron alone was distinctly better than bromide, and nineteen cases in which the addition of iron to bromide exercised a marked influence. In no fewer than eleven cases, attacks, which persisted on bromide, ceased on the addition of iron, and remained absent as long as the treatment was continued.

In several inveterate cases of epilepsy, in which bromide had no effect, I have tried borax. In some cases it did no good, but in twelve its value was most distinct. I may mention one or two. In one, fits which had continued on bromide and on zinc ceased entirely on borax for three months, and then only recurred when the medicine was discontinued. In another case, the fits continued (about one weekly) during three months' treatment on bromide and on belladonna. Borax was then substituted, the fits at once ceased, and for five months the patient had not a single fit; then he had one in each of the two following months; the dose of borax was increased, and up to the present time (eight months later) no other attack has occurred. In a third case, one or two attacks occurred once a fortnight on bromide. Borax was substituted, and for five months the patient had not a single fit. The doses given have been ten or fifteen grains, twice or three times a day. It produces in some patients gastro-intestinal disturbance, and, rarely, a form of dysenteric diarrhœa. By others it is well borne, and one of my patients has taken forty-five grains a day for twelve months without the slightest inconvenience, and says that no medicine has ever done him so much good. In cases in which bromide fails, borax certainly deserves a trial.

The use of cocculus Indicus in epilepsy, recommended by Dujardin-Beaumetz, has lately attracted attention in consequence of the recommendation of Planat. I have tried the alkaloid picrotoxine in a few instances, but in only one case has it appeared to do good. My own experience of its use has, however, been small; and I am very much indebted to my colleague, Dr. Ramskill, for permitting me to mention some interesting results which he has obtained by the hypodermic injection of picrotoxine. His experience of its effect on the fits when given through the skin is nearly the same as my own of its employment by the mouth. In seven cases in which it was injected, in daily doses of from one to four *milligrammes*, no beneficial result was obtained; in most cases, indeed, the attacks were rather more frequent and severe. Of course, we are not justified in assuming that the effect of picrotoxine and of the cocculus Indicus itself are identical. A very interesting fact has, however, been ascertained by Dr. Ramskill, viz., that picrotoxine in larger doses of from fifteen to eighteen *milligrammes* will almost invariably produce a fit in twenty or thirty minutes. In one patient, for instance (according to the notes of Mr. Broster, who carried out the experiments), the dose was daily increased, and, when more than five *milligrammes* were injected, a sensation of giddiness followed, similar to that with which the attacks commenced. The same effect followed larger injections, and, when the dose reached eighteen *milligrammes*, a severe attack occurred thirty minutes later, and an attack always followed the injection of this dose. In another patient, a similar progressive increase of the dose was followed by giddiness and headache when eight *milligrammes* were injected. When the dose of fifteen *milligrammes* was reached, a severe epileptic fit followed. Next day, a second dose of fifteen *milligrammes* did not cause a fit; but eighteen *milligrammes*, two days later, caused a fit in half an hour. After a week's intermission, twenty-four *milligrammes* were injected, and a severe fit occurred in twenty-five minutes. In a third patient, a fit occurred after one injection of eight *milligrammes*, but ten *milligrammes* next day caused no fit. Fifteen *milligrammes*, however, were followed by a fit in thirty minutes, and a second injection of the same dose the following day caused a fit in fifteen minutes. Seventeen *milligrammes* next day caused a fit in thirty minutes. In a fourth patient, a single dose of eighteen *milligrammes* caused, in ten minutes, giddiness and slight dazzling before the eyes, and in thirty minutes there occurred the usual aura of an attack: a sensation of something creeping up the right arm to the top of the head, and numbness and twitching in the right thigh, but no fit followed, although the patient was stupid and dull for a time, just as after a fit.

Among other drugs which I have tried and found useless, I may mention benzoate of soda and nitro-glycerine. In hystero-epilepsy, bromides, sometimes useful, fail entirely much more frequently than in simple epilepsy; and the combinations with digitalis and belladonna are also less frequently useful. Iron, especially guarded by aloes, is often of the highest value, quite apart from the existence of anæmia, and, next to it, valerianate of zinc, morphia, and turpentine.

High authorities have urged on different grounds that the diet of epileptics should contain little or no animal food. In a few observations which I have made by keeping a patient under unaltered medicinal treatment for alternate periods, on a diet with and without animal food, I could observe no difference in the attacks, except that in one patient they were slightly more frequent in the periods when animal food was excluded, and in one patient, hystero-epileptic attacks on ordinary diet became, when meat was excluded, severe epileptic fits, and again became hystero-epileptic when animal food was restored.

In pure epilepsy, the only treatment needed during the attacks is such care as shall secure the patient, as far as possible, from injury. It is very different with the attacks of hystero-epilepsy, which, from their character, severity, and long duration, often furnish the attendants with a task of no small difficulty, and which can, almost always, be cut short by appropriate treatment. The patients often hurt themselves during the attacks, and some control is absolutely necessary. But, as already stated, restraint tends to increase the violence, and makes the paroxysm last longer. Hence considerable judgment is often required, so to adjust control as to be efficient and not too much. I have seen these patients put within padded partitions and left alone, but I have never myself found this necessary.

The slighter attacks can be arrested by closing the mouth and nose with a towel for thirty seconds, after Dr. Hare's method. The profound effect on the respiratory centre, and the related higher centres, caused by the anoxæmia, seems to arrest the convulsive action. Cold water over the head is often successful if applied freely; in severe attacks, a moderate quantity only excites redoubled violence, while a second gallon is often more effectual than the first. This has the disadvantage of drenching the patient's head, and often giving cold. When the mouth is open during the attacks, a small quantity of water poured into it is often effectual. A much more convenient and more effectual remedy than water, however, is strong faradisation to the skin; applied almost anywhere, it will commonly quickly stop the attack. Of ovarian compression I spoke in the last lecture. In this country, it is rare that ovarian pressure will arrest an attack. In some cases, all these means fail, even when thoroughly used, and I have known such attacks go on, in spite of skilled treatment, for several hours. Chloroform is of little use; its administration is a matter of extreme difficulty, often impossibility, and the attack is commonly renewed when the influence of the anæsthetic passes off. The remarkable effect of nausea in relaxing spasm led me some years ago to try the effect of injections of apomorphia, and I have found in it an unfailing means of arresting the attacks. After the injection of a twelfth of a grain, in four minutes with certainty all spasm ceases, and normal consciousness is restored; in six minutes, the patient will get up and go to the sink; in eight minutes, will vomit, and afterwards, except for slight nausea, is well. A twentieth of a grain has the same action, but is rather longer in its operation. Moreover, I have found that the treatment is, so far as the hysteroid symptoms are concerned, curative as well as palliative, for the attacks in many cases ceased after a few paroxysms had been thus cut short.

I regret that, in this survey of some points in the clinical history of these diseases, it has been necessary to omit all reference to many facts regarding symptoms, diagnosis, and prognosis, which are presented by the series of cases analysed. I am conscious that, as it is, in the details I have introduced, I have made a large demand upon your patience. But it is only by ascertaining the facts of these diseases that we can hope to learn their nature, or to find the guidance in our efforts at prevention or at cure.

Whatever may have been the nature of the demoniacal possessions of old, few who have watched an epileptic fit can doubt that they have their representatives among us still. The old power of casting them out has gone from the earth; and it is only by the study of their origin and history, and careful experiment in their treatment, that we can hope to regain over them such power as may still be possible to man. And the present generation has witnessed an advance in the treatment of these diseases, equalled in perhaps no other branch of therapeutics. Thanks to the influence of one drug, the use of which in epilepsy is due wholly to Fellows of this College, hundreds of epileptics have been cured, and thousands are leading useful lives who would otherwise have been incapacitated by the disease. Although the condition of many sufferers is still gloomy enough, it is not without hope, and to them also, we may surely trust, the progress of the recent past is the dawn of a brighter day.

ABSTRACT REPORT OF LECTURES

ON THE

COMPARATIVE ANATOMY OF MAN.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, LL.D., F.R.S.,
Conservator of the Museum, and Hunterian Professor of Comparative Anatomy in the College.

LECTURE II.—THE AMERICAN RACES.

TO-DAY we begin to consider the characters of the American races. By these we mean those people who inhabited America before its discovery by Columbus—a people which are now rapidly disappearing. There is great difference of opinion regarding them, and two extreme views have been held as to their unity or diversity. It has been said, on the one hand, that "when you have seen one Indian, you have seen all"; and, on the other, that as much difference can be found in the native Americans as among the inhabitants of the Old World. Both statements are exaggerations, the truth lying between the two; the probability being that they are of one race, which has become split up into several subraces; or that, if they be of diverse origin, the several elements have become so blended that no sharp lines of demarcation can now be found. A great difficulty in studying the cranial conformation of the Americans arises from the wide-spread practice of deforming the head artificially in infancy, so that it is difficult to ascertain the natural form of the cranium. This habit prevailed extensively, but not uniformly, throughout all the western parts of the continent, from Vancouver's Island down to the Southern parts of Peru. It also occurred, though less generally, in the southern part of what is now the United States, and in the West India Islands. The Spaniards tried to eradicate the practice, and it was forbidden to the Peruvians in 1585 by the Synod of Lima, and again with severer penalties in 1752. In British Columbia, it has only recently fallen into disuse. The custom is, or we may almost say was, not confined to America. Hippocrates and various other writers of his age speak of the *macrocephalic* people who dwelt on the eastern shores of the Black Sea, and who purposely altered the form of their children's heads. Heads thus deformed have been found in ancient tombs in the Caucasus, especially near Tiflis, in the Crimea, and, though less numerously, at various places along the course of the Danube, and extending as far as the south of France. These have been assigned to Avars, Huns, or Tartars, but more probably belong to the Cimmerians, who originally inhabited the region where the deformed heads are now found most abundantly, and spread westwards over Europe some centuries before the Christian era. The custom, though in a modified degree, is scarcely yet extinct in the south of France; there it is produced by binding the head tightly. This is not done to produce deformity, but simply as an old custom. Similar deformities of the head, occurring usually from simple occipital flattening, are to be found in many parts of Asia and Polynesia, though quite unknown in

Africa or Australia. Artificially produced deformities must be distinguished from modifications in the form of the skull produced by defective growth. Professor Virchow of Berlin was the first to pay special attention to those latter deformities, and has very clearly shown that, if any of the cranial sutures become prematurely obliterated before the brain has grown to its full size, the growth of the skull becomes restricted in the neighbourhood of that suture, and a compensatory enlargement takes place elsewhere. The premature closure of the interparietal suture causes the cranium to become elongated both in the anterior and posterior directions; this produces what is called the scapho-cephalous or boat-shaped skull. When the coronal suture unites prematurely, the head becomes high and short; the skull is then said to be acrocephalic. In these deformities, the capacity of the cranium is not materially altered, although the outward appearance may become in some cases very considerably modified.

Many attempts have been made to classify the various kinds of artificial cranial deformations; but, as they pass insensibly into one another, it is not very easy to do so. They may, however, for convenience of description, be grouped thus: 1. Simple occipital flattening, which is often unsymmetrical, and is occasioned by the pressure of the board or hard pillow upon which the child is laid. This is very common amongst the ancient Peruvians, and amongst some Mongol tribes and Polynesians. 2. Simple frontal flattening, also common in Peru, though less so than are some of the following forms; also amongst the Caribs, and in the island of Mallecollo, in the New Hebrides. 3. Fronto-occipital flattening, with lateral and in some measure compensatory expansion, usually unsymmetrical. This may be depressed or elevated, according to the point at which the greatest occipital pressure is applied. This is the commonest form among the Indians of British Columbia and Vancouver's Island; it is also met with in Peru. It is produced by compressing the head between pads of birch-bark and moss from birth to the age of twelve months. By this compression, the head is bulged out laterally, and the eyes are caused to project out of the head, especially when it is first put on. It may be unsymmetrical, from the bandage not having been equally applied. During subsequent growth, the head recovers somewhat from the extremely flattened form that it usually presents when the pads are removed. 4. Elongation by lateral as well as frontal and occipital pressure. In this form, the head is symmetrical and the sides compressed. It is produced by passing bandages round the forehead, vertex, and occiput; and is variously modified, according to the mode in which these are disposed. The Aymara Indians of the neighbourhood of Lake Titicaca in Peru, some of the tribes in Vancouver's Island, and the macrocephali on the shores of the Euxine, present examples of this form.

As far as can be ascertained by observations upon the North American Indians, no impairment of the intellect is produced by these strange alterations of the form of the cranium, and consequently of the brain; the families of the chiefs, in which alone it is practised in many tribes, maintaining their ascendancy over the lower orders and slaves with undeformed heads. Foville, however, appears to have traced numerous cerebral lesions among the peasant population of France to the custom of tightly bandaging the heads of infants.

No motive can be alleged for this singular and widespread practice, except blind obedience to custom or fashion, precisely as in many analogous cases of barbarous distortions or mutilations of parts of the body the origin of which is lost in depths of antiquity. Without looking as far off as China, very few English men or women can boast of feet which are not quite as much altered by artificial compression in youth, from the form given by nature, as are the heads of the Chinook Indians. The far more injurious constriction of the waist commonly practised by women of nations which occupy the highest rank of civilisation yet attained by mankind, is only another example of the same strange propensity to tamper with a form which good sense as well as good taste ought to teach was the most perfect that could be designed.

THERE seems to be an unhappy disposition in the West of England to reduce the salaries of medical officers of health. Dr. Alford of Taunton has been the latest sufferer by this false economy. He has been working with conspicuous zeal and success in the Taunton urban and rural districts, and now upon his reappointment the urban authority have resolved to reduce their share of his remuneration from £200 to £100 *per annum*. It is to be hoped that the Local Government Board will decline under these circumstances to repay any part of Dr. Alford's salary.

SURGEONS SOLOMON KELLETT, James D'Arcy Harvey, Thomas O'Sullivan, M.D., and Joseph Wood, M.D., have been promoted to the rank of Staff-Surgeons in Her Majesty's Fleet, with seniority of March 23rd, 1880.

TRACHEOTOMY IN CROUP IN IRELAND.*

By ANTHONY H. CORLEY, M.D.,
Surgeon to the Richmond, Whitworth, and Hardwicke Hospitals, Dublin.

I HAVE been informed that we owe the selection of this subject to the late very much lamented Dr. Murchison. If so, it is another proof of that sound judgment which made his name famous ere he had passed his early manhood, and which makes us the more ready to deplore his premature death.

The subject I have the honour to bring before you is one of surpassing interest. We have all read, and probably most of us have considered carefully, the voluminous periodical and other literature bearing on it. From what I have observed, I am led to think that, in England and Scotland, and on the continent, the subject has passed so completely out of the region of vexed questions, that its discussion in any of these places might be justly deemed unprofitable. In this country, however, for reasons, some of which I shall attempt to lay before you, tracheotomy in croup is not only a matter of contention, but many of the older practitioners are so impressed with its inutility, that they either ignore or condemn it. To have the question calmly discussed here—to hear the living voices of our English and Scotch brethren giving their views and experience—will do much, I trust, to dissipate objection which may be partly the offspring of cautious empirical teaching, and perhaps partly of insular conservatism.

Ten years ago, I performed the operation of tracheotomy in a case of croup which had been under the care of my then colleague Dr. MacSwiney, and in which he said that medical treatment was of no further avail. The child was manifestly dying of apnœa, and my most experienced and senior surgical colleague declared that the patient had not six hours to live. After the operation, all the urgent symptoms disappeared, but the disease progressed unchecked, and death occurred in fifty-nine hours. I brought the question before the Surgical Society of Ireland; many of the senior members of the Society were present. They listened to my paper with patience, but not with approval; and whilst, in the subsequent discussion, not a single member, except the very able physician whose case was operated on, supported my views, any expression (and there were many) in support of the opposite line of argument was received with applause. I did not act in ignorance of the opinions held for and against surgical interference, and I was influenced by what I considered the enormous preponderance of testimony in its favour. I am happy to say that the subject has been since brought forward by my friend and colleague Dr. Thomson and my friend Dr. Quill. The successive discussions following their papers showed a very remarkable progress in change of opinion; a progress which justifies me in the belief that the present debate will convince all waverers, and will effectually stagger in their unbelief the most determined opponents of the operation.

Some time ago, it was my lot to review a short pamphlet on this very subject by Dr. John Solis Cohen of Philadelphia. I may mention that I thought it the ablest work of the kind I had ever read. He had collected from every source the statistics bearing on the operation with the greatest industry and discrimination, and he considered the arguments on both sides of the question with the utmost fairness. In his preface, he says: "Tracheotomy for croup is generally regarded with much disfavour in this city. Its results in Philadelphia have been less encouraging than almost anywhere else; probably because, as a rule, the operation is postponed too long; possibly because our medicinal treatment of croup cures a number of cases which, under less efficient management, would become subjects for tracheotomy; but whatever the cause, the results, in the comparatively few instances in which the operation has been performed, have been so disheartening, that many practitioners refuse to sanction tracheotomy in croup under any circumstances. This radical feeling is wrong. Not only should our individual experience be utilised in judgment, but the recorded experience of others also. Early failures may be followed by ultimate successes."

Mutato nomine, the very same words might be used to describe the state of the question in this country. It is not easy to understand why at the present time this should be the case; but I shall endeavour to state what appears to me to be the explanation. In the early part of the present century, when the domain of surgery was considerably narrower than it is now, and when information from neighbouring countries was much more inaccessible, certain members of our profession flourished there whose ability, industry, and force of character made them tower above the general level. Amongst others, the names of Colles, Carmichael, Cusack, and Porter, in surgery, and that of Cheyne in medicine, at once occur to my hearers; and each of these became an authority in his profession or in some one or other of its departments.

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

Now, in this country, there exists, strange as the assertion may seem to some, a profound—I had almost said a slavish—reverence for authority. The *ipse dixit* of a great man usually possesses weight enough to crush scepticism, and therefore to deter inquiry. This reference to authority, I may say parenthetically, is still apparent in the examinations of our licensing bodies, and gives them a tone objected to by many.

Of the distinguished men whom I have mentioned, Professor Porter made diseases of the larynx and trachea a special study, and published a monograph on them that quickly became one of the classics of surgery. He was a man of great influence, personally and through his writings, which were quoted in every handbook issued from the press for years after their appearance. No one who ever saw him operate, or listened to his fluent and polished periods as a lecturer, or read his scholarly and finished contributions to surgical literature, could fail to be impressed deeply by his views, expressed, as they always were, with the convincing dogmatism of a thinker who never doubted the truth of his own conclusions. Professor Porter had operated in three cases of croup which had not recovered. He condemned the operation, and made the following remarks. "In this country I have not, for some years, heard of bronchotomy having been seriously proposed for the relief of any form of croup, and I feel considerable satisfaction in the reflection that I have, in some small degree, contributed to the establishment of so desirable a practice."

Of nearly the same chronological standing in the literature of the subject are the writings of Dr. Cheyne, who was a high authority on the diseases of the larynx. He also disapproved of the operation. To those two writers, I believe, and to their influence, taken in conjunction with that respect for authority which I have specified, may be ascribed the present condition of the question here. There was a condemnation and consequent want of success that worked in a kind of vicious circle. We know that the operation is not an easy or a trivial one, and that all of us would be glad to avoid it if we conscientiously could do so. In the most expert hands it may end fatally; and the general experience is, that not more than one in three or one in four cases will recover after it. If, then, the highest authorities could be quoted in favour of the view that the operation was altogether unjustifiable, it would remove a load of responsibility from the mind of a practitioner attending a case of croup. True, he might see his patient perishing of actual apnœa, but could quiet his own conscience by the reflection that interference had been shown by the best authority to be worse than useless. From time to time, however, surgeons with more reasoning powers or more sensitive consciences were placed in this position, and were not satisfied with an expectant treatment alone when the patient was being suffocated. But the recognised surgical canons forbad interference; and even those enlightened individuals were slow—too slow—to exhibit the courage of their convictions, especially when acting with disapproving consultants and doubtful parents. Tardy interference in these isolated cases led most naturally, as might have been expected, to unsuccessful results; and the cases therefore with these fatal consequences were limited enough in number for opponents of the operation to remember and tell off triumphantly as arguments in favour of the original condemnation. Thus working in the circle we had, first, weight of authority against; second, tardy and isolated operation; third, unsuccessful results; fourth, increased weight of adverse authority.

But cases from regions less trammeled by dogmatic rules began to be widely known, and men have had the temerity to think for themselves, and have even had the audacity to question the grounds on which the arguments in favour of non-interference had been founded. Professor Porter's hasty conclusions from three unsuccessful cases were contrasted with the more logical line of action of M. Guersant, who operated no fewer than twenty-three times unsuccessfully; but, feeling that he was right in principle, still persevered, and in his final results, notwithstanding his early failures, reached the average of success. The names of Trousseau, Bretonneau, Spence, and Buchanan, occur to me as worthy to be selected from many others of those who asserted and carried out principles and practice more deserving of general imitation.

Having dwelt thus far on the state of the question in Ireland, and the reasons for the same, I shall next endeavour briefly to place three points prominently before the meeting; and if the views I express are not a justification for the action which I, and I am pleased to say many of my cotemporaries, have taken in this matter, I can only say that the fault lies not with the truth of the views, but with my mode of stating them.

The three aspects of the question with which I propose to deal are, first, the object of the operation; bearing this in mind, secondly, the cases to which it is applicable, as well as those which may be treated without it; and, thirdly, the dangers naturally belonging to the operation and the counteracting advantages.

The primary object of the operation is to prevent death from obstruction at the entrance of the air-passages. Opponents of surgical interference are very much in the habit of speaking as though the operation had ever been proposed for the treatment of croup, and that consequently it was discredited altogether if the patient died. It can never be too forcibly impressed on the professional as well as on the public mind, that the primary object of the operation has nothing whatever to do with the progress of the disease. It is only proposed for the purpose of meeting one of the complications—certainly the most fatal—namely, stenosis about the larynx. If that complication be met and overcome, the operation deserves full credit, even though the patient may subsequently succumb to influences which surgery may be powerless to encounter. The surgeon who is called upon to catheterise in a case of retention of urine in fever, does not even dream that he is thereby treating the general disease. He who has to puncture the bladder in a case of acute retention in stricture or enlarged prostate, does not think that he thereby treats those affections. He only interferes to relieve a symptom which he knows will be fatal unless operation be resorted to, and he would not feel himself justified in blaming the procedure because the patient might subsequently sink under the original disease. But this is the style of argument generally used against us when we lose a patient who has been operated on.

By understanding thoroughly what we have to expect from any given operation, we shall best be able to estimate any extrinsic cause of its non-success at the proper value. In these cases, we have to deal with a complication necessarily fatal in a particular way. If, then, our operation avert the tendency to death in that special direction, a fatal result from any other cause should not be considered material to the operation. This is a very important point, but it is one extremely difficult to impress on parents. When a child is dying of apnœa, and an operation is proposed, the surgeon is usually asked the question, "Will the operation cure the child?" It is not easy for non-professional persons, especially if illiterate, to understand the rational answer, which would be, "It will not in itself cure, but it will completely relieve the suffocation of which the child is now dying, and so give the natural powers the chance of throwing off the disease".

Having stated the object for which the operation should be performed, I have next to point out the class of cases in which it is required. It is necessary for me here to touch lightly on a question which, although I have my own convictions upon it, is still a vexed one. On the subject of the identity of croup and diphtheria, I confess myself (*more Hibernico*) to have been a disciple of Dr. Semple long before I had the pleasure of reading his writings. I had no doubt that the strongly expressed opinions of many as to the sthenic character of croup, as opposed to diphtheria, depended on the fact, not sufficiently recognised or appreciated by them, that there exists a form of acute catarrhal tracheitis and laryngitis uncomplicated by false membrane, and that this is not only curable, but that it rarely requires operative interference. Though I do not myself recognise any essential difference between false membranous laryngo-tracheitis (true croup) and false membranous pharyngitis (the so-called diphtheria), I desire to impress on those who do believe in the difference that, as far as the operation is concerned, any distinction is quite immaterial. Whether the disease be local or constitutional, whether it commence in the larynx and trachea or in the pharynx and palate, when once the rima glottidis becomes organically obstructed, the case comes into the category of those in which mechanical impediment to breathing may call at any moment for surgical interference. No doubt a differential diagnosis between two of the diseases I have mentioned —simple laryngitis and the false membranous form—would be very important as regards treatment, if we could establish it early in the disease. The so-called diphtheritic form, severe as it undoubtedly is, is satisfactory so far that, in most cases, the pathognomonic signs are at once apparent; but as I know of no sign except the coughing up of shreds of false membrane which can be relied upon to distinguish between simple catarrhal and pseudo-membranous laryngitis, the treatment of such a case must necessarily be doubtful until either amendment ensues or tracheotomy is urgently required. This is the more to be regretted, as I look on simple laryngitis to be, like scald of the glottis, a disease readily yielding to active and persistent antiphlogistic remedies; remedies which I am disposed to consider useless, if not actually hurtful, when a false membrane exists. I have dwelt at this length on this part of my subject unwillingly; not that it has not great claims as a much debated question, but that its debatable aspect is not exactly subject-matter for the present discussion. I have introduced it, because I wished to say something explanatory of the cases, so much relied upon by opponents, in which operation is not performed or is refused, and which yield to treatment. The difficulty of diagnosis between the two classes of cases I have specified, is probably the chief reason why there are so few existing trustworthy statistics to show the average mortality of croup and diphtheria when treated by medicine alone. The only table that I have been able to find is that of Dr. Ware of New York, quoted in Dr. Flint's *Practice of Medicine*. This gives nineteen fatal cases out of a total of twenty-two. If this represent the average mortality, the advocates of the operation have every reason to be satisfied. One recovery in ten without operation contrasts very unfavourably with the one in three or four after operation. A real comparison would be still more creditable to the operation. We may assume that only the milder cases of the former recovered, whilst, as it is only the severe cases that are tracheotomised, any recoveries must tell in proportion so much more favourably.

The last point to which I shall address myself is the operation itself. My own deliberate judgment in its favour must be looked on as the more emphatic when I state that, from my experience as well as from that of others which I have observed, it is one of the most serious in surgery. Observe, I do not say the most dangerous. It is, perhaps, the only operation the very performance of which, however skilfully done, is calculated to aggravate for a time the particular dangerous symptom for the relief of which it is undertaken. The manipulation necessary in order to open the trachea tends, until the entrance is freely made, to reduce to a minimum the already deficient breathing power.

On the cadaver the operation is so delightfully easy, that the young surgeon almost runs the risk of losing his presence of mind when called on to perform it in the case of a fat infant with a short thick neck, the veins of which, turgid with black blood, stand out obtrusively in the line of his incision.

As regards the prognosis after operation, we are fortunately enabled, from our own and other experience, to tell approximatively what cases are most likely to terminate favourably. But, even in those considered most unpromising, namely, those of extremely tender age, there are recoveries enough to warrant us undertaking a grave operation, and counting on a chance of success. As I do not mean to dwell on the accidents of the operation, I shall conclude by alluding to what have been termed its unavoidable dangers. Assuming that it is skilfully performed, are there any dangers inseparable from it? Shock must necessarily attend it, as it does every serious operation; a danger directly proportional to the extreme youth of the patient. To that I shall return when I dispose of the second and only additional one, namely, congestion of the lungs or bronchitis as the result of the immediate contact of the cold and with the pulmonary mucous membrane. I confess my utter unbelief in this; but, even allowing its existence, it is quite a preventable danger—a pure accident—and therefore can be guarded against. The shock is unquestionably a necessary concomitant. I do not wish to underestimate its seriousness, and I believe it is the principal cause of danger in very young infants; but if we place in the opposite scale the immediate and complete oxygenation of the blood which follows a free opening in the trachea, the consequent resumption of all the vital functions, and the cessation of the exhausting and ineffectual struggles for air, I think we shall see a counterbalance sufficient to outweigh any risks we may incur.

As to the proper time for operating, I have said nothing; that must depend on individual judgment. In my own hospital, whose surgeons all hold my opinions on the subject, we lay much stress on the occurrence of substernal sinking in respiration, a symptom which shows that, whilst the diaphragm is contracting, the lungs are not descending.

In conclusion, I and many who believe with me hope to hear at this meeting an echo of the sentiments which actuate those in other lands whose practice we have endeavoured to imitate here; which will give us the satisfaction of thinking, whatever the results may be, that we are acting in accordance with the views of the most advanced and most enlightened of our profession.

THE cost of the milk supplied to the patients in the Mercy Hospital, Cork, during the past year, amounted to £120, or nearly a tenth part of the entire cost of the hospital. In reference to this matter, the medical officers of the institution remark that, in addition to the prescribed dietary, they have always given directions that milk should be allowed to the patients without limit, it being a cure as well as part of the diet, containing, as it does, every element essential for the formation of healthy blood, and renewing and restoring the tissue of the body worn out by a combination of severe labour and disease.

TRACHEOTOMY IN CROUP.*

By ROBERT WILLIAM PARKER, M.R.C.S.Eng.,
Assistant-Surgeon to the East London Hospital for Children.

FEELING how impossible it is to treat this subject at all fully in the short space of time which the rules of this Section accord me for my paper, I have considered it well to be somewhat dogmatic in the expression of my views, which, with a view to elicit discussion, shall take the form of propositions. If I have appeared to ignore the work of others in this same subject, it is simply because I have not the time to do them justice, though I am nevertheless well conscious of the obligation I owe them.

It seems to me quite impossible to rightly estimate the *rôle* of the operation of tracheotomy in "croup", without first of all defining the term croup; for something like definite notions on the pathology as well as on the etiology of the disease are clearly necessary before we can hope successfully to cope with it. For the purposes of this debate, I shall consider "croup" to signify "membranous laryngitis". Thus it will include both membranous croup and laryngeal diphtheria, respectively so called. I may further be allowed to state that I consider all forms of membranous laryngitis to have a common etiological signification. The diseased process is at first a purely local one; the constitutional symptoms depend on the absorption of the products of the local disease. The treatment should, therefore, at first be local; its success will depend on its power of destroying all local manifestations.

A typical case of so-called "croup" no doubt presents symptoms which differ widely from those produced by well-marked diphtheria. The former depend on threatened asphyxia; the latter are those of blood-poisoning. The differences are due to the function of the part chiefly or primarily affected. Many a well-marked case of "croup", in which tracheotomy has averted death, has subsequently developed into equally typical diphtheria, time having allowed the disease gradually to unfold itself.

As regards the operation of tracheotomy; the first point to remember is, that it is not a curative measure in the true sense of the word; it is done for the purpose of re-establishing respiration, which false membrane in the larynx has interfered with. The disease, of which the membranous exudation in the larynx is but the outward manifestation, cannot be influenced by the mere act of opening the trachea; and yet it has hitherto been the rule to suspend all other treatment from the moment that tracheotomy has been performed.

The dangers of the operation have all along been greatly exaggerated, probably because a great number of patients die *after it*. A careful examination of the published statistics, however, shows that *few die in consequence of the operation*. On the contrary, it is perfectly obvious that the majority die of the disease which originally called for an operation.

I venture to believe that the causes which contribute to the large mortality *after* tracheotomy may be summarised under three heads:

1. A routine and too long continued use of antimony in the preliminary treatment;
2. Delaying the operation until secondary complications render success all but impossible;
3. The withholding of suitable treatment after the operation.

1. As regards *antimony*; I have several times seen a state of depression brought on by its use, from which it was almost impossible to rouse patients. For my part, I believe that any favourable action which emetics exercise is due to their mechanical action. They cause retching and vomiting, and so detach the membrane, which is then coughed up. In this way the glottis is cleared. If emetics be used, it is highly important to select those which do not depress. Sulphate of copper, I think, will be found the best (ten to twenty grains in two to three ounces of water; giving half an ounce every five or ten minutes until free vomiting is produced). As a general rule, I should say, *if the laryngeal obstruction be not quickly relieved after free vomiting, it is useless and undesirable to continue the use of emetics.*

2. *An early operation* is of great importance; for, if it be unduly put off, secondary complications are apt to occur, which materially decrease all chance of success. This continued laryngeal obstruction leads to collapse of portions of lung, which condition cannot be recovered from. Further, the disease is all the while spreading nearer and nearer to the lungs, where it is impossible to get at it. And, lastly, a condition of carbonic acid poisoning is being allowed to supervene, for which neither tracheotomy nor anything else can avail.

3. *The Continuation of Treatment.*—I do not hesitate to ascribe a vital importance to the continuation of treatment; for I regard the

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

operation simply in the light of a temporary expedient, and believe that, when the danger of suffocation has been set aside, the surgeon's real opportunity then commences. At present, however, this seems to be the exception rather than the rule; and many physicians and surgeons regard the operation in the light of a last effort, and, having done it, await the result with folded hands. Even the great Trousseau, who did so much to popularise the operation, wrote: "When once tracheotomy has been performed, we need not further occupy ourselves with the pharyngeal or the laryngeal manifestations of the diphtheria, which claimed such energetic measures previously to the operation. They get well of themselves."

The views I have briefly expressed in this paper may be summed up as follows.

1. The presence of membrane in the larynx is the chief cause of the symptoms which call for the operation.
2. Membrane is infective as well as obstructive. The re-formation after removal is the visible evidence of an infective process still active in the body.
3. The chief object of the operation is to remove this membrane.
4. The chief object of after-treatment is the prevention of any re-accumulation.

The limits of this paper prevent my entering into the subject of the after-treatment, which is a very large subject. Neither is it necessary before an assembly of surgeons such as this. Each one will be able to devise for himself a line of treatment suitable to the requirements of the individual case. As regards the treatment which I personally have been led to adopt, I will only say this: it consists in a careful treatment of the larynx and trachea, with a view to destroy the local manifestations of the disease; in the use of a limited amount of steam; and in the employment of silver tubes, the curve of which corresponds to the anatomical direction of the trachea.

As regards the future of the subject, I venture to think that we need the formulation of certain broad facts. Is "croup" a purely local disease at any time? Is it likewise an infective one? Then, if a local disease, can general remedies alone influence it? And is not the omission of local treatment therefore reprehensible? Are there not palpable analogies between diphtheria and hospital gangrene? What surgeon would be content with purely internal remedies for these diseases?

TRACHEOTOMY IN CROUP.*

By WILLIAM THOMSON, A.B., F.R.C.S.I.,
Surgeon to the Richmond Hospital, Dublin.

I do not think that any more urgently important subject has been set for discussion at this meeting of the British Medical Association than that of tracheotomy in croup. It is of special interest in Ireland, because the professional feeling regarding the operation is not favourable, if it be not hostile. In Dublin, at all events, which is the centre of Irish medical opinion, the operation is not generally practised; and to those who see good in the proceeding it will be a great pleasure if discussion here should give it increased prominence.

On two occasions, I have brought this subject before the Surgical Society of Ireland, and have pleaded for at least a trial. My first cases were all fatal, but I was upheld by my own belief that the operation was a justifiable one, and by the personal encouragement of Mr. Spence of Edinburgh. On the second occasion, I was able to report success. As time has gone on, and the results have appeared more hopeful, it has been not a little encouraging to notice the gradual toning down of opposition in some, and the declared conversion of others. My own experience of the operation extends to six cases, besides a large number in which I have assisted my colleagues and others; for, in the Richmond Hospital, the staff adopts the principle of surgical relief when necessary. My success has been two, the fourth and sixth respectively; both occurring in hospital practice. Let me give a very short *résumé* of the cases.

Case i.—A boy, aged 5, had been ill three days before admission. There was no sign of membrane on the tonsils or pharynx. Tracheotomy was performed on the fourth day from the commencement of illness. He lived thirty-seven hours. *Post mortem* examination showed membrane throughout the bronchi.

Case ii.—A boy, aged eighteen months, had been ill for several days. No membrane was visible. Tracheotomy was performed. He lived fourteen hours.

Case iii.—A boy, aged 5, had been very ill one day before admission, but had been complaining for some days. No membrane was visible. Mercury and tartar emetic were administered. Great relief was derived from the operation. Death occurred on the third day, after a violent paroxysm caused by blocking of the tube.

Case iv.—A boy, aged 5 had been ill for three days. No membrane was visible. Mercury and tartar emetic were given; leeches were applied at the upper end of the sternum. The symptoms becoming more urgent, I operated next day. A large piece of false membrane was removed from the trachea with a forceps. The relief was immediate. On the fourth day, the temperature was 99°; respirations 44. The tube was removed and a considerable portion of membrane was ejected. The tube was altogether removed on the eighth day, and the boy was discharged quite well in four weeks.

Case v.—This was the case of a little girl aged 3, whom I saw in the King's County, in consultation with my friends Dr. Saunderson, senior, and Dr. Saunderson, junior. The child had been several days ill. Mercury and antimony had been freely administered without improvement. Operation was performed, with great temporary relief, but the child died in nineteen hours.

Case vi.—A boy, aged 4½, had been ill for several days. There was a membrane on the left tonsil. Mercury had been administered. When I saw the case with my colleagues, the symptoms were judged urgent, and I operated. The child made an uninterruptedly good recovery, the tube being permanently removed on the seventh day.

I take it that the form which our inquiries ought to assume is: 1. Under what circumstances ought the operation to be performed? 2. What conditions will tend to ensure its success?

Now, it may be necessary for some that we should assure them that the surgeons who adopt this method do not look upon it as the remedy for croup or diphtheria. On the contrary, all are ready to admit the advantage of medication up to a certain point; but, when failure to relieve is the result, the surgeon asks that some regard should be had to the good offices which surgery can render; and that the struggling dying child shall not be abandoned to death without one effort to save it at least from pain. Our opponents point to our results as justifying their opposition. Unhappily, they do not show a high percentage of recovery; but, at least, they show better than the results of the same class of patients left to medicine only. In a large number of cases, I have seen one only recover without operation, in which operation was proposed. Steiner, who has seen one hundred thousand cases of children's disease, says: "Out of quite a large number of cases occurring in my practice, before I had adopted the operation of tracheotomy, I saw but three recoveries." (Ziemssen.) But it is further to be said in our defence—for that is necessary—that the surgeon rarely sees the case until all the damage is done; when, indeed, its state almost accords with one of Liston's reasons against operation: that when done too early, it is dangerous; and when done too late, it is useless. The history of a case of croup, as we usually see it, is that the child has been ill for some days; that then it has been brought to the physician, who uses his remedies. These too often fail, so that the surgeon sees the child when it has been dosed with mercury or tartar emetic, or both; when the lungs are becoming engorged with carbonised blood; when the nerve-centres are being poisoned; when, in a word, the child is in a condition which almost precludes success from any opening in the trachea. Yet even here, the results are very encouraging, as any one who has watched the effect of such an operation must admit; for, where life is not saved, the patient is relieved from the pain that otherwise accompanies his death.

I have said that I believe in medication up to a certain point. In some of my own cases, calomel and tartar emetic were given, in the hope that the patient was yet in the pre-exudation stage, and that the tumidity of the membranes might be reduced by this means and by leeching. But when a membrane is present in the larynx and trachea, I do not believe that calomel does anything but harm; it will not remove it, and the giving of it only leads to hopes that are disappointed and to the loss of precious time. If any good is to be done, it is by emetics of ipecacuanha or sulphate of zinc; and this plan ought to be tried. These are preferable to tartar emetic, which is too depressing, particularly as it may not cause vomiting, owing to paralysis of the pneumogastric nerve, and may then help to kill the patient.

As the obstruction in the air-passages increases, there are indications which point urgently to the necessity of some relief. These are the sinking in of the chest-wall, especially of the lower end of the sternum; of the soft parts about the root of the neck in front; and of the epigastric region. They can all be easily recognised in a bad case; and, although the lips may not be blue, nor the symptoms of collapse yet be present, I would recommend operation; for, if the membrane cannot be expelled, these other symptoms will only too surely come, which indicate lower vitality and less fitness for surgical interference.

Those who hold the identity of croup and diphtheria maintain that tracheotomy cannot do good in a case of constitutional disease, because already the poison is present in the blood. No one argues that it will cure the disease, but that it will relieve a condition of which the patient may die, even before the virus of the disease would otherwise kill him; and that, therefore, we prolong the time for the actions of general remedies. But, beyond this, it is to be borne in mind that a mechanical obstruction in the larynx is itself producing poisoning in the shape of heavily carbonised blood. A child with scalded glottis will die of blood-poison generated within itself, if the obstruction be not removed; and those who oppose tracheotomy in diphtheria and croup are in the position of allowing a second and removable poison to operate, in addition to that already existing in the blood.

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

Having said so much in defence of the operation in general, I may say a few words as to some practical points which tend to render it successful. The operation is by no means an easy one. I have seen more than one fatal, and several nearly fatal, results on the table. I think that chloroform ought to be given, except where the child is already narcotised by blood-poison. It lessens the dangers, and facilitates the operation. A moistened atmosphere ought to be provided by means of a regular croup-kettle, the current of steam being directed towards the patient's head.

The suprathyroid operation diminishes the risks. It is as favourable as the infrathyroid, the theory of which is that you are likely to get below the membrane. But the theory goes for nothing. In both my successful cases, the membrane extended far below the opening. In one, I removed a large piece with a forceps passed down to the bifurcation of the trachea; in the other, the membrane was expelled subsequently. It is always most convenient to secure the trachea with a hook before opening, and for that purpose an ordinary tenaculum is best. This being fixed somewhat to the side of the median line of the trachea, an incision may at once be made, and the tube be introduced before the tenaculum is removed. I prefer a small tenotome for the tracheal incision. It slips between the rings without any force. The tube should be as large as the trachea will hold. I believe I lost one case by using one too small.

As to the tube itself, I have always used Fuller's ordinary bivalve; but, if the neck be deep, it is often difficult to slip the ends of the blades into the tracheal wound. A better instrument is that with two parallel blades—one movable, and fitting into the other until this is introduced. Then, by a small crank fixed to the shield, the blades of the cannula can be separated, and a tube of suitable size inserted. Very much depends upon careful nutrition and skilful nursing. At any moment, asphyxia may follow from blocking of the tube by a loosened membrane, and the child may be lost if some one be not present to relieve the obstruction. If it cannot be done by passing down a feather, the tube ought to be taken out at once. There will be no difficulty in putting it back after the first twenty-four hours, as the parts will remain patent. The viscid secretion collects in the trachea, and brings on paroxysms of coughing. In the cases which were successful, I had a spray of lactic acid solution (ten grains to the ounce) in one instance, and of lime-water in the other, thrown across the orifice of the tube. It was the experience of those watching that the relief given was very great, and that the membrane was more readily expectorated. The last patient always signed for the spray when the paroxysm came on, and was evidently himself conscious of the advantage of it. It may be that the virtue lay in the simple moistening of the tube, and not in any solvent powers of the fluids; but the fact is as I have said.

From what I have seen, even in non-successful cases, I cannot withhold from any patient the relief and the hope of life which this operation offers. It is one that is surrounded by difficulties, and is too often followed by death; but, until those who oppose it can offer some better substitute, I, for one, feel it my duty to recommend it and to practise it.

TRACHEOTOMY IN DIPHTHERIA AND CROUP.

By GEORGE BUCHANAN, A.M.,
Professor of Clinical Surgery in the University of Glasgow.

THE following case is recorded, because it affords some lessons which can never be too often enforced. In speaking of my experience in tracheotomy, I have sometimes been met with the observation, that no doubt some of my cases have been examples of simple spasmodic croup, and that, if I had waited longer, the fits would have passed off and the child recovered without operation. But, in reply, I can say that in most if not in all the cases the child was approaching or had actually arrived at a stage, when life could no longer be supported without an additional supply of air to the lungs, whatever was the cause of the necessary quantity being prevented from entering. Secondly, simple spasmodic croup or *laryngismus stridulus* is a very rare affection; indeed, I have never seen it among the cases of approaching suffocation to which I have been called. Thirdly, and this is the point on which I wish to insist, because it is of practical importance—in all cases of croup and tracheal diphtheria, there is an element of spasm, intermittent, sometimes with long intervals of relief, which leads to the belief that the obstruction is not permanent, but only occasional, and often causes the operation to be too long delayed. As the disease advances, the spasms become more frequent, and end in a continuous obstruction, which then, but often too late, is recognised as depending on mechanical narrowing of the trachea.

Of course, it is familiarly known that the suffocation of croup and diphtheria may depend on two different conditions. First, it may be caused by the obstruction being situated in the trachea and larynx; second, it may depend on the viscid secretion extending down into the bronchi and smaller bronchial tubes, thus stuffing up the lungs and preventing either the free ingress or egress of air. To either of these conditions the element of spasm may be added; and, as this is often the most prominent and alarming feature, it may mask either of the other two, or render it difficult to decide which is the real essence of the disease.

But I have long ago pointed out a diagnostic mark which cannot be too frequently insisted on and promulgated, and which is the only true means for enabling us to decide when tracheotomy *is* justifiable and when it *is not*—viz., the respiratory movements as seen by observing the naked chest. When the obstruction is situated in the trachea or larynx, the lungs remaining normal, the efforts of the child to obtain breath are painfully visible by the powerful drawing inwards of the ensiform cartilage, the intercostal spaces, and every elastic part of the chest-wall; showing the thirst for air, and the capacity of the lungs to receive it, if only it could gain entrance. But when the smaller bronchial tubes are full of viscid and perhaps pseudo-membranous effusion, the movements of the chest-wall are impeded; the chest is puffed out like one affected with chronic emphysema of the lung, and heaves in a mass with difficulty.

In the first of these cases, tracheotomy affords instant relief—often permanent—and ultimate saving of life; in the second, if unfortunately it be performed, it affords at best a temporary and short interval of repose, if even that, and only when the element of spasm is present.

It will be seen that in these few remarks I have avoided all reference to the disputed question as to the identity or non-identity of croup and diphtheria. I leave that to those who, as general practitioners, see the diseases in their early stage. As a surgeon, I am only concerned with cases in which it has become probable that tracheotomy may be required. My remarks apply to all cases, whatever may be the original malady, in which it appears nearly certain that the patient will die of *suffocation* from *obstruction* situated in the *larynx or trachea* unless a free supply of air is obtained by tracheotomy. And I have given the diagnostic mark on which I now invariably rely in determining whether to perform or refrain from performing tracheotomy.*

I shall now give a short report of my last case. Peabody Grierson, a boy aged 8, in previous good health, a stout well-formed boy, on Saturday, November 15th, 1879, began to complain of his throat, with a slight tickling cough coming at intervals, with some slight feeling of choking. On Sunday, the 16th, Dr. Pirie was called, who detected incipient croup by the fever, flushed face, pain in the neck, and a crowing sound with the cough, which came at intervals. Ipecacuan, mustard blisters, steam in the apartment, were kept up till Monday at 8 A.M., when I saw the patient with Dr. Pirie. The spasms, though severe, were not frequent; and in the intervals the breathing was fairly normal; so we determined to delay changing the treatment for some hours. In the afternoon, it became quite evident that the spasms, which were becoming more frequent and severe, were only the reflex effect of a permanent obstruction in the trachea. At no time was there any inflammation, swelling, or false membrane, to be seen on tonsil, palate, or fauces. The agony of the little sufferer was very painful to witness, and the diagnostic mark of the powerful indrawing of the intercostal spaces was as characteristic as I ever saw it. I sent for Dr. Pirie, and drove home for my instruments and an assistant; and, by the time I got back, the case was indeed urgent. In fact, it seemed as if we were too late. The lips were livid; the face pallid, and covered with a cold sweat; the pulse flagging; the breathing very laboured; the eyes staring, open, and glazed: in fact, the child seemed *in articulo mortis*, and I said to his mother that I feared it was too late. I have rarely heard a more piteous appeal. The mother was an intelligent woman, who had been educated as a nurse in Guy's Hospital, and had afterwards come to Glasgow Royal Infirmary, where she for several years had charge of my emergency ward, and where she nursed for me, to a successful termination, one or two cases of tracheotomy. She said: "I see by your face that there is little encouragement to operate; and, if you think there is no hope, do not do it; but, if you think there is any chance of success, as death is fast approaching, for the love of God, try to save my boy."

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* For a more detailed account of the varieties of croup and diphtheria, and the diagnosis of the cases suitable and unsuitable for operation, see my paper in the BRITISH MEDICAL JOURNAL for September 4th, 1875; see also a Clinical Lecture in BRITISH MEDICAL JOURNAL for March 4th, 1871; also for February 14th, 1880.

I operated without chloroform, as the child was rendered almost insensible to pain by the carbonisation of the blood. The white rings of the trachea were rapidly exposed in the bottom of the wound, and a free incision was made into the tracheal tube. This was followed by the usual result—a struggle, a forcible expiration, during which shreds of tough membrane and viscid mucus were expelled. Presently the breathing became quiet. During this time, the lips of the wound in the trachea were held apart by the opened blades of a dressing-forceps. The silver tube was easily introduced, and the little patient was left breathing calmly and easily.

He remained very well during the night; but next morning, at 7 A.M., I was called. The breathing through the tube had become rather obstructed and whistling: the inevitable sign of a dryness of the tracheal secretion. I passed into the tube a soft feather well moistened with tepid water, and mopped out the lower end of the outer silver tube and the trachea itself, when a convulsive cough took place and a large piece of a membranous cast of the trachea was expelled through the tube with great force. I now directed the mouth of the tube to be kept constantly covered with a bit of honeycomb-sponge wrung out of hot water, which I find by far the most effectual way of moistening the entering air. After this, there was no more trouble with the case. The tube was removed on the eighth day, and the child made an excellent recovery.

STATISTICS OF TRACHEOTOMY.—I have now performed this operation for croup and diphtheria fifty times. I have entered as cases of diphtheria all such as had an effusion of white false membrane on the tonsils, palate, or fauces. The particulars of the cases, with the ages, are given in the following table.

Case.	Disease.	Age.	Result.
1	Croup	6	Cured
2	Croup	3½	Death in three hours
3	Croup	3	Death immediately
4	Croup	1¼	Death in sixteen hours
5	Diphtheria	2	Death immediately
6	Diphtheria	2½	Death in six hours
7	Croup	1½	Death in eight hours
8	Croup	3	Death in twenty-four hours
9	Diphtheria	4	Cured
10	Diphtheria	2½	Cured
11	Diphtheria	1¾	Death in twenty-four hours
12	Croup	5	Cured
13	Diphtheria	2½	Death in forty hours
14	Croup	5	Cured
15	Diphtheria	5	Death in twenty-eight hours
16	Diphtheria	5½	Death in five days
17	Diphtheria	6	Cured
18	Diphtheria	3	Death in four days
19	Diphtheria	3½	Death in seven days
20	Diphtheria	2	Death in five days
21	Diphtheria	2½	Cured
22	Diphtheria	6	Death in two days
23	Diphtheria	5	Cured
24	Diphtheria	8	Death in thirteen days
25	Croup	1½	Death in six hours
26	Croup	5	Cured
27	Diphtheria	5	Death in five days
28	Diphtheria	7	Cured
29	Croup	5	Death in three days
30	Diphtheria	5	Cured
31	Diphtheria	2	Death in two days
32	Croup	2½	Death in two days
33	Diphtheria	5	Death in six days
34	Croup	9	Cured
35	Croup	4	Death in three days
36	Diphtheria	8	Death in eight days
37	Diphtheria	7	Cured
38	Diphtheria	7	Death in three days
39	Diphtheria	5	Cured
40	Diphtheria	5	Death in two days
41	Diphtheria	4	Death in three days
42	Diphtheria	6	Cured
43	Diphtheria	4	Death in two days
44	Croup	7	Cured
45	Croup	9	Death in four days
46	Diphtheria	6	Cured
47	Diphtheria	7	Cured
48	Diphtheria	4	Death in two days
49	Diphtheria	5	Death in two days
50	Croup	8	Cured

Total tracheotomies, 50; cured, 19; deaths, 31.
Tracheotomy in croup, 17; cured, 7; deaths, 10.
Tracheotomy in diphtheria, 33; cured, 12; deaths, 21.

RESULTS.—Taking the whole of the cases, the result is, that nearly *two* out of every *five* operations were successful; and, as the operation was never performed unless there was no hope of recovery otherwise, it may be fairly stated that the lives of these nineteen children were *saved* by tracheotomy.

CLINICAL MEMORANDA.

SPREAD OF TYPHOID FEVER TO ANIMALS.

I HAVE read with great interest Dr. Cayley's Croonian Lecture in the JOURNAL of March 20th. With regard to the contamination of veal, etc., I may mention the following case, which recently came under my notice.

About a month ago, I was called to see a young girl, the daughter of a small farmer, who had been sent home ill from service. Her symptoms, at first obscure, soon developed into unmistakable typhoid fever; and in a short time, four other children in the house were seized. A week after the girl was sent home, all the animals in the adjacent farmyard, except the pigs and ducks, were taken ill, their symptoms being purging and extreme depression. The hens, whose roost communicated with the privy down which the typhoid stools were thrown, suffered most, a fine brood of chickens being nearly all destroyed. The cowshed was also near the privy, and the cow aborted after two days' illness.

I think this case worthy of attention. Might not the disease have been spread by the eggs, or by the chickens if they had been sent to market? The milk and butter were condemned by the sanitary inspector. The children are all convalescent; and, after the first week, the stools were buried by my orders, and the fowls gradually recovered.

ANDREW CAMPBELL, Navenby, Grantham.

PAGET'S DISEASE OF THE NIPPLE FOLLOWED BY CANCER OF THE BREAST.

As this subject has attracted a good deal of attention since Mr. Henry Morris and Dr. Thin brought it prominently under the notice of the Royal Medical and Chirurgical Society, perhaps the following case will be interesting.

In March 1879, I was consulted by Mrs. A. She was a healthy-looking woman, about thirty-six years of age, and had several children, the youngest early in 1878. When I saw her, the left nipple and areola were diseased, and presented an appearance exactly similar to that described by Sir James Paget in 1874. The surface was "florid, intensely red, raw, very finely granular", and appeared as though the whole thickness of the epidermis and part of the cutis had been removed. It did not look in the least like eczema, nor had it the clinical appearances of cancerous ulceration. There was a copious exudation from the raw surface. At the upper part of the gland, there was a distinct tumour, over which the skin was not movable. "A clear interval of apparently healthy tissue" separated the nipple and tumour. She stated that the nipple had been sore for about two years, and that the tumour was not noticed by her until six months previous to the date on which I first saw her. In these statements she emphatically persisted. Another medical man saw her with me; and, although some of the glands of the axilla were enlarged, we recommended excision of the breast as the only chance of prolonging life: an operation to which she would not consent. Subsequently, the case ran a very rapid course, and she sank in the following August. A *post mortem* examination was not made. This case differed from that of Mr. H. Morris in not having distinct morbid changes connecting the tumour and the seat of the "eczema", and thus agreed with the cases reported by Sir J. Paget. It also ran a very rapid course from the time the tumour was first noticed, even allowing a margin for errors in the history given to me by the patient; and it does not add weight to the statement that these tumours are not so rapidly fatal as ordinary scirrhus.

I regret that the histological characters of the tumour could not be determined; but I think that the case is not barren of clinical facts. 1. The disease of the nipple was at once recognised as that described by Sir James Paget in *St. Bartholomew's Hospital Reports*, 1874, though I had not seen such a case before. It was altogether different from eczema or cancer; but it must be remembered that I saw it two years after its appearance. How soon the appearances became characteristic is an interesting question, and I would be inclined to say they were so long before they came under my notice. 2. This disease of the nipple appears to have been present eighteen months before a tumour was noticed, which tumour took on malignant characters, and destroyed life in about twelve months. 3. As in scirrhus, the lymphatics became involved, and the axillary and clavicular glands enlarged rapidly.

T. JAGOE WELPLY, M.D., Bandon.

THERAPEUTIC MEMORANDA.

TREATMENT OF OZÆNA.

WITH reference to Mr. Pugin Thornton's communication on the above subject in the JOURNAL of March 27th, I had occasion to make the same lotion some time ago for pruritus, with the exception of using bicarbonate of soda instead of carbonate; but I soon found that the three substances, soda, borax, and glycerine, refused to remain on friendly terms; and should anyone happen to use the bicarbonate instead of the carbonate, he will find that, in a few minutes, either the cork will be blown out of the bottle, or the bottle will burst, from the violent effervescence that takes place. I found a similar reaction with the carbonate, but in a much less degree. No action takes place with the glycerine and soda; but as soon as the borax is added, chemical action begins at once, carbonic acid is disengaged, and the borax becomes quickly dissolved. If shown in a test-tube, it is a most remarkable and very pretty experiment. I have never been able to get a satisfactory explanation of the reaction, and should be glad if some member would solve the difficulty. I have found a lotion of chloralum, one to fifteen or twenty, the most efficacious remedy for ozæna.

FRED. LONG, L.R.C.P.Lond., Wells-next-the-Sea.

ON THE USE OF NITRO-GLYCERINE.

THE following brief record of cases in which I have used nitro-glycerine may, I venture to hope, prove interesting, especially as an account of the physiological action of the drug was recently given in the BRITISH MEDICAL JOURNAL. During the last twelve months, I have tried this remedy in migraine, asthma, angina pectoris, and epilepsy.

In migraine, one or two drops of a one per cent. solution produces, within a few minutes, a diminution of tension in the previously corded temporal artery and relief of the pain, which in some cases does not return, but in others recurs when the physiological effects of the drug have passed off. As individuals are affected differently by nitro-glycerine, I always begin with one minim of the one per cent. solution, but sometimes find it necessary to increase the dose to three or four minims, to produce the desired effect. In several cases of asthma, it has relieved the breathing in a most remarkable manner; the cases in which it answers are such as would be relieved by amyl-nitrite, but its effects are more marked and the relief is more durable.

One case of severe asthma, occurring in a patient suffering from chronic renal mischief and mitral deficiency, is worth specially mentioning. I prescribed the one per cent. solution in the form of a minim to a drachm of water, and ordered two drachms to be taken every quarter of an hour till relief was obtained. My patient, however, had two large tablespoonfuls of the medicine given, instead of two teaspoonfuls. He said that the effect was wonderful; he thought his head was going to burst, but his breathing was effectually and permanently relieved, and that instantly. In this case, amyl-nitrite, although inhaled in large doses on previous occasions, had given very little relief. Since that time, several months ago, he has been threatened over and over again with his old attacks, but a dose of the medicine always staves it off.

In angina pectoris, the relief given by nitro-glycerine is most complete; but, as several cases have been reported in the journals, I need only mention it. The relief in these cases is not simply temporary ease from pain, but, if the remedy be given thrice daily in gradually increasing doses, beginning with one minim of the one per cent. solution and steadily advancing to eight minims, the attacks lessen both in frequency and intensity. One of my patients, who has suffered severely from angina, always carries a bottle of the medicine in his pocket, and he tells me that, by taking a dose of five drops, when he is threatened with an attack, it is always prevented.

I am trying it in some cases of epilepsy; but as yet my observations are not sufficiently advanced to be worth relating. I cannot see why, if it relieve the vaso-motor spasm in other diseases, it should not also have the same tendency in this most distressing disease; and, since its regular use in angina seems to be curative, I have hopes that here we may have a similar effect. Again, if the "aura" gave sufficient warning, it might be worth while to try if a good dose would prevent an attack.

I have not had a chance of trying it in sea-sickness, but should think it might do good; and it would certainly have this advantage over amyl-nitrite, that all the other occupants of the cabin would not be compelled to inhale its fumes for some time afterwards, which is the case if amyl-nitrite be used in the ordinary way, much to the annoyance of those who are well.—A. W. MAYO ROBSON, F.R.C.S., Leeds.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 19TH, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Spontaneous Gangrene of the Thumb and Fingers of One Hand.—Mr. THOMAS SMITH read notes of this case, which was that of a child aged 3, who was admitted for an abscess in the thigh, which ran a favourable course under antiseptic treatment. The child was slightly rickety, though well nourished; its spleen was palpable, its extremities inclined to be cold and blue. Ten days after admission, while in bed, in the early part of October, the right hand and fingers became cold, blue, and quickly gangrenous, a line of demarcation forming at the metacarpal joints. There were no signs of plugging of any of the large vessels of the limb. While the gangrene was in progress, the child suffered from pyrexia, but in ten days' time regained her ordinary state of health. The fingers and thumb separated at the metacarpal joints. Mr. Smith could not account for the occurrence of gangrene; no signs of renal disease, cardiac mischief, or arterial embolism were detected. The child, though liable to cold hands and feet, was warmly clad, well fed, in fair health; and yet, as if by some accident, one hand had become chilled beyond the limit whence recovery was possible. The gangrene existed in the hand only.—Dr. SYMES THOMPSON related the case of a Russian general who had consulted him, and whose feet were so cold, and consequently weak, that he could not walk for more than five or ten minutes at a time. Both his feet had since become gangrenous; but his heart was healthy, and the vessels of the lower extremities and other parts seemed to be quite healthy.—The PRESIDENT remarked that the condition in the child's case was not unlike chilblain.—Mr. CROFT inquired if a microscopical examination of the blood had been made. Gangrene was due, amongst other causes, to deficient nerve-supply; to disease of arteries (such probably being the cause in Dr. Thompson's case); and to change in the blood itself. This was apparently the cause in Mr. Smith's case, for the child's health was impaired by the abscess in its thigh. Were there any symptoms of septicæmia?—Mr. GOULD inquired if there was evidence of poisoning by carbolic acid. In a case of amputation through the hip-joint which he had related to the Society, it had seemed that thrombosis, which had supervened, was due to poisoning by carbolic acid.—Mr. MACNAMARA remarked that, in poisoning by carbolic acid, the white corpuscles were rendered motionless; could the formation of a clot be thereby induced?—Mr. SMITH said that carboluria did not occur until nearly three weeks after the gangrene had commenced. He himself inclined to the view that it was an extreme case of chilblain. But there were no other chilblains; and the child was well nourished, though of flabby texture. There was no sign of septicæmia. He had not examined the blood.

Congenital Cystic Hygroma.—Mr. THOMAS SMITH read notes of two cases of this disease. Both patients were between three and four years old, with large cystic hygromata, occupying the right axilla, and right side of the neck, and extending on to the upper arm. These were admitted into the Children's Hospital within a week or two of one another. In the one case, inflammation was excited by the introduction of three carbolised catgut setons, in the other it had resulted from a blow. After a tedious convalescence, in the first case of six months, and in the last case of five months, the patients were discharged, and were now, more than a year afterwards, cured, the tumours having shrunk so as to be unnoticeable. Mr. Smith remarked that, since his published experience of the disease in the *St. Bartholomew's Hospital Reports*, he had seen a large number of cases, and had been still more convinced of the uncertainty of the prognosis in the disease when left to itself, as it at one time would make progress, and at another recede; indeed in the same growth, at the same time, one cyst would be increasing while another was drying up. In respect to treatment of a curative kind, he had nothing better to recommend than that of attacking the cysts with carbolised catgut setons, and thus exciting inflammation in them. Though this plan was not devoid of risk, yet it was less dangerous than removal, and much more reliable than injection by iodine tincture. He had never tried Morton's iodo-glycerine solution, but thought it promised well.—Mr. HAWARD thought the treatment by setons the best, although it was not free from risk. Many cases underwent spontaneous cure. He had lately seen two cases of the kind; in one, a fall produced extravasation of blood, which being absorbed, the original tumour also disappeared. In another case, cure had been spontaneous; and it was here noticed that, as some cysts lessened in size, others grew more tense, as if inflammation of varying intensity were occurring. In hydrocele, inflammation of different degrees of intensity was requisite in different cases, in order to begin absorption. He thought that in these growths, as in nævus, the greater the tumour the greater was the liability to spontaneous cure, in consequence of the increased risk of injury.—Mr. Godlee desired to know more of the pathology of these cases. He had recently removed a small though rapidly growing congenital tumour of the kind from a child's arm; and had found the lining membrane to be composed of lymphatic epithelium.—Mr. Parker had treated a case by the passing of a seton, but the cyst in a few months refilled. Then the child had scarlatina, and the cyst disappeared. He had also seen a case at the London Hospital treated by Mr. Maunder. The growth in that case consisted of highly nucleated fibrous tissue, with spaces filled by serous fluid.—Mr. Marsh said that, before Mr. Smith's valuable monograph on the subject appeared, surgeons had great difficulty in treating these cases in consequence of the difficulty in diagnosis. The roots of the tumour were often beyond the reach of surgical aid in the deepest parts of the neck. Such was the condition in a case mentioned by Mr. Cæsar Hawkins. But the cases did not occur in the neck only. Mr. Holmes had removed such a growth from the ischio-rectal fossa, and in doing so had exposed three inches of the rectum. That patient did well. Mr. Marsh had removed a large tumour of the kind from the zygomatic region of a child nine days old. It had extended nearly to the internal carotid artery, and was growing rapidly. In its removal, he had also taken away necessarily one half of the soft palate, and the child had done well. These tumours were found at all parts of the neck, body, and arms. The tumour might in many instances be left alone, unless it were likely to cause death. The seton often made the child ill for a long time, and sometimes caused death.—Mr. Parker had injected a similar growth in the neck of an adult with Morton's fluid.—Mr. Smith thought the largest of these growths were possibly the most likely to undergo spontaneous cure. But the tumour often interfered with life, and it was then necessary for the surgeon to intervene. These tumours were found on all parts of the body. He had seen one in the kidney in a child, and another in the abdomen of another child, which rendered the boy rotund and translucent, like a gooseberry. An operation was postponed, as the general health was good. He then fortunately fell from his chair one day whilst at dinner, "burst internally", was very ill for a week, and eventually recovered. He thought these tumours were composed of fœtal cellular tissue, like the gelatiniform tissue of the umbilical cord. Although the tumours might be cured spontaneously, they might (as in a case mentioned by Mr. Cæsar Hawkins) begin many years afterwards to grow again.

Intrathoracic Sarcoma.—Dr. de Havilland Hall read an abstract of this case. H. A., a youth aged 19, was admitted into Westminster Hospital under Dr. Hall's care, on December 5th, 1879. The patient stated that, until nine weeks previous to admission, he had enjoyed good health, that he caught cold while playing at cricket, and that his illness began with languor and loss of flesh. He applied to a medical man, who told him that he was suffering from pleurisy. On admission, he complained of slight cough, but with no expectoration, and of shortness of breath on exertion. Decubitus was on the left side. Over the right lung, there was good resonance on percussion, with puerile breathing. The left chest was absolutely dull up to the second rib, the dulness passing beyond the median line; above the second rib, the resonance was somewhat boxy; posteriorly there was dulness to the spine of the scapula, and a tympanitic note above. The side was immovable, with marked rounding, and there was bulging of the interspaces; vocal fremitus was not quite absent. The breath-sounds were inaudible, except faintly at the apex and along the spine; a faint creak was audible at the angle of the scapula. The heart's impulse was one inch to the inner side of, and one inch below, the right nipple; the sounds were clear. A diagnosis of pleural effusion was formed. The patient was accordingly tapped in two or three places, but no fluid followed, the end of the instrument being blocked up with a little "cheesy" flaky matter. Two days after admission, a free incision was made in the fifth interspace with antiseptic precaution; on introducing the finger, a mass of soft "cheesy" material was found in every direction; a drainage-tube was left in the opening. No marked alteration occurred till December 21st, when the patient appeared much worse, suffering from shortness of breath, and he coughed up a little frothy rusty sputum. The next day, there were the physical signs of pneumonia of the right base, and he died on the 23rd. The *post mortem* examination showed that the whole of the left pleural cavity was occupied by a soft brain-like mass, which microscopical investigation proved to be a round-celled sarcoma. The left lung was collapsed and lying along the spine. The heart was pushed over to the right; the outer border of the right ventricle extended five inches to the right of the middle line, the tumour itself extending two inches to the right of the same line. The lower lobe of the right lung was non-crepitant, and resembled damson cheese in colour and consistence. Dr. Hall remarked on the extremely short history of illness given by the patient. He pointed out that the physical signs were in every particular those of an extremely large pleural effusion, with the exception that vocal fremitus was not quite absent. He drew attention to the rapid growth of the tumour, as shown by the increase in the area of dulness and the displacement of the heart which took place under observation. He regretted that he had omitted to examine microscopically the so-called "cheesy" matter which adhered to the aspirator after it was withdrawn; examination of this substance would doubtless have sufficed for an exact diagnosis before death. The growth apparently sprang from the anterior mediastinum.—Dr. D. Powell said that, as far as the physical signs went, he knew of no means of diagnosis except with the aspirator-needle. He inquired why, as the swelling, upon puncture, was found to be solid and not fluid, Dr. Hall was not satisfied with that discovery, but proceeded to incise the chest. Some of these lymphomatous tumours surrounded vessels, and so one after a time found pressure-signs.—The President thought it unfortunate that the cheesy material brought away by the trocar was not examined; but he did not think the failure to obtain fluid upon puncture made the diagnosis sure. In two cases of his own in the Middlesex Hospital, he had been certain that fluid was present, although it was not revealed by the needle; and it was found upon subsequent puncture. In lymphoma, there was not often pressure on vessels; whereas in cancer it was usually present.—Dr. F. Taylor mentioned a case of empyema in which only at the third puncture, and that with a very long needle, the fluid, which was pus, was found.—Dr. Powell said his remarks applied only to cases of such extreme effusion or growth as displaced the heart, when puncture should clench the diagnosis. Was there hæmoptysis in Dr. Hall's case?—Mr. Gould thought that the thick layer of concrete pus lining the chest often blocked the aspirating needle, and prevented fluid from escaping.—Dr. Hall said that Mr. Butlin, who had examined the tumour, found it to be a sarcoma, not a lymphoma. The history of the case was quite unlike that of a solid tumour. There was the wetting when playing at cricket, with pain in the chest thenceforth; and in nine weeks' time, all the signs of rapidly increasing and large pleural effusion were present. He had not heard of a thoracic tumour growing so rapidly, consequently he had tried the several punctures, for he held that a man should not be allowed to die of pleural effusion without attempting to relieve him by operation. The patient had had no hæmoptysis.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

Wednesday, March 17th, 1880.

W. A. N. Cattlin, F.R.C.S., President, in the Chair.

Irregularities of the Teeth and their Surgical Treatment.—Mr. Francis Fox read a paper on this subject. After dwelling briefly upon the physiological facts concerning the development of the teeth and jaws, Mr. Fox mentioned the most recent theories concerning the replacement of the deciduous teeth by their permanent successors, pointing out that pressure had little or nothing to do with the process, and that the absorption of the temporary structures was effected by the action of a special organ—the *absorbent papilla.* He next entered upon the causes of irregularities, and stated that these might arise during the developmental periods of life, or from some accidental circumstances occurring subsequently to that period—such as the prolonged retention of temporary teeth, the presence of supernumerary teeth, etc. He mentioned also how strong an hereditary tendency there was to reproduce abnormal peculiarities in dentition. He then passed to the consideration of some of the forms of irregularity and their appropriate treatment, confining his remarks more especially to the surgical proceedings calculated to benefit, dwelling particularly on the importance of an early care and preservation of certain of the temporary series; for example, the posterior temporary molars, as these teeth prevented the assumption of a too forward position of the first permanent teeth, and the temporary canines, as the retention of these maintained a space in the dental arch for the eruption of the permanent canine teeth, which were late in appearing, and had therefore to find a place between two permanent teeth already emptied. In conclusion, Mr. Fox entered at some length upon the question of removal of one or more of the posterior permanent teeth in order to afford increased space for the accommodation of the more anterior teeth; and he was emphatic in advising a judicious but timely extraction of any obstructing temporary teeth, as the prolonged retention of these is a frequent cause of irregularities in their permanent successors.—A discussion ensued, in which the President, Mr. E. Bartlett, Mr. Gaine, Mr. Parson, and others took part.

The President then announced that on the next meeting, on April 21st, Mr. Christopher Heath would read a paper on "Thirty-five years' History of a Maxillary Tumour."

SELECTIONS FROM JOURNALS.

SURGERY.

Congenital Diverticulum of the Œsophagus.—E. Kurz relates in the *Deutsche Medicinische Wochenschrift* for 1879, No. 40, the case of a child three years, which had since birth been subject to vomiting of food, both solid and fluid, soon after taking it. The solid matter, which was usually about a handful, was mixed with mucus and had an acid reaction. The sound when introduced sometimes reached the stomach, but was more frequently arrested at a depth of nearly four inches by an obstruction which could not be overcome. The attacks became more intense; scarcely any food reached the stomach; and the child fell off very much. Dr. Kurz concluded from the symptoms that there was a congenital diverticulum of the œsophagus, which, when filled, compressed the tube. The child came several times under treatment, the last time in a very miserable condition. An œsophageal sound was passed into the diverticulum, and through it water was poured in by means of a funnel; this escaped by the side of the sound, bringing with it a large quantity of mucus, coagulated milk, and bread-crumbs. After this had been entirely removed, the child was again able to swallow. From this time, fluid food was used; and, as soon as an attack of vomiting appeared, the washing out was repeated, and always removed the obstruction for a considerable time. In the course of the following summer there were only two attacks; the child was well nourished, and had much increased in size.

The Treatment of Prolapse of the Rectum.—M. Émile Vidal lately read, before the French Academy of Medicine, an account of three cases of prolapsus recti, which he had successfully treated by the subcutaneous injection of ergotine. The first case was that of a man aged 39, who had suffered from prolapsus for eight years. After five injections of fifteen drops of solution of ergotine, a period of about two days intervening between the injections, the mucous membrane scarcely protruded at all. After the eleventh injection, it only came down during defæcation, and returned spontaneously. The total number of injections made was twenty-two. Four years had elapsed, and the man remained perfectly well. The second patient, a female aged 64, was cured after twenty-four days' treatment, and, during the two-and-a-half years since the operations, there had been no return. In the third case, a female aged 45, who had suffered for two years, was cured in fifteen days, by six injections of twenty to twenty-five drops each. The solution used consisted of fifteen grains of Bonjean's ergotine to seventy-five minims of cherry laurel-water. The injections were made at the distance of one-fifth of an inch from the anal orifice. Acute pain always followed, accompanied by contraction of the sphincter, which lasted several hours. Several times, an injection of twenty-five drops of the solution produced spasm of the neck of the bladder and retention of urine for eight to ten hours. In no case was local inflammation or abscess caused by the ergotine.

MEDICINE.

On Loss of Weight in Epileptics.—Dr. Kowalewski (*St. Petersburg. Med. Wochenschrift*, No. 47, 1879) has made a number of observations on the conditions of the body-weight in epileptic patients, both during the attacks and in the intervals, and has arrived at the following conclusions. 1. In all cases of epilepsy and in all forms of the disease, the weight of the body decreases after each attack, in proportion to the duration of the illness and the severity of the paroxysms. 2. In inveterate cases, where the paroxysms occur very frequently and the organism has become accustomed to the attacks, the loss of body-weight after a paroxysm amounts to only one or two pounds; while in recent cases, in which the paroxysms are rather unfrequent, it is considerable, amounting to as much as from three to twelve pounds. 3. When several attacks occur in succession, the greatest loss of weight follows the first attack, and after the others the loss is very small. 4. In all forms of motor or somatic epilepsy, the great loss of weight occurs during epileptic convulsions, amounting sometimes to as much as twelve pounds at a time; in epileptic syncope, the loss of weight is much less. The greatest loss of weight—amounting sometimes to one-fourth of the whole body-weight—takes place when there is insanity combined with epilepsy. The weight again increases a few days after the attacks.

MATERIA MEDICA AND THERAPEUTICS.

Formula for Relief of Itching.—The *Philadelphia Medical and Surgical Reporter* for March 6th gives, under the name of "Battey's Formula", the following: Crystals of iodine, half an ounce; crystallised carbolic acid, one ounce; combine the two by gentle heat. It further says that Dr. Bellamy states, in the *North Carolina Medical Journal* for December 1879, that the above formula has given him more satisfaction in the management of those intractable forms of skin-disease characterised by intolerable itching, and more particularly in eczema marginatum, than any other parasiticide.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AIR OR WATER PADS FOR SPLINTS.

The air- or water-pads that I have had manufactured by the Britannia Rubber Company, 32, Cannon Street, have given me the greatest satisfaction. I exhibited them before the North of Ireland Branch of the British Medical Association at the recent meeting in Belfast. The members present seemed to approve highly of the pads, and considered they would supply a want much felt by surgeons. In one important particular I know they are eminently serviceable, and that is in entirely solving the long-vexed question of sore-heels in the treatment of fractures of the lower extremity. One of the little heel-pads (fig. 2) filled with air or water, and placed under the heel, in a box-splint or any other fracture appliance, will prevent the patient from complaining of the slightest pain or inconvenience, no matter how long it may be necessary to keep the limb in position. Such has been the result of my own experience. To guard, however, against the possibility of pain, I have had attached to each pad a small tube about four inches long, with a stop-cock, by means of which the pressure on the heel can be relieved by allowing exit to a small quantity of air or water, or again, if necessary, by further inflation. The small perineal pad (fig. 3) is placed between a fold or two of linen, and prevents irritation when counterextension is necessary, as in fractures of the neck of the femur, etc. The side pads for fractures of the upper or lower extremity are on the same principle. They can be filled with air or water, and are made of all sizes. Fig. No. 1 shows the size of a pad for the leg.

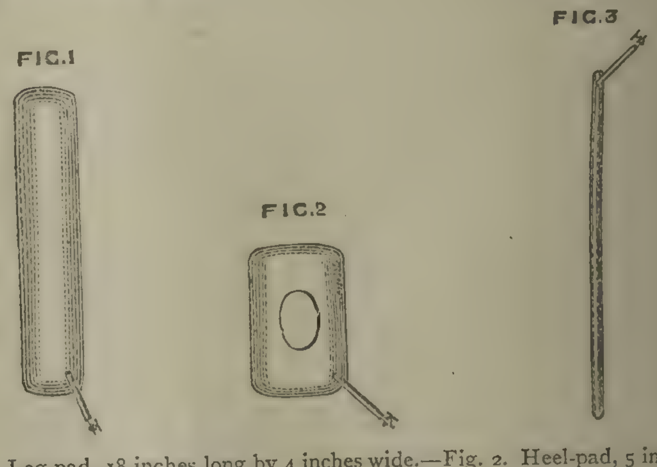

Fig. 1. Leg-pad, 18 inches long by 4 inches wide.—Fig. 2. Heel-pad, 5 inches long by 4 inches wide, with a hole for heel, 1½ inches in diameter.—Fig. 3. Perineal pad, 18 inches long by 1½ inches wide.

For padding a McIntyre's splint, these pads are invaluable; the leg lies on a small air- or water-bed, and the patient never complains of pain or inconvenience; indeed, the limb will rest upon one of them for months without discomfort. Before applying a pad, I place it in a cover of linen, which is made waterproof by a simple chemical process known to everyone, and which I need not here detail. I then inflate it, and it is at once ready for use. If the limb be inflamed or irritable, I fill the pad with water instead of air.

I can testify, from experience, as to the great satisfaction afforded both to surgeon and patient by these pads, and they seem to me to fulfil a desideratum in surgery.

Edward C. Thompson, M.B.,
Surgeon to the Tyrone County Infirmary.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 10TH, 1880.

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SURGICAL STATISTICS.

IN commenting on the recent antiseptic discussion at St. Thomas's Hospital, after referring to the fallacies inherent in statistics, we said: "The real proofs that antiseptic surgery has introduced into science and into practice a new principle are those on which Mr. Lister has always insisted, and which he once more brought into prominence on this occasion. Let any surgeon under any other system produce cases in which a long series of the most tremendous operations in surgery have been effected without raising the clinical thermometer, without traumatic fever, without septic irritation, without any of the indications of danger which follow ordinarily the surgical invasion of the tissues; let him produce psoas abscesses following the course which they do follow under antiseptic surgery; let him show blood-clots organising and dead tissue undergoing absorption; let him show a long series of great operations in which the presence of pus is an exception. This cannot be done."

In answer to this so-called "challenge", a paper has been published in our columns by Professor Spence, in which he attempts to produce evidence in favour of what he terms "simple" methods of dressing. Instead, however, of applying himself to the point at issue, and trying to show that the results mentioned did not indicate a new principle, he contents himself with pointing out that, under "simple" methods of treatment, patients who have undergone severe operations *may* not die in any larger proportion than those which have been operated on antiseptically; and, in support of this statement, he brings forward a table of sixty-three amputations with only three deaths, and of twenty-three excisions of joints with only one death. Some of these operations were performed in hospital, some apparently in private practice.

But if we look at the detailed account of Mr. Spence's results published in our issue for February 14th by Mr. Cheyne—an account which Mr. Spence has not questioned, and which we must, therefore, accept as correct—we see that this is merely a very exceptionally favourable series of cases which occurred some years ago in Mr. Spence's practice. It does not indicate anything in favour of a special method of treatment, for it is acknowledged on all hands that such a series of successes may occur under any method of treatment; and, indeed, Mr. Spence, in his *Lectures on Surgery*, brings forward this very table, and contrasts the results with those which he usually obtains, in order "to show how the results of statistics may fluctuate independently of any change in the treatment". And if we look at Dr. Braidwood's table of cases of pyæmia for the years 1860-61, 1861-62, and 1862-63, we find that 17 cases of pyæmia alone occurred during that time in Mr. Spence's hospital practice. This fact sufficiently shows that the series of successes which Mr. Spence has produced could not have been due to any marked influence of "simple" dressings *per se* in preventing septic diseases. On the contrary, it distinctly indicates that the good result depended on other causes than on the methods of local treatment adopted; and that, where circumstances were present which favoured the occurrence of septic diseases, such as the nature of the injury or disease requiring operation, the constitutional condition of the patient, etc., the method of treatment employed had little or no effect in preventing their development. And if we take the same period during which Mr. Lister's results were obtained, by which time it may fairly be presumed that Mr. Spence had attained great experience and skill in the application of the method of dressing which he now thinks to have been so useful in 1860-61-62, we find a very marked contrast between Mr. Spence's results and those published by Mr. Lister; a difference in mortality as regards general results of 17.5 per cent. in Mr. Spence's cases, compared with 5.1 per cent. in Mr. Lister's, or, as regards the results of amputations alone, of 25.7 per cent. in Mr. Spence's practice, as compared with 11.25 in Mr. Lister's.

Mr. Spence makes no allusion in his paper to the manner in which healing occurs under "simple" methods of dressing; but, to take one example from his *Lectures on Surgery*, he says, speaking of lacerated wounds: "There is always in large lacerated wounds a certainty of partial sloughing at least, and great suppuration from the injured textures." And yet Mr. Lister tells us that, in such cases, the wound becomes filled by blood-clot, which serves as a mould for the young organising tissues, and healing occurs without sloughing or even suppuration. Such a process is nowhere alluded to in Mr. Spence's works as occurring in open wounds, while Mr. Lister states that it is the ordinary method of healing of open wounds under a moist dressing when treated strictly antiseptically.

In his paper, Mr. Spence makes no reference to such operations as incisions into joints; but, in his work on *Surgery*, he says, with reference to the removal of loose cartilages from joints: "There is no class of operations that I have a greater dread of than the apparently simple one of removing a loose cartilage." What a contrast between this statement, and the confidence with which Mr. Lister and his followers assert that a joint may be freely opened with antiseptic precautions, and kept open for some days by means of a drainage-tube passing into it, without any inflammation of the joint or impairment of its mobility!

Lastly, what has Mr. Spence to say as to spinal abscess? In looking over his published results, we find an almost entire absence of mention of such cases. Nevertheless, his own statements on the subject and the difficulty which he experienced in understanding Mr. Lister's description of the aseptic course of these cases sufficiently show that, by the aid of "simple" methods of dressing, he has not succeeded in obtaining anything like similar results. In striking contrast to the ordinary progress of these cases, we have Mr. Lister's statements, and the statistical evidence brought forward by Dr. Bishop in our issue for January 31st.

Thus far we have dealt with this discussion in reference to our own article; but Mr. Spence has also asked for explanations of some of Mr. Lister's statements and supposed omissions. We need only point to the reply given by the latter—a reply which, while it adds much in explanation of the statistics which renders them more valuable, also clears away any doubt as to their completeness which might have arisen in the minds of some after the perusal of Mr. Spence's paper. Mr. Spence seems surprised that Mr. Lister should have looked on some expressions as reflecting on his character as a surgeon and as a gentleman; and we are very much pleased to find that, in his reply, he strongly disclaims any desire to cast such imputations.

In summing up, we need only repeat our statement that Mr. Spence has entirely missed the points at issue. We do not require statements as to general results. What we do want is evidence to enable us to judge whether the same constant results, which are so notable a feature of strict antiseptic treatment under any circumstances, can be obtained by "simple" methods of dressing under unfavourable circumstances, such as bad hygienic conditions, or after certain operations, such as incisions into joints, psoas abscess, etc. If this cannot be done, then, in spite of any number of favourable results in favourable cases, we must recognise that the surgeon who treats his patients on the principle of total exclusion of living septic particles is acting on a new principle, and is able to obtain results better than those which can be got otherwise. Our position in reference to this subject is in nowise shaken by what has passed; on the contrary, the result of the discussion has only been to bring out in more striking contrast the imperfections of "simple" methods of dressing in the hands of a most distinguished surgeon, when compared with the brilliant results of treatment conducted on strict Listerian principles.

THE VALUE OF EXPERIMENTS ON ANIMALS IN THE PROGRESS OF MEDICINE.

I.

In the following remarks, we propose to recall to the memory of our readers some of the instances in which the progress of medical science and the improvement of medical and surgical practice have been materially aided by the performance of experiments on animals. The list will be not an exhaustive one, but will contain several selected instances—for which we are indebted chiefly to the Report of the Royal Commission on Vivisection, and to notes kindly furnished by several competent authorities on the matter.

The performance of experiments on animals has been practised from very early times; and it was much used as a means of investigation by the revivers of anatomical and medical science in the sixteenth century. It must be remembered that they, and their followers down to a recent date, were of necessity compelled to operate on sentient animals. They had not the advantage, of which modern physiological investigators almost universally avail themselves, of being able to render the subjects of their experiments insensible to pain by the use of anæsthetics. Had such means been at their disposal, no doubt can be entertained that such men as Harvey, Haller, Vesalius, and Hunter, would have gladly used them.

It was not until the time of Galen, in the second century, that any noteworthy progress was made in the knowledge of the functions of the body. Following the example of Aristotle, Galen eagerly studied the anatomy of those animals which most closely resemble man in structure; and he was thereby led to inquire into the functions of the various organs. Having a real scientific instinct, he soon perceived that a study of the structure of the dead was not sufficient to teach the knowledge of the actions of the living body; and therefore he resorted to experiments on living animals. Previously to his time, it was thought that the arteries contain air, because they are found empty after death; it was supposed that the air passes down the trachea and through the arteries, to keep the body cool. By opening an artery in a living animal, and finding that blood instead of air came forth, Galen exploded an erroneous doctrine of long standing, and supplied a fact of fundamental importance in physiology and in medicine. Galen also made experiments on the effects of section of the intercostal muscles and nerves, and of the spinal cord. He discovered that death ensued on dividing the cord close to the head; but that, by cutting it below the neck, the respiration was not stopped, but the movement of the ribs only was interrupted. This experiment led him also to conclude that the nerves of sensation are distinct from those of motion, and that the organs which are capable of voluntary movement have two sets of nerves. "If", he wrote, "one of these nerves be injured, the organ loses only that function which the injured nerve performed for it. Thus we may see in one case the tongue impeded in its function, and in another case in its power of recognising tastes."

Andreas Vesalius (about 1540) was a great vivisector; he performed his experiments before his audience. In his lectures, he used strongly to urge upon his pupils the necessity of supplementing their anatomical studies by making experiments on living animals. His disciple Realdus Columbus also practised vivisection, and is said to have been the first to use dogs for the purpose instead of pigs, which had been previously used. Vivisection was also practised by Aselli, who, in 1622, discovered the lacteal vessels of the mesentery while making a demonstration on a living dog.

The eminent physiologist Haller was a strong advocate of vivisection. He said: "It is not sufficient to make the dissections on the dead bodies of animals. It is necessary to incise them in the living state. There is no action in the dead body. All movement must be studied in the living animal; and the whole of the physiology turns on the motions, external and internal, of the living body. Hence no progress can be made in investigating the circulation of the blood and its more recondite movements, or the respiration, or the growth of the body and the bones, the course of the chyle or the motion of the intestines, without the sacrifice of living animals. A single experiment will sometimes refute the laborious speculation of years. *Hæc crudelitas ad veram physiologiam plus contulit, quàm omnes ferè aliæ artes quarum conspirante operâ nostra scientia convaluit.*"

It is thus evident that the investigation of the structure and function of the body by means of experiments on animals was a common practice among those great men, to whose labours the advancement of our knowledge of Anatomy and Physiology, and thereby of practical Medicine and Surgery, is in the first place due. We will now proceed to give some examples of the benefits rendered to medicine and surgery by the performance of experiments on animals.

The greatest of all physiological discoveries, upon which rests the whole superstructure of scientific medicine and surgery—viz., that of the circulation of the blood—was made in England by vivisection. William Harvey had studied anatomy in Italy under Fabricius, and had doubtless learned from him the fact that many of the veins have valves. The anatomy of the valves was probably of itself sufficient to indicate that the blood could flow only in one direction; but Harvey's great discovery was that the heart is not "the passive cistern of the blood", but that it is the moving power which propels the blood. Previously to his time, the respiratory acts were deemed to be the cause of the movement of the blood. In evidence of the statement that Harvey discovered the action of the heart by vivisection, his own words may be quoted. He says (*The Works of William Harvey*, translated by Dr. Willis for the Sydenham Society, 1847, page 19): "When I first gave my mind to vivisections as a means of discovering the motions and uses of the heart, and sought to discover these from actual inspection and not from the writings of others, I found the task so truly arduous, so full of difficulty, that I was tempted to think, with Fracastorius, that the motions of the heart were only to be comprehended by God.......At length, by using greater and daily diligence, having frequent recourse to vivisections, employing a great variety of animals for the purpose, and collating numerous observations, I thought that I had attained the truth, that I should extricate myself and escape from the labyrinth, and that I had discovered what I so much desired, both the motion and the use of the heart and arteries." Harvey laid bare the heart in various living animals, and watched the changes which the organ underwent in its action; he studied its motions, and the manner in which it impelled the blood. He traced the course of the blood along the arteries, and its return by the veins, and established the doctrine of the circulation. Harvey did not, however, know by what channels the blood passed from the arteries into the veins, as the existence of capillary vessels was at that time unknown. They were subsequently discovered, however, with the microscope, by Malpighi in the lungs of a living frog.[*]

The pressure of blood in the vessels, and the rapidity with which it circulates, were ascertained and measured by Stephen Hales, the incumbent of the parish of Teddington-on-Thames. His experiments were completed by Poiseuille and Ludwig; and the knowledge thereby obtained respecting the "blood-pressure" is now constantly being turned to practical use by physicians.

Although Harvey demonstrated the motions of the heart and the circulation, it was only in recent times that a knowledge of the healthy and morbid sounds was obtained. These were investigated about fifty years ago by Committees in London and in Dublin; that in the former consisting of Dr. Billing, Dr. C. J. B. Williams, Dr. Hope, and others. They made experiments on animals by hooking back the valves of the heart, and so ascertained the cause of the natural sounds, and how *bruits* are produced. The result of these investigations, and of those of subsequent observers, has been to place our knowledge of the heart and its functions on a new and improved basis, and to very materially advance our means of prognosis, diagnosis, and therapeutics of the maladies of this important organ. Experiment on animals has also rendered signal service in regard to other facts connected with the organs of circulation and their functions.

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[*] This is the statement which has generally been accepted. But the papers of Dr. W. S. Forbes of Philadelphia in the *American Journal of the Medical Sciences* for July 1878, and in the *Philadelphia Medical Times* for December 21st of the same year (see British Medical Journal, February 5th, 1879, page 23), seem to indicate that Harvey's anatomical knowledge was greater than that for which he has received credit.

The operation of transfusion of blood was discovered entirely by experiments on animals. This operation being a very delicate one, a great many precautions have to be taken to prevent dangerous or even fatal accidents; *e.g.*, the injection of air into the veins, or the formation of clots in the blood injected, would almost invariably cause the death of the patient. The manner of preventing these accidents could only have been ascertained by experiments on living animals; but, this having been done, the operation of transfusion is now often performed in urgent cases, with the result of saving many lives. The operation has not only been adopted for the purpose of restoring blood in cases of severe hæmorrhage, but also in certain cases of blood-poisoning, *e.g.*, in carbonic oxide poisoning, where death is ascribed to the red blood-corpuscles losing their power of absorbing oxygen in the lungs. In such cases, it has been proposed to remove a large portion of the blood of the patient by vivisection, and to replace it by healthy blood. This operation has been repeatedly performed with much success; but, in order to ensure the latter, it had to be first ascertained whether the blood of animals might be used instead of human blood. Experiments have shown, however, that the transfusion of the blood of animals is always attended by more or less dangerous consequences. Thus experiment on animals has rendered the transfusion of blood a comparatively safe operation, and many human lives have been saved by the discovery that none but human blood should be used.

One of the most important improvements in the practice of surgery, the Hunterian treatment of aneurism by ligature, arose out of experiments on animals. John Hunter had tied the carotid artery in a buck, in order to observe the effect produced thereby on the growth of the antlers. On examining the part some time afterwards, he found that the circulation had been re-established; and, on killing the animal, he ascertained that this had taken place through the anastomosis of vessels coming from the distal and the proximal sides of the ligatured part of the vessel. This observation suggested to Hunter the method of treating aneurism which is known by his name; and he soon afterwards put the suggestion into practice on a patient in St. George's Hospital, suffering from popliteal aneurism. An account of this valuable discovery will be found in the BRITISH MEDICAL JOURNAL for February 22nd, 1879 (page 284).

Not only was the principle of the Hunterian treatment of aneurism the result of vivisection, but important improvements were effected in the details of applying the ligature by means of experiments on animals. The inquiry made by Dr. Jones early in the present century, as to the process employed by nature in checking hæmorrhage, led him to the discovery that it was not necessary or advisable, as had been supposed, to use large ligatures in order to avoid dividing the coats of the vessels. He showed that the ligature should be applied so as to divide the middle and internal coats of the artery. Subsequently to the time of Jones, other surgeons and physiologists have investigated on animals the process of repair of wounded arteries and the means of arresting hæmorrhage. Among the results of such investigations have been the introduction of the catgut ligature, and of torsion of the divided ends of arteries.

THE VALUE OF OUT-PATIENT DEPARTMENTS.

II.

IN a recent article, we drew attention to the growing importance and clinical value of the out-patient department of our hospitals; and we now propose to suggest means by which it may be developed in all ways and improved for educational purposes.

It will be readily understood that, to examine patients thoroughly, the necessary apparatus and microscopes, etc., must be provided; also that the rooms must be well ventilated, without draughts, such as may prove dangerous to the phthisical patient whose chest is being examined. The rooms must also be commodious and quiet, to allow of any good work, particularly the teaching and practice of auscultation. To collect groups of similar cases—such as heart-disease, phthisis, Bright's disease—to attend on certain days, would greatly assist the clinical work of the physician, by assuring a good basis of material for the teaching of the day.

The general student, undertaking no responsibilities, may commence by seeing patients examined, hearing their histories, and following the methods by which the diagnosis is arrived at; thus his knowledge of anatomy and physiology would be applied to the diagnosis and treatment of disease. After a short time, he may practise physical examination, repeating for himself the methods by which the results were arrived at.

As clinical clerk or dresser, the student commences his responsibilities under the supervision of the acting medical officer; he may now be called upon to attend to minor dressing, or to collect evidence in the histories; to cross-examine, without too much expenditure of time on his own part, or altogether wearying the patient. He sees the routine method of practice; learning also how to speak to sick men and women with good feeling; and receives his first lessons in acquiring that dignity which is the true standing of a medical man towards his patients, and which is an important part of the training of the uncultured lad who is to be developed into the gentle-handed, kind-hearted doctor.

In most schools, a senior student, holding a qualification, gives help in seeing the patients as a clinical assistant. His duties vary greatly in different hospitals; in some, he is required to take the place of the physician whenever he is unavoidably absent, to see all old cases, and to assist in preparing the diagnosis of the new patients, of which he himself often treats the less important. We would suggest, on the other hand, that the amount of work attempted should be kept within such limits as to enable the physician to be personally acquainted with each case under treatment in his name; the clinical assistant might then help the physician, during part of his time, in some of the earliest rudimentary teaching of the students—such as examining urine, and listening to the sounds of the chest.

With such arrangements, the patient, on being admitted to the consulting-room, would be entrusted to the care of the clinical assistant and one of the clerks, who would together record the statement of complaint, take the history, and note such particulars as, in their judgment, bear directly on the case. The patient then, passing on to the physician, would be examined by him without unnecessary delay, the clinical features of the case and the points upon which the diagnosis is rested being demonstrated to the students, and recorded by the clerk, together with the prescription as dictated. Should the patient prove to have no definite pathological condition, or one so vague as not to admit of diagnosis, he may be allowed to remain for a short time under the care of the clinical assistant, attendance ceasing at the end of the month.

When the student, in his second or third year, commences hospital practice and the study of pathological conditions in the living patient, he may with advantage, at the same time, begin the study of pathological anatomy in the *post mortem* theatre.

Seeing that, in some hospitals, the growth of the schools renders it difficult to find clinical posts of responsibility for all the students, the out-patient department may be looked upon as a valuable field for clinical teaching, capable of much development in this direction. By the improved character of its work, greater benefit would be given to the individual patient, the work of the department would be held in higher esteem by society at large, and the position of the assistant-physician would be raised. A patient who has been carefully examined and treated, and the governor who sends him, are likely to be impressed with the value of the institution; they think and speak of it with respect; and thus tend to raise a just feeling of pride in the minds of all workers connected with the hospital, and assist in drawing funds for its support.

The rooms that are used for out-patient work are, as a rule, neglected and uncared for, often hidden away under the main building, defective in both light and air. They are such as no barrister, or architect, or collegiate tutor would tolerate for a moment; and yet, in these rooms the doctor is expected to examine crowds of patients, often far from cleanly, and to teach the students the rudiments of a great art. Why should the physician—because he gives his time to the service of the hospital almost without remuneration—be expected to teach, to conduct important work, calling for the exercise of all the intellectual faculties and much physical strength, and to work through long hours, in rooms inconvenient, ill-ventilated, and by no means clean? Work is apt to correspond in character to the value at which it is rated; and the care of out-patients, because laborious, is often underrated. As to its scientific and social aspects, it should be remembered that it is the man who elevates the work; and that which is conducted in a thorough and scientific manner is sure to produce a corresponding result. Let the managers of the school encourage good teaching by the physicians among the out-patients; assigning the attendance of the students, as in the wards; and, with the responsibilities of teaching, let a portion of the clinical fees be allotted to those thus teaching. If the hospital managers will also encourage the work by providing good rooms and proper nursing attendance, seeing to the cleanliness and ventilation, we shall have good class work. In a few institutions—of which we may instance the Queen's Hospital (Birmingham) and the Chest Hospital, City Road—the arrangement of the rooms has been most carefully considered; and we trust other institutions will do the like. No doubt, to have waiting- and consulting-rooms on the ground-floor, without wards above, adds greatly to the expenses of the building; but a corresponding advantage in the character of the work is likely to result.

THE twentieth festival dinner, in aid of the funds of the Royal Medical Benevolent College, will take place at the Langham Hotel, Portland Place, on Wednesday, April 28th. Sir William Jenner, Bart., has kindly consented to take the chair.

HER Royal Highness the Princess Beatrice has graciously consented to become a patron of the Belgrave Hospital for Children, and has at the same time contributed a donation of £25 to the funds of the institution.

THE Municipal Council of Paris has authorised the Société Médico-Psychologique to erect a statue of the celebrated Pinel, in the space adjoining the Salpêtrière Hospital.

THE American Philosophical Society held its centennial anniversary on Monday, March 15th. It was celebrated by a grand banquet at the St. George Hotel, in Philadelphia, at which Professors Gross, Da Costa, and many others, were present.

A VACANCY in the Pharmacy section of the French Academy of Medicine, caused by the death of M. Poggiale, has been filled up by the election of M. Jungfleisch. The other candidates were MM. Méhu, Baudrimont, and Prunier.

DIPHTHERIA is on the increase in the Russian province of Charkoff, and nineteen sanitary detachments, composed of medical men and nurses, have been sent with a view to prevent its further spread.

AT the opening of the first Legislative Council of the Transvaal in March last, the Administrator, Colonel Lanyon, pointed out as among the matters which would require early consideration that there was not a hospital in the province, and no provision for medical assistance in the out-districts.

THE French Academy of Fine Arts have decided that the subject of the competition this year for the Grand Prize of Rome (section of Architecture) shall be "A Hospital for Sick or Weakly Children, to be built on the shores of the Mediterranean".

PROGRESS OF PUBLIC HEALTH.

IN consequence of the general election, it has been considered advisable to fix the date for the conference on this subject—which has been held annually by the Society of Arts since 1876—somewhat later than was originally intended, or than has been the case in former years. It will, therefore, be held in the beginning of June. As at the previous conferences, the Right Hon. James Stansfeld, M.P., late President of the Local Government Board, will be in the chair. A programme of subjects for discussion has been drawn up by the Executive Committee, and will be submitted to the conference. The following are the subjects included:—1. The development of local government administration, especially by the constitution of county boards. 2. The extension of the powers of the local authorities of urban and rural sanitary districts; amendments in the Public Health Act. 3. Sanitary inspection and classification of dwellings. 4. Amendments in the Rivers Pollution Prevention Act. 5. The advisability of strengthening the administrative organisation of the Local Government Board; Local Government Board administration areas. 6. Further suggestions by sanitary authorities. It is announced that the detailed programme will be issued shortly, and that copies can be obtained, when ready, from the Secretary of the Society of Arts, by any person who applies. The programme will also be issued to sanitary authorities throughout the kingdom. It is not proposed to make any attempt to procure papers which may be read and discussed; but the Committee state that they will be glad to receive any communications containing fresh information, or giving accounts of progress made since the last conference. Such communications, if approved by the Committee, will be printed and circulated at the conference; but it is probable that time will not admit of any discussion being taken upon them.

THE ARMY MEDICAL SCHOOL AT NETLEY.

THE summer session of the Army Medical School was opened on the 1st instant. Thirty-five surgeons on probation for the British Army Medical Service, twenty-three candidates for the Indian Medical Service, and three for that of the Royal Navy, arrived at Netley on the previous day to attend the courses of instruction. Two surgeons-major of Her Majesty's Indian Army, and one staff-surgeon R.N., had also received sanction to join the classes. The introductory lecture was delivered by Professor Maclean, M.D., C.B. In his discourse, the lecturer took a historical survey of the school and its work, and showed that, notwithstanding the great strides professional knowledge had taken during recent years, the deficiencies as regards acquaintance with the special practical work done at the school, which had led Sydney Herbert and those who acted with him to found the institution, existed to the same extent now as they had done at that time. In the course of his remarks, Professor Maclean paid an eloquent tribute to the memory of several of those who had been officially connected with the establishment, but had now passed away, especially dwelling on the eminent services and character of the late Dr. Parkes, and touching feelingly on the recent loss of Deputy Surgeon-General Porter at Cabul. Reference was made to certain changes which have occurred during the last few months in the arrangements of the medical service in India; and to others which are reported in the public newspapers to have been recommended by the army organisation committee in that country. The occasion was taken to enlarge on the immense services which past and existing Indian medical officers had rendered to the State by the practical application in numerous extra-professional directions of their scientific attainments, as well as by the diffusion of physiological and medical knowledge through the collegiate centres in the Presidencies and in several of the tributary states; and it was shown that, by this educational work, and by the exercise of their professional skill in practice among the natives and their families, the medical officers had done more to bridge over the chasm between the Indian population and their European conquerors than perhaps any other class of British residents in the country. The lecturer concluded with an earnest appeal to the new-comers to use the opportunities which would be afforded them of improvement in the practical studies pursued at the school to the best account. It was incidentally mentioned that the period of the present session will complete the twentieth year since the first establishment of the Army Medical School at Chatham.

THE NURSING AT GUY'S HOSPITAL.

THE following resolutions were adopted at a General Court of the governors of the hospital, held on March 17th, 1880.

"1. That the Court, while fully appreciating the anxiety of the medical staff in regard to the possible introduction of any changes likely to affect the wellbeing of the hospital, have great satisfaction in recording, as the result of the recent inquiry, that, in their opinion, no fundamental changes contrary to the rules of 1874 have been made, and that the matron has not exercised any authority in this respect without consultation with the treasurer and the superintendent. Certain changes of an administrative and domestic character have indeed been ordered. Some of these have been carried out, some have since been given up, and some are still under consideration.

"2. That the measures now in progress for the improvement of the supply and training of nurses, if carried on with due discretion, with consideration of the wishes of the medical staff, and with their cooperation, will tend to promote the wellbeing of the patients, and to sustain both the hospital and the medical school in public estimation.

"3. That the treasurer having already expressed his desire to take the opinion of the medical staff on such changes which seem still open to adjustment, the governors request the treasurer and court of committees—the appointed executive authority of the hospital—to invite the attendance of any of the medical staff to meet them and the superintendent and the matron, with a view to the recommendation of such administrative details as may best secure the efficiency and harmony of the internal arrangements of the hospital."

In accordance with the above resolutions, we believe the governors were this week to meet the staff in order to arrange their difficulties. There appears to be, however, some apprehension that the treasurer will be unwilling to submit for the discussion of the staff and governors the fundamental question which constitutes the very point at issue. This is the position of the matron in relation to the medical officers of the hospital. If he pursue his present course, and the present status of the matron be consolidated, the termination of the discord is far off as ever. The medical staff have positively declared that they will not submit to her dictatorship. We trust, however, that wise counsels and common sense will prevail against class and sentimentality, and that the governors will see the wisdom of acquiescing in the wishes of the medical staff, and will allow their physicians and surgeons the same control over the nurses who attend to their hospital patients that they have over those who nurse their private patients. Last week, we made some remarks upon an article contained in the *Nineteenth Century*, entitled "The Nursing Crisis at Guy's". This was written by a pupil of the new Lady Superintendent, before she had been a month in the hospital. No doubt it is a fair *exposé* of the dangerous objects which the modern sisterhoods have in view. The views set forth in the article exactly represent the state of things which the medical staff consider as dangerous to the welfare of the patients, and subversive of order and harmony in the hospital. The article should be attentively read by all those who are attached to hospitals and other medical institutions; for it places in a clear light the peculiar phase which is now passing through a portion of the public in reference to the nursing of our poor sick. It will be seen that the training of nurses and the teaching of lady-pupils is to be regarded as the chief object in the management of our hospitals, and, amongst other incidental attributes of these, is that of supervising the conduct of medical men and students. The system of espionage thus commenced at Guy's was one of the changes made by the new matron. It behoves every medical man, no matter however sedate and old he may be, or for how many years he has been the father of a family, to take care lest his name may be found in the note-book of an exemplary young lady for report to her lady superior.

COMPULSORY VACCINATION.

M. HENRI LIOUVILLE has introduced in the French Chamber of Deputies a Bill providing for Compulsory Vaccination. The clauses, as given in the *Gazette Médicale de Paris*, are as follows. 1. Vaccination is obligatory, and must be performed within the first six months of life. 2. Revaccination is obligatory, and must be performed every ten years—in the course of the tenth, twentieth, thirtieth, fortieth, and fiftieth years. 3. At the time when the declaration of a child's birth is made, the declarants will be presented gratis with a form of vaccination certificate detached from a book with counterfoils, which must be presented at the end of six months. The certificate will state the number of vaccine pustules, and will be signed by the doctor of medicine practising in the commune. The signature must be authenticated. 4. A certificate of revaccination must be presented every tenth year to a civil functionary, in the course of the tenth, twentieth, thirtieth, fortieth, and fiftieth years; it will contain a statement of the successive revaccinations and of their results. 5. Parents and guardians and other persons convicted of infraction of clauses 3 and 4 will be subject to a fine varying from one to twenty-five *francs*, and, if the offence be repeated, to a fine of twenty-five to one hundred *francs*. 6. When this law comes into force, the production of the certificate of vaccination will be necessary for admission into establishments for primary, secondary, and superior instruction, into the army, and into public offices. 7. Contravention of the preceding clause will be punished as stated in clause 5. 8. The officers of the civil departments will each year furnish a return of the names of those who have not produced the certificate during the past year. The lists will be sent to the *juges de paix;* and the offenders will be removed from office. It is proposed that the Act shall come into operation a year after it has been passed.

THE NEW PARLIAMENT AND THE CONJOINT SCHEME.

IT is not likely that any medical legislation will be proceeded with in the forthcoming session; parties will be engrossed in political affairs. Next year, however, there is no doubt that some steps will be taken by the new Government with regard to the Medical Act. Remembering the nature of Lord Ripon's Act, it is most probable that the measures introduced by the Liberal ministry would be constructed on similar lines, and that the chief feature would be the institution of a central examining board wholly independent of the existing licensing bodies. Unless this is to happen, no time is to be lost by the various corporations in forming a working conjoint scheme before further legislative action occurs.

THE CORONERSHIP OF WEST KENT.

ALREADY several candidates are in the field for the office of coroner of West Kent, vacant by the death of Mr. Carttar, to which we alluded last week. The only medical candidate is Dr. Theodore Maxwell, of Woolwich Common. Dr. Maxwell is an M.D. of Cambridge and a B.Sc. of London; he is also a Fellow of the Royal College of Surgeons of Edinburgh, and a Fellow of the Chemical Society. It is very desirable, in the interests of the medical profession as well as in the interests of justice, that coroners should be able to estimate symptoms and to form a correct opinion as to the cause of death. Every year, as pathology and morbid anatomy make progress, this becomes more important. Dr. Maxwell's education and professional experience peculiarly fit him for the office which he now seeks, and we shall be glad to hear that he has been successful. The polling will take place at Greenwich; but the date of the election is not yet fixed. All resident freeholders in the western division of Kent have votes.

ZYMOTIC DISEASES IN LONDON.

THE fatal cases of whooping-cough in London, which had been 114 and 115 in the two preceding weeks, rose to 142 last week, and exceeded the corrected weekly average by 52; 8 occurred in Chelsea, 11 in Pancras, 13 in Islington, 11 in Southwark, 15 in Lambeth, and 13 in Camberwell. The 59 deaths from scarlet fever showed a further increase upon recent weekly numbers, and exceeded the average by 26; they included 6 in Islington, 11 in Southwark, and 6 of Camberwell residents. Of the 24 deaths from measles, 3 occurred in Paddington, 3 in Bethnal Green, and 3 in Lambeth. The 11 deaths referred to diphtheria again exceeded the corrected average; 2 were returned in Islington, 3 in Hackney (of which 2 occurred in one family), and two in Wandsworth district. The fatal cases of fever, which had been 10 and 18 in the two previous weeks, declined again to 10 last week, and were 19 below the corrected weekly average; 7 were certified as enteric or typhoid, one as typhus, one as "epidemic cerebro-spinal", and one as low fever. The deaths from small-pox, which had been 13, 11, and 4 in the three preceding weeks, rose again last week to 9, of which 5 were recorded in the Metropoltan Asylum Hospitals at Homerton, Stockwell, and Deptford, one in the Highgate Small-pox Hospital, and 3 in private dwelling-houses. Five of the 9 fatal cases were of residents of East London. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined from 188 to 167 in the three preceding weeks, were 172 on Saturday last; 47 new cases were admitted to these hospitals during last week, against 41, 25, and 31 in the three previous weeks. The Highgate Small-pox Hospital contained 19 patients on Saturday last.

TRIENNIAL PRIZE OF THE ROYAL COLLEGE OF SURGEONS.

At a quarterly meeting of the Council of the Royal College of Surgeons on the 8th instant, the collegiate triennial prize was awarded to George Arthur Woods, M.R.C.S.Eng., of Southport, for his essay "On the Anatomy and Physiology of the Third, Fourth, and Sixth Nerves, as illustrated by Observation and Experiment in Health, and by Reference to the Effects of Injury and Disease". This triennial prize, which has not been awarded since 1858, consists of the John Hunter medal executed in gold to the value of fifty guineas, or, at the option of the successful author of the dissertation, of the same medal executed in bronze, with an *honorarium* of fifty pounds. This will be the first occasion of the medal, whether in gold or bronze, being awarded. Mr. Woods was the gainer of the Astley Cooper Prize in 1877, for his essay on the Anatomy, Physiology, and Pathology of the Lymphatic Nervous System. He is also a member of the British Medical Association, and Surgeon to the Southport Infirmary and Dispensary.

THE USES OF ALCOHOL.

M. Leven has been hard at work on the question of the quantity of alcohol which should be taken to facilitate digestion, and, consequently, the assimilation of food. He demonstrates, by conclusive experiments, that an excess of alcohol, viz., 75 *grammes* of brandy to 200 *grammes* of meat, completely arrest digestion; whilst 25 *grammes* of brandy with the same weight of meat will, on the contrary, have a very powerful effect on the digestion. The quality of the alcohol used is of no less importance. Dr. Rabuteau, whose chemical researches give authority to his dicta, has studied the comparative action of the different alcohols of commerce with the greatest care. Ethylic or vinous alcohol has always yielded the best results. His numerous experiments show that even an excess of this kind of alcohol does not produce the injurious effects that are brought on by even moderate use of the majority of the alcohols of commerce, and especially of that variety which contains amylic alcohol. According to him, it is this kind which produces the lamentable results of alcoholism.

A DIPLOMA MANUFACTORY.

The so-called University of *Philadelphia* (which we must beg our readers not to confound with the highly respectable and celebrated University of *Pennsylvania*) has recently been made the subject of a public exposure, which will, it is to be trusted, lead to a beneficial result. This so-called university has, it appears from the statements of our American contemporaries, been for some time under the management of a party of Methodist ministers, of whom the Rev. T. B. Miller was Dean of the institution, and the Rev. W. Major Secretary. A few weeks ago, two visitors called at the "college", and asked the Dean as to the requirements for a degree. He informed them, it is stated, that the diploma for a doctor of medicine would cost about one hundred dollars; and that, having three charters in his possession, they could select the one which they preferred. They need not, he said, attend lectures, and could begin to practise at once. A certificate, signed by the Dean, was handed to them, for which twenty-five dollars were paid as the first instalment of the price of the diploma. They also heard a lecture on the writing of prescriptions, and received a set of tickets for lectures supposed to have been delivered during the last course, recently closed. Unfortunately for the Dean and his colleagues, his visitors were the city editor and a reporter of the Philadelphia *Public Record;* and they published the next morning a full account of their interview, which has excited much comment and has been widely copied. It has been further shown that the charter under which the institution acted was repealed by the State legislature in 1872; but, notwithstanding this, it has continued to issue diplomas without, apparently, any interference on the part of the public authorities. The members of the Methodist church, however, have acted promptly and in a most praiseworthy manner. At the annual conference, which was held shortly after the exposure in the *Record*, the Rev. Mr. Miller and the Rev. Mr. Major—who are said to have been ministers of good standing—were called to account for their conduct; the result being that Mr. Miller was expelled from the church and the conference, and Mr. Major was suspended for a year. It is much to be wished that the public authorities in America would, if only for the sake of the reputation of the established and creditable medical institutions of their country, act with as much energy as has been shown by the Methodist conference at Philadelphia.

CHINESE OPIUM.

Recent official reports contain interesting information regarding this subject. Vigorous efforts were made during the past year by the Viceroy Shên Pao-Chên and the Provincial Government generally to put a stop to the cultivation of the poppy and the suppression of divans for opium-smoking in the Shanghai district. The local authorities of Nanking, Loochow, Yangchow, and other large cities, did their best to carry out this object. It is the custom of Chinese to resort to public rooms where pipes and couches are provided for opium-smokers. For their suppression, the prefects issued mandates to the effect that such premises, when only leased or temporarily hired, or even devoted to sacrificial purposes, and therefore normally exempted from confiscation, should alike be confiscated, and the price obtained handed over to charitable associations; while the respective headboroughs, if guilty of connivance, would be removed from their posts and punished. Several officials have been denounced before the throne and degraded by the Viceroy, on the charge of opium-smoking during the year. The suppression of the cultivation of the poppy has, we believe, only been attempted by a few exceptionally vigorous officials in the district, and their efforts have not been uniformly successful. For instance, the former energetic ruler of Loochow, the late Prefect Tan, finding, on his promotion to the intendency of the Seuchow and Haichow circuit, that half the acreage of the land under his jurisdiction was covered with poppies, issued a mandate ordering the respective headboroughs to see that the crops were at once eradicated, and cereals sown in their place. The headboroughs having failed to carry out these orders, the intendant, after a personal appeal to the peasants, called out some hundreds of the troops of the garrison of Seuchow, and again required the peasants to tear up their poppies. On their refusal, he ordered the soldiers to perform their duty; whereupon the peasants assumed so threatening an attitude that the troops fled. The peasants then followed the intendant to the intendancy, where they made so formidable a riot that the intendant fled to the Director-General of the Transport Department, to whom he applied for troops. The Director-General, being of opinion that the action taken by the intendant was rash, refused the application, but sent some prudent officials to conciliate the peasantry. Persian opium has interfered greatly with the price and consumption of Malwa opium, which it much resembles in its consistency; and, as it is laid down at from 150 taels to 200 taels less per chest, it is not surprising that it should gradually assume a stronger position in the market. The greater proportion of the Persian opium imported in 1877 was adulterated with sugar, etc., while the shape was irregular; but last year a marked improvement was observable both in its manipulation and in its comparative freedom from saccharine matter. Upwards of two thousand chests were entered at the custom-house during the past year; and a still larger quantity would probably have been imported, had not the same drought that injured the Malwa plant affected the Persian crop also. This drug resembles Malwa not only in its consistency, but in flavour when smoked; accordingly, its price in the market fluctuated in sympathy with the rise and fall in Malwa opium. In the famine districts of Shansi, Honan, and Chihli, both the authorities and the local notables are represented as prohibiting the cultivation of the poppy, in order to substitute for it wheat and other food-bearing plants; and to this prohibition is generally ascribed the increasing trade in foreign opium in the northern ports of China.

POISONOUS VIOLET-POWDER.

WE regret to see that injurious preparations, bearing the name of violet powder, are again making their appearance in the market. Mr. Payne held an inquest, on the 6th instant, on the body of an infant named Mary Smith, in whose case the jury returned a verdict "that she died from blood-poisoning from the application to the body of an irritant powder containing sulphate of lime, and which was sold by the chemist as violet-powder; and the said jurors think that these powders ought not to be sold without being analysed beforehand, and then under proper supervision". It was stated in evidence that, after birth, the child was placed in the care of a Mrs. Marshall, who appears to have treated it with great kindness and care. She purchased the violet-powder used of a druggist in the Waterloo Road; but, after using it for a day or two, she found signs of great irritation about the body of the deceased, and a large blister extending from the abdomen to the shoulder formed. Dr. Donahoo of the Blackfriars Road was called in, and at once ordered the discontinuance of the use of the powder; but the mischief was too far advanced, and the child died. Dr. Donahoo stated that, in his opinion, the death of the child had arisen from blood-poisoning consequent upon the application of the so-called violet-powder, which contained a very large percentage of sulphate of lime. The body of the deceased was very much inflamed, and the irritation very excessive. The coroner, in summing up, alluded to the wholesale poisoning of children by violet-powder, which had caused considerable stir two years ago, and which had resulted in the acquittal of the dealer in the powder on the charge of manslaughter. Mr. Payne could not, therefore, in the face of that decision, direct the jury to record a verdict of manslaughter in the present case, however noxious and deadly in their action such powders might be. He would be very glad, however, to forward any remarks of the jury to the proper quarter. The duties of the Public Analysts should be extended so far as to enable them legally to analyse these and many other deleterious preparations sold as powders, hair-washes, etc., and to secure the punishment of the manufacturers.

SCARLATINA AT THE ILFORD VILLAGE HOME.

DR. THORNE THORNE has presented his completed report on the epidemic of scarlatina at the Village Home for Destitute Girls near Ilford. It appears that the first recognised case of the disease in the Home occurred in a child who sickened on December 28th, 1879. On December 31st, a second case occurred; four more attacks took place between January 1st and 13th of this year; and on the 14th, seven children sickened. After this date, the disease spread with great rapidity. The largest number of fresh cases on any one day was twenty-three on January 26th, and by the end of the month one hundred and forty-four cases had been recorded. After the end of January, when the precautionary measures already referred to had been adopted, the epidemic exhibited a marked decline; the new cases numbering only two or three a day during the first week, and only one case occurring during the second week of February. Up to the 14th February, however, there had been in all one hundred and fifty-nine cases, out of a total of about four hundred and forty residents on the estate. On inquiry into the cause of the epidemic, it was found that somewhat before the middle of December two of the governor's children had suffered from some indisposition, regarded at the time as trivial, but which was undoubtedly scarlet fever. They both desquamated, the elder profusely so; and one of them suffered from swelling of the glands below the jaw. During the whole period of desquamation, both these children moved freely about the estate, the elder child especially accompanying his parents in their frequent visits to the cottages. The younger child probably contracted his disease from the elder one, who appears to have been a very constant companion of a young lady who had to open, examine, and store away the parcels of clothing, etc., sent to the Home from various parts of the kingdom. Circumstances came to Dr. Thorne's knowledge which led to the belief that during the process of opening the parcels she came into contact with some infected articles. The lady herself, after ailing for two or three days, left the Home on the 24th December for a short holiday: her ailment, however, increased, and was ascertained to be scarlet fever. There seems, therefore, to be little doubt as to the mode in which the disease was imported into the Home, and the circumstances of its spread are sufficiently obvious. The most remarkable feature of the epidemic was its exceptional mildness. In one case, the throat-symptoms were for a time serious; and in at least one case the disease was associated with marked kidney-complication, but not a single death occurred. The disease having been spread throughout the Home in the manner described, it became impossible to ascertain with certainty the length of the incubative period in any case, or to say whether the duration of this period had been related to the severity of the symptoms. Unfortunately, we know too little of the causes affecting the severity or mildness of attacks from scarlatina to be able to assign to the specially excellent sanitary circumstances of the children's existence the singular immunity from serious and fatal attacks which characterised the epidemic; but the coincidence is certainly singular, and the question is one which eminently deserves further study.

BROMIDE OF ETHYL (HYDROBROMIC ETHER) AS AN ANÆSTHETIC.

HYDROBROMIC ether was used by the late Mr. Nunneley of Leeds in the series of experiments on anæsthetics made by him in 1849, an account of which was published in the *Transactions of the Provincial Medical and Surgical Association.* It appears, however, to have attracted but little interest afterwards until lately, when it has been brought prominently forward by Dr. Lawrence Turnbull and Dr. Levis of Philadelphia. The former, in a lecture published in the *Philadelphia Medical and Surgical Reporter* for March 6th, states that it possesses the following properties. 1. Hydrobromic ether is an anæsthetic which, with care, may be safely administered to men and animals. 2. It is more rapid producing anæsthesia than even chloroform, and is eliminated, by respiration and the kidneys, more rapidly than any other of this class of agents. 3. The heart and respiration are but very slightly affected, unless employed in excessive quantities. 4. Vomiting is more rare than with ether or chloroform. 5. Owing to its odour being more rapidly removed, it can be used with comfort in a private office or the patient's chamber; and as a rule, the odour is more agreeable than that of ordinary ether. 6. Hydrobromic ether not being inflammable, and producing its anæsthetic influence on the muscles of the throat, any operation can be performed on the mouth and throat with satisfaction to the surgeon and comfort to the patient. 7. In vivisections, it acts more promptly than ether upon animals, requiring, as a rule, only two minutes to bring a dog under its influence, and is not fatal, like chloroform. In one hundred cases there were twelve cases of slight nausea after the operation, and eight cases of vomiting during the operation, but always where the patient had partaken freely of solid food just prior to the use of the anæsthetic. Asphyxia: this disagreeable and painful symptom was not noticed in any of the cases. In no instance was there any evidence of fainting. Hysterical excitement was noticed in six cases, but soon passed away, leaving no bad symptoms. In four cases there was some prostration, evinced by cold moisture on the hands and face, but of very short duration. The patients came under the anæsthetic influence of hydrobromic ether in one minute and a half; twenty in two minutes; ten in two minutes and a half; forty in three minutes; ten in four minutes; ten in five minutes. In fifty cases, recovery of consciousness took place in from two minutes to two minutes and a half; in thirty cases in three minutes; and in twenty cases in four and a half to five minutes. Struggling, coughing, or gagging, was very rare under the anæsthetic influence of hydrobromic ether. This form of anæsthetic is not apt to produce headache or giddiness. It is stated that the bromide of ethyl may be used without danger in proximity to light, as its vapour is not inflammable. Dr. Levis says that, in his use of it in very varied conditions, from infancy to extreme old age, its action has always been satisfactory and free from manifestations of danger. He is convinced that it is practically the best anæsthetic known.

A MEDICAL DUKE.

ACCORDING to a recent notice in the *Reichs-Anzeiger*, Duke Charles Theodore of Bavaria is admitted as a fully qualified medical practitioner, the condition of undergoing the *Staats-Examen* having in the case of His Highness been dispensed with. In 1872, on the occasion of the jubilee celebration at the Munich University, the honorary title of Doctor of Medicine was conferred upon him. Both before and since that time, Duke Charles has devoted himself with ardour to medical studies, and has been a pupil of the most eminent surgeons. His specialty is the treatment and cure of ophthalmic diseases, in which he has testified his skill by successful operations in presence of the highest scientific authorities. The prince is now in his fortieth year, and actively pursues his profession at the Castle of Tegerusee. Sometimes he is roused up in the night just as an ordinary practitioner, and rides miles across country, conveying relief to the suffering. By the official notification referred to, His Highness's professional status becomes in all respects the same as that of any practitioner. It may be added that, where necessary, the prince pays for his patients' physic, and also sees them supplied with strengthening wines and nourishing food at his own cost. Duke Charles is the author of several papers of considerable merit on histological subjects in German scientific periodicals.

NEW METHOD OF PLUGGING THE POSTERIOR NARES.

DR. J. M. SPEAR, in the *Medical and Surgical Reporter*, suggests that probably the best impromptu device for this operation consists of a piece of round fine-linked gold chain, slightly flexible and smooth, about one-tenth of an inch in diameter and an inch or more long, attached by one end to a fine waxed silk cord, a foot or more long. If such a chain be not procurable, a short string of metallic cylindrical beads, or bird-shot, compressed on a cord, or small strips of sheet-lead wrapped on a cord, might answer the purpose, the essential qualities of a nasal gravitator being smallness, smoothness, and slight flexibility. After providing an instrument, which can generally be done at any farm-house, the patient is then laid upon the back, the floor of the nose brought as nearly vertical as may be, and the loaded end of the gravitator lowered into the pharynx. Its arrival there will generally be announced by coughing, retching, or clearing up of the throat. The patient, then being brought to an erect position, easily hawks up the weight and carries it forward on the tongue, when the operation of plugging may be proceeded with as usual. The practicability of this procedure he has had occasion to demonstrate frequently, and he finds it much less annoying to the patient than Bellocq's sound or other unyielding instruments.

BIRTH OF A YOUNG ELEPHANT.

A CORRESPONDENT of the *Boston Medical and Surgical Journal* for March 25th, reports that the members of the Academy of Natural Sciences and the physicians of Philadelphia have lately been favoured with an opportunity of recording some very interesting facts in regard to elephant breeding and the social habits of the relic of a former age. Professor Leidy, of the University of Pennsylvania, and Dr. Chapman, of the Jefferson College, have especially interested themselves in the case, and have made several examinations of the elephant cow during gestation. The female elephant Hebe, on May 25th, 1878, was twice covered by a male elephant, a performing member of the same troup of animals. In the act of copulation, no peculiarity was observed that would distinguish elephants from other animals. At an examination in March 1879, by Drs. Leidy, Penrose, Allen, Chapman, John H. Brinton, and others, the two large mammary glands, situated upon the thorax, immediately between the front legs, were observed to be swollen; the nipples were prominent, and the superficial veins were quite marked. Large sebaceous glands were noticed in the roof of the mouth and behind the eyes. The little elephant was born on March 10th, 1880, making the entire period of gestation six hundred and fifty-five days, which is beyond the term usually assigned of twenty months. The placenta, which was zonular, was presented to the Academy of Natural Sciences; a dried preparation of it will probably be made by Dr. Chapman. The mother is about eighteen to twenty years of age, and weighs eight thousand pounds. The birth occurred about 2.30 A.M. The night watchman gave the following account. When the calf was born, six other elephants, chained upon the same platform, threw up their trunks, and, dancing around as far as their chains would let them, set up a trumpeting that produced a scene of wild excitement. The mother picked up the calf with her trunk and threw it across the stable, a distance of about twenty yards; then, breaking her chains, she started after the little one, tearing down the railing and demolishing a stove-pipe in her course. The keeper now came in, and under his direction the animal became quiet and was again secured, and has remained docile. The new arrival is a female, weighing at birth two hundred and thirteen and one-half pounds; thirty-five inches in height; four feet six inches long; and around the body (girth), three feet eleven inches. After the mother threw her, the baby elephant picked herself up and went around the room; and when the excitement was subdued, she was led back to her mother, who received her with many caresses.

SCOTLAND.

THE ninth session of Anderson's College, Glasgow, terminated on April 1st. The prizes for the session were distributed by Mr. J. L. R. Jamieson, the President of the Institution.

AMONG the members of the medical profession who have been elected to the new Parliament, we are glad to see the names of Dr. Cameron, who has been re-elected for Glasgow, and of Dr. Robert Farquharson, who has been successful in his candidature for the representation of West Aberdeenshire.

REGISTRAR-GENERAL'S RETURNS.

FROM the weekly returns of the Registrar-General, it appears that the death-rate in the eight principal towns during the week ending March 27th was 24.2 per thousand of estimated population. This rate is the same as that of the previous week of this year. The lowest mortality was recorded in Perth—viz., 15.6 per thousand—and the highest in Edinburgh—viz., 26.2 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.4 per thousand. No deaths resulted from these diseases in Greenock during the last two weeks. Over the whole eight towns, measles and whooping-cough continue most prevalent. In Dundee, a male child, three months old, died of confluent small-pox. Acute diseases of the chest caused 165 deaths, being an increase of 35 on the previous week. The mean temperature of the week was 39.4.

SCHOOL OF MEDICINE, EDINBURGH.

AT a meeting of the lecturers of this school, held recently, Mr. Geddes was unanimously elected to the vacant Lectureship on Natural History. Mr. Geddes was formerly demonstrator of physiology in University College, London, and more recently of zoology in the University of Aberdeen. We understand that he has just returned from a zoological and palæontological expedition in Mexico, and that he has had considerable experience at the French, German, and Scottish zoological stations.

BEQUEST TO GLASGOW MEDICAL CHARITIES.

THE late Mr. Duncan Macdermid of Glasgow, and his sister, have left to the Glasgow Royal Infirmary, £500; Glasgow Western Infirmary, £500; Convalescent Home, £200; The Institution for Deaf and Dumb, £200; Asylum for the Blind, £200; and the Institution for Imbeciles, Larbert, £200.

THE EDINBURGH SANITARY PROTECTIVE ASSOCIATION.

THE second annual meeting of the Edinburgh Sanitary Protective Association was held in the Masonic Hall, Edinburgh, last week. Professor Crum Brown presided; there was a good attendance of the public and various professions. From the report of the Directors, it seems that about one-third of the members had withdrawn, but that many new members had been added, so that the number now is only thirteen less than it was last year. The income had increased satisfactorily, while the expenses had been considerably diminished. During the year, four hundred inspections of houses were made by the resident engineer. Every member can have his house inspected twice yearly; and, where alterations are considered necessary, the visits are much more frequent. A Branch of the Association has been established at St. Andrew's, and already there are fifty members enrolled. Professor Fleeming Jenkin spoke of the importance of the work done by the Association, and the good that resulted from it.

HEALTH OF EDINBURGH.

THE mortality in Edinburgh last week had risen to 28 per 1,000. There were 36 deaths from zymotic diseases, 16 being from measles, 17 from whooping-cough, and 3 from scarlet fever. There were 30 deaths from pulmonary diseases, doubtless influenced by the prevailing east winds.

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IRELAND.

THE deaths registered in Dublin from small-pox during the quarter ending March 27th amounted to sixty-one; being a decrease of sixteen as compared with the preceding three months.

MR. IRWIN, a medical student in the Queen's College, Cork, has been rusticated for twelve months by the College Council for having got up amongst the students an address to Mr. Parnell on his return from America. Mr. Irwin presided at a meeting of students within the College, at which the address was adopted. Several students who signed the address were also brought before the Council and admonished.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

DR. BENJAMIN D. M'DOWEL has been elected an examiner in this College in room of the late Mr. O'Leary, M.P. Previously to this election, Dr. M'Dowel resigned his seat on the Council of the College, thus leaving a vacancy in it, for which there are already many candidates in the field.

DR. R. D. LYONS, M.P.

WE congratulate the profession on the election of this gentleman as one of the members of Parliament for the City of Dublin. Dr. Lyons is a practising and hospital physician of high professional eminence. He was for many years Vice-President of the King and Queen's College of Physicians in Ireland; and, in the capacity of Chief Pathological Commissioner to the British Forces in the Crimea, was the joint author with Professor Aitken, now of Netley, of the valuable report *On the Pathology of the Diseases of the Army in the East*. The Report (Blue Book) on Yellow Fever of Lisbon is also from Dr. Lyons' pen; and he is the author of an useful *Handbook of Hospital Practice*, and of several contributions to periodical literature. Dr. Lyons is a calm and fluent speaker and a courteous gentleman. His return to Parliament as a medical representative, at a time when the consideration of questions involving the status and future of the profession is pending, is most satisfactory.

HEALTH OF BELFAST.

FROM the report of Dr. Browne, J.P., medical superintendent officer of health, for March, we learn that ten cases of small-pox were removed during that month to the Union Hospital, in all instances the apartments recently occupied by the patients being promptly fumigated, and the clothing and bedding which had been used destroyed by fire when found unfit to be washed. The total births registered in the Belfast district amounted to 551, and the deaths to 439, the death-rate on the corrected population being 25.7 per 1,000 inhabitants. The average rate of mortality continues to be high, but the deaths from zymotic diseases have considerably decreased. The absence of typhus fever for several months, with the exception of three cases reported in February, is remarkable; and enteric fever has also of late decreased to a great extent. With regard to the cases of small-pox which have arisen, Dr. Browne does not consider that there need be any public alarm. They have usually been of a modified type, and the disease has not spread in the houses where the cases occurred, and he has no reason to believe that it will appear in an epidemic form. The Sanitary Committee of the Corporation have sent a deputation, consisting of the Chairman and Dr. Browne, to several towns in England, to inquire into the means there in use for disinfecting clothing and bedding used by persons who have been affected by some contagious disease, and a report on the subject will shortly be submitted to the Town Council.

NEWTOWNARDS UNION.

RECENTLY, a Committee appointed by the Board of Guardians of Newtownards Union recommended a reduction of fifteen per cent. in the salaries of the medical officer of the workhouse and of the dispensary medical officers of the Union; and a resolution in accordance was passed by the guardians. The Council of the Irish Medical Association, a few weeks since, communicated with the Local Government Board on the subject, and pointed out the unfairness of the proceeding. They also drew attention to the fact that, owing to the financial depression of the country, a far greater number of persons than usual would be compelled to avail themselves of the services of the medical officers, whose official labours would consequently be considerably increased, and whose means from private practice must be proportionally diminished. We are glad to learn that, on last Saturday, the Newtownards Guardians received a letter from the Local Government Board refusing to sanction the reduction in the salaries of the medical officers as proposed and adopted by the guardians.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

AT the last monthly meeting of this College, three candidates for its Fellowship were balloted for under the provisions of the new supplemental charter. The two following gentlemen were elected: Isaac Ashe, M.D., Physician Superintendent Central Criminal Lunatic Asylum, Dundrum; and Christopher Joynt, M.D., Surgeon-Major Bombay Army.

STEWART INSTITUTION FOR IMBECILE CHILDREN.

THE annual meeting of the Council of this institution was held last week, presided over by Lord James Butler. The Committee in their report for the past year state that the subscriptions during that period show an increase of £40 18s. 6d. over that of 1878. A legacy of £2,000 was bequeathed the institution by the late Mr. R. Vandeleur, for the purpose of establishing a ward to be called the "Vandeleur Ward"; and £1,700 has already been received of that amount, and the balance will be paid as soon as the funds are realised. Allusion was made to the lamented death of Dr. Henry Hutchinson Stewart, after whom the institution was named, in token of the many liberal gifts and great services it received from him. By his will, he left a legacy of £2,000, thus showing his continued interest in an institution which without him would never have been established. In the early part of last year, the establishment devoted to the care of imbecile children was removed from Lucan to the new buildings at Palmerstown; and, in the following May, the lunatic asylum was also transferred. It is satisfactory to learn from the report of Dr. Pim, medical superintendent, that twenty-one out of the fifty-one inmates are considered to be capable of learning a trade, and that, of the remainder, only thirteen are incapable of being educated in any way. The report and statement of accounts having been adopted, the proceedings shortly afterwards terminated.

DR. D. B. SMITH, Principal of the Medical College Hospital, at Calcutta, it is announced, has resigned his appointment.

THE BROWN INSTITUTION.

THE recently issued report of the institution for the year 1879, by Dr. Greenfield, Professor Superintendent, states that the total number of animals admitted for treatment up to December 31st was 2,465, of which 1,637 were horses, 60 donkeys, 527 dogs, 100 cats, 10 goats, 2 pigs, and 129 smaller animals. Of these the number of cases seen for the first time was 1,548. Out of these, 76 were admitted as in-patients, whilst 1,472 were treated entirely as out-patients. The diseases most prevalent amongst dogs were skin-diseases and distemper. Distemper followed by chorea, and paraplegia of doubtful origin, were the chief causes of death in dogs. The annual course of five lectures in connection with the institution was delivered in the theatre of the university, on the 17th, 18th, 19th, 22nd, and 23rd of December, upon recent investigations into the pathology of pyæmia, septicæmia, and anthracoid diseases. Among the few cases of special interest in the institution were several cases of nervous diseases in domestic animals. Many carcases of animals have been sent from all parts of the country for pathological investigation, and have afforded material for study. Dr. Greenfield believes that great good is done by this part of the work of the Institution; in many cases the nature of an outbreak of epidemic disease is thus determined with certainty at the outset, and the proper measures can be taken to arrest its progress; and in other cases opportunities are afforded for the pathological investigation of diseases which are rare in towns, or which are obscure in their nature.

Dr. Greenfield states that he has been engaged in an inquiry on behalf of the Royal Agricultural Society into the nature, causes, and prevention of anthrax and anthracoid diseases, in continuation of those inquiries which were initiated by Dr. Burdon Sanderson in 1876, some of which have already yielded valuable results with regard to pleuropneumonia and foot-and-mouth disease. Regarding the forms of anthracoid disease prevalent in this country (mostly as splenic apoplexy and quarter evil), Dr. Greenfield has endeavoured to solve the question whether these are diverse manifestations of one and the same disease, or in what way they are related. This he has done by the microscopic examination of specimens from a number of cases of these diseases, and of other anthracoid diseases occurring in India and South Africa, by the artificial cultivation of the virus of the disease, and by the inoculation of rodents with the virus. So far as the observations have gone, they appear to show that these various diseases, though allied in the conditions of their occurrence, and in the organism which forms their specific virus, are yet not identical. Moreover, with regard to the forms which differ from splenic apoplexy, he finds that these diseases are communicable by inoculation to rodents, and preserve in them the usual features of the special form of disease from which they were derived, thus rendering it highly probable that these forms are communicable by contagion. Another branch of the inquiry has been the possibility of prevention of splenic apoplexy by inoculation of the virus transmitted through rodents. These experiments were suggested by the results of certain preliminary experiments made by Mr. Duguid at the request of Dr. Burdon Sanderson, which appeared to show, first, that when anthrax is communicated by inoculation to bovine animals through rodents, the animals so infected, although exhibiting severe symptoms, recover; and, secondly, that such animals are less liable than others to future infection by the same process. Dr. Greenfield has continued experiments in the same direction, varying the method employed, with results which are in the main in striking confirmation of those which preceded. Hitherto, he has been unable to perform the crucial experiment of exposure to direct contagion from a bovine animal suffering from the disease arising in the usual manner; but he has inoculated an animal thus protected with a large quantity of blood of a sheep which had died of anthrax, without producing any serious symptoms. Should this method of inoculation be found to succeed, even in a majority of cases, it would afford a most valuable prophylactic measure in those districts where from time to time whole herds of cattle die of the disease. It may, moreover, furnish another illustration of the pathological law exemplified in the relations of small-pox and vaccinia.

Among other inquiries carried on during the past year has been the investigation of the pathological anatomy of rabies and hydrophobia, which has been prosecuted by Dr. F. C. Turner and Dr. Greenfield, in connexion with a committee of the British Medical Association. This work is being continued. Independent pathological investigations have also been carried on in the laboratory by others.

BRIGADE-SURGEON H. T. READE, Army Medical Department, has been ordered to assume the duties of Principal Medical Officer at Aldershot, *vice* Surgeon-General Mackinnon, ordered to Netley.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a meeting of the Council of the College, held on Thursday last, a series of new regulations, relating to payments by candidates for the Membership and Fellowship, were adopted. They are as follows.

For the Primary Examination for the Membership, the fee shall be 5 guineas, or, if it be the Re-Examination of a previously unsuccessful candidate, 3 guineas; and the fee shall not be returned to a candidate who fails to pass the examination or re-examination. For the Final Examination or Re-Examination, the fee shall be 15 guineas, over and above all charge for stamps; and 10 guineas shall be returned to a candidate who fails to pass the examination or re-examination.

The fees to be paid for admission to the Fellowship by Examination, over and above all charge for stamps, shall be as follows: *(a)* for Members of the College, if succeeding on their first examinations, 15 guineas; but with liability to higher payment (as hereinafter provided) in cases where re-examination is required; *(b)* for persons not Members of the College, 30 guineas. Of the above respective amounts, one third part shall be paid before admission to the Primary (or anatomical and physiological) Examination; and the remaining two-thirds, together with the charge for stamps, shall be paid before admission to the Final Examination. Of the fee of 5 guineas, to be paid by Members of the College before they are admitted to the Primary Examination, no portion will be returned to unsuccessful candidates; but of the fee of 10 guineas, to be paid by persons who are not members, half will, in case of rejection, be returned. Of the fee of 10 guineas, to be paid by Members of the College before they are admitted to the Final Examination, no portion will be returned to unsuccessful candidates; but of the fee of 20 guineas to be paid by persons who are not Members, half will, in case of rejection, be returned. And in all cases, any money which has been prepaid as a charge for stamps will be returned to rejected candidates.

Candidates who, having failed at an Examination, subsequently desire Re-Examination, are, on each such occasion, subject to the same conditions regarding payment as those on which they were first examined: except that in all cases previous payments shall be taken into account, and that, if in any case a total payment of 30 guineas for the Fellowship have been made, no further payment shall be required.

OUR CONFESSIONAL.

> MAGNO INGENIO, MULTAQUE NIHILOMINUS HABITURO, CONVENIT ETIAM SIMPLEX VERI ERRORIS CONFESSIO; PRÆCIPUÈQUE IN EO MINISTERIO, QUOD UTILITATIS CAUSA POSTERIS TRADITUR; NE QUI DECIPIANTUR EADEM RATIONE, QUA QUIS ANTE DECEPTUS EST.—(Celsus *De Medicina*, Liber viii, cap. 4.)

DANGER OF APPLYING STRAPPING OVER SORES RECENTLY GANGRENOUS.

S. H., AGED 18 months, had scarlatina a month ago, followed, a week later, by gangrenous parotiditis. The slough duly separated, leaving the sore clean and healthy, and the constitutional symptoms quite abated. To hasten healing, strips of plaster were applied over the approximated edges. Two days afterwards, gangrene reappeared, and the child sank in a few days. I suppose the pressure produced over tissues, recently the seat of gangrene, and consequently of very low vitality, caused the reappearance of the gangrene. P. T.

INTRA-UTERINE MEDICATION.

DURING the coldest part of the winter 1878-79, I was called upon to attend a young married woman. She told me that, at the time she was expecting her last menstrual period, she was engaged in a heavy washing, and passed frequently from the steaming wash-tub into the keen air. The discharge had not come on, and she had since suffered great pain in the lower part of the abdomen. I ordered rest in bed, fomentations, and administered bromide of potassium freely; but with no apparent benefit. I then examined with the speculum, and found thick pus oozing pretty freely from the os uteri. I accordingly diagnosed my case to be one of acute endometritis becoming chronic. I had just recently had two cases of endometritis, in the treatment of which I had, on the advice of a senior, applied carbolic acid to the interior of the uterus, up to the fundus, and with marked benefit. I accordingly did the same in this case. The result is soon told. The patient was pregnant, abortion came on, followed by severe and intractable hæmorrhage, from which the patient recovered but slowly and with difficulty. This case shows well the difficulties and dangers that beset the young practitioner, and how cautious he ought to be in adopting every heroic plan of treatment advocated in the medical press. Had I plodded on with my first plan of treatment, or had I been content to apply the acid to the cervix only on a soft brush, I should have had a much better result, and saved myself many days and nights of keen mental anguish.—B.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 14th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, March 22nd, 1880.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE next meeting of this district will be held at the Bow and Bromley Institute on Thursday, April 15th, at 5 P.M.; CORNELIUS E. GARMAN, Esq., in the Chair.

A paper will be read on the Treatment of Chronic Dysentery, by Stephen Mackenzie, M.D.

A. GRANT, M.D., *Honorary Secretary.*

370, Commercial Road, E., April 6th, 1880.

BATH AND BRISTOL BRANCH.

THE fifth ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, April 15th: J. BEDDOE, M.D., President.

R. S. FOWLER, } *Honorary Secretaries.*
E. C. BOARD, }

Bath, March 1880.

NORTH WALES BRANCH.

THE intermediate meeting of this Branch has been deferred until after the General Election.

The subject for discussion at the meeting will be "The Zymotic Influence in Disease".

J. LLOYD ROBERTS, *Honorary Secretary.*

YORKSHIRE BRANCH.

THE next ordinary meeting of this Branch will be held at Wakefield on April 28th. Gentlemen desirous of reading papers, etc., are requested to send titles, before the 12th instant, to

ARTHUR JACKSON, *Secretary pro tem.*

Sheffield, April 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE next ordinary meeting of this Branch will be held at Aberdare on Thursday, April 22nd. Gentlemen desirous of reading papers, etc., are requested to send titles without delay to one of the honorary secretaries.

ALFRED SHEEN, M.D. } *Honorary Secretaries.*
J. HANCOCKE WATHEN. }

March 16th, 1880.

NORTH OF ENGLAND AND BORDER COUNTIES BRANCHES: CONJOINT MEETING.

A CONJOINT meeting of the above Branches will be held at Gilsland, on Thursday, April 29th, at 3 P.M. The Chair will be occupied by Dr. PHILIPSON, President of the North of England Branch, who will give a short address.

Gentlemen desirous of reading papers are requested to communicate with their Branch Secretaries at their earliest convenience.

J. SMITH, M.D., Dumfries.
J. K. BURT, M.B., Kendal.
T. W. BARRON, M.B., Durham.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE last meeting of this District was held at the Ship Hotel, Faversham, on Thursday, March 25th, at 3 o'clock; Dr. GANGE of Faversham in the Chair.

Papers.—The following papers were read.

1. Some Irregular Forms of Pneumonia. By Dr. Bowles.
2. A Remarkable Case. By Mr. Garraway.
3. The Dose of Iodide of Potassium. By Mr. Treves.
4. Cases illustrating the Use of Martin's Elastic Bandage were reported by Mr. Tyson.

Next Meeting.—May 27th was agreed to as the date of the conjoint meeting with the West Kent District, which will take place at Rochester.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THIS district held a meeting at the London Hospital on March 18th, at 9 P.M.; STEPHEN MACKENZIE, M.D., in the Chair.

Cases.—Several cases were exhibited by the Chairman, including cases of athetosis, double torticollis, and elephantiasis.

The Treatment of Pneumonia.—Dr. ALEXANDER COLLIE read a paper on the treatment of pneumonia. Having described the symptoms of a typical case, Dr. Collie went on to consider the theories regarding the nature of the disease, the statistics, and treatment. Bleeding, except in moderation to relieve symptoms, he condemned; the abuse of alcohol, he protested against. He thought physicians must wait for many years and patiently investigate the facts before they could lay down rules for a scientific treatment. He recommended water, beef-tea, milk, wine if required, fomentations to relieve pain, attention to bowels, a large well-ventilated room, and a good nurse.—A discussion followed; and votes of thanks were passed to Dr. Collie for his paper and to Dr. Mackenzie for presiding and for bringing forward such interesting cases.

CORRESPONDENCE.

THE NURSING AT GUY'S HOSPITAL.

SIR,—It is a wicked and cruel thing that, in order to justify the expulsion of more than one-half of the sisters and nurses at Guy's for one specious pretext or another, it should be endeavoured to brand them with being "charwomen" and of "dubious" character. Women who had been from three to fifteen years in constant service, under constant instruction in the practical portion of their work, most of them having received lectures in the hospital on nursing, being the eliminated residue of a larger number who had passed through the wards, could not possibly be devoid of the requirements of a nurse, as they have been described in some quarters. And it is a direct untruth to say, as a class, their characters were doubtful. They were neither better nor worse than would be a similar assemblage of severely trained nurses, although ladies by birth. But, indeed, most of the sisters were from the middle class, and the nurses, although not gentleborn, were yet gentle. But it is yet a matter for experience whether, for a hospital nurse, a lady gently nurtured, however willing and well trained in her duties, is altogether, for an extended period, so efficient in all ways as a woman gentle by nature but taken from those who have had some experience in the hard work of the world, and somewhat inured to its strain.

But let this pass: my object in writing is to protest against insult, which has been added to injury done to a staff of efficient and reliable nurses.

As for the medical and surgical staff, everyone in the profession knows what reliance can be placed on the obloquy also endeavoured to be thrown on them for protesting against a scheme they did not approve, and which was introduced without so much as the slightest intimation of any change having been made to them.

It may be added that all the nurses who left were constantly engaged in public and private nursing, and in many cases were specially asked for by those in search of nurses.—I am, etc., ONE WHO KNOWS.

THE PREVENTION OF ACCIDENTAL POISONING.

SIR,—The frequent occurrence of deaths from persons either taking or being given fluid poisons or lotions containing poisonous substances indicates that some safeguard against these accidents is urgently called for. Recently, when seeing a patient in consultation, I was struck with the merits of the form invariably used for holding external applications at the Brookwood Asylum and introduced by Dr. Brushfield. These bottles are conical, tapering from an octagonal base to the neck, which is circular, five-eighths of an inch in internal diameter, and sufficiently long to hold a cork. They are of a deep blue colour, and of various sizes. Bright yellow labels are always affixed to these bottles. The system employed at the Brookwood Asylum is the following.

1. *For Internal Medicines.*—Bottles with parallel sides; of white transparent glass; white labels.

2. *For External Remedies.*—Bottles with conical sides; of blue glass; yellow labels headed "poison".

Some druggists use a bottle with some portion of the sides fluted or ribbed, so that the hand may at once detect the kind of bottle. Ordinary persons whose hands are not delicate are often incapable of appreciating the character of the surface of a bottle, whether smooth or ribbed; and poisons are often administered in the dark from the administrator not being able to distinguish by the touch the kind of bottle. Against such accidents, these parallel-sided bottles offer no safeguard.

Dr. Brushfield claims three advantages for the poison-bottle and label in use at Brookwood: 1. The labels being yellow; 2. The bottles being of blue colour; 3. The sides of the bottle being conical, and therefore easily distinguished from a parallel-sided bottle by the coarsest hand. I understand that this is a cheap form of bottle, one mould doing for all sizes, stops being used to limit the size of the bottle. Also, what is of more importance, no accident has occurred during the many years they have been in use at the Asylum. As these bottles are less top-heavy than those of the ordinary shape, they are less liable to be upset. Surely it would be of public advantage if it were compulsory to put into such conical bottles all external applications and poisonous substances for which bottles are needed. If this be not attainable, however, the druggists might afford a great protection to the public by using such bottles.

I have Dr. Brushfield's permission to call attention to his very excellent system; and if some such plan were generally adopted and understood by the public, I should have much less fear in prescribing poisonous lotions than I now daily experience.—I am, sir, your obedient servant,

WYNDHAM COTTLE.
Assistant-Surgeon to the Hospital for Diseases of the Skin, Blackfriars.
April 1880.

OBITUARY.

JOHN DEAKIN HEATON, M.D., F.R.C.P.,

SENIOR PHYSICIAN TO THE LEEDS INFIRMARY.

THE medical profession, and the inhabitants in general of Leeds, have sustained a severe loss in the death of Dr. J. D. Heaton, which took place last week, after an illness of only a few days. The cause of his death was pneumonia.

Dr. Heaton, who was sixty-two years of age at the time of his death, was the son of a bookseller who, for many years, had a large and extensive business in Leeds. He was educated at the Leeds Grammar School, and afterwards at the Leeds School of Medicine and University College, London, in both of which institutions he gained several prizes in the form of gold and silver medals and books. In 1841, he graduated as M.B. in the University of London, taking honours in Physiology and in Medicine; and, in 1843, he proceeded to the degree of M.D., when he was awarded, along with a certificate of special proficiency, a gold medal for a commentary on a case in medicine. In 1868, he became a Fellow of the Royal College of Physicians of London.

Dr. Heaton entered on practice in his native town, and remained there during his life. He soon commenced lecturing in the Medical School on Botany, where he also taught Materia Medica for some years; and subsequently he lectured on Practice of Medicine for more than twenty years, and also held the responsible office of Treasurer to the Medical School. He was successively elected Physician to the Dispensary and the Fever Hospital, both of which offices he resigned after some years, the latter after having experienced two serious attacks of fever, and the former on being elected Physician to the Leeds General Infirmary in 1850. In the last-named institution, he became Senior Physician in 1871, on the retirement of Dr. Chadwick. He was also Consulting Physician to the Leeds Hospital for Women and Children.

The labours of Dr. Heaton were not confined to his professional work. For a great part of his life, he took an active part in the concerns of the Leeds Philosophical Society as a member of Council, and was President of the Society for four successive years (1867-70). For many years, he also held the office of Honorary Librarian of the Society. Dr. Heaton was also Chairman for many years of the Committee of the Yorkshire Board of Education, and took a leading part in promoting educational work in Leeds and the West Riding. He was a member of the first School Board for the borough. As a Justice of Peace for the West Riding, he took an active part in magisterial work in his district. He was also a trustee of funds for charitable uses (commonly called the Pious Uses Trust); a member of the Board of Management of the Leeds Church Extension Society; Honorary Physician to the Tradesmen's Benevolent Institution, the Unmarried Women's Benevolent Institution, and the Leeds Town Mission; and one of the trustees of the patronage of the livings of St. George's, St. Andrew's, and St. Michael's (Buslingthorpe). Dr. Heaton was Honorary Secretary of the Leeds Improvement Society, and one of the active promoters of its work during the time that society continued to labour for the improvement of the cleanliness, health, comfort, and appearance of the town. The interest felt by Dr. Heaton in local organisation for the promotion of science and literature culminated in his labours for the foundation and development of the Yorkshire College of Science. It was as Chairman of the Executive Committee of the Yorkshire Board of Education, then occupied in furthering various educational efforts, that Dr. Heaton first took up this idea. In 1869, a committee was appointed to investigate the subject of founding a College in Yorkshire for the purpose of giving advanced instruction in the sciences applicable to the industrial arts. From that time, Dr. Heaton steadily held to the feasibility of the scheme, and tenaciously worked on for a period of six years longer before the supporters of the College felt it prudent to commit themselves to obligations involving large sums of money annually. The Yorkshire College, since its inauguration in 1875, has become established as one of the permanent institutions of the district, with its own estate and buildings, and with a comparatively large staff of professors. In recognition of his eminent services in the foundation of the College, the Clothworkers' Company of the city of London conferred upon him honorary membership in their Company; and at the same time he was admitted a citizen of London.

Dr. Heaton was a Fellow of the Royal Medical and Chirurgical Society and of the Medical Society of London. He contributed several articles on practical medicine to the pages of this JOURNAL, and also to other medical periodicals. He married in 1844, and had three sons and three daughters.

The nature of the offices and posts of responsibility and honour which were held by Dr. Heaton furnish proof of the high esteem in which he was held by his fellow-townsmen and the public generally. He attracted to himself in a singular manner the confidence of those around him; his clearness and soundness of judgment, and the unflagging diligence he showed in discharging any duty which he undertook, making him a most valuable counsellor and assistant in all the matters which were brought under his notice. His loss will be greatly felt in connection with many of the most important public institutions of the district.

MICHAEL HARRY STAPLETON, M.B., F.R.C.S.I., M.R.I.A.

THE death of Mr. Stapleton of Dublin, on the 30th ultimo, in his seventy-third year, after a brief illness, recalls to memory a brilliant professional group, of which he was a foremost member. Jervis Street Hospital, to which he was Surgeon for forty-five years, included on its staff during this time the names of Corrigan, Kirby, O'Reilly, Power—all now amongst the "great departed"—as well as many distinguished surgeons and physicians still living. Mr. Stapleton was educated at Celengowes Wood College, and subsequently entered Trinity College, Dublin. He was an apprentice of the late Professor Rawdon Macnamara, and, to complete his medical education, spent a considerable time in Paris. Having obtained the licence of the Royal College of Surgeons in Ireland, and the degree of M.B. in the University of Dublin, he was appointed Surgeon to Jervis Street Hospital in the year 1836, being then about twenty-five years of age. He subsequently obtained the Fellowship of the Irish College of Surgeons, and was for some time a member of its Council. It was, however, as an Examiner to that body (a position which he held for nearly twenty years) that he was best known. He was a man of great ability and highly educated, and his continental training gave his mind a strong bias in favour of French professional theories and practice. His constant quotations from the works of Dupuytren and Larrey procured for him the *soubriquet* of the "Baron", a title which he received with great good humour, and by which he was most generally known to his professional brethren. A man of his ability and attainments could not fail, in such a school as Jervis Street Hospital, to acquire prominence as a surgeon, and his claims to be considered a leader were well known to the profession. Unfortunately, although he was of the kindliest disposition and possessed a warm heart, he had some little peculiarities of temper, which perhaps may explain why he did not attain a foremost position in public favour. This was a subject of much regret to those who knew him well. To his younger professional friends he was a kind and good adviser, and few of his junior colleagues but have reason to remember with affection and gratitude his loyal and valuable aid in difficult cases. Amongst his writings, *An Analysis of Ricord's Letters*, and an article in the *Dublin Medical Journal* on "Injuries of the Elbow-joint", are the most notable. He was a member of the Royal Irish Academy, and was for many years Honorary Professor of Artistic Anatomy to the Royal Hibernian Academy.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE DELANCEY FEVER HOSPITAL.

THE success which has attended the Delancey Fever Hospital, Cheltenham, shows how much might be done towards stamping out infectious diseases if the country generally were supplied with proper means of isolation, and if sanitary authorities were vigilant and careful. The Committee of Management in presenting their report for 1879 notice the complete success with which small-pox has, on no less than twelve occasions, been stamped out, without having extended in one single instance beyond the family into which it was first introduced. During the past year three cases only of small-pox have been admitted, and looking to the excellent provision that has been made, and the constant vigilance on the part of the medical profession and the sanitary officers, it may confidently be hoped that the risk of catching this disease in Cheltenham has been practically banished. The committee complain that the Town Council, although they have gladly availed themselves on several occasions of both small-pox and scarlet fever wards for cases sent in at their instance, have as yet contributed nothing towards the erection or maintenance of the hospital. No more legitimate use could be made of the rates by any sanitary authority than by paying for the instant isolation of individuals in the interests of the whole community. The poor man, in sending his wife or children stricken with small-pox or scarlet fever to the Delancey Hospital, confers a distinct benefit on the public of Cheltenham; and the expense should be borne and cheerfully paid by the public, either through the agency of the Town Council or the Board of Guardians, or by private subscription to the hospital funds. If this were done in a free and liberal spirit, the heads of families in the upper as well as the lower classes would be relieved of much anxiety, and the health of the town would be materially improved.

MID-CHESHIRE DISTRICT: ANNUAL REPORT.

SIR,—Your issue of the 20th instant, containing a notice of my annual report for the year 1878, has been forwarded to me by more than one of my friends. The services rendered by the editorial department of your JOURNAL have been so valuable that much weight attaches to your remarks. None would consider this more than myself.

In mitigation of your unfavourable comments, I may say with confidence that those who are practically acquainted with rural sanitary work would not expect such a complete statement as you very properly desire from a medical officer who had only enjoyed nine months' acquaintance with a district embracing two hundred and twelve separate townships, including a population of 130,000, and spread over an area of upwards of 281,000 acres. Such a sanitary survey as you distinctly mention with approval in another district is, indeed, in process of being made. But so large a district, under the *surveillance* of only ten inspectors, who have other necessary routine work to perform in addition, cannot possibly be reported upon completely in detail in the short space of nine months.

You complain that no report is made upon the state of the district as a whole. I have myself made application to the Local Government Board for their sanction to a comprehensive report for an entire combined district. But such sanction is at present wanting; and reasons, perhaps, are obvious why it should be so.

Further, you say that nothing can be learnt as to preventive sanitary action taken in the district. Scattered throughout the report are many such details, which, I am glad to say, have borne abundant fruit as testified in the improved returns of the registrars for the year 1879. That report is now in the possession of the public.

Again, you complain that my tables are diffuse. But after seven years' experience, and diligent comparison with the reports of others (from whom I have received many valuable hints), I affirm that my tables present the largest amount of information in the smallest possible compass. If any of your readers are sufficiently interested in the matter as to wish to test the accuracy or fairness of your animadversion, I shall be glad to forward a copy of the report on application. I only regret that not many copies are left. But so far as they will go, they shall be at the service of your subscribers.

As to the means taken to stamp out diseases, which you are good enough to wish I had placed on record, it seems a mere waste in every way to recapitulate each year old matter. If nothing new or striking have to be told, why reiterate familiar details? Indeed, the annual reports are written for the Local Government Board and the public, but particularly for the local authorities to which they are addressed, and by whom they are paid for. The medical officer may have special objects in view, and may best be trusted in selecting such points for comment which, each year, he may wish should engage their interest and attention.—I am, sir, yours, etc.,

JOHN M. FOX, Medical Officer of Health
Mid-Cheshire Combined Sanitary District.

The Grove, Lymm, near Warrington.

⁂ Mr. Fox, who will bear in mind that the quality of his reporting, and not of his work, was the subject of our criticism, has mistaken our comments on several points. We expected no "complete statement", nor asked for a report on the district as a whole. We certainly should have liked to learn something as to the actual state of affairs in the district at the end of the year; and as this was Mr. Fox's first report—in fact, the first general report that had been made on the district at all—this request was hardly unreasonable. Again, some remarks as to the movement of population in the area would not have been thrown away; and what we regretted was the absence of observations on the death-statistics of the whole district. The facts given in the report as to the action taken for the prevention of the spread of infectious disease and for sanitary improvements are very insufficient. As to the tables, we must adhere to our original opinion.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL SERVICE.

SIR,—The thanks of the Naval Medical Department are due to the British Medical Association for the able way in which they are now treating our disabilities. I am one of the unfortunates who was relegated to a long term of half-pay, through no fault of my own, but with the result of two and a half years being wasted. Had I entered the army, I should have had superior rank and pay. At present, I cannot think of recommending my son to enter the navy and follow my footsteps. As regards cabin-accommodation, I was appointed to a ship with ten officers and ten cabins. I thought that I was, in accordance with the promises printed and apparently vouchsafed to us, to have a cabin according to my rank. As the senior in point of age to all, and only junior in point of actual standing by a few months to the paymaster, this is what I found. The senior lieutenant, navigating officer, chief engineer, paymaster, and chaplain, had each his cabin assigned to him; the result being that I had to select one from the remaining five, which were precisely similar to each other. At present, relative rank is a delusion; it simply determines the number of rifles to be fired over your grave.

Something might be done to distinguish those officers who have taken higher qualifications in their profession. I have no wish to draw any invidious distinctions; but as the medical officers of the Naval Artillery Volunteers have their qualifications assigned to them in the *Navy List*, so might, I think with equal justice, the same privilege be awarded to those in the service proper, and the cost of printing would be but a trifling addition in the preparation of the *Navy List*.—I am, sir, yours most obediently,

HOPE.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 5th instant; and, when eligible, will be admitted to the pass-examination.

Messrs. Charles S. Chadwick, Richard Holton, John M. Beverley, Alexander Wilson, Joseph Collier, and Cedric Challinor, students of the Manchester School; Septimus Sunderland, James R. Polson, and Henry Shillito, of the Birmingham School; Harry Swift, and William C. Bull, of the Cambridge School; Walter C. Garman, and Thomas P. Lowe, of the Liverpool School; John Dacre, and Arthur Bowe, of the Leeds School; Sandford S. Lessey, of St. Thomas's Hospital; William J. Haddock, of the Charing Cross Hospital; John Hosford, of the Cork School; John H. Baker, of the Newcastle School; and Edward France, of the Sheffield School.

The following gentlemen passed on the 6th instant.

Messrs. John S. Withers, John S. Moreton, George Preston, James Richmond, Thomas L. Jordan, and Alfred Hall, of the Manchester School; Arthur D. Roe, Jamieson B. Hurry, and Henry W. Pigeon, of the Cambridge School, Henry M. Fenwick, Anthony Dodd, and David H. Barley, of the Newcastle School; Arthur H. Wilson, and Griffith G. Jones, of the Liverpool School; William H. Francis, and Lawrence E. A. Salmon, of the Bristol School; John H. North, of the Birmingham School; George Millhouse, of the Leeds School; Charles F. Coombe, of the Sheffield School; and Frank F. Schacht, of St. George's Hospital.

Four candidates were rejected.

The following gentlemen passed on the 7th instant.

Messrs. Walter Scatchard, Eustace G. Carter, and Henry Pope, of the Leeds School; Edward Harrison, and John C. Aldred, of the Cambridge School; Wheelton Hind, and Edwin J. Wenyon, of Guy's Hospital; John J. Berry, of the Manchester School; William Joberns, of the Birmingham School; Robert H. Rowell, of the Newcastle School; Francis H. Furnival, of St. Thomas's Hospital; Charles E. Faunce, of the Middlesex Hospital; Samuel Aspinall, of St. Mary's Hospital; John W. Tibbles, of the Charing Cross Hospital; and Sidney H. C. Martin, of University College.

Five candidates were rejected.

The following gentlemen passed on the 8th instant.

Messrs. George Frost, John B. Sutton, and Hugh R. Nebletts, of the Middlesex Hospital; Edward F. Thring, and William H. Horrocks, of University College; John H. H. Williams, and Louis A. Dunn, of Guy's Hospital; Thomas D. Pryce, and James Berry, of St. Bartholomew's Hospital; Oliver F. N. Treadwell, of St. Thomas's Hospital; and Harry L. R. Dent, of King's College.

One candidate was rejected.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 1st, 1880.

Adams, Joseph, Royal Infirmary, Edinburgh.
Davies, Jenkin, 33, Sidney Road, Stockwell.
Fraser, Donald Alexander, Weston-super-Mare.
Walters, Frederick Rufenacht, The Waldrons, Croydon.
Wheeler, Frederick John, 31, Grafton Road, Holloway.

The following gentlemen also on the same day passed their primary professional examination.

Garrard, Charles Rowland Ordish, Guy's Hospital.
Rowell, Robert Henry, Newcastle-on-Tyne.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

The following vacancies are announced:—

ABINGDON UNION—Medical Officer and Public Vaccinator for No. 3 District. Salary, £95 per annum. Applications, with testimonials, to the Clerk of the Guardians, on or before April 10th.

ALNWICK UNION—Medical Officer to the Lesbury District. Salary, £25 per annum.

BETHLEM HOSPITAL—Two Resident Medical Students. Applications, with testimonials, before April 10th.

BRECKNOCK UNION—Medical Officer to Devynnock District. Salary, £90 per annum. Applications on or before April 22nd.

BRISTOL GENERAL HOSPITAL—Consulting Physician.

CELBRIDGE UNION—Medical Officer for Lucan Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health. Registration and Vaccination Fees. Election on April 12th.

*CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Junior House-Surgeon. Salary, £60 per annum, with board and lodgings. Applications on or before April 16th.

*CHILDREN'S HOSPITAL, Birmingham—Resident Medical Officer and Assistant Resident Medical Officer. Salaries, £80 and £40 respectively, with board, washing, and attendance. Applications on or before the 22nd instant.

CRICKLADE AND WOOTTON BASSETT UNION—Medical Officer Third District. Salary, £55.

DENTAL HOSPITAL OF LONDON—Dental House-Surgeon. Salary, £40 per annum. Applications to the honorary secretary on or before April 14th.

*DOVER HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £90 for first year (afterwards £100 per annum), with furnished apartments, board, attendance, etc. Applications to the Secretary.

HOLYWELL UNION—Medical Officer to the Second District of the Whitford District. Salary, £42 per annum.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT—A vacancy in the Honorary Medical Visiting Staff. Election on April 15th.

ISLE OF WIGHT UNION—Medical Officer to the Carisbrooke District. Salary, £80 per annum, with fees for Vaccination. Applications on or before April 14th.

JERVIS STREET HOSPITAL, Dublin—Surgeon.

LEEDS GENERAL INFIRMARY—Physician.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN—Consulting Physician.

*LEICESTER INFIRMARY—Two Honorary Surgeons. Applications, with testimonials, to the Secretary not later than April 16th.

*LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary to commence, £108 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, to the Secretary, on or before April 26th.

MERIDEN UNION—Medical Officer to Meriden District and Workhouse.

*METROPOLITAN ASYLUM DISTRICT—Assistant Medical Officer to the Stockwell Fever Hospital. Salary, £180, with board, furnished apartments, and washing. Applications on or before April 15th.

*METROPOLITAN FREE HOSPITAL—Assistant House-Surgeon. Board. lodging, and washing. No salary, but an honorarium at the end of six and twelve months. Applications, with testimonials, to the Secretary.

NOTTING HILL PROVIDENT DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished apartments, firing, lighting, and attendance. Applications, with testimonials, to the honorary secretary on or before May 25th.

PRESCOT UNION—Medical Officer to Huyton District. Salary, £15.

SHEFFIELD GENERAL INFIRMARY—Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications, with testimonials, on or before April 10th.

*SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Senior Assistant House-Surgeon. Salary, £65 per annum, with board, lodging, and washing. Applications to the Honorary Secretary on or before April 14th.

SMITHSON ASYLUM AND POORHOUSE, Greenock—Assistant Resident Medical Officer. Salary, £80 per annum, with board and residence. Applications, with testimonials, on or before April 13th.

SUSSEX COUNTY HOSPITAL—Dispenser. Salary, £75 per annum, rising at the discretion of the Committee to £100 per annum. Applications, with testimonials, to the Secretary, on or before May 5th.

*TOWNSHIP OF MANCHESTER—Assistant Medical Officer to the Crumpsall Workhouse, and Resident Assistant Medical Officer at the Workhouse and Casual Wards in New Bridge Street. Joint salary, £150 per annum, with furnished apartments, fire, light, washing, and attendance. Applications, with testimonials, not later than 1 P.M. on Thursday, April 15th.

WANGFORD UNION—Medical Officer to Bungay District. Salary, £90.

WESTMINSTER HOSPITAL—House-Surgeon. Board and residence. Applications to the Secretary not later than April 10th.

WESTMINSTER HOSPITAL—Pathologist and Curator of the Museum. Salary, £52 10s. per annum. Applications, with copies of testimonials, to the Secretary, on or before April 10th.

WILTON UNION—Medical Officer to Fovant District. Salary, £80.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with an increase of £10 per annum for the two succeeding years, board, residence, washing, and attendance. Applications, with testimonials, not later than April 24th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Shaw, William, M.B., appointed House-Physician to the North Staffordshire Infirmary, *vice* A. M. McAldowie, M.D., resigned.

*Sturge, W. Allen, M.D., appointed Physician to the Hospital for Epilepsy and Paralysis.

Taylor, Harold Gilbertson, M.B.Lond., M.R.C.S.Eng., etc., appointed Assistant Medical Officer to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, Lancaster, *vice* D. T. Playfair, M.B., resigned.

Thomson, W. Arnold, L.K.Q.C.P.I., appointed Surgeon to the Midland Railway Company for the Ampthill, Flitwick, and Harlington Districts.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

Crocker—Fussell.—On the 3rd instant, at St. Nicholas Church, Brighton, by the Rev. T. Lee, Vicar of St. John the Baptist, Islington, uncle of the bride, assisted by the Rev. F. Brealey, late Vicar of Easingwold, Henry Radcliffe Crocker, M.D. Lond., M.R.C.P., of 28, Welbeck Street, W., to Constance Mary, only child of Dr. Fussell, of Brighton, and granddaughter of the late Henry Austin Fussell, of Stirford House, South Wilts.

Drew—Yeo.—On April 7th, at Prince Town, South Devon, by the Rev. J. Evans, M.A., Clifford Luxmore Drew, M.B., Her Majesty's Convict Service, Portsmouth, younger son of the late Charles Drew, Esq., 3rd Extra Madras Regiment, to Minnie, youngest daughter of the late William Yeo, Esq., Richmond House, North Devon.

DEATHS.

Winslow, William St. John Forbes, fifth son of Dr. L. S. Forbes Winslow, at Sussex-House, Hammersmith, aged 9 months, on April 1st, after a few hours' illness.

Waddell.—On November 26th, at Tombland, Norwich, Caroline Elizabeth Margaret, the beloved wife of John Craig Waddell, M.D.

Public Health.—During last week, being the thirteenth week of this year, 4,268 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality was at the average rate of 26 deaths annually in every 1,000 persons living. The annual death-rate was 27 in Edinburgh, 28 in Glasgow, and 43 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Portsmouth 14, Wolverhampton 19, Bradford 20, Sheffield 20, Leeds 21, Newcastle-upon-Tyne 22, Sunderland 22, Bristol 23, Leicester 23, Birmingham 24, Norwich 24, London 25, Brighton 25, Liverpool 27, Hull 29, Salford 29, Oldham 30, Manchester 32, Plymouth 34, and the highest rate 36 in Nottingham. The annual death-rate from the seven principal zymotic diseases averaged 3.7 per 1,000 in the twenty towns, and ranged from 0.7 and 0.8 in Wolverhampton and Leeds, to 6.3 in Sunderland, 6.9 in Nottingham, 7.3 in Salford, and 11.8 in Plymouth. Measles showed the largest proportional fatality in Plymouth, Nottingham, Hull, and Oldham; scarlet fever in Sunderland and Nottingham; and whooping-cough in Manchester and Salford. In London, 1,732 deaths were registered, which were 108 below the average, and gave an annual death-rate of 24.7. The 1,732 deaths included 9 from small-pox, 24 from measles, 59 from scarlet fever, 11 from diphtheria, 142 from whooping-cough, 10 from different forms of fever, and 11 from diarrhœa—being altogether 266 deaths, which were 10 above the average, and were equal to an annual rate of 3.8 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 315 and 334 in the two preceding weeks, further rose to 395 last week, but were 94 below the corrected weekly average; 256 resulted from bronchitis, and 92 from pneumonia. Different forms of violence caused 40 deaths; 34 were the result of negligence or accident, including 9 from fractures and contusions, 6 from burns and scalds, 4 from drowning, and 11 of infants under one year of age from suffocation. Four cases of suicide were registered. At Greenwich, the mean temperature of the air was 44.9°, and 0.1° above the average. The direction of the wind was variable, and the horizontal movement of the air averaged 12.2 miles per hour, which was 0.2 below the average. Rain fell on three days of the week, to the aggregate amount of 0.54 of an inch. The duration of registered bright sunshine in the week was equal to 26 per cent. of its possible duration.

Dr. Samuel McCrea of Templepatrick, Co. Antrim, has been killed by being thrown from his car. The horse took fright; and, as the reins broke, Dr. McCrea lost all control and was thrown out, sustaining concussion of the brain, from which he never rallied, although he lingered for two days.

The Meerut Gaol.—There has been another serious outbreak of malarious fever, diarrhœa, and dysentery in the Meerut Gaol, with very fatal results. It is the opinion of the gaol authorities and the medical officers at Meerut, that these constant outbreaks are connected with the water-level of the station. The Irrigation Department has been requested to adopt measures to improve the drainage about the gaol.

Dr. Thomas Whistler having resigned as Medical Officer of Health for Bray, the Commissioners of that Township have conveyed to him their regret at the severance of the connection which had long and satisfactorily existed between them, during the many years he had the charge of the sanitary state of the town.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children. 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Clement Godson, M.D., will exhibit a Specimen of Placenta Succenturia; T. Harrington Tuke, M.D., F.R.C.P., will deliver an address on "The Lunacy Laws".

TUESDAY.—Royal Medical and Chirurgical Society. 8 P.M., Ballot. 8.30, Dr. Gilbart Smith and Mr. Walsham, "Case of extreme Pharyngeal Stenosis, the result of Syphilis"; Dr. E. C. Anderson, "On the Partial Metabolism by the Liver of Leucin and Tyrosin into Urea".

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. Teevan, "Points in the Surgery of the Urinary Organs which every Practitioner ought to know"; Mr. Henry Power, "On the Affections of the Eye in connection with Pregnancy".

FRIDAY.—Society of Medical Officers of Health, 8 P.M. Mr. A. Wynter Blyth, "The Prevention and Propagation of Diphtheria"; Dr. Alfred Hill, "Diphtheria and Typhoid, and their concomitant conditions in Birmingham".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

SICK CLUBS AND THEIR MEDICAL OFFICERS.

A POOR AND DISGUSTED MEMBER writes that he is afraid that, beyond ventilating the subject, discussion will do very little good. In a town of 14,000 inhabitants, where he practises, there are two medical men, possessed both of considerable private property, who have these medical clubs. The rate of pay is, for a woman and three children, ninepence a quarter; for every additional child under fourteen, one penny more a quarter; for every child above fourteen, ninepence per quarter. Of course, they both employ unqualified assistants—one employs two, one of whom is in charge of a branch practice. In such a place, one is obliged to have such clubs, but he, of course, takes no adult under four shillings a year. The system is an entire mistake in my opinion, with half-a-crown a-year for an adult. The patients are, in many cases, simply neglected. The unqualified assistant occasionally is fairly well up to ordinary cases; but as in that case he never stays long, they may be said to scarcely get the value of their money, small though it is. He thinks a man who has an open surgery is far more worthy than a man who, with ample means, thus lowers his profession.

A CLUB DOCTOR writes: In reply to G. P., with reference to the formation of a provident society, I suggest that he should not form one at all if he can manage to get a fair remuneration for his work. If he do form a provident society, he will have members in it who are better able to pay for their medical attendance than most country doctors are for their ordinary daily wants. To avoid this unfair kind of work on the part of club patients, I would recommend as follows. 1. No member should be admitted into the society who earns £2 a-week. 2. Every member should be medically examined, and that carefully, before he is admitted into the society. 3. Farmers, publicans, tradesmen, and their sons, should be excluded from the Society. 4. Members suffering from gout or any other disease brought on by immorality or indulgence should be excluded from the benefits of the society, and have to pay for their medical advice, etc. 5. Female clubs should not be taken, as they are, as a rule, unremunerative. 6. No club should be taken at less than six shillings per head, and the distance should be limited to (say) three miles. 7. Members, when sick and unable to attend at the surgery, should give notice before 10 A.M. if they desire attendance at their homes.

It is very essential that a club doctor should make a fair claim for his work, and not be too obsequious to club patients, for the support and family connection which club patients pretend to give to their doctors are highly overrated: I believe that club patients think nothing at all about their doctors' interest, and only about the doctor when they are sick.

ERRATA.—On page 524 of last week's JOURNAL, column 2, line 26, *for* "blood trichinæ" *read* "brood-trichinæ"; and on page 525, column 1, line 6, *for* "There fore" *read* "Heretofore".

CONJUGAL INTERFERENCE WITH DOCTORS.

SIR,—We should be glad to know if the course we pursued in the following case is a correct one. We were consulted a short time ago by a patient who has been suffering from hæmorrhoids for some years. On examination, we discovered a fistula *in ano*, and at once suggested the opinion of a London consultant being taken. Our patient expressed himself as being satisfied with our diagnosis, and agreed to the course we proposed to adopt, viz., an operation at an early date. We visited him on two occasions. The suggestion as to the consultation was made at the first visit; and nothing was said about it at the second. A few days after our second visit, our patient's wife called on us, saying she wished to have the opinion of a London surgeon *for her own satisfaction.* This was agreed to, no name being mentioned. On the following day, an arrangement was made with our patient to consult an eminent London surgeon. It was quite settled, and the letter to make the appointment was to have been sent by the next post. Before that letter was sent, we received one from our patient's wife to the effect that the surgeon named was not to be written to; that she wished to consult, at her own time and convenience, irrespectively of us, anyone she might choose, and without our being present; and that she would be guided entirely by what the London surgeon consulted by her should say as to whether he should take charge of the case, or, on the other hand, if he did not consider it one of much importance, she wished her husband to come back under our care. In answer to this, we wrote a few lines to the effect that, as she apparently did not place much confidence in our judgment, we begged to withdraw our attendance of the case. Since this was written, we find that the patient is satisfied with our opinion, and anxious that we should undertake his case; but is in great anxiety what course to pursue, as he considers that his wife has a natural claim on his actions. The patient is in a good position.—Yours truly,

M. B. M. ASSOC.

Suffolk, April 6th, 1880.

⁂ Our correspondents acted quite rightly in the circumstances; indeed, we think that they could not have followed any other course consistent with honourable independence of action.

MCGILL College.—A registered practitioner, being a Doctor of Medicine of a foreign or colonial university, is not legally entitled to subscribe himself M.D. in England; but many holders of such degrees are allowed to use it by custom and courtesy.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Composition and Quality of the Metropolitan Waters in March 1880.

The following are the returns made by Dr. C. Meymott Tidy to the Society of Medical Officers of Health.

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter.	Nitrogen	Ammonia.		Hardness. (Clark's Scale.)	
			As Nitrates,&c.	Saline.	Organic	Before Boiling.	After Boiling.
	Grains.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Thames Water Companies.							
Grand Junction ..	22.04	0.056	0.165	0.001	0.010	16.0	3.8
West Middlesex..	21.87	0.056	0.150	0.000	0.008	15.8	3.8
Southwark and Vauxhall	21.24	0.032	0.150	0.000	0.006	16.5	3.3
Chelsea..........	22.95	0.032	0.150	0.002	0.005	15.8	3.8
Lambeth	23.17	0.028	0.150	0.000	0.007	16.0	3.8
Other Companies.							
Kent	33.19	0.004	0.435	0.000	0.003	21.2	5.6
New River	22.03	0.040	0.150	0.000	0.006	16.0	3.3
East London	23.92	0.028	0.150	0.001	0.006	17.0	3.8

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc. is determined by a standard solution of permanganate of potash acting for three hours. The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in that of the Lambeth Water Company.

Sir,—Would some of your readers (who are medical officers to public schools) kindly inform me how soon a boy may safely be allowed to return to his studies in school after a simple and uncomplicated attack, first, of measles; second, of mumps; all necessary disinfecting precautions having been thoroughly carried out previously to leaving the sick-ward?—Yours faithfully, MEDICAL OFFICER.

April 6th, 1880.

A Circular.

Sir,—After publishing the circular bearing my name on the 13th instant, I must ask you to insert in your JOURNAL my utter and unqualified denial of a knowledge of the existence of the circular previously to its publication and distribution. I should feel obliged if you would insert the letter that I wrote to the Senior Physician to the Surrey Dispensary, Dr. Hooper (which I may observe I also sent to the Committee of the Chelsea, Brompton, and Belgrave Dispensary), and his reply—Your obedient servant, T. B. PARTRIDGE.

14, Redcliffe Gardens, S.W., March 30th, 1880.

Copy of Letter from Dr. Partridge to Dr. Hooper.

"Dear Dr. Hooper,—I am neither surprised nor annoyed that my colleagues at the Surrey Dispensary should have written a letter, couched in the temperate terms, considering the cause, which I received this morning. Nothing, I can assure you, was farther from my own idea of the respect due to our profession, and may I add to myself, than emulating the practices and customs of business men, who, to enlarge their connection, endeavour to make themselves known by sowing broadcast their circulars and advertisements. This, I take it, should not be the custom observed by anyone belonging to what are called, and justly, the three learned professions. I think that the more honourable practice is—I forget the exact words of the poet—to 'do good by stealth, and blush to find it fame'.

"The circulars in question were written and delivered by one of my friends entirely without my knowledge; indeed, I expressed the greatest annoyance when I heard of their distribution, and desired that the remainder should be delivered up to me, which, being done, I immediately committed them to the flames. I repeat that I am very sorry that such a step should have been taken by an acquaintance, without apprising me of his intentions; but I trust and believe that you will hold me thoroughly free from blame in the matter, and impute the action to its right source, viz., the intentions of a friend which were undeniably well intentioned, though not duly considered.—Yours faithfully, T. B. PARTRIDGE."

Copy of Letter from Dr. Hooper to Dr. Partridge.

"9, Trinity Square, S.E., March 24th, 1880.

"Dear Dr. Partridge,—Your letter of yesterday gave me much pleasure, because it showed me that my first impression on seeing the 'circular'—that it was the work of an enemy or of a very injudicious friend—was correct. I now regret extremely that I complied with the request of my colleagues, and wrote to you, and that I did not carry out my first intention and see you personally on the matter. I believe you are the least likely man in the world to adopt any ungentlemanlike or unprofessional means of making yourself and your merits known to the public.—I am, yours very sincerely, DANIEL HOOPER."

⁂ We publish this correspondence with much pleasure, being convinced thereby that Dr. Partridge was altogether guiltless of the production of the unprofessional circular to which we felt it our duty to call attention by inserting it in this JOURNAL. The publication of it is, in the circumstances, not a matter of regret on our part, as it has given Dr. Partridge an opportunity of disclaiming all participation in its production, which not unnaturally was in many professional quarters attributed to him; and we trust that his present declaration will have the effect of removing any unfavourable ideas which may have been formed regarding his professional character.

Sir,—At page 450 of the JOURNAL of March 20th is a notice of an "Original Form of Prescription". My grandfather had a tenant who wrote his account, in his own way, and on his door. He brought his door to explain the account, which no one else could understand: however, he was not so lucky as the French patient, as it rained heavily, and the chalk marks were washed out.—Yours, etc., W.

Notice to Advertisers. — Advertisements for insertion in the BRITISH MEDICAL JOURNAL should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

The Medical Register of Europe.

Sir,—In reply to Mr. Jackson's inquiry in the JOURNAL of March 20th, I beg to say that there were only two numbers of the *Register* published, one in 1789, and another in 1780. They were published by J. Murray, of 32, Fleet Street, London, by editors who chose to be anonymous, and solicited information from all parts, English and Foreign. From the preface to the first volume it appears to have been a tentative experiment, as it was stated that whether the *Register* were continued annually must depend on the amount of public favour it obtained. I suppose, therefore, that its vitality was limited to the period of two years.—Yours, etc., G. M. BACON, M.D.

Fulbourn Asylum.

A. D.—Messrs. Macfarlane and Co., Edinburgh.

Medical Officer of Health to the Port of London.

Sir,—No doubt "M. O. H." considers himself "capable, even, of instructing professors in sanitary science"; and it is, therefore, a pity that he should allow his light to shine under a bushel. As you say, "attendance as a pupil at a hygienic laboratory is perfectly compatible with the possession of mature judgment and considerable knowledge of hygienic matters"; and it shows, moreover, a want of that self-satisfaction which is an effective barrier against the acquisition of knowledge. It is of great importance that the posts of medical officers of health throughout the country should be held by men who have had a thorough training in all branches of sanitary science, and it would be a public calamity if a so-called "practical" man, and not an accomplished as well as experienced sanitarian, were placed in so important a position as that of Medical Officer of Health to the Port of London.—I am, sir, your obedient servant, W. H. CORFIELD, M.A., M.D.(Oxon),

Professor of Hygiene and Public Health at University College, London.

A.B.—We think that, in the absence of any specific agreement, the boy who takes out medicines ought to be paid from the proceeds of the practice if he serve both partners. If, on the other hand, he be the servant of one of the partners, that one should pay him.

M.D.Glasgow does not know what hood he is entitled to wear, and asks if any of our correspondents can enlighten him.

Persistent Vitality.

Sir,—I have a case under my care at the present time, a few particulars respecting which, I think, may be of interest. It is that of a female (married), in her seventy-first year, who was seized with paralysis on the 20th of January last; since which date she has taken no nourishment whatever, and yet, at the time of my writing this, is still alive and conscious. She was of a spare habit of body before the attack, but is now positively nothing but skin and bone. Occasionally, she swallows a teaspoonful of cold water; but this is attended with great difficulty. I did not think it possible that a person at her time of life could possibly survive so long without taking nourishment.—I am, sir, yours obediently, SYDNEY HENSON.

Manchester.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Shand, Davos Platz; Mr. W. J. H. Wood, Boston; Dr. Little, Manchester; Dr. W. Bird, York; Dr. W. Roberts, Manchester; Mr. J. I. Mackenzie, Rugby; Mr. T. Annandale, Edinburgh; Mr. E. Thompson, Omagh; Dr. Cobbold, London; Dr. W. Walter, Manchester; Dr. G. Mackenzie Bacon, Fulbourn; Dr. Duncan J. Mackenzie, Glossop; Dr. Saundby, Birmingham; McGill College; Mr. A. W. M. Robson, Leeds; Dr. Mackay, Inverness; Acromion; A. B.; M. B. M. Association; Mr. Arthur H. Benson, Dublin; Mr. E. Jepson, London; Mr. F. Arnold Lees, Wetherby; Mr. John Banks, London; Mr. W. Shaw, Cheltenham; Dr. H. Tomkins, Manchester; Mr. S. Benton, London; Mr. J. W. Craigie, London; Dr. A. Grant, London; Mr. G. C. Steet, London; Mr. Eastes, London; Mr. A. Cooper, London; Dr. Crichton Browne, London; Inquirer; Our Dublin Correspondent; Dr. Dixon, Bermondsey; Dr. Kennedy, Dublin; Dr. Churton, Leeds; Mr. T. Lettis, Yarmouth; An Old Member of B.M.A.; Mr. E. Elwin, Dover; Mr. P. Bell, Edinburgh; Dr. W. S. Greenfield, London; Ignoramus; Our Glasgow Correspondent; Mr. J. Ogden, Haworth; Dr. Thomson, Ampthill; G. H. B.; Our Edinburgh Correspondent; An Irish Member of B. M. Association; Dr. J. Rogers, London; Mr. A. Graham, Keyworth; Mr. James Diggins, Lancaster; Mr. F. Wright, London; Dr. J. Johnston, Bolton; Mr. W. H. Bull, Stony Stratford; Dr. J. Vinen, Southwark; Dr. A. Buchanan, London; etc.

BOOKS, ETC., RECEIVED.

The Answer of the New York Neurological Society to the Document known as the Report of the Committee on Public Health relative to Lunatic Asylums. New York. 1880.

Transactions of the Obstetrical Society of London. Vol. xxi. For the year 1879. London: Longmans, Green, and Co. 1880.

Sanitary Organisation of Nations. By H. I. Bowditch, M.D. Cambridge (U.S.) 1880.

A Plea for Cold Climates in the Treatment of Pulmonary Consumption: Minnesota as a Health-Resort. By Talbot Jones, M.D. New York. 1879.

THE LUMLEIAN LECTURES
ON
THE DIGESTIVE FERMENTS, AND THE PREPARATION AND USE OF ARTIFICIALLY DIGESTED FOOD.

Delivered before the Royal College of Physicians.

By WILLIAM ROBERTS, M.D., F.R.C.P., F.R.S.,
Physician to the Manchester Royal Infirmary; Professor of Clinical Medicine to the Owens College.

LECTURE II.

PEPSIN AND TRYPSIN—DIGESTION OF PROTEIDS.

VARIOUS kinds of albuminious or proteid substances are used by mankind as food. The most important of these are muscular flesh, the casein of milk, and egg-albumen from the animal kingdom—and gluten, albumen, and legumin from the vegetable kingdom.

Proteids are attacked by the digestive ferments at two points in the alimentary canal, by pepsin in the stomach and by trypsin in the small intestine. Between these two acts of digestion there is a complete break in the duodenum, owing to the abrupt change of reaction from acid to alkaline which occurs at that point.

Gastric digestion is, in all creatures, an essentially acid digestion; but the most varied opinions have been entertained as to the nature of the acid. It has been supposed in turn to be hydrochloric acid, lactic acid, acid phosphate of lime, butyric acid, and even acetic acid. Much of this confusion has arisen from not distinguishing between the acid of pure gastric juice as secreted into an empty stomach, and the acid of the gastric contents during the digestion of a meal. A good deal of light has been thrown on this subject by the recent researches of C. Richet.* This observer found himself in exceptionally advantageous circumstances for the study of the gastric juice. He had under observation a young man on whom Verneuil had successfully performed the operation of gastrostomy for the relief of impermeable stricture of the œsophagus, the result of swallowing inadvertently a quantity of caustic potash. The complete occlusion of the œsophagus enabled Richet to obtain and examine the gastric juice in a pure state, uncontaminated with saliva. All food had to be administered through the fistulous opening left after recovery, and the observer could at any moment—as in the famous case of Alexis St. Martin—withdraw portions of the gastric contents for examination. Richet also took advantage of the new method of separating the various organic and mineral acids from one another, made public by Berthelot in 1872.†

Berthelot had found, on shaking up an aqueous solution of any acid with ether and then allowed the two fluids to separate, that a part of the acid passed into the ether, and that the remainder clung to the water, and that the ratio between these two parts was a constant quantity. He called this ratio the *coefficient of partage*, and found that its value was a fixed characteristic for each particular acid. Solutions of the mineral acids were found to yield nothing, or almost nothing, to ether when agitated with it; but organic acids were found to pass into the ether in considerable, though very variable, quantities—the proportion varying in a constant ratio according to the nature of the acid.

Testing pure gastric juice, uncontaminated with food or saliva, by this method, Richet found that almost all the acid was retained by the water, and that only a small proportion—about one in twenty-two—passed into the ether. This showed that the acid of pure gastric juice was almost entirely a mineral acid, with only a minute admixture of organic acid. The organic acid (tested by the same method) exhibited a coefficient of partage closely corresponding with that of sarcolactic acid. The nature of the mineral acid was determined by a method similar to that employed by C. Schmidt, and yielded the same result—namely, undoubted evidence that the mineral acid of pure gastric juice was hydrochloric acid. But Richet found that this mineral acid did not behave in the presence of salts of the organic acids quite in the same way as free hydrochloric acid does. The observations of Berthelot had shown that when free hydrochloric acid is added to a solution of acetate of soda, or other similar organic salt, the mineral acid attaches the base entirely to itself and throws the whole of the organic acid free into solution—so that the mixture, when tested by the method of coefficient of partage, behaves exactly like an unmixed solution of the organic acid. When pure gastric juice was put to this test, it was found that, although it liberated the organic acid largely, it did not do so to the same extent, by a good deal, as if the mineral acid contained in it had been entirely free. It behaved, rather, as hydrochloric acid does when united with a feeble organic base, such as leucin or peptone; and, on the ground of what appear to be very careful experiments, Richet came to the conclusion that this feeble base was probably leucin, derived from the gastric mucus, and that the acid of pure uncontaminated gastric juice was hydrochloric acid in loose combination with leucin.

Richet next proceeded to examine the free acid actually existing in the stomach during the digestion of a meal in his patient with gastric fistula. He found, as might have been expected, that this differed from the acid of pure unmixed gastric juice—in this respect, namely, that it contained a very much larger proportion of organic acids, in comparison to the mineral acid, than pure gastric juice. It was evident that the mineral acid had to a large extent seized upon the bases of the acetates, malates, lactates, butyrates, and other organic salts always present in the food, and had set free their organic acids. The real work of digestion then, so far as the acid constituent is concerned therein, is largely performed by various organic acids thus set free from the articles of food which are undergoing digestion.

Richet found that the acidity of the contents of the stomach during digestion, although it varied through considerable limits, had a marked tendency to maintain the normal average. If acid or alkali were added to the digesting mass, the mean was presently restored automatically—the stomach in the former case ceasing to secrete acid, and in the latter case secreting an increased quantity of acid.

The Effect of Gastric Juice on the Salivary and Pancreatic Ferments.—The observations of Berthelot on the power of a mineral acid to set free the acids of organic salts and to take their place with the bases—and the further observations of Richet, showing that the acids actually free in the gastric contents during digestion were organic acids, have led to the re-examination of a point of some importance—namely, as to whether the salivary, and more especially the pancreatic ferments, were or were not destroyed by the acid contents of the stomach. The matter has a practical interest in this way. If the gastric acid destroys these ferments, it is evidently useless to administer pancreatic preparations by the mouth during digestion, because they would be rendered inert by the acid contents of the stomach. On the other hand, if they are not destroyed in passing through the stomach, but merely lie dormant and recover their activity in the alkaline medium of the small intestine, then we can administer pancreatic preparations during digestion with every prospect of their passing uninjured through the pylorus and proving useful in assisting digestion in the small intestine.

A series of experiments bearing on this question were submitted by T. Defresne to the Académie de Médecine and the Académie des Sciences towards the close of last year, and have attracted some attention. On the ground of these experiments, Defresne arrived at the following conclusions; namely, that saliva continued its action on starch in the stomach without interruption; that the pancreatic ferments in like manner preserved their activity in the presence of the gastric acid; that the acids of the chyme, being organic acids, did not really destroy these ferments, but merely reduced them to a state of temporary inertness, so that, when the acidity of the chyme was neutralised in the duodenum, they recovered their powers and exhibited undiminished activity both on starch and on proteids.

As the question had a direct bearing on the medicinal administration of pancreatic preparations, and indirectly on the administration of malt-diastase and malt-extract, I thought it desirable to repeat some of Defresne's experiments and to put the question raised by these experiments to the test in other ways.

One of Defresne's (apparently) most convincing experiments was the following, which I give nearly in the words of the abstract of the paper published in the Proceedings of the Académie de Médecine for Nov. 4th, 1879. When 20 grammes of dilute hydrochloric acid, having twice the acidity of the normal chyme, are mixed with 20 grammes of egg-albumen, what follows? The acidity of the medium is no longer due to free hydrochloric acid, but to the lactic and phosphoric acids of the white-of-egg which have been set free. In presence of these acids, pancreatine may be digested for two hours in the warm chamber with impunity. And if, at the end of this period, the acidity of the mixture be neutralised, digestion is accelerated and the pancreatine peptonises 38 times its weight of albumen.

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* *Du Suc Gastrique*, by Ch. Richet. Paris: 1878.

† *Ann. de Chimie et de Physique*, 4e série, tome xxvi, p. 396.

I repeated this experiment in the following manner: 40 grammes of chopped boiled white of egg were mixed with 40 cubic centimeters of dilute hydrochloric acid of the strength of 4 per 1000. This mixture was subjected to a preliminary digestion of two hours in the warm chamber at 40° Cent. (104° Fahr.) The object of this preliminary digestion was to allow the hydrochloric acid a sufficient time to seize on the bases, and to set free the organic acids of the white of egg. At the end of this time, 5 cubic centimeters of an active extract of pancreas were added to the mixture. A second experiment was arranged in exactly the same way, except that filtered saliva was substituted for extract of pancreas. The mixtures were kept in the warm chamber for a further period of one hour, and were then filtered and carefully neutralised. On testing the neutralised filtrates, I obtained approximately the same results as Defresne. The diastatic and proteolytic ferments of the pancreatic extract were found active, but not so active by a good deal as if the extract had been diluted to the same extent with simple water. In the second experiment with the filtered saliva, the ptyalin had preserved its activity quite unimpaired.

These experiments, however, involve a fallacy which vitiates the deductions intended to be drawn from them. White of egg has a highly alkaline reaction, and although the acid used in the experiment possessed double the strength of the normal gastric juice, it was found that the mixtures, at the end of the two hours' preliminary digestion, had only a comparatively feeble acidity—in fact, only one-seventh of the normal acidity of the gastric contents. It has long been known that the salivary and pancreatic ferments are able to resist a feeble acidity, but the question really at issue is: Can these ferments resist the average acidity of the contents of the stomach, when, moreover, this acidity is rendered still more destructive to them by the presence of pepsin?

I tested the question in this way. A distinction is drawn, and rightly, between acidity due to free hydrochloric acid, and a similar degree of acidity due to an organic acid. Now, lactic acid is a typical organic acid, and it is also an acid which is often, if not always, present in the contents of the stomach during digestion. I prepared a solution of lactic acid corresponding in saturating power to the normal gastric acid (2 per 1,000 HCl.) To 50 cubic centimeters of this dilute lactic acid, I added 5 cubic centimeters of a solution of pepsin and 5 cubic centimeters of an active extract of pancreas. I prepared a second similar experiment, but substituted filtered saliva for pancreatic extract. The mixtures were then placed in the warm chamber for one hour. At the end of this period the solutions were exactly neutralised and tested. They were both found to be absolutely inert. Not a vestige of amylolytic nor of proteolytic power had escaped destruction.

I had an opportunity of trying the same question in a still more satisfactory way. While I was examining the throat of a patient suffering from an ailment which did not affect his general health, a portion of the contents of the stomach was ejected, and fortunately caught in a clean vessel. This was immediately filtered, and about 10 cubic centimeters of clear acid solution were obtained. The period of digestion was three hours after breakfast. One half of this was devoted to testing its saturating power. It was found to possess an acidity very nearly corresponding with that of normal chyme. To the remaining portion five drops of extract of pancreas and five drops of filtered saliva were added, and the mixture was placed in the warm chamber for one hour. At the end of this time it was exactly neutralised, and divided into two equal portions. One portion was tested with a drop of starch-mucilage, and found to be absolutely devoid of amylolytic power. The other portion was added to an equal volume of milk rendered slightly alkaline with bicarbonate of soda, and was then placed in the warm chamber. Not the slightest digestive action was produced on the milk in twelve hours.

I may mention that in the above experiments I used milk as the test of proteolytic activity. I had become thoroughly familiar with the behaviour of milk with pancreatic preparations during a long course of observations, and was therefore able to detect the slightest signs of pancreatic action.

With this evidence before me, I am unable to accept the conclusions of Defresne and others in Paris, who allege that saliva and pancreatic preparations can resist the normal acidity of the stomach in full digestion; and who recommend the administration by the mouth of pancreatic preparations during the period of chymification. I will in my next lecture point out the time and the method in which these preparations may, I believe, be administered by the mouth with sure prospect of success.

Digestive Proteolysis.—The changes undergone by albuminoid substances in digestion are still very imperfectly understood. It is however known that the chief end-product of the transformation is peptone. It is also known that between any native proteid—egg-albumen, muscle-fibrine, casein, or legumin—and the end-product peptone there are intermediate grades and by-products, which have hitherto proved difficult to define and isolate. The constitution of the proteid molecule is still unknown to chemists. That it is a highly complex aggregation is certain; and it can scarcely be doubted that the way to a better knowledge of its constitution lies in a persevering study of the action on it of the digestive ferments. It has been already seen that in the case of starch the action of diastase furnished the key to the constitution of the starch molecule; and, similarly, it is not unreasonable to expect that the mystery of the proteid molecule will be finally solved by a study of the action on it of pepsin and trypsin. Attention has hitherto been too exclusively directed to peptic digestion, which is complicated by the interaction of an acid. Pancreatic digestion is, in this respect, a simpler process—inasmuch as it requires the interference neither of an acid nor an alkali, but is a reaction, pure and simple, between the ferment and the proteid. This, however, is a question of the future.

Characters of Peptones.—The end-product peptone has been fairly isolated and its characteristics defined. If the filtered product of a pancreatic digestion of egg-albumen be evaporated to dryness in a watch-glass at a temperature of 104° Fahr. (40° C.), there remains a glassy straw-coloured residue resembling dried gum. With the point of a penknife this can be chipped off in shining scales, which may be easily reduced to a fine whitish powder—this is nearly pure peptone. This substance is extremely soluble in water; and its solutions, even when highly concentrated by evaporation, betray no jellying and no viscosity, but continue diffluent almost to the moment of desiccation; only just before drying up do they assume a slightly syrupy consistence. When the latter point is approached, the solution deposits beautiful white crystalline sheaves of tyrosin and spheres of leucin. From the constancy with which these crystalline bodies make their appearance in pancreatic digestion, it may be inferred that they constitute an essential portion of the final products of the transformation.

The reactions of peptone are mostly of a negative character. Its solutions give no precipitation with nitric acid, nor with boiling, nor with ferrocyanide of potassium and acetic acid. The behaviour of peptone with alcohol is peculiar. When a strong peptone solution is dropped into absolute alcohol, the peptone is precipitated as a white sediment, but it is not truly coagulated into an insoluble modification, as all the other proteids are; for when the alcohol is removed, the deposit is found to have preserved its solubility in water—even after prolonged contact with the alcohol. Solutions of peptone are precipitated by those metallic salts which throw down other proteids, also by tannin when the solutions are neutral. When the solutions are rendered alkaline, the cupro-potassic test (Fehling's solution), added in very small quantity, produces a rose-red coloration, whereas other proteids produce a violet tint. Physiologically, by far the most important reactions of peptone are its extreme solubility in water and its diffusibility through organic membranes. With regard to the latter point, contradictory statements have been made by different investigators. Otto Funke rated the diffusibility of peptone through the membrane of the small intestine higher than that of common salt. On the other hand, von Wittich concluded that peptones did not pass through parchment-paper more rapidly than unaltered albumen. My own observations support the view that peptone is incomparably more diffusible through parchment-paper than the native proteids. In the case of milk, the effect of digestion is very marked in regard to its behaviour in the dialyser. When milk was dialysed for 48 hours into twice its volume of water, not a trace of proteid matter could be detected in the diffusate; but when milk had been previously digested for a couple of hours with pancreatic extract, an abundant reaction with tannin and Fehling's solution was obtained after dialysing it for eight hours.

My results with egg-albumen were equally striking. I prepared a solution by agitating white of egg with nine times its bulk of water, and straining the product through muslin. When this solution was dialysed into twice its volume of water for 32 hours it yielded absolutely no reaction with tannin nor with the cupro-potassic test. But when the same solution was previously digested, either with pepsin and acid or with pancreatic extract, and then dialysed, it gave in five hours a slight but distinct reaction, both with tannin and with Fehling's solution, and in sixteen hours a most abundant reaction.

The theoretical views held by physiologists in regard to the intimate nature of the transformation undergone by proteids in the presence of pepsin and trypsin are still unsettled, but recent opinions converge towards the idea that the process is, in the main, one of progressive deduplication with hydration, similar in type to the transformation of starch by diastase. This view receives a positive support from the recent analyses of Henninger. By operating on highly purified albumen, fibrin, and casein, Henninger* succeeded in obtaining peptones in a state of great purity. An analysis of peptones so obtained indicated that they contained less carbon and nitrogen, and proportionally more hydrogen, than their original proteids. The differences were, it is true, small, but they pointed distinctly in the direction of the conclusion that there was a fixation of the elements of water by the proteid, in the course of its transformation into peptone.

Henninger also believes that he has succeeded in reversing the process, and in reproducing an albuminous substance from peptone by operating on it with dehydrating agencies. He found that when fibrin-peptone was heated with anhydrous acetic acid at 80° C. (176° Fahr.), or was maintained for an hour at the temperature of 160° to 180° C. (320° to 356° Fahr.), it yielded a body which agreed closely in its reactions with syntonin.

The intermediate products which are generated in the course of proteid digestion, and stand between the original proteid and the end-product peptone, are very imperfectly understood. The laborious researches of Meissner and Kühne have shown that several such intermediate bodies are produced, but these have not yet been adequately isolated and defined.

[*To be continued.*]

ABSTRACT REPORT OF LECTURES
ON THE
COMPARATIVE ANATOMY OF MAN.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, LL.D., F.R.S.,

Conservator of the Museum, and Hunterian Professor of Comparative Anatomy in the College.

LECTURE III.—THE RACES OF AMERICA.

THE natural history of the population of the great American continent, as it existed before the changes wrought by the European conquest which followed the adventurous voyage of Columbus, offers an interesting but difficult problem to the anthropologist. Do all these various tribes, of which one thousand seven hundred are enumerated by Keane —and these must be a small portion of those formerly existing—extending from the Polar Sea to Cape Horn, through such various climates, and inhabiting regions so diverse in their physical characters, belong, as many writers have averred, to one primary division of the human species; or are they capable of being divided into groups having as strongly pronounced distinctive characters as are to be found among the inhabitants of the Old World, as has been stated by others? Again, if we find difficulty in dividing them into well-marked groups, do we find such actual differences of character as to lead to the belief that they are all of common origin; or have we reason to think that they are the result of the mingling together, in various proportions in different districts, of two or more distinct sources of population? Furthermore, inquiry will naturally be directed to their relations with other people. Whether we consider them as one or as several people, we shall have to ask, With which of the races of other parts of the world are they most nearly allied?

The views till lately held as to the peopling of America, though perhaps under various modifications and disguises, may be grouped under two heads. 1. The inhabitants of that continent were a distinct autochthonous or indigenous people, created in the country in which they were found, and therefore not related to those of any other land. This is the theory of the polygenistic school, but is probably not held by many scientific men of the present day. 2. The monogenists mostly believe that they are descended from the Asiatic people, who in comparatively recent times passed into America by way of Behring's Straits, and then spread gradually over the whole continent as far as Cape Horn; and that their nearest allies must, therefore, be looked for in the north-eastern regions of Asia. It has also been thought by those who have held the same general views, that, at all events, a partial peopling of the American continent may have occurred from southern Asia by way of the Polynesian Islands, or from North Africa across the Atlantic. The discovery of the great antiquity of the human race in America, as well as in the Old World, has caused a considerable modification of these theories. The proof of a very considerable antiquity rests upon the high and independent state of civilisation which had been attained by the Mexicans and Peruvians at the time of the Spanish conquest, and the evidence that that civilisation had been preceded by several other stages of cultivation following in succession through a great stretch of time; but the antiquity of the quasi-historical period thus brought out is evidently thrown into the shade by the evidence now accumulating from various parts of the United States, Central America, and the Pampas, that man existed in those countries, and existed under much the same conditions of life, using precisely similar weapons and tools as in Europe, during the pleistocene or quaternary geological period, and perhaps even farther back in time. As in Europe his works are found associated with the remains of *Elephas primogenius* and other extinct mammals, so in America are they found in contemporary deposits with *Elephas Columbi*. If the deductions commonly made from these discoveries be accepted, and the fact admitted that men lived both in Europe and America before the surface of the earth had assumed its present geological conformation, the data from which the problem of the peopling of America is to be solved are altogether changed. Recent palæontological investigations, especially those carried on with great success in the neighbourhood of the Rocky Mountains, show that an immense number of forms of terrestrial animals, that were commonly supposed to be peculiar to the Old World, are abundant in the New. Indeed, many such, as horses, rhinoceroses, camels, etc., are more numerous in species and varieties in the latter, and therefore the means of land-communication between the two must have been very different from what it is now. Taking all the circumstances into consideration, it is quite as likely that Asiatic men may have been derived from America as the reverse, or both may have had their source from a common centre in some region of the earth now covered with sea.

However this may be, the population of America has been for an immense period practically isolated from the rest of the world, except at the extreme north. Such visits as those of the early Norsemen to the coasts of Greenland, Labrador, and Nova Scotia, or the possible accidental stranding of a canoe containing survivors of a voyage across the Pacific or the Atlantic, can have had no appreciable effect upon the characteristics of the people.

The evidence derived from the study of the physical characters of the Americans shows that there is, considering the vast extent of the country they inhabit and the great differences of climate and other surrounding conditions, a remarkable similarity in essential characters, with at the same time much diversity in detail and in other characters which perhaps are not of so much primary importance as has been often thought. The construction of the numerous American languages, of which as many as twelve thousand have been distinguished, is said to point to unity of origin, as, though widely different in many respects, they are all, or nearly all, constructed on the same general grammatical principle—that called *polysynthesis*—which differs from the languages of any of the Old World nations. The mental characteristics of all the different American tribes have much that is in common; and the very different stages of culture to which they had attained at the time of the conquest, as that of the Incas and Aztecs and the hunting and fishing tribes of the north and south, which has been quoted as evidence of diversity of race, were not greater than those between different nations of Europe, as Gauls and Germans and Greeks and Romans in the time of Julius Cæsar. Yet all those were Aryans; and, in treating the Americans as one race, it is not intended that they are more closely allied than the different Aryan peoples of Europe and Asia.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—There have been considerable alterations in the mode of conducting the primary examinations in anatomy and physiology for the diploma of membership of the College. On the 2nd instant, 173 candidates presented themselves for examination, who were required to answer in writing two distinct papers on anatomy and physiology respectively, instead of one as heretofore on the combined subjects. The time allowed for the anatomical examination was from 1 to 3 P.M. After an interval of an hour, they assembled again from 4 to 6 o'clock, to answer a series of questions in physiology with the same conditions. At the oral examination, instead of proceeding to *three* tables for an examination of ten minutes at each, they were taken at two tables for fifteen minutes each; one in anatomy, on well-dissected and recent subjects, and three preparations from the museum; at the other, they were examined in physiology. The examiners in anatomy were, at one table, Messrs. Durham and Bellamy; at another, Messrs. Pick and Rivington; in physiology, Messrs. Power and Lowne, and Messrs. Morrant Baker and McCarthy. Mr. Christopher Heath is the Chairman of the Board.

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* A. Henninger, *De la Nature et du Rôle Physiologique des Peptones.* Paris: 1878.

HÆMORRHAGE FROM THE ORGANS OF GENERATION DURING PREGNANCY AND PARTURITION.[*]

By ARTHUR V. MACAN, M.B., M.Ch., M.A.O., Univ. Dub.,
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UNDER the short and apparently simple title of "Hæmorrhage from the Organs of Generation during Pregnancy and Parturition" are included a number of the most distinct and separate affections, which, though capable of generalisation under the common symptom "hæmorrhage", bear no sort of family resemblance to each other, and are, therefore, extremely difficult to treat of under one common head. This will, I think, be obvious, by a simple enumeration of the various subjects that are embraced by the above definition. They are—

1. Menstruation during pregnancy.
2. Irregular, or periodic, non-menstrual discharges (erosion, polypus, carcinoma).
3. Abortion and miscarriage, including the various forms of moles and hydatids.
4. Accidental hæmorrhage.
5. Unavoidable hæmorrhage.
6. Other forms of hæmorrhage occurring during labour, from rupture of the uterus, thrombus, or velamentous insertion of the cord.
7. *Post partum* hæmorrhage, both from the site of the placenta (including acute inversion of the uterus), and that due to rupture of the cervix, vagina, or external genitals; and in some rare cases, even from the rectum.

It is manifestly impossible to treat all these subjects, even superficially, within the limits which have been very properly assigned to all communications read at these meetings. I have not, therefore, essayed the task, but will confine the observations I have to make to the following subjects.

1. The occurrence of menstruation during pregnancy.
2. The symptoms that justify us, in a case of threatened abortion, in ceasing all further efforts to save the ovum.
3. The treatment of imperfect abortion.
4. The treatment of placenta prævia.
5. The prevention and treatment of *post partum* hæmorrhage, especially that described by Gooch as "a peculiar form of hæmorrhage".

1\. Among recent writers, there is a singular unanimity as to the possibility of menstruation occurring in a pregnant woman. Montgomery, in his book on the *Signs and Symptoms of Pregnancy* (page 85), gives instances of its occurring, not only once or twice after conception, but even continuing during the whole pregnancy, and quotes Deventer, Dewees, and Baudelocque, as authorities for the fact that some women menstruate only during pregnancy. There can be no doubt that a periodically recurring discharge of blood from the vagina is not a very rare occurrence during pregnancy. The question is, Is this true menstruation, or merely hæmorrhage from some pathological condition that has taken on a periodic type? This latter is the view held by Professor Spiegelberg (*Geburtshülfe*, 1878, p. 372), who sees no reason to doubt the theory of Bischoff, that menstruation depends on ovulation. Ovulation has, however, never been demonstrated as occurring during pregnancy. Hence there is no proof that menstruation takes place during pregnancy. Indeed, he considers that the changes which take place in the uterine mucous membrane during menstruation are quite incompatible with the further continuance of pregnancy.

2\. As to the symptoms which justify us in giving up all hope of saving the ovum, authors are by no means agreed. Scanzoni says (*Geburtshülfe*, 4th edition, vol. ii, p. 84) that if, during the first two months of pregnancy, the symptoms of abortion, viz., hæmorrhage and uterine action, are once well marked, the abortion is almost inevitable; others think that, if we can feel any part of the ovum in the cervix, its expulsion is a mere question of time. Spiegelberg considers that the discharge of blood-clots, especially if somewhat decolorised, points to inevitable abortion.

The rupture of the membranes and the escape of the waters is also necessarily fatal to the ovum. This, however, very rarely takes place in abortions before the beginning of the fourth month, that is, until the placenta is fully formed. Indeed, Leblond goes so far as to say that if, during the first three months of pregnancy, a healthy ovum be not expelled entire, then there has been some interference with pregnancy, most probably of a criminal nature (*Annales de Gynécologie*, August 1875, p. 95).

3\. The question, again, often resolves itself into whether the ovum be alive or not; but the symptoms of the death of the ovum are, in the great majority of cases, most untrustworthy, and the ovum will sometimes survive the most persistent efforts to produce abortion. Scanzoni gives a case in illustration of this point, where, being called in to a woman with persistent hæmorrhage at the third month, he diagnosed retention of a portion of the membranes. For this he gave ergot, both by the mouth and *per rectum;* plugged the vagina for thirty-six hours; passed the sound into the uterus for two inches and a half, and moved the point freely within the cavity; and finally injected a weak solution of perchloride of iron, but the ovum nevertheless did not lose its vitality, nor did this treatment lead to abortion (Scanzoni, vol. ii, p. 83). In such cases, perhaps, the use of the thermometer would help us to make the diagnosis; for Cohnstein and Fehling have shown that, if the temperature of the uterus be not higher than that of the vagina, the fœtus has most probably lost its vitality (*vide* Schroeder, 5th edition, p. 118). It is to Dr. Matthews Duncan (*Researches in Obstetrics*, p. 274), and Dr. McClintock (Smellie, vol. i, p. 169), that we are chiefly indebted for what we know about imperfect abortion or imperfect deliverance. The chief difficulty of these cases is the diagnosis, the treatment being in all cases to remove, as soon as possible, the retained portion of the membranes or placenta. This has, till quite lately, generally necessitated the dilatation of the cervix, though now and then the mere introduction of the sound and the administration of ergot have led to the expulsion of the retained portion of the placenta or membranes. With the object of avoiding dilatation, Dr. Paul Mundé, of New York, uses one of Dr. Thomas's blunt wire curettes, or one of Simon's scoops, which, he says, can be readily introduced without any previous dilatation of the cervix, and by means of which the retained portion of the placenta or membranes may readily be detached and removed (*American Journal of Obstetrics*, 1878).

4\. The subject which of all others, however, requires elucidation and discussion, is that of placenta prævia; for there is hardly a question, whether concerning its etiology, pathology, diagnosis, or treatment, that is not still involved in obscurity or confusion—very often in both. Thus, at the very threshold of any inquiry as to the proper treatment of this affection, we are called on to determine what is the source of the hæmorrhage; does it come from the placenta or from the uterus? The direct evidence on this question is very slight; and while Dr. Barnes (*Obstetric Operations*, p. 404) supports the theory that the hæmorrhage is uterine and arterial, and quotes the experiments of Mackenzie to prove his assertion, Schroeder believes in the theory warmly advocated by the late Sir J. Y. Simpson, that the larger part comes from the detached portion of the placenta (Schroeder's *Geburtshülfe*, 5th edition, p. 671); while Spiegelberg thinks that the chief hæmorrhage is from the uterine sinuses, though at the moment of detachment a sudden gush of blood also takes place from the curling arteries and from the placental vessels; the arteries, however, soon contract, and the placental sinuses soon become occluded by the formation of thrombi (Spiegelberg's *Geburtshülfe*, p. 392). Thus these authorities differ *toto cœlo* as to the source and character of the hæmorrhage; Barnes says it is uterine and arterial, Spiegelberg that it is uterine and venous. Barnes and Spiegelberg agree that it comes from the uterus, while Schroeder and Simpson maintain that its source is the placenta. One thing seems certain, that, whether it comes from the uterus or from the placenta, it very frequently ceases spontaneously; if from the uterus, then from expansion, not contraction, of the placental side; if from the placenta, from the formation of thrombi.

A far more fertile source of confusion, however, has arisen from many, if not all, of our most recent authorities writing as though, in placenta prævia, the placenta were inserted, wholly or in part, into the cervix itself. Thus Leishman speaks of each pain as tending "still further to the separation of the placenta from its cervical attachments" (2nd edition, p. 440), and further on: "It sometimes, though rarely, happens that the effect of the uterine contractions is to separate the placenta either from its cervical attachments, or from its entire uterine connection, etc." (p. 440). Dr. Milne, in his *Midwifery*, when speaking of the placenta, says, "It is sometimes placed over the whole os and cervix, in which case it is termed placenta centralis; at other times, it is attached over a part of its margin, and a portion of the cervix, when it is called placenta lateralis" (*Midwifery*, 2nd edition, p. 296). Tyler Smith uses almost exactly the same words: "In placenta prævia", he says, "it (the placenta) is attached over the whole of the os and cervix uteri, or it may be implanted over some part of the margin of the os, and one half or more of the cervix" (*Midwifery*, p. 375). Dr. Churchill holds the same theory, for he says: "The cause of the hæmorrhage is evidently the separation of the placenta

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[*] Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

from the cervix uteri" (*Midwifery*, 6th edition, p. 504); and Dr. Roberts speaks of the placenta being partly or completely implanted over the cervix (*Midwifery*, p. 92). Dr. Playfair, however, when defining placenta prævia, does not make this mistake, but falls into it further on, when he says, "Dr. Barnes's theory (of the cause of the hæmorrhage during the latter months of pregnancy) is based on the supposition that the loss of relation between the uterus and placenta is caused by excess of growth on the part of the placenta itself over that of the cervix, which is not adapted for its attachment" (*Midwifery*, vol. ii, p. 83). This confusion is, I think, kept up and fostered by the use of the term "cervical zone" to express the lower segment of the body of the uterus. Indeed, Dr. Barnes himself seems to be guilty of thus confusing the "cervical zone" with the "cavity of the cervix"; for, when speaking of paralysis of the cervix following labour, he says: "This state is more likely to occur in cases of placenta prævia, and it is doubly dangerous because the cervix is the placental site" (*Obstetric Operations*, p. 421). The error of thus speaking of the placenta as inserted either partly or completely into the cervix, was ably pointed out by Dr. C. Bell in a paper read by him before the Edinburgh Obstetrical Society in May 1878, in which, curiously enough, he still adheres to the old idea that the cervix is taken up during the later months of pregnancy. It has recently been again most forcibly brought forward by Dr. Isaac E. Taylor of New York, in a paper published in vol. iii of the *Transactions of the American Gynæcological Society*, (p. 310), in which he quotes largely from Dr. Barnes, and criticises him very severely as teaching this doctrine.

Once this proposition is plainly stated, it carries with it its own refutation, but we must ever beware of confounding the "cervical zone" of Dr. Barnes with the true "cervix uteri", a mistake which, once committed, involves the whole subject of the treatment of placenta prævia in inextricable confusion.

Let us now pass on to consider the various theories that have been put forward to explain why the hæmorrhage is so liable to come on during the later months of pregnancy. The oldest of these is, that, during the later months of pregnancy, the cavity of the cervix gradually becomes dilated, and taken up into the body of the uterus. The placenta which is attached over the cervix does not grow fast enough to keep pace with this rapid dilatation; separation necessarily follows, and is accompanied by hæmorrhage. This theory involves two errors; first, that the placenta is inserted into the cervix; and second, that the cervix is taken up during the later months of pregnancy. The former of these has been already noticed, so we may at once pass on to consider whether the cervix uteri is gradually taken up into the uterus during the last few months of pregnancy. This subject was, more than ten years ago, made the subject of a striking paper by Dr. Matthews Duncan (*Researches in Obstetrics*, p. 243), in which he showed conclusively, I think, that the cervix uteri remains intact till the painless contractions which precede labour set in.

Dr. Barnes also rejects this theory, but supplants it by another, in support of which he does not, however, offer any proof, and in explaining which he is, I think, again guilty of confounding his own "cervical zone" with the "cervix uteri". He says: "The first detachment of placenta, then, arises from an excess in rate of growth of the placenta over that of the cervix: a structure which was not designed for placental attachment, and which was not fitted to keep pace with the placenta. Hence loss of relation; the placenta shoots beyond its site, and hæmorrhage results" (*loc. cit.*, p. 401).

These objections do not, I think, apply to the explanation given by Dr. Duncan, which, briefly stated, is as follows. The placenta, when prævia, is inserted more or less completely over the inner os. For some time before labour (varying greatly, however, in different cases), painless contractions of the uterus set in. These contractions cause a slight dilatation of the inner os, which must lead to separation and consequent hæmorrhage. If the hæmorrhage set in before the occurrence of painless contractions, then it is due to the same accidental causes which would lead to accidental hæmorrhage from a normally situated placenta. In other words, we may have accidental hæmorrhage from a placenta that is prævia. Indeed, there are many circumstances in placenta prævia that combine to increase the tendency to accidental hæmorrhage. The first of these is, that the pressure on the placental and uterine vessels is greater than when the placenta is situated at the fundus, in consequence of the additional length of the column of blood that has to be supported. The placenta, when prævia, is also more exposed to shocks than when inserted into the fundus. For the cervix is so fixed that any sudden concussion is transmitted almost directly to the placental site; whereas, when it is inserted at the fundus, the shock is broken by the free mobility of the point of insertion. The effects of coitus and straining at stool are also much more likely to affect a placenta when prævia than when inserted normally.

Another very common error is the idea that, during the first stage of labour, the cervix becomes retracted or shortened. This is quite contrary to what is really the case; for the length of the cervix, instead of being in any way taken up or retracted, is, on an average, doubled during the first stage of labour; and its circumference is increased from that of the finger to that of the fœtal head. This fact is beautifully shown in the accompanying plate, which is a copy of a section made by Braune of the frozen body of a woman who died at the end of the first stage of labour; and the mechanism by which this lengthening and thinning of the cervix are produced is illustrated by three plates copied from the last edition of Schroeder's *Midwifery* (pp. 149, 151).

The question of treatment need not now detain us very long. Our great object should be to separate the membranes freely from one edge of the placenta. If the cervix be dilated and the presentation partial, this is readily accomplished; and, once it is done, the placenta is free to move upwards and outwards along with the lower segment of the uterus, to which it is attached, and the hæmorrhage generally ceases. If the presentation be, however, complete, we must first separate the placenta at one side or other from the uterus; if possible, from that side to which it has the smallest attachment. If it be doubtful on which side the smaller segment lies, then we should, with a view to future turning, separate it at the side where we find by external examination that the legs of the child are situated. If we be unable to reach the membranes, and the hæmorrhage be formidable, we must plug until the membranes are within reach; and, if any considerable portion of the placenta overlap the inner os, we should turn as soon as practical, in the interest of the child. In no case of partial presentation should any artificial separation be attempted; for we can never tell the exact amount of separation that may be necessary to allow the inner os to become fully dilated. The only circumstances that justify the artificial separation of the placenta are where the presentation is complete, where it is done to convert the case into one of partial presentation, or in those rare cases where the total separation of the placenta may be advisable before the birth of the child.

5. The prevention and treatment of *post partum* hæmorrhage are perhaps the most important of all the questions that have been proposed. As it will be the subject of a paper by my friend Dr. Madden, I need not enter into it in detail. The most suggestive paper I have seen on the preventive treatment of *post partum* hæmorrhage is one read by Dr. McClintock before the Dublin Obstetrical Society, and which he has incorporated into his annotations to the Sydenham Society's new edition of Smellie's *Midwifery* (Smellie, vol. i, p. 386). There is one point, however, on which I think he hardly lays sufficient stress as a preventive of *post partum* hæmorrhage; and that is the careful management of the third stage of labour by what he himself has called the "Dublin method", an imperfect edition of which has lately been introduced into England as Credé's method, and has been written and spoken about as something quite new. The Dublin method differs from Credé's method, however, very considerably; for, whereas the former, if properly practised, renders *post partum* hæmorrhage extremely rare, Credé's method accomplishes nothing but the early expression of the placenta.

Another point on which there seems to be great confusion is the "peculiar hæmorrhage" described by Gooch, the peculiarity of which consists, according to this author, in an excited state of the circulation forcing the blood through a well-contracted uterus; in other words, *post partum* hæmorrhage from a well-contracted uterus. So little does this correspond to more modern ideas, that Dr. Barnes, when speaking of it, says: "I have no doubt that laceration of the cervix is the true explanation of that form of hæmorrhage which Gooch described as due to an over-distended circulation, driving blood though the contracted uterus" (*Obstetric Operations*, 1st edition, p. 455). If, however, we read Gooch's own description carefully, we will find that in not one instance that he gives did any hæmorrhage occur while the uterus was firmly contracted; for he again and again tells us that the hæmorrhage ceased as soon as he succeeded, by putting his hand into the uterus and applying cold, in arousing uterine contraction, but returned again as often as the uterus again relaxed. He says: "The first time I attended this lady, after the violence of the hæmorrhage was over, although the abdomen was covered with pounded ice, it returned again and again, slightly in degree, yet sufficiently, in the debilitated state of the patient, to produce alarming recurrences of faintness. The uterus, too, which had become firm and distinct, became so soft it could no longer be felt." He then poured a jug of cold water on the woman's abdomen from a height of several feet. "The effect", he says, "was instantaneous; the uterus, which the moment before had been so soft and indistinct as not to be felt within the abdomen, became small and hard, the bleeding stopped, and the faintness ceased" (Gooch *On the Diseases of Women*, p. 351). I think the idea Gooch intended to convey was that the uterus had at first contracted well; but after a time the excited state of the circulation caused it again to relax, and profuse hæmorrhage to occur. For, when giving advice to medical practitioners, he says: "I advise them after delivery, though the uterus may feel contracted, to be slow to leave their patient if the circulation is greatly disturbed" (p. 350). Hæmorrhage from the site of the placenta, when the uterus is firmly contracted, is only possible when some cause such as retained placenta, fibrous tumour, or adhesions of the fundus, mechanically prevent the closure of the uterine sinuses.

Rupture of the cervix uteri is now very generally recognised as a not unfrequent cause of *post partum* hæmorrhage; and rupture of one of the crura of the clitoris has been known to lead to a fatal result: a fact to which I drew the attention of the profession in a report on midwifery published in the *Dublin Journal of Medical Science* for May 1876.

There is, I think, hardly any doubt that, with the exception of transfusion, the most powerful remedy we possess in combating the collapse which frequently follows severe *post partum* hæmorrhage, is the subcutaneous injection of sulphuric ether, as proposed by Professor von Hecker of Munich, and on the use of which I read a paper before the Dublin Obstetrical Society in March 1876, and which, it has since been amply proved, is thoroughly deserving of the high place in obstetric therapeutics which its original proposer claimed for it.

ON THE PREVENTION AND TREATMENT OF *POST PARTUM* HÆMORRHAGE.*

By THOMAS MORE MADDEN, M.D., M.R.I.A.,
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No circumstances can occur in medical or surgical practice calling more imperatively for the exercise of the highest qualities of the medical attendant. than those in which the midwifery practitioner may at any moment be placed when suddenly called on to treat a case of violent flooding. Nor can the power of the obstetric art be more strikingly illustrated than when it enables us to rescue from the tomb a patient who is pale, pulseless, unconscious, and collapsed from hæmorrhage after childbirth. Therefore, I think that it would be difficult to find any questions of greater importance that could occupy the attention of the Obstetrical Section of the British Medical Association than the prevention and treatment of flooding. And, although both these subjects have been discussed by obstetric writers in every age, from the dawn of our art in the Hippocratic treatise Περὶ Γυναικείων down to the present day, their further consideration is not unnecessary, as long as women still occasionally die from hæmorrhage after labour, despite all treatment.

With the advancement of midwifery, this lamentable accident has gradually become less and less frequent, and we have every reason to anticipate that in the more perfect obstetric practice of a not distant future its occurrence will be entirely unknown. To contribute towards this end, it behoves all who have extensive opportunities of trying different methods of preventing or arresting flooding to record their experience; for it is only by the accumulation of such individual experiences, that conclusions of practical value can be ever arrived at on disputed points in the practice of our art.

Within the last few years, several new methods of treating *post partum* hæmorrhage—such, for instance, as the uterine injection of solution of perchloride of iron, tincture of iodine, and hot water, or the hypodermic employment of ergotine, etc.—have been introduced into practice and each advocated as the remedy in all cases of this kind; whilst other plans of treatment which have not the recommendation of novelty are unduly neglected. Therefore, recognising the value of each of these in appropriate cases, and not believing in the universal applicability of any of them, I shall briefly submit to the Association my experience of some of the methods, old and new, which I have employed in hospital and private practice for the prevention or suppression of flooding.

At the present time, there appears to be a great tendency to resort to heroic treatment in all cases of so-called hæmorrhage. It should not be forgotten that a certain loss of blood is a normal, and within due limits a beneficial, accompaniment of the termination of labour. What these limits are cannot be rigidly defined; they depend on the condition of the patient in each case. But, in the majority of instances, a greater loss can be borne with impunity than seems to be generally supposed by those who resort to ergotine, or perchloride of iron, or the injection of hot water into the uterus, on the least appearance of hæmorrhage after delivery. In saying this, however, I certainly have no wish to depreciate the value of any of these remedies, or, by underestimating the gravity of the accident under consideration, to encourage remissness in its recognition and treatment.

Causes of Post Partum Hæmorrhage.—In considering the prevention and treatment of this complication of labour, its causes must be referred to, and these vary widely. Inertia of the uterus, although the most frequent, is almost equalled in this respect as a cause of flooding by an intermittent action or alternate contraction and relaxation of the muscular fibres, so that at one instant we can feel the womb in what should be its normal condition immediately after labour—viz., as hard as a cricket-ball under our hand—and a moment later it relaxes, and becomes impossible to grasp.

The uterine action may be neither deficient in force nor intermittent, and yet fatal hæmorrhage may occur from the contraction being irregular or partial. The os and cervix may be firmly contracted, whilst the body is distended by hæmorrhagic effusion. Or we may have irregular uterine energy exhibited in the form of so-called hour-glass contraction. In one remarkable case, I have seen the uterine cavity thus divided into several distinct chambers, each filled by the effused blood.

I refer to this point merely to show that cases of hæmorrhage from irregular and generally too forcible uterine action obviously require very different treatment from the more frequent atonic powerless state of the uterus, although both may be productive of this accident.

Laceration of the cervix uteri is an occasional cause of severe *post partum* hæmorrhage. In my notes of nearly four thousand midwifery cases in hospital and private practice, only two cases of this kind are recorded. But, there is reason to anticipate that, when the practice recently advocated of applying the forceps before the natural dilatation of the os uteri becomes generally adopted, as seems likely, the next generation of midwifery practitioners will thenceforth have an ampler opportunity of witnessing this accident than was the case in the practice of their possibly slower but certainly safer predecessors in the obstetric art.

Some of the other causes of flooding, such as the mismanagement of the third stage of labour, especially by the neglect of proper pressure over the uterus, or by attempts to hurry away the placenta by traction on the cord (which should never be touched for this purpose), and the causes of secondary hæmorrhage, have not been here referred to, being far too important to be summarily discussed in a short practical paper on *post partum* hæmorrhage.

In most instances, flooding is a preventable accident, and should be comparatively unfrequent in first confinements. Thus, of eighty-nine cases of this kind in the Dublin Lying-in Hospital, in only twenty-four instances were the patients primiparous. Moreover, the risk of this occurrence in any case is almost invariably in exact proportion to the number of the patient's previous confinements.

Having, therefore, in the first instance, ascertained the patient's obstetric history, we may prevent her from again suffering from hæmorrhage by prophylactic treatment suitable to her constitutional state. Thus, if she be plethoric, saline purgatives, restricted diet, avoidance of stimulants, and free exercise must be enjoined for some time before labour. If, on the contrary, as is more generally the case, she be anæmic or broken down by repeated childbearing, there is no better prophylactic of hæmorrhage, as I have found by experience, than a course of the old-fashioned tincture of the perchloride of iron, given in large doses for the last two months of pregnancy.

Flooding is occasionally obviously connected with the hæmorrhagic diathesis; and this condition, although rare amongst the well-fed upper and middle classes, is not uncommon amongst the half-starved wives of the poor in the humid atmosphere and rain-saturated soil of the city of Dublin. I have met with several cases of flooding occurring in patients who suffered from a general tendency to hæmorrhage from all the mucous surfaces, the gums, the nose, and stomach, in whom the most trifling operation or the slightest scratch gave rise to considerable bleeding, or the least bruise to extensive ecchymosis, and whose catamenia were either unduly frequent or excessive without any active disease to account for it. It may be added, that those who suffer from menorrhagia are almost invariably more liable than others to hæmorrhage after delivery. Therefore, whenever we are consulted beforehand by a pregnant woman who is of this diathesis, we should endeavour to prevent the probable occurrence of *post partum* hæmorrhage by correcting the impaired tonicity of the vessels and the morbid state of the blood, by the free administration of ferruginous tonics and a generous and nutritious regimen.

Many years ago, the connection between an excited state of the circulation during labour and subsequent flooding, was impressed on my mind by the late Dr. Churchill, at the bedside of a lady who was in the commencement of the second stage of labour, when he was thus enabled to forewarn me of flooding which followed some hours after delivery.

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* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

Hæmorrhage may occur without any previous acceleration of the pulse; but, in a long experience, I have never seen it permanently quickened during labour and not subsiding to its normal rate in the interval between the pains, especially if this continued after delivery in any instance in which hæmorrhage did not follow unless obviated by timely treatment.

In every case of natural labour in which we had any reason to anticipate *post partum* hæmorrhage, the membranes should be ruptured before the full dilatation of the os uteri, so as to allow the womb to contract firmly on the body of the child. This practice, which has been recommended by Dr. McClintock of Dublin, I have now acted on for some years, and I am convinced it might be safely and advantageously extended to every multiparous labour in which the presentation is natural.

Whenever ergot is required as a prophylactic of hæmorrhage in the second stage, I give by the rectum a strong infusion of the fresh powder, or a dose of Long's liquor ergotæ or of White's fluid extract, as hot as can be borne. In this way, the specific action of the drug is most rapidly and effectually produced, and the retching or nausea commonly caused by an ordinary use of ergot is entirely obviated.

A still more convenient method of obtaining a similar effect is the hypodermic injection of two or three grains of ergotine. Under no circumstances should ergot or ergotine be used until the os uteri is dilated or dilatable, so as to allow delivery to be effected when necessary, to avoid the injurious effect of the unremitting uterine action produced by ergot on the fœtal circulation. That this danger is not hypothetical, was shown in a paper read elsewhere, in which I mentioned that, in forty-six cases in which ergot was given and the forceps used afterwards, the children were still-born in eight instances; and, in seventeen cases in which ergot was given and the forceps not used, three were still-born. Therefore, great as is the danger in unskilful hands of the premature and meddlesome misapplication of the forceps, I would almost as soon entrust its use to a student commencing midwifery attendance, as allow him to give ergot before the proper time for its administration had arrived.

As I have just alluded to the forceps, I may observe, with reference to the causes of *post partum* hæmorrhage, that the first stage of labour cannot, with subsequent safety, be cut short, as a rule; as those seem to think who now so freely employ the forceps, before the dilatation of the os uteri, merely to save time and without any urgent necessity. Nor can the natural duration of the second stage be either unduly abridged by the unnecessary and premature application of this instrument, or unduly prolonged by timidity or want of skill in its use, without equally exposing the patient to increased risk of *post partum* hæmorrhage.

In this respect, as well as in others, the danger of undue delay in affording judicious assistance with a comparatively safe instrument, such as my short straight tractor-forceps, in a case of difficult labour, once the os uteri is fully expanded and the soft parts sufficiently dilated, are not less serious than those produced by needless, hasty, and meddlesome recourse to the more powerful double curved long forceps, the application of which, before the full dilatation of the os uteri, is only necessary in certain cases of complex labour, and should be confined to these. With regard to the short forceps, however, the case is very different; for in protracted or difficult labour, if the violent, painful, and, at the same time, powerless expulsive efforts of the second stage be permitted to continue too long, a state of inertia will probably supervene, the pains gradually becoming weaker, so that it may become impossible to re-arouse the worn-out contractile power of the uterus. And this inertia may prove fatal (when too late the necessary assistance has been given) by resulting in uncontrollable flooding.

The use of the Perchloride of Iron in the treatment of flooding, which we owe to Dr. Barnes, although its advantages have been warmly controverted by others, is so manifest that no one who has fairly tried it could possibly doubt its efficacy. With regard, however, to the safety of its indiscriminate use, another question arises. Regarding it as a misapplication of this powerful remedy to employ it in every instance of *post partum* hæmorrhage to the exclusion of other treatment, I have, during the last nine years, only found it necessary, in my own practice or in consultation with others, to resort to the perchloride of iron in sixteen cases; in fifteen of these, the flooding was completely arrested, and in only one instance it failed. The latter was a case of secondary hæmorrhage, proving fatal within two hours on the eighth day after delivery and resulting from hæmorrhagic small-pox. This has been the only instance of death from uterine hæmorrhage within the puerperal period that I have ever met with in private practice. In another case, where hæmorrhage was arrested by the perchloride of iron, the patient died suddenly, apparently from embolism, on the third day after delivery. Whether this was ascribable to the perchloride of iron used or not, is fairly questionable. Sudden death from embolism, soon after delivery, is not confined to cases in which this remedy is employed, and is most likely to occur when the circulation has been weakened from hæmorrhage. In the *American Journal of Obstetrics*, I have recorded three cases of sudden death from embolism, after delivery, that occurred whilst I was connected with the Lying-in Hospital, and in which the perchloride of iron was not used. Nevertheless, I am strongly inclined to agree with those who hold that the injection of perchloride of iron, through a syringe passed up to the fundus uteri, is by no means a safe practice. This powerfully coagulating fluid may thus be forced through the open uterine sinuses into the circulation, producing embolism; or it may pass through the patulous Fallopian tubes into the abdominal cavity, and cause peritonitis. I have myself had proof, in two instances, that the latter accident may be thus occasioned by a much milder astringent injection, several days after delivery, and hence, *à fortiori*, it may occur immediately after labour.

When perchloride of iron is used in the treatment of hæmorrhage, it is not necessary that the solution should be injected into the uterine cavity, as recommended by Dr. Barnes. For several years past, I have never resorted to this hazardous practice; and yet I have employed the remedy as frequently as most practitioners. The plan I have found the most effectual, as well as the safest in such cases, is that by which, more than five years ago, I succeeded in arresting violent hæmorrhage, and of ultimately saving the patient's life, in a case of rupture of the uterus, which I brought before the British Medical Association, at the Norwich meeting. In that case, when I was called in, the patient was almost moribund from shock and flooding, which was still going on; and, as it would have been impossible to inject the styptic fluid without sending it through the ruptured uterus into the abdominal cavity, and thus causing certain peritonitis, I soaked a sponge in the strong liquor ferri and carried this up to the fundus, applying it to the edges of the rent and to every portion of the flaccid uterine surface. A strong and permanent contraction was produced, and the hæmorrhage was stopped. Since then, I have adopted the same practice whenever I have had occasion to resort to this styptic in the treatment of flooding. The use of the solid perchloride of iron in such cases was suggested by Mr. Weir, of the Coombe Hospital, to Dr. A. H. Ringland, and successfully employed by him in several cases published in the *Dublin Obstetrical Proceedings*.

The practical difficulties, however, of applying the styptic in a hard crystalline state to the bleeding vessels, as well as to the risk of injuring the soft uterine tissues in the attempt to do so, I think, renders Dr. Ringland's method of using the perchloride of iron less feasible as well as less safe than that which I have been in the habit of employing. Not only are the possible dangers of the injection of the liquor ferri avoided, when it is applied by the sponge directly to the uterine walls, so as to secure its styptic effects, but also, at the same time, another powerful stimulus to contraction—namely, the introduction of the hand into the uterus—is conjoined with it. We thus obtain what, I think, will be found the most effectual method of arresting *post partum* hæmorrhage from inertia of the uterus. It is hardly necessary to add that this procedure, as in every case where the hand is introduced into the uterine cavity, is by no means free from subsequent danger, or to be adopted without necessity. But in those urgent cases to which it should be restricted, it is surely better to run a remote risk of metritis than to remain inactive spectators of immediate death from flooding.

Ergotin, in three or four grain doses, hypodermically administered, is not only of great value as a prophylactic, but is also of unquestionable utility in the arrest of flooding, and should never be omitted in any case where the uterus is not securely contracted. I may add that I have have never found its use, in the many cases in which I have employed it, followed by any unpleasant effect.

The use of Opium, in the treatment of flooding, has been strongly deprecated by some writers, on the ground that its action must interfere with the contraction of the uterus, on which the safety of the patient depends. Nevertheless, those who have much practical experience will agree that there are two conditions connected with flooding in which the use of opium cannot be replaced by any other remedy. The first is when, after the arrest of active hæmorrhage, a thin incessant streamlet of blood continues to ooze from the uterus; and thus insidiously and slowly, but, if not stopped, with fatal certainty, drains the patient to death. In such circumstances, no treatment is so beneficial as a full opiate. The second case in which opium proves beneficial in connection with flooding, is in the treatment of collapse. By the use of opium (and in such cases where a stimulant effect is required, the tincture is the best preparation), I have more than once seen the flickering or imperceptible pulse brought back to the wrist; the intense restlessness, so painful to witness in those moribund from hæmorrhage, calmed down; sensibility restored; and the patient's ultimate recovery commenced.

Cold applied by ice, or the application of iced-water into the uterus or the rectum, or by the sudden shock of a wet cloth to the vulva, was the remedy on which for many years I most relied in cases of flooding. But I now believe that, although of unquestionable utility in ordinary hæmorrhagic discharge, or in violent floodings of short duration occurring in robust plethoric women, with a high bounding pulse, it is not suitable in the treatment of flooding in anæmic patients, and in such cases the undue continuance of cold injections may become an additional cause of uterine inertia, and thus increase, instead of checking, the flooding.

Hot Water injections, in the circumstances just referred to, offer a rational, and, as Dr. Atthill has recently proved, effectual alternative treatment.

Transfusion.—The success of transfusion, in a few cases of collapse from flooding, is hardly sufficient to warrant much dependence on it, save as a last resource. At some future time, this operation, in an improved form, is likely to fill a prominent place in medical and surgical, as well as in midwifery, practice; but, at present, its uncertainty, risks, and difficulties are only equalled by the gravity of the condition in which its performance is justified. The promises held out when, upwards of half a century ago, Dr. Blundell revived transfusion, are apparently as far as ever from being realised. Nor have any of the more recent suggestions—such, for instance, as Dr. Aveling's direct arm-to-arm method, or Dr. R. McDonnell's operation with defibrinated blood, however superior in a physiological or theoretical aspect—afforded much better practical results than Dr. Blundell accomplished.

Of six cases of transfusion, narrated in the *Dublin Obstetrical Transactions*, within the last few years, three were successful, and in three the patients died.

Cases of Transfusion.

Authority.	Method Employed.	Amount of Blood Transfused.	Result.
Dr. Beatty.	Dr. R. McDonnell's.	—	Recovery.
Dr. A. H. Ringland.	Dr. R. McDonnell's.	8 oz.	Death.
Dr. J. Ringland.	Dr. R. McDonnell's.	12 oz.	Recovery.
Dr. Atthill.	Dr. R. McDonnell's.	14 oz.	Death.
Dr. Kidd.	Dr. R. McDonnell's.	12 oz.	Recovery.
Dr. Kidd.	Not stated.	10 or 12 oz.	Death.

Any treatment adopted in a case of threatened death from hæmorrhage should be prompt, feasible, safe, and effectual; and, in all these respects, transfusion is defective. Even in one of the best methods of transfusion—namely, that of Dr. R. McDonnell—much time, when it can be ill spared, is lost in the process of defibrinating the blood to be injected. Moreover, in this, as also in other recent plans, the success of the operation is made to depend so much on exceptional skill as to take it out of the reach of the ordinarily well-qualified practitioner, to whom it should be of most value, and who at any moment, and perhaps in remote districts or under unfavourable circumstances, may meet with a case requiring its performance.

Transfusion is useless as long as active hæmorrhage is going on. Nor would it be generally justifiable to subject the patient to the special risks of this operation until, after the failure of other treatment, she shows symptoms of collapse. The majority of patients may lose from twenty-five to forty ounces of blood before collapse is produced. In successful cases of transfusion, there are seldom more than from eight to ten ounces injected. This, being obviously insufficient to refil the empty vessels, can act only as a physiological vital stimulus.

It is sometimes, as I have seen, a matter of difficulty to obtain the necessary supply of blood. And in such circumstances, when every moment of time is of vital importance, we might in the first instance have recourse to the venous injection of a saline solution, as suggested by Dr. H. Kennedy, and employed in one case by Dr. Kidd, so as to fill the emptied vessels, and give the heart some pabulum to act on, and, by affording a mechanical resistance to its rapid contractions, bring back the pulse towards its normal rate and volume. We might thus at least gain time to obtain a supply of blood for venous transfusion, should that be still necessary.

Hypodermic Use of Ether.—In a few cases that came under my observation, the subcutaneous injection of sulphuric ether, which was suggested in the treatment of collapse from flooding by Professor von Hecker of Munich, and first brought before the profession in this country by a case reported by Dr. Macan of Dublin, was tried with great advantage. In one instance, where I was called in when the patient was already pulseless, cold, unconscious, and apparently moribund, from great hæmorrhage after delivery, a drachm of sulphuric ether was injected into the gluteal region, and almost immediately the pulse returned to the wrist, her eyes opened, and some degree of consciousness was restored. After a short time, however, the symptoms of collapse again came back, and it became necessary twice to repeat the injection of ether, the beneficial effect of which was now permanent, and the woman ultimately recovered. In this case, the patient had the nearest approach to death from hæmorrhage that I ever saw recovered from; and although the result was possibly assisted by the other measures also resorted to, namely, mustard sinapisms to the legs and over the heart, and enemata of brandy and beef-tea, with small doses of tincture of opium, yet undoubtedly the saving of the woman's life was mainly due to the hypodermic use of ether. It would be difficult to exaggerate the beneficial effect, under such circumstances, of this remedy, by the timely use of which, in most instances, all necessity for transfusion might be obviated.

In injecting ether, less than a drachm is insufficient; and as the ordinary hypodermic syringe is too small, and is cemented with a gum which is dissolved by the ether, and, as I have found, may give way at a critical moment when it is impossible to replace it, I have had a syringe especially made for this purpose, which holds about a drachm and a half, and has no joints which can be thus acted on.

Many points have been necessarily omitted, and others hardly touched on, in the foregoing notes on the prevention and treatment of flooding. But, with regard to the treatment I have herein recommended, I may use the words of an ancient man-midwife Dr. Willoughby, and say at least that "these several reports are not feigned, or the surmised thoughts of man's fantasie sitting and meditating in his study, but which really have been performed in the travailing woman's chamber".

In conclusion, I offer these hurriedly prepared notes merely as a clinical contribution to the discussion of an important question, in discharge of that debt we all owe to our profession, and to the cause of humanity to which it ministers.

THE TREATMENT OF *POST PARTUM* HÆMORRHAGE BY THE INTRA-UTERINE INJECTION OF HOT WATER.*

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THE treatment of *post partum* hæmorrhage by injecting hot water into the uterus was first brought before the notice of the profession in this country by Dr. Atthill. The excellent result which followed this line of treatment in the cases recorded by him in the *Lancet* (February 9th, 1878), led me at once to determine that in the Manchester and Salford Lying-in Hospital this novel though promising treatment should have a fair trial. During the eighteen months that have since then elapsed, rather more than three thousand confinements have been under my charge. Among these were twenty-one cases of severe *post partum* hæmorrhage, eleven of which were treated with intra-uterine injections of hot water, and are tabulated below.

In the employment of the hot-water injections, the temperature of which ranged from 110° to 120°, the utmost caution was invariably used in seeing that the tube (Hayes's) reached well up to the fundus, and that no impediment was afterwards offered to the escape of the water from the uterus.

There is no doubt that the hot-water treatment offers some advantages in being generally accessible, and not in any way disagreeable to the patient; but, as a means of contracting the uterus and thereby arresting the hæmorrhage, it is, as far as my experience hitherto goes, most unreliable. Nevertheless, I hope to continue the treatment still further, and will report the result of the practice to the profession at a future date.

No. 1 was a case of tedious labour, in which the head was delayed at the brim. Delivery was accomplished, under chloroform, by means of the long forceps. Half an hour after the completion of labour, violent *post partum* hæmorrhage occurred, the uterus becoming distended with clots, which required the introduction of the hand to remove them. Cold and pressure were applied to the fundus, and ergot was also administered. Contraction of the uterus and cessation of the hæmorrhage now took place, though only to occur a few minutes later with increased intensity. Having a battery (induced current) with me, one electrode was applied over the fundus, and the other over the sacral region. Firm contraction instantly ensued. Hæmorrhage recurring in a few minutes, hot water at a temperature of about 110° was injected into the uterus; but scarcely had the water issued from the tube when the uterus became soft, quickly dilated, and, by the time a pint of

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* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

Table of Eleven Cases of Post Partum Hæmorrhage treated by the Intra-Uterine Injection of Hot Water.

No.	Name.	Date.	Age	No of Pregnancies.	Hours in Labour.	Minutes in Third Stage.	Pulse before Injection.	Pulse after Injection	Pulse next Day.	Duration of Hæmorrhage.	Mode of Delivery.	Result to Mother.	Intern or Extern.	Action on the Uterus.
1	Rachel B.	14th June, 1878.	30	10	18	15	Could not be counted.	Could not be counted.	106	3 hours.	Forceps.	Recovery.	Extern	Instant relaxation and dilatation.
2	Mary P..	12th Sept., ,,	24	7	5	10	,, ,,	,, ,,	110	25 min.	Version.	,,	Intern	,, ,, ,,
3	Ann M...	25th ,, ,,	27	2	7	5	,, ,,	,, ,,	104	2 hours.	Natural powers.	,,	Extern	Dilatation, then temporary contraction, followed by relaxation.
4	Sarah F.	24th Oct., ,,	34	8	11	10	124	122	100	2¼ hrs.	,,	,,	,,	Firm contraction, relaxing completely in four minutes.
5	Martha L.	1st Nov., ,,	30	9	12	4	158	150	118	2 hours.	Forceps	,,	,,	Relaxation and dilatation.
6	Eliza T...	25th ,, ,,	45	16	24	60	Could not be counted.	Could not be counted.	0	1 hour.	Natural powers.	Died.	,,	Slight dilatation.
7	Mary P..	29th Jan., 1879.	30	8	21	90	118	122	96	1½ hrs.	,,	Recovery.	,,	Rapid relaxation and dilatation.
8	Eliza S...	21st Mar., ,,	30	8	24	15	120	120	102	¾ hour.	Forceps	,,	,,	,, ,, ,,
9	Ellen F...	13th April, ,,	21	1	24	10	140	140	104	3 hours.	Version	,,	,,	Slight contraction followed by dilatation.
10	Alice W..	17th ,, ,,	29	5	30	20	130	122	100	2 hours.	Natural powers.	,,	,,	Shortly followed by complete relaxation.
11	Celicia H.	16th July, ,,	38	11	8	20	110	110	98	1 hour.	,,	,,	,,	Firm contraction soon followed and continued.

water had been injected, the fundus reached nearly to the ensiform cartilage. The uterus not contracting, cold water was substituted for the hot; but the tube was not removed from the cavity of the uterus. On the second syringeful being injected, the uterus contracted, at once expelling the tube and fingers into the vagina. This contraction remained firm for ten minutes. The uterus again relaxed; and again a steady stream of hæmorrhage flowed from the patient, reducing her to a very low condition. The hot water was a second and a third time used, but always with a similar result. I therefore fell back on the assistance derived from the battery, and eventually secured a firm and lasting contraction, but not until the most assiduous and persevering attention had been continued for more than three hours.

No. II was a frail delicate woman, with a pelvis distorted from rickets. Her previous labours had all been instrumental. Premature labour was on this occasion induced, and bipolar version performed before the membranes ruptured. Alarming hæmorrhage followed the third stage; pressure, ergotin, cold, and even the induced current, utterly failed to check it. Hot water of about 110° was now injected, causing immediate and complete relaxation of the uterus. Prolonged syncope followed, and the hæmorrhage ceased; but the uterus remained relaxed and dilated. For three hours this patient could not even swallow, so reduced was she by the loss. Brandy and turpentine enemata, and the hypodermic injections of sulphuric ether, aided very much in restoring her. Ice and frictions to the fundus, together with the repeated application of the battery, secured a permanent contraction after the lapse of three hours; but the hæmorrhage only continued for twenty-five minutes.

No. III.—The hæmorrhage occurred in this case before the expulsion of the placenta. The labour had been natural. Bimanual manipulation and ergotin being of no avail, hot water at a temperature of 115° was injected, causing at once relaxation and enlargement of the uterus. Cold water, without removing the tube, was now injected; and instantaneous and perfect contraction followed, but remained only ten minutes. Three more trials were made with the hot water at intervals, the second causing uterine contraction for a few seconds. Frictions at last succeeded in securing a contraction, and appeared to be aided a little by compression of the abdominal aorta.

No IV.—This was a natural labour. Sudden and copious hæmorrhage occurred during the third stage. Hot water at a temperature guessed to be 110° was injected into the uterus, causing immediate and firm contraction, which gave way in four minutes. Hot water and ergot were employed soon afterwards without success, and cold water with but little benefit. A hot napkin was now applied over the sacrum with a magical result; but the contraction, although perfect, remained only ten minutes. A second application of the napkin was less beneficial. Compression of the aorta caused no apparent improvement. The hypodermic injection of ergotin seemed the most successful treatment adopted.

No. V was a case of tedious labour from anteversion of the uterus and pendulous abdomen, as well as slight shortening of the anteroposterior diameter. Hæmorrhage commenced before the placenta was expelled. Hot-water injections caused relaxation and dilatation. The temperature used was thought to be 110°; but I had not a thermometer with me. Frictions and cold applications succeeded, after a while, in causing contraction.

No. VI was a case of powerless labour in a patient much weakened by bronchitis. The second stage was protracted; copious flooding with retention of the placenta followed, and reduced the woman's condition to a most dangerous degree. When I saw her, the pulse could not be counted, and she was *in extremis*. Removing the placenta, I injected hot water without producing any good result on the pulse or general condition of the woman. A few minutes after my arrival, the patient died.

No. VII may be looked upon as one of the most interesting of the series. It was a case of retained and adherent placenta, preceded and accompanied by *post partum* hæmorrhage. The patient, a pluripara, was delivered by a midwife of a male child after a labour of twenty-one hours. Of the labour itself, there was nothing worthy of notice until the birth of the child, and then a sudden gush of hæmorrhage took place. The midwife at once grasped the uterus firmly, and endeavoured by frictions and pressure to excite uterine action and the expulsion of the placenta. Finding that the after-birth showed no signs of being expelled, nor the hæmorrhage of ceasing, she summoned me to her assistance. On my arrival, exactly one hour after the completion of the second stage, the hæmorrhage, although much less, had not altogether been restrained. The full chamber-utensil, saturated bedding, and blanched face were sufficient evidence of the loss having been considerable; still the patient's voice was strong, her pulse 118, and not nearly as weak as one would naturally have expected. On passing my hand over the fundus, I found the uterus enlarged, but tolerably firm in consistence. Examination *per vaginam* revealed the presence of an hourglass contraction of the body of the uterus, with retention of the placenta at the fundus. An attempt was now made to insinuate the tips of the fingers of the left hand through the constriction, applying counterpressure at the same time over the fundus with the right hand. Seeing no possibility, after a twenty minutes' careful trial, of passing the obstacle and removing the placenta without the employment of an anæsthetic, it suddenly occurred to me that the lessons learned from the failures with the hot-water injections might now be turned to good account in furthering the object I had in view. Accordingly, hot water was procured; and, having ascertained by means of a thermometer that the exact temperature was 120°, an uterine tube mounted on a Higginson's syringe was passed through the os, and the water injected against the constricted part. When one pint and a half had been injected, the muscular spasm had lessened so much that there was little or no difficulty in passing the entire hand to the fundus and removing the placenta, which was partially attached. One drachm of extract of ergot was now given, and, with pressure over the fundus, a good contraction was produced in a few minutes.

No. VIII was a case of obstructed labour from slight shortening of the antero-posterior diameter of the brim. Delivery was effected by forceps. *Post partum* hæmorrhage followed. Ergot and hot water failed. The uterus required prolonged manipulations before contracting.

No. IX was a case in which version was performed for funis-presentation. *Post partum* hæmorrhage occurred ten minutes after the expulsion of the placenta, the pulse rapidly rising from 120 to 140. Ergotin and pressure, with emptying of the uterus of all clots, did not succeed in effecting contraction. Hot-water injections were then tried, causing the uterus to contract for a few minutes. Dilatation following, hot water was again employed, but without success. A hot cloth to the sacrum and internal manipulations succeeded finally.

No. X was a natural but tedious labour. Three-quarters of an hour after it was completed, severe hæmorrhage occurred. On my arrival an hour later, I found the uterus distended with clots. These being removed, ergot was administered. As contraction did not take place, hot water was injected into the uterus at a temperature of 115°, as verified by the thermometer. In a few seconds, the uterus became soft, distended, and completely paralysed. In this condition, the induced current was resorted to with instantaneous and permanent success.

No. XI was a case of twins; both children were delivered by natural powers. Very alarming hæmorrhage occurring on the expulsion of the placenta, I was sent for. When I saw the woman three-quarters of an hour later, the hæmorrhage had not ceased. The uterus reached to the umbilicus, and was full of clots; these were removed by the hand, and one grain and a half of ergotin was injected under the skin of the abdomen. As the uterus had not contracted ten minutes later, and oozing was still going on, hot water at 120° (by thermometer) was now injected. While the water was beginning to be injected, and before four ounces could have passed through the tube, firm and permanent contraction ensued. How much of this was due to the grain and a half of ergotin is difficult to say.

My object in placing the above cases on record is not to stamp as useless, on the experience of eleven trials, a treatment for *post partum* hæmorrhage which has been found of such signal service in the hands of others, but rather to induce those who have an opportunity or desire of trying the treatment to test with a thermometer the temperature of the water injected in every instance. By this means we shall alone be able, after a more extended experience, to decide whether this treatment should or should not be resorted to for *post partum* hæmorrhage.

The recent experimental researches of Dr. Max Runge on the influence of heat and cold when applied to the uterus (of which there is a short epitome published in the *American Obstetrical Journal* for last April) tend to prove that, if success is to follow the hot-water treatment of *post partum* hæmorrhage, the temperature of the water must not be raised to as high a degree as was done in the above cases.

The phenomena which seemed uniformly to follow the injections in the cases under my own care (No. II excepted) were relaxation and dilatation of the entire uterus. If contraction did occur, it was but temporary, and was rapidly succeeded by relaxation. I should mention that, as regards the pulse and general condition of the system, no appreciable alteration was observable from the injections. The researches of Max Runge on the application of hot water to the uterus are very interesting. He experimented extensively on rabbits; the first step being to open the abdominal cavity, draw aside the intestines, and expose the uterus to view. Into the pelvic cavity was then poured hot water at a temperature of 122°. In a few seconds, he observed that the uterus became bloodless, performed peristaltic movements, and then contracted; but this contracted or tetanic condition was soon changed for one of total relaxation and paralysis, and several minutes elapsed before irritability returned to the organ. If the temperature of the water used were as high as 149°, the uterus suddenly contracted once, and the most absolute paralysis followed. When, however, the temperature of the water did not exceed 104°, the uterus was observed to contract, without being followed by paralysis.

Before concluding, I wish to draw attention to the success that followed the use of the induced current in the above cases. Indeed, obstetricians owe a debt of gratitude to Dr. Radford, who as early as 1844 brought this treatment of *post partum* hæmorrhage prominently before the profession. It is, besides being the speediest in action, the most reliable and safest of all methods of treatment.

ON THE TREATMENT OF *POST PARTUM* HÆMORRHAGE BY INJECTIONS OF HOT WATER.*

By JOHN WALTERS, M.B., Reigate.

THE treatment of *post partum* hæmorrhage is a subject which must always possess great interest to those engaged in the practice of midwifery, and the introduction of any new method demands our most earnest consideration; that by the injection of hot water, first introduced by Dr. Fordyce Barker and supported by the high authority of Dr. Atthill, is at once so novel and bold, that, were it not for the high position of its introducers, few practitioners, I fancy, would have ventured to adopt it.

My object in bringing the subject before you this evening is to narrate some of the cases in which I have used it; that, by comparing our experience of its use, we may endeavour to form an opinion as to the class of cases for which it is most suitable, and how far we may trust it to control the severer forms of uterine hæmorrhage occurring after delivery.

I will now briefly relate some of the cases in which I have employed this method of treatment; and afterwards state the conclusions at which I am disposed to arrive from the experience I have had of its use.

CASE I.—Mrs. D., aged 41; twelfth confinement. She was a pale flabby woman, and had several times nearly died from *post partum* hæmorrhage, which had required once or twice the injection of perchloride of iron. I was called to her on October 29th, 1878, and found the child just born. The placenta was expressed, and ergot given. Free hæmorrhage continuing, and the uterus alternately contracting and relaxing, the hand was introduced and the clots removed, cold being applied externally and pressure kept up. These measures failing to induce contraction and control the hæmorrhage, warm water was freely injected into the cavity of the uterus, after again removing the clots, with the effect of inducing firm contraction of that organ and checking the hæmorrhage. She made a good recovery.

CASE II.—I was called on March 24th, 1879, to Mrs. D., aged 24, in her second confinement. The child had been born two hours, the placenta following quickly. I found her cold and pinched, with very feeble pulse; the uterus was flabby, and free hæmorrhage was still going on. The administration of ergot, removal of clots, cold, and pressure externally, failing to induce uterine contraction and check the hæmorrhage, I injected warm water, as in the former case, with complete success. The uterus contracted well; the hæmorrhage ceased; she soon began to rally, and made a good recovery.

CASE III.—Mrs. W., aged 26, was attended by Mr. Hallowes in her second confinement, July 18th, 1879. Chloroform was given during the second stage. Afterwards, she had severe hæmorrhage, which could not be checked by the ordinary means. When I saw her, one and a half hours after the child was born, it was still going on. The uterus was relaxed; she was cold, faint, restless, and blind. Pulse 120, very feeble. A free injection of warm water caused the uterus to contract and checked the hæmorrhage. Stimulants were given by the mouth and rectum; and after two hours she had fairly rallied, and made a good recovery.

CASE IV.—Mrs. H., a primipara aged 24, six and a half months pregnant, was attacked with severe and repeated convulsions at the commencement of labour on September 1st, 1879. Chloroform was given, and delivery effected by version after dilatation with Barnes's bags. The placenta was adherent and attached low down; free hæmorrhage occurring, it was removed by the hand, cold and pressure being continuously applied. The hæmorrhage still going on, warm water was freely injected into the uterus, but it required several injections, and in addition the application of cold externally, to completely stop it and ensure contraction of the uterus. A little albumen was subsequently found in the urine. She made eventually a good recovery.

Dr. Holman tells me that he has used warm-water injections in two cases of severe *post partum* hæmorrhage, with the effect in both cases of checking the severe loss; it was finally arrested completely by the application of ice externally and into the vagina. One was a case of placenta prævia.

Mr. Berridge tells me that he has found hot-water injections successful in causing contraction of the uterus and arrest of severe *post partum* hæmorrhage in two cases, one of which was complicated with concealed hæmorrhage, and the other with placenta prævia.

The following points seem to me of importance in carrying out this treatment. 1. The uterus must be as far as possible emptied of its contents. 2. The water must not be too hot; 100° to 110° are the limits of temperature which ought to be used; 103° or 104° being perhaps the most suitable. 3. The tube must be passed quite up to the fundus, taking care that the os uteri is kept open to allow the water to escape readily. 4. A considerable quantity of water must, as a rule, be employed. By following out these rules, we shall, I think, seldom fail to induce uterine contraction and control the hæmorrhage; when not completely successful, the use of cold water or ice externally or introduced into the vagina alternately with the warm water would seem to be beneficial.

The action of warm water seems less satisfactory when the placenta is attached low down. It seems to stop the hæmorrhage by causing contraction of the uterus. Since using warm-water injections, I have never had occasion to employ perchloride of iron; though, in at least three out of the four cases I have narrated, I should have had no hesitation in doing so formerly before this method was introduced. Cases will, no doubt, occasionally occur in which we must still resort to the use of iron.

The advantages of the warm-water treatment are, that it is cleanly, always at hand, antiseptic (for every clot, piece of membrane, or placenta is completely washed away), and, so far as I am aware, perfectly safe. I have never seen or heard of any ill effect whatever following its use. It seems to rouse the patient from the cold collapsed condition often induced by severe uterine hæmorrhage.

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* Read before the East Surrey District of the South-Eastern Branch.

I will conclude by stating the following propositions. 1. Most forms of *post partum* hæmorrhage can be controlled by warm-water injections properly carried out. 2. The use of cold water or ice alternately with the warm water is in some cases beneficial. 3. There are some cases of severe and alarming hæmorrhage in which, so far as our present experience teaches, we must still resort to the use of perchloride of iron.

ON THE MODE OF CONVEYING STYPTICS TO THE BLEEDING ORIFICES IN *POST PARTUM* HÆMORRHAGE.

By W. BERNARD, F.K.Q.C.P.I., Londonderry.

THE subjoined woodcut represents the gauntlet which was shown at the Obstetrical Societies of London and Dublin, and by myself at the meeting of the Association held in Manchester in 1877, and which I have since modified and improved.

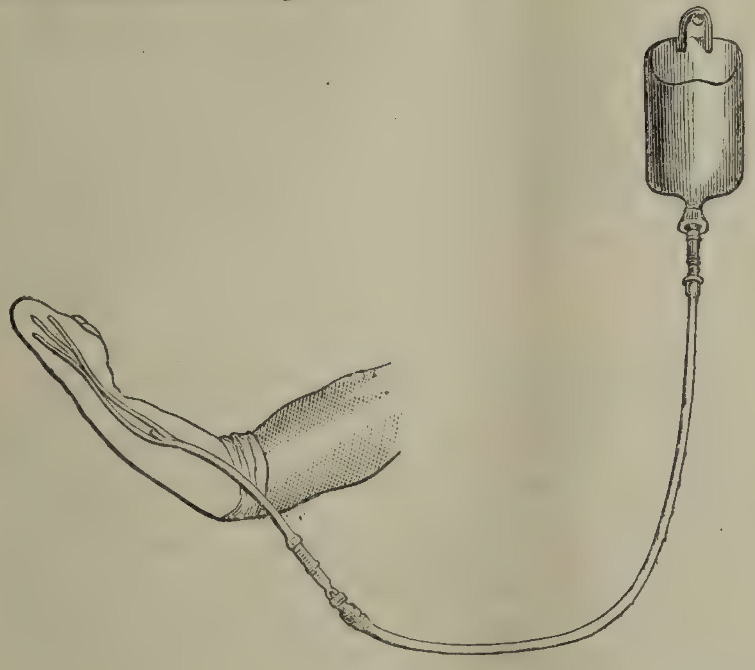

Fig. 1.

The idea propounded is that a styptic free from undiluted blood can, without intervention, be directly sprinkled through the medium of the hand during the removal of membrane or coagula; that by no other method can an application be brought into such immediate contact; and that the two acts—the clearing out of the uterus, and the scattering of the spray—are, *pari passu*, performed synchronously.

The subject has long occupied my attention; but I had not an opportunity of bringing my idea into practical use till some weeks ago; for, as a rule, *post partum* hæmorrhage is of rare occurrence; and, moreover, when we meet with it, we are able to control it by the ordinary means discussed from time to time in the pages of this JOURNAL. Nevertheless, one will come across an occasional case more violent than usual, and apparently uncontrollable.

About a year ago, I was sent for to assist a practitioner in a tedious primipara case. After delivery with forceps, hæmorrhage preceded and followed the expulsion of the placenta. We restrained it with injections of hot water into the uterus and other means, but were forced to fall back on the perchloride. Such was the tendency to bleed, that oozing and coagula continued for three days. On being consulted some months afterwards, I found the lady very pale, and again pregnant. She was then put on the prophylactic treatment, which, up to the time of her confinement, was sedulously and uninterruptedly continued. The pallor and general condition were benefited; yet I had reason to be anxious, not only from the experience acquired in her own case, but from that of a sister also, who (under my care) had hæmorrhage after her three confinements, lasting three or four hours each time. From the use of cold applications, I fear pelvic cellulitis was superinduced. Inflammatory action ended in abscess. She was never again pregnant.

But, to return again to my prophylactic case; labour commenced with strong and regular pains at 6 A.M., and was over at about 12 o'clock. Though the membranes were ruptured early, the uterus was persistently followed down, and ergot was administered, yet, on the expulsion of the shoulders, blood began to pour. The uterus contracted well, and the placenta was quickly thrown off. In this short space, the system sustained so severe a shock that I was beginning to fear the worst. Stimulants were given, and ergot and ether were injected hypodermically. On this occasion, I was ready to encounter the enemy; for I had appliances in readiness, and consequently, in a few moments, my hand and glove were in the uterus. On the cock being turned, I felt the fluid trickling over the gauntlet, and after a short interval, by a strong contraction, my hand was pushed from the uterus. Not a single bad symptom followed. There was no return of the hæmorrhage, and no bloodless face remains to be seen, as in her previous confinement.

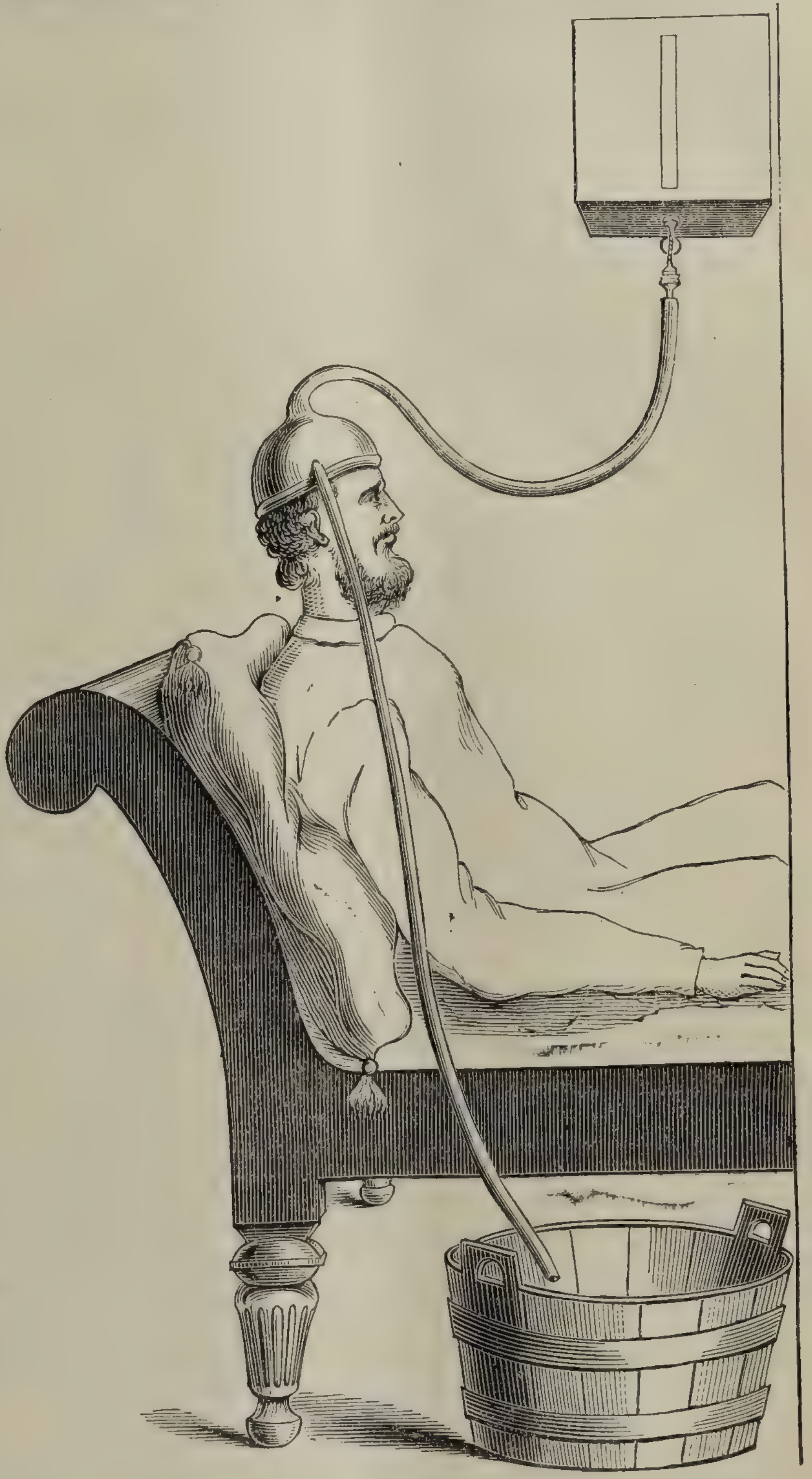

Fig. 2.

Judging from the past history of herself and sister, I feel bound to assert that the hæmorrhage was sooner and more efficiently arrested by my mode of procedure than by the syphon. To me, the introduction of the hand soon after labour is not a dangerous act. I never witnessed any bad results from it, either in my own practice or in that of others. On the other hand, I regret not having often insured a more firm contraction; for it, and it alone, will excite this when nothing else will do so. Had I done so, I should not have gone away from some of my cases with a feeling that anæmia or autogenetic fever might supervene.

In those very alarming cases of hæmorrhage, one is bound to show no want of courage, decision, promptitude, and readiness of resource, as well as accuracy of observation. With these qualities, we must have energy and endurance. Every valuable remedy of repute, if necessary, should be used; for what will fail in the hands of one will succeed in those of another. Death must be averted by every possible means, even when imminent, by the steady application of hot water to the heart and head, which can be applied to the latter as shown in the wood-cut (Fig. 2), not omitting posture, and what the Germans term autotransfusion through Esmarch's bandages.

To give an illustration that the success of treatment in *post partum* hæmorrhage is beyond the possibility of a doubt, we know of a fatal case having occurred, now and then, in a thinly scattered population which was out of the reach of any well directed plan of treatment; and very rarely do we hear of one happening in a large city, when properly attended to—in fact, never.

Maw, Son, and Thompson are the makers of my appliances. The cap is like that of a double night-cap, the inner fold being perforated.

SURGICAL MEMORANDA.

DISLOCATION OF THE WRIST-JOINT.

THE cases of dislocation of the wrist recently reported in this JOURNAL remind me of a case I had about eighteen months ago. On October 19th, 1878, T. G. (a carpenter), aged 16, a big muscular youth, whilst running at full speed in a football-match, was knocked down with great force, and fell with his right wrist doubled up under him. He was brought to me immediately after the accident, and his wrist then presented precisely the appearances described by Mr. Hamilton in his case reported in the JOURNAL of April 3rd; and, if I might make a comparison, I should liken the deformity to an exaggerated "Colles's fracture". Extension at once removed the deformity, and a straight splint was applied to the flexor surface of the limb. The splint was removed in ten days, and in a month's time from the accident he was able, with the help of a small leather support, to resume light work. The movements of the joint were then perfect, and the only inconvenience he experienced was weakness. This, a fortnight later, had so far disappeared, that he was able to resume his ordinary occupation.

The diagnosis in this case—dislocation of the wrist backwards—was at once apparent; and I think it highly probable that dislocation of the wrist is not quite so uncommon as we are led to suppose, inasmuch as many general practitioners, from diffidence, lack of enthusiasm, or overwork, neglect to report rare and interesting cases. For my own part, whilst recognising the extreme rarity of this dislocation, I should hardly have thought it worthy of record, if I had not read the cases of Dr. Anderton and Mr. Hamilton.

E. VICKERS WHITBY, M.R.C.S.Eng.

I SEND the following in consequence of Dr. Anderton's case published in the JOURNAL of the 13th March, and his remarks about the extreme rarity of the accident, and the doubt expressed by some authorities of the possibility of such an accident ever occurring.

Arthur L., a carpenter of this town, while walking down-hill in very slippery weather (January 16th, 1879) fell down suddenly. I saw him a few minutes after the accident, and found that he was suffering from a simple dislocation of the wrist. The right carpus was dislocated backwards upon the radius and ulna; it was easily reduced, and a most careful examination made, but there was no sign of a fracture anywhere, and I merely put on a bandage firmly round the wrist, and told the patient to keep the arm in a sling. Nothing more was done, and in a few days he was able to follow his occupation as usual. He could not describe how he fell, but no doubt he put out the right hand to save himself, and there is no doubt it was a case of simple dislocation of the wrist.

G. FOOTE, M.R.C.S.Eng., Kington.

BROMIDE OF ETHYL AS AN ANÆSTHETIC.

As the favourable report of bromide of ethyl or hydromic ether contained in last week's JOURNAL may induce anæsthetists to try it, I venture to give the results of my experience of two samples obtained from chemists of the highest repute for the purity of their drugs. I found that the patients were rapidly affected, but manifested dislike of the odour. The pulse was stimulated, and there was almost as much excitement as though ether had been used. They recovered rapidly, but complained of giddiness, nausea, and headache, and looked as if they had taken alcohol. Comparing the effects with those of ethidene dichloride, I much prefer the latter, on account of the usual absence afterwards of symptoms of alcoholism. The voice and gait of a patient sometimes become quite normal in five minutes from the time deep stertor has been produced by ethidene. It causes vomiting only when the effect is carried beyond the degree usually required.

J. T. CLOVER.

THERAPEUTIC MEMORANDA.

TREATMENT OF OZÆNA.

UNDER the above heading, Mr. Long states that he cannot understand why a mixture of borax, carbonate of soda, and glycerine should effervesce. The explanation is this: Borax, although alkaline to test-paper, is really an acid salt—biborate of soda; but its acidity is so feeble that it cannot expel carbonic acid, even when its aqueous solution is boiled with a carbonate, nor overcome the alkalinity of the soda with which it is already combined. At a red heat, however, being permanent, it readily expels carbonic acid, forms a borate of soda, and dissolves many metallic oxides.

Now borax, which is only sparingly soluble in water, is very easily dissolved by glycerine; and, not only so, but some molecular change is also effected, for it then decomposes carbonate of soda in the cold exactly as it does at a red heat, and so produces the effervescence which Mr. Long notices.

There is another example of effervescence which is, I believe, often misunderstood—that of cold healthy urine when nitric acid which has been exposed to the light is added to it. The brisk effervescence which ensues is frequently attributed to the presence of carbonates, even when the urine is quite recent and faintly acid in reaction. It is, of course, really due to the conversion of the urea into nitrate of ammonia and carbonic acid by the hyponitrous acid present in the test. And the proof is, that no effervescence occurs if strong hydrochloric acid be added to the same urine, nor if perfectly pure colourless nitric acid be used in the same way.

G. F. MASTERMAN, L.K.Q.C.P., Ixworth.

CHLORIDE OF AMMONIUM IN NEURALGIA.

HAVING noticed during the past few years, both in this Journal and in other medical papers, notes of successful results from the use of chloride of ammonium in neuralgia, I used the drug in an obstinate case some months ago with very excellent results. The patient was of a neuralgic diathesis, and was, at the time when he came to me, suffering from very acute neuralgia of the second and third divisions of the fifth nerve. He also had pains in his arms. He referred the source of the pain to a carious lower molar tooth (second on the left side), which he wished extracted. I excavated the cavity, and found a minute exposure of the pulp, which I dressed with carbolic acid and covered with a temporary stopping. The pain continued periodically. I gave him twenty grains of chloride of ammonium every two hours, till he had taken three doses. The pain disappeared after the second dose. Two days after this, the pain returned slightly, but disappeared after a single dose of the medicine. After a week of immunity from pain, I filled the tooth permanently, and there has been no return since (several months have elapsed). The patient had been a constant sufferer previously, and had lost several teeth on former occasions on account of the neuralgia.

ARTHUR S. UNDERWOOD, M.R.C.S., L.D.S.,
11, Bedford Square.

THE JOINT ADMINISTRATION OF CUBEBS AND COPAIBA.

I HAVE long wondered why these two drugs are not more frequently given in combination than as yet appears to be the case. It is true that such a preparation is extensively advertised by a wholesale house; but in my experience, this mixture, besides being expensive, is so nasty, that patients commonly prefer the complaint, as the least of two evils. If an emulsion of oleum copaibæ and liquor potassæ be made in the ordinary way, and oil of cubebs then shaken up with it, the latter is readily held in suspension. I append a formula, which in my hands has been of great service, which is not particularly unpalatable. ℞. Olei copaibæ, olei cubebæ, āā ʒij; liquoris potassæ ʒiijss; tincturæ aurantii ʒiij; syrupi simplicis ℥ij; aquam menthæ piperitæ ad ℥viij. M. Fiat mistura, cujus capiat ℥j ter quotidie.

I may add that liquor potassæ permanganatis (ʒiij ad aquæ ℥vj) appears to me by far the best injection, and has the great advantage of being serviceable all through the acute stage of gonorrhœa. It should be used very frequently; and subsequently, a little zinc sulphate may be added with benefit.

HERBERT L. SNOW, M.D.Lond., Bayswater.

REPORTS OF MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ROYAL INFIRMARY, EDINBURGH.

CASE OF POPLITEAL ANEURISM RECURRING SEVEN YEARS AFTER SUCCESSFUL LIGATURE OF THE FEMORAL ARTERY: RUPTURE OF THE SAC: "OLD OPERATION": CURE.

By Thomas Annandale, F.R.S.Ed.

W. J. T., aged 36, was admitted into the New Royal Infirmary under my care on the 24th of November last. His history was that, seven years ago, he suffered from a pulsating swelling in the right popliteal space. He was in New Zealand at the time, and was treated in the Dunedin Hospital, first by flexion, then by pressure; and as these methods failed, his femoral artery was successfully tied in Scarpa's triangle. The result of the ligature of the artery was a diminution in the swelling and a complete cessation of the pulsation. A few weeks after the operation, he was dismissed, cured, and returned to his work. Since then, pulsation had never returned, but a small swelling remained in the position of the aneurism, which, however, gave him no trouble. Until three weeks before his admission, the swelling remained in the quiescent state; but at this time, in consequence, he thought, of some heavier work, he noticed that it was becoming larger, and caused him some pain. He was advised to apply an elastic bandage to the limb and take rest; but, as the swelling continued to increase and to become more painful, he was admitted into the hospital, and the result of careful examination determined as follows.

A swelling of the size of an orange existed in the right popliteal space, tense to the touch, and with an indistinct feeling of fluctuation on its summit. The skin over the swelling was not involved or adherent, and, from the pain caused by pressing along the line of the external popliteal nerve, it appeared evident that this nerve lay stretched over the swelling. The tumour was rounded in form and circumscribed at its base, but towards its summit and superficial aspect it was more irregular in shape and less defined. The general circulation of the limb was good, and there was pulsation in both tibial vessels at the ankle. There was a well marked cicatrix in Scarpa's triangle, and the femoral artery was obliterated at this point. Repeated and careful examinations could detect not the slightest pulsation in any part of the swelling, neither could any bruit be discovered. The patient complained of intense pain in the swelling and in the leg below it, and he anxiously desired that something should be done for his relief.

He was ordered to confine himself to bed, and to apply soothing fomentations. As these means did not relieve him, and as it was apparent that the swelling was steadily increasing in size, I decided to make an exploratory incision into the tumour; and, in doing so, I was prepared to meet with either an aneurism or some other condition, for the diagnosis was somewhat uncertain. On November 27th, an Esmarch's band having been applied round the middle of the thigh, I made an incision over the tumour, cutting through the skin and other textures in order, so as to avoid injuring the popliteal nerve. When the skin, cellular tissue, and deep fascia had been divided, and the nerve before mentioned drawn aside, there was seen, shining through a thin layer of tissue, some dark-coloured substance; and, on dividing this thin covering, my finger readily passed into a collection of soft and recently coagulated blood. Having enlarged the wound, I discovered a small aneurismal sac with a slight rupture on its superficial aspect, and this was the source of the extravasated blood. This sac was freely laid open, and on cleaning out a small quantity of old and firm clot, an opening was seen at its lower part. This opening was about a quarter of an inch in length in the longitudinal direction, and on passing a probe into it, it passed freely upwards and downwards along the course of the popliteal artery. The canal of the artery was contracted, but admitted a No. 4 bougie. The artery was then cleaned as much as possible from the sac at its point of communication, and a ligature applied above and below the opening. When this had been done, the band was removed from the thigh, and, with the exception of a little bleeding from a deeply situated vein, no blood flowed from the artery. While I was tying this vein, he noticed a small stream of arterial blood passing from the distal end of the popliteal artery; and, on introducing a probe, it was found that the ligature (catgut) had not obliterated the canal of the vessel, although tied as tightly as possible. A second ligature of catgut was tried, but this also failed, I therefore applied a carbolised silk one, which completely closed the canal. The whole operation was performed under strict "Listerian" principles.

The patient's progress was in every way excellent. On December 12th, all the stitches had been removed and the wound was healed, except at the point of insertion of the drainage-tube. On the 23rd, the antiseptic dressing was removed, and boracic lint applied to the small portion of the wound that still remained unhealed. On January 10th, the patient was dismissed. The swelling had entirely disappeared, but the portion of the wound referred to still remained open, and discharged a drop or two of pus. Two weeks after dismissal, the patient returned to hospital to show himself, and was able to walk without support. His disease was entirely cured.

Remarks.—There are four points which seem to me worthy of notice in connection with this case.

1. The *recurrence* of the aneurism seven years after its apparent cure. The patient, a most intelligent man, confidently assured me that, after the ligature of the femoral artery, the pulsation ceased and never returned, and the swelling steadily diminished in size until only a small hard tumour remained, which gave him no inconvenience. As far as my experience and reading teach me, this recurrence after so long an interval of apparent cure is quite exceptional.

The Diagnosis.—The entire absence of pulsation and bruit in the swelling made the accurate diagnosis of the case difficult. It was known to us from experience that aneurisms are occasionally met with, in which these important diagnostic symptoms are absent; but, with the exception of the position of the tumour and the history of an aneurism seven years before in the same region, we had nothing specific to guide us in our diagnosis between an aneurism, a cyst, or a soft or fluctuating tumour. A simple puncture with an exploring needle or trocar and cannula would scarcely have assisted us, but an antiseptic exploratory incision enabled a thorough examination to be made, and the nature of the swelling to be certainly determined.

The Treatment.—This case is specially interesting in regard to the treatment adopted; for, as far as I can ascertain, it is one of the few examples, if not the only one, of a successful result following the "old operation" in a case of ruptured popliteal aneurism. The case is an additional proof that the popliteal artery may be successfully ligatured; and although I by no means advocate this proceeding in all cases of recurring or ruptured aneurism, I have hopes that the successful result of this case, and the employment of Listerian antiseptic treatment, may in the future cause it to be practised with more encouragement in some of those cases which have hitherto been treated by amputation.

It is only right to note that the case reported was one most favourable for the operation, as the previous ligature of the femoral artery had thoroughly established the anastomosing circulation, and the aneurism, although ruptured, had not as yet become so diffused as seriously to interfere with the supply of blood to the leg and foot.

The Failure of the Catgut Ligature to Occlude the Canal of the Artery.—This failure was caused by the difficulty in tightening the knot sufficiently; and having experienced this difficulty before, I think it well to direct attention to this fact, and to advise that, when a catgut ligature is used to secure a large artery communicating with an aneurismal sac, a probe should be passed into the vessel so as to insure that its canal be thoroughly closed. One circumstance to be remembered in connection with the failure of the catgut ligature in this and other similar cases is, that a portion of the aneurismal sac, in addition to the artery, is usually included, for it is not easy in such operations to safely and perfectly clean the sac from the vessel at the point to be ligatured, and therefore the tissues ligatured are thicker and denser than in the case of an artery which has been carefully exposed by dissection.

ARDWICK AND ANCOATS HOSPITAL, MANCHESTER.

PUNCTURED WOUND OF INTERNAL MAXILLARY ARTERY: LIGATURE OF COMMON CAROTID ARTERY: RECOVERY.

By P. Tytler, M.D., Surgeon to the Hospital.

J. C., aged 20, a warehouseman, was admitted on September 27th as an out-patient, suffering from severe hæmorrhage from the external meatus of the left ear. This hæmorrhage was suppressed by plugging the meatus with lint. On September 28th, the wound was dressed, and there was no bleeding. A wound about half an inch in length was observed in the floor of the meatus close to the outside. On September 30th, a small swelling was observed slightly pulsating below the lobule of the ear. The swelling increased daily till, on November 9th, it was larger than a pigeon's egg, with well-marked visible pulsation all over, and specially marked by the alternate rising and falling of the lobule of the ear in pump-handle fashion to the extent at its free end of about a quarter of an inch. Noises in the ear were complained of. Inside the meatus the original puncture was observed to be on the point of bursting out afresh.

The patient having been chloroformed, a short incision was made in front of the ear into the sac, and a finger at once introduced with a view to search for the injured vessel. The force of the current was felt to proceed from the lower part of the sac and from the under surface of the ascending ramus of the lower jaw. The finger being kept over the tract of the current, the wound was enlarged vertically to the extent of an inch and a half, dividing all the tissues down to the parotid gland, thus unavoidably dividing the facial nerves. It was then found that it was probably the internal maxillary artery which was punctured; that it was inaccessible, both from its position behind the jaw, and from the excessive hæmorrhage on the removal of the finger. A strip of lint was, therefore, forced firmly into the wound, with the effect of suppressing the flow of blood.

The only resource now remaining was to secure the main trunk of the injured branch. It was, therefore, at once decided to tie the common artery above the omo-hyoid muscle. This was carefully dissected down upon and tied without any difficulty with an ordinary silk ligature; the wound was stitched up and dressed with carbolic oil. A firm bandage was placed over the plug in the first wound, and, when the patient was put to bed, a bag of shot was fixed over the bandage above the plugging.

On the following two days there were no bad symptoms; the pulse and temperature being but a trifle above normal, and there were no cerebral symptoms. Of course there was facial palsy resulting from the wound. On the 12th, the bandage was removed, and the plug, also, was carefully taken out. As the last piece was being extracted, the bleeding burst afresh from behind the ramus. The plug was reapplied. Hæmorrhage recurred spontaneously two days after. A consultation was then arranged with Mr. Heath, senior surgeon to the Manchester Infirmary, on the 18th. The plug was carefully removed without the slightest hæmorrhage. The wound was redressed with carbolic oiled lint. Two days after, while the patient was straining at stool, it again bled. At the suggestion of Mr. Heath it was dressed with compound tincture of benzoin. However, it bled again. It was therefore, resolved to endeavour to secure the vessel at the site of injury. However, when everything was prepared on the 25th for operation, and the plug carefully removed, the wound refused to bleed even after considerable examination and manipulation; it was, therefore, replugged, and the patient kept thoroughly quiet in bed under the influence of opium, and he was only allowed a limited amount of fluids. Both wounds were dressed daily, and they rapidly healed. He was made an out-patient on November 3rd. On November 12th, the ligature dropped out, and, on the 18th, he was dismissed, cured.

REMARKS.—The patient had been wounded in a midnight brawl with the end of a file which had been driven downwards and forwards from the external meatus to behind the lower jaw. Before operating, we supposed that the temporal artery was the injured vessel, and that, by cutting directly down, it would be possible to secure it at the site of injury.

It would be interesting to know what was the exact method of closure of the punctured vessel. It was impossible for it to have healed by granulation, for it bled with great freeness two days before it finally stopped. It appears to me to be possible that a piece of fibrin or clot from the puncture might have fallen into the vessel and been carried as an embolism to the first bifurcation, and, in that manner, might have either gradually or at once occluded the vessel and arrested the flow of blood through the punctured region of the vessel, thus forming a thrombus which would extend to the nearest branch on the cardiac side. I have not seen this *rationale* even suggested, but it appears to me not unfeasible. I may also observe that the buccinator muscle (which is supposed by some to be supplied by a branch from the fifth pair with motor power) was quite paralysed.

In conclusion, it is but my duty to say that had it not been for the assiduous care and attention of the resident surgeons, Dr. Martin and Mr. French, the result might have been very different.

LONGTOWN RURAL DISTRICT.—This district appears to have been remarkably healthy during 1879. The total number of deaths was 143 (equal to a death-rate of 17.29 per 1,000), and of these 55 were above the age of sixty. The death of a female at Longtown was registered at the age of ninety-five years. The number of deaths from chest-diseases was large: 46, against 40 in 1878. In this connection, the remarks of Mr. Walker as to the spouting of houses deserve attention. The only zymotic deaths were 7 fatal cases of measles, and, at the date of writing the report, there were no cases of infectious disease in the district.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 13TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

A CASE OF EXTREME PHARYNGEAL STENOSIS, THE RESULT OF SYPHILIS: WITH REMARKS.

BY T. GILBART SMITH, M.A., M.D.; AND W. J. WALSHAM, F.R.C.S.

THE subject of this case was a woman aged 47, who was admitted on October 29th, 1878, into the Royal Hospital for Diseases of the Chest, under the care of Dr. Gilbart Smith, suffering from prostration and dysphagia, accompanied by severe and recurrent attacks of dyspnœa. She gave a clear history of syphilis, which she had evidently contracted soon after her marriage, twenty-six years ago. She suffered for the first time ten years ago from ulceration of the throat. This was relieved by treatment, but recurred at intervals up to the time of her admission. Eight months ago, her voice became affected, and the movements of the tongue impeded. For six months, she had been unable to swallow food, and, for two months, had suffered from severe and alarming attacks of dyspnœa. The tongue could not be protruded beyond the teeth. The right posterior pillar of the fauces was drawn backwards, and was adherent to the posterior wall of the pharynx. The uvula and a considerable portion of the soft palate had disappeared, leaving a clean semicircular border to the portion that remained. On laryngoscopic examination, the epiglottis and vocal cords could not be seen, but an aperture, one-eighth of an inch in diameter, was visible at the bottom of a funnel-shaped depression to the left of the middle line, on a level with the epiglottis. This was separated by a thick cicatricial band from another and deeper depression to the right, which terminated in a *cul-de-sac* containing pus. This small aperture, after considerable difficulty, was made out to be the only entrance to the larynx and œsophagus. Tracheotomy was performed by Mr. Walsham on November 1st. On November 24th, attempts at dilatation were made, and on succeeding days repeated; but they failed to produce any material benefit. Stretchings by means of laminaria and sponge-tents could not be borne. On December 5th, Mr. Walsham partially divided the cicatricial band bounding one side of the aperture with M. Ricord's urethrotome. On the 8th, it was further divided with a pair of curved scissors. One blade being placed in the aperture, the other in the ulcerated depression, incision was made little by little from above downwards, so that a full view was obtained of the cut surface of the tissues, and any vessel, if divided, could be seen and secured. Care was taken to enlarge the aperture as much as possible in such a direction as would allow the food in passing downwards to avoid the entrance into the larynx. The parts were then forcibly dilated by the finger and œsophagus-bougie. On December 12th, another incision was made at a different spot; and the epiglottis, vocal cords, and arytenoid cartilages came into view. When the patient left the hospital, on December 18th, the aperture measured three-quarters of an inch in diameter, and admitted a full-sized œsophagus-bougie. On September 23rd, 1879, she was again seen by Dr. Gilbart Smith. The aperture had not contracted in the least. The authors remarked that stenosis of the pharynx appeared to be very rare. They described three distinct forms. The first, the most common, was situated between the naso-pharynx and mid-pharynx, and was caused by ulceration and contraction of the posterior pillars of the fauces, and the drawing backwards and subsequent adhesion of the soft palate to the pharyngeal wall. Cases of this kind were reported by Messrs. Bradley, Cheeves, Reid, Coulson, and Schech. The second form was more rare; it occurred between the mouth and the pharynx, and was produced by the ulceration and contraction of the anterior fauces, and the drawing downwards and subsequent adhesion of the soft palate to the dorsum of the tongue. A case was reported by Mr. West. The third variety involved the lower part of the pharynx, as in the case brought before the Society; the stenosis being produced by bands of adhesions or soft or tough membranes, which stretched across the pharynx and glued the parts together. Other similar cases were reported by Schech, Gerhardt, Trendelenburg, Schroetter, West, and Cheeves. The authors drew the following conclusions. 1. Tracheotomy is called for, both as a temporary expedient to obviate sudden death from asphyxia, and as an essential factor for safe and satisfactory treatment. 2. Division with a guarded knife presents advantages over other methods of treatment. 3. Several small notches are preferable to a deep incision; and that, when possible, the parts should be divided from above downwards, so as to allow a full view of the surface of the tissues divided. 4. The aperture should be enlarged in a direction so as to permit the passage of liquid food, clear of the entrance to the larynx.

Dr. **Habershon** said that the paper was one of great interest, both because of the rarity of the affection described, and on account of the relief afforded by incision. He asked: 1. Was the condition the result of cicatricial contraction? 2. Was there any development of new tissue as in old cases of syphilis? 3. Were any internal remedies, such as iodide of potassium, used after the operation, to promote absorption of tissue?—Dr. F. **Semon** said the authors of the paper were to be congratulated on their success. All who were acquainted with the subject would agree with them, that attempts at dilatation were of avail only so long as they were used. A fair trial should be given to dilatation; but, when it did not succeed, no time should be lost before operating. Prophylactic tracheotomy was to be recommended in such cases, so as to avoid the necessity of partly performing the operation when it became urgently required, and was, therefore, more difficult. Syphilis tended, according to Gerhardt, to afflict the upper part of the respiratory passages more than the lower. In 1,100 cases, the pharynx was affected in 800 and the larynx in 300.—Dr. **Hilton Fagge** asked whether the contraction was preceded by a corresponding degree of ulceration. He thought that little was known of the pathological conditions in cases of tracheal stricture. He had met with a case of stenosis of the pharynx, under the care of Mr. Durham; the constriction was not so great as in the present case, but there was much dysphagia. Relief was obtained by the use of bougies and a course of mercurial fumigation.—Dr. R. E. **Thompson** suggested that the introduction of food by the rectum might be useful in such a case.—The **President** said that, many years ago, he had performed a number of experiments on animals, and had also observed many cases, in which the throat was opened by surgical operation, or for the purpose of suicide; and had noticed that, in such cases, the entrance of food into the air-passages was not attended with the usual distress. Preliminary tracheotomy before operation on the throat not only did not complicate the procedure, but diminished its danger.—Dr. **Gilbart Smith** said that iodide of potassium was given both before and after the operation. Ulceration was undoubtedly present; but there was also apparently a great deal of thickening by new tissue. The relief afforded by the incision was so great that nutritive enemata did not appear to be called for; but in another similar case he would administer them. The President's remarks on the effect of tracheotomy in lessening of spasm of the larynx were important. Paralysis of the laryngeal muscles had been known to follow tracheotomy.

ON THE PARTIAL METABOLISM BY THE LIVER OF LEUCIN AND TYROSIN INTO UREA.

BY EDWARD CHARLES ANDERSON, M.D., M.A.

The author remarked that it had been universally taught that leucin and tyrosin were present, most especially, in acute yellow atrophy of the liver; that one or both had been discovered by Beale in chronic wasting of the liver and in leucocythæmia; by Frerichs and Städeler in typhus, small-pox, and some of the other exanthemata; and Balfour inferred that they, or at least certain abnormal constituents, were present in the urine in a case of remora of the hepatic circulation due to valvular disease. Murchison, however, attributed their presence in typhoid, etc., to concurrent acute atrophy. In November 1877, in a case of jaundice arising from obstruction, Dr. Anderson examined the urine for leucin and tyrosin, and discovered them; during convalescence, tyrosin first disappeared, and finally leucin; and during each return of the symptoms, on future slight recurrences, leucin reappeared. Out of thirty-three individuals observed by the author, in whose urine either leucin alone or tyrosin and leucin existed, there were of jaundice, two; mitral and aortic incompetency, one; cirrhosis, one; acute rheumatism with pneumonia, two; nephritis with dyspepsia, one; anæmia, one; phthisis with intestinal obstruction, one; phthisis, one; colic, one; pleuro-pneumonia, two; chronic bronchitis, one; hepatic derangement, five; emphysema, two; Bright's disease with præsystolic and mitral systolic bruits, one; bronchitis with asthma, one; acute rheumatism, one; chronic and spasmodic asthma, three; puerperal eclampsia, one; delirium tremens, one; hemiplegia, one; pertussis, one; cancer of liver, one; puerperal septicæmia, and embolism into base of right lung, one; that is to say, there were over eighteen or nineteen different diseases in which either leucin alone, or tyrosin and leucin were present. These diseases differed among themselves, and they did not include either acute yellow atrophy, chronic yellow atrophy, typhus, small-pox, or the other exanthemata. Dr. Anderson believed the presence of leucin and tyrosin in the urine to be due to corresponding deficiency of urea. This was not invalidated by the circumstance of the simultaneous existence of much leucin and tyrosin, and increased quantity of urea; for, during great destructive metabolism, such as occurred in the course of many diseases, the liver was so overtaxed as to cast into the blood, not only urea in large amount, but the overplus of waste, viz., leucin and tyrosin. As convalescence advanced, although the absolute quantity of urea daily eliminated might have become less, the most marked and progressive diminution took place in leucin and tyrosin, and occasionally in albumin and uric acid. As a strong presumption in favour of the theory that one of the many functions of the liver was the formation of urea, from leucin, if not from tyrosin, it had been instanced that, in cases of acute atrophy of the liver, where the hepatic gland-cells lost their functional activity, the urea of the urine was replaced by leucin and tyrosin. If such were the case, it would seem that, in the numerous diseases in which leucin and tyrosin (one or both) were present, their diminution during convalescence; reappearance and increase during each return and exacerbation of the symptoms; their final disappearance (firstly tyrosin and then leucin); the circumstance that tyrosin appeared only in and during the severer manifestations; their increase and diminution in inverse proportion to the amount of urea; and lastly, the influence exerted by the preparations of salicin and euonymin (well known hepatic stimulants) in increasing the quantity of urea and in diminishing that of leucin and tyrosin, supported the theory. Frerichs asserted that leucin and tyrosin were found only in the hepatic and not in the portal vein. This would seem irreconcilable but for one possible explanation. In the early stages of so-called nutmeg-liver, owing to "remora", there were congestion and partial stasis of the contents of the intralobular veins, and consequently pressure upon, and interruption to, the functional activity of the gland-cells immediately surrounding them.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 6TH, 1880.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

Tumour of Skull.—Mr. **Godlee** read the report of the Morbid Growths Committee on a tumour of the vault of the skull, exhibited by Dr. Abercrombie. The tumour was a small round-celled sarcoma originating in the periosteum and dura mater, and not in the bone itself.

Histology of Molluscum Contagiosum.—Mr. **Startin** showed a series of microscopical sections of this disease, which he believed to show that the disease arose from abortive sebaceous glands, by a perversion of nutrition, leading to an abundant formation of lowly organised sebaceous elements. He believed the contagion to be due to the rapid formative power of the partially developed protoplasm, of which these elements were composed.—Dr. **Thin** remarked that the views expressed by Mr. Startin were very similar to those brought forward by himself at a recent meeting of the Royal Medical and Chirurgical Society.—Dr. **Pye-Smith** believed that there were two elements in the production of molluscum contagiosum; (1) the sebaceous element; (2) a new growth independent of the sebaceous glands. He believed that, in some cases, the latter element alone was present.—The **President** could not agree with Dr. Pye-Smith that there was a form of molluscum contagiosum independent of the sebaceous glands. He himself believed that the disease always began either in fully developed glands or, as suggested by Mr. Startin, in abortive glands.—Dr. **Frederick Taylor** doubted whether the second variety of molluscum mentioned by Dr. Pye-Smith would be generally accepted as a form of that disease. Sebaceous follicles were developed as invasions of the rete Malphigii. Might not this process take place as the result of a morbid tendency later in life, and thus give rise to molluscum?—Dr. **Pye-Smith** explained that he thought that both the forms described by him originated primarily in gland-tissue; but in one, the tumour was mainly composed of gland-secretion, and in the other, a small solid tumour without any products of secretion arose.

The Pathology of Elephantiasis.—Dr. **Thin** showed a series of sections and photographs from cases of this disease, sent to him by Dr. Henderson of Shanghai. They showed three interesting features; 1. In one of the cases, there had been elephantiasis in three generations, the grandfather, father, and son having all suffered from it; 2. In one case, the disease had been greatly relieved by the pressure of an elastic bandage; 3. In one case, that of a man with marked elephantiasis in both legs, one leg had been amputated, with the result that not only the stump of that leg had completely lost all signs of elephantiasis, but the other leg also had recovered. A great deal of blood had been lost in the operation, and the question arose whether the cure had resulted from diminution of the blood-pressure. The section showed a number of large cells without processes distributed without any order through the tissue; besides these, there were small cells, indistinguishable from white blood-corpuscles; there were, in addition, other cells, showing every conceivable gradation between the large and the small, suggesting the probability of the former having grown out of the latter. The ground-substance of the growth was composed of immature fibrous tissue, the fibres not being collected into bundles, but distributed in a more general manner. Nowhere could he find evidence to prove that the cellular elements gave rise to the fibrous tissue. A large quantity of involuntary muscular tissue was present in the growth. The large flat cells without processes present in these sections corresponded exactly with the variety of connective tissue corpuscle described by him in 1874, and he thought that this resemblance afforded a clue to the origin of these cells. In none of the cases were any filariæ found.—Dr. Cavafy remarked that elephantiasis appeared to be a disease of the lymphatic system, and that the spaces inclosed in the meshwork of connective tissue were lymphatic spaces, the connective tissue corpuscles holding much the same relation to these spaces that the epithelioid lining did to blood-vessels. This would probably explain the presence in the tumours of large numbers of cells indistinguishable from connective-tissue corpuscles. He asked whether Dr. Thin could account for the presence of involuntary muscular fibre by hypertrophy of the walls of lymphatic vessels.—The President remarked that Sir Joseph Fayrer had described an increase of involuntary muscular fibre in elephantiasis.—Dr. Thin, in reply, said that he thought the connection between the connective tissue spaces and the lymphatic vessels had never been proved. So far as at present appeared, the lymph-vessels constituted a closed system, in the same way as the blood-vessels were a closed system, communication with the connective-tissue spaces taking place only by endosmosis.

Horny Growth from Eyelid.—Mr. Walsham showed a growth, of the size of a small walnut, removed from the eyelid of a woman aged 87. The growth was composed of epithelial cells, arranged in a columnar manner. The tumour appeared to have no connection with sebaceous follicles.

Melanosis of Finger.—Mr. Godlee showed a specimen of this disease removed by Mr. Heath from a girl aged 9. Four years previously, the last joint of the little finger had swelled, and a year later a black spot appeared, of the size of a pin's head. Subsequently, other spots of the same nature appeared. After removal, it was found that the black mass was confined to the epidermis, and was not sarcomatous in nature. It was composed of epithelial cells containing oily material and brown pigment, and between the cells was a dark substance, apparently altered blood.

Specimens of Congenital Syphilitic Disease of the Larynx.—Dr. Barlow showed the larynx of a child aged 11 months, in which there was abundant evidence of congenital syphilis. When five months old, the child's voice became weak and hoarse, and there was a laryngeal cough. From that time until its death, the laryngeal condition never got quite well, though it varied from time to time. *Post mortem*, there were œdema of the arytæno-epiglottidean folds, erosion of the mucous membrane of the larynx, and, closely adherent to the mucous membrane, were thin laminæ of false membrane. He had brought the specimen in consequence of the statement by Dr. Felix Semon at a previous meeting, that congenital syphilis of the larynx was very rare. He himself believed that the disease was commoner than was usually thought. He had frequently found that the voice of such children became hoarse, being sometimes quite extinguished. The child generally recovered from this condition under mercury, but it was always liable to relapses when it caught cold.—Dr. Allen Sturge also showed a specimen of congenital syphilis of the larynx taken from a boy aged 2½ years, whose father had acquired syphilis two years before marriage. The child had shown well marked symptoms of congenital syphilis in its infancy. When twelve months old, it lost its voice, and again when eighteen months old. From this condition it had never recovered, suffering from laryngeal dyspnœa and loss of voice. These symptoms improved under mercurial treatment, but the child died from spasm of the glottis brought on by exposure to a high wind. *Post mortem*, the left arytæno-epiglottidean fold was much swollen; the vocal cords were partially destroyed by ulceration; and deep fissures, resulting from cicatrisation of ulcers, radiated both upwards and downwards from them. There was commencing stenosis of the upper part of the trachea. From the ventricle on each side protuded a growth of doubtful nature, the two growths being continuous across the median line in front.—Dr. Lees thought with Dr. Barlow that congenital syphilitic disease of the larynx was not very rare. In some cases, the condition was very transitory, but in others it was permanent. In one such case that had come under his notice, the disease had been so severe as to necessitate tracheotomy, the child recovering eventually.—Dr. Felix Semon explained that it was only the severe forms of ulceration of the larynx in congenital syphilis that he considered to be rare; transitory laryngitis was of common occurrence.—Dr. John Mackenzie (America) stated that he had collected seventy-eight cases of this disease, and he had come to the conclusion that severe destructive laryngitis was about as common in congenital as in acquired syphilis. The proportion might appear smaller in the former than in the latter, because many more children than adults died in the earlier stages of syphilis, and thus a certain number of children who would ultimately develop the severer forms of laryngitis died before reaching that stage.

Tetanus after Ovariotomy.—Dr. Vincent Harris and Mr. Doran exhibited microscopic sections of a spinal cord from a girl aged 24, who died of tetanus eight days after ovariotomy had been performed upon her by Dr. Bantock. The most marked symptom was spasm of the inspiratory muscles, and the upper dorsal part of the cord was found to be the part most affected. There were exudation into the anterior and posterior columns, and shrinking of the ganglion-cells in the anterior cornua. The neuroglia-nuclei around the central canal were much increased in number, and there were signs of exudation into the canal. In a few sections from a portion of the cord that had not been thoroughly hardened, numerous transparent patches were seen; these could not be stained. Sections of another cord, evidently decomposing, invariably presented these patches. In no case could disintegration of the grey matter be detected.

Specimens shown by Card.

1. Mr. Shattock: Specimen illustrative of the Changes occurring after recent Division of the Tendo Achillis:
2. Mr. Eve: Calcareous Tumour found loose in the Abdominal Cavity:
3. Dr. Lediard: Knee-Joint excised by Sir William Fergusson twelve years ago.

CLINICAL SOCIETY OF LONDON.

Friday, April 9th, 1880.

E. Headlam Greenhow, M.D., F.R.S., President, in the Chair.

Sympathetic Ophthalmitis after Excision of the Eyeball.—Mr. Nettleship read notes of two cases which had occurred in his own practice, and of a third case communicated to him by Mr. Cowell, and alluded to six other published cases. Case i. *Extraction of a Fluid Shrunken Cataract with Corneal Nebula, the Result of Ophthalmia Neonatorum, from the Eye of a Phthisical Man, aged 20; Intra-ocular Hæmorrhage Forty-eight Hours after the Operation.*—The eye was excised ten days after the operation, no sympathetic symptoms being then present, and the orbital parts healed as usual. The excised eye was examined microscopically: inflammatory changes were found in the choroid, optic nerve, and retina, but the ciliary nerves showed only doubtful changes. Twenty-two days after excision (thirty-two after the cataract-operation), the sympathetic disease began with failure of sight. When seen a week later, there was neuro-retinitis, and shortly afterwards severe irido-cyclitis set in. The eye became glaucomatous, and, in spite of a free iridectomy made six months after the onset, it finally became blind. A prolonged mercurial course, with cod-liver oil, etc., and all the useful local measures had been first tried. Case ii. *Rupture of Sclerotic in a Man aged 67, seen One Hour after the Accident: Blood in Anterior Chamber, but Good Perception of Light: Wound united by a Suture, and Ice used.*—The eye inflamed, and was excised nineteen days after the accident (the patient having refused excision when advised a few days earlier). No microscopical examination was made. The orbital parts healed as usual. Twenty-three days after excision (forty-two after the accident), there was some pain in the other eye, and on the twenty-ninth day acute iritis, followed in a week by extensive detachment of the retina. The eye recovered in two months, and six months later was as good as before, the retina having become reapplied. Case iii (Mr. Cowell's case). *Jagged Wound near the Corneal Margin, with Adhesion of the Iris, in a Boy aged 11.*—There was softening of the eye with purulent cyclitis; excision was performed twenty-four days after the accident; the parts healed as usual. Inflammation of the other eye began about twenty-five days after excision (fifty after the accident), and he went through a sharp attack of iritis. Numerous adhesions formed, but the eye recovered fair sight (14 Jäger). Only six published cases were known to the author, viz.: 1 by Pagenstecher, first interval (*i. e.*, between injury and enucleation), 27 days; second interval (*i. e.*, between enucleation and onset of sympathetic inflammation), 8 days, eye lost; 1 by Mr. R. B. Carter, first interval 15, second 41 days, recovery; 1 by H. Schmidt, first interval 28, second 4 days, recovery; 1 by Colsmann, first interval 42, second "a few" days, recovery; 1 by Hugo Müller, first interval not stated, second 5 days, recovery; 1 by Mooren (doubtful), first interval not stated, second two or three months. The cases were of practical importance and of interest, from the light they throw on the mode of origin and rate of transmission of the morbid action in the production of this disease. It might be a question whether the sympathetic disease in these cases was set up by the damaged eye or by the operation for its removal. If the latter, then we should expect occasionally to see it coming on at very long intervals after excision; and this had not been observed. It would probably be equally severe as the ordinary cases, whereas of the nine cases six were known to have recovered; and we should expect some inflammation of the orbital parts to occur between the excision of the damaged eye and the onset of disease in the other, and this had not taken place. Doubtless the process always started from the damaged eye, and had in such cases as these already, before excision, travelled so far beyond the exciting eye as to be out of the surgeon's reach. The mildness of the induced disease in most of the cases quoted showed, however, that removal of the exciting eye, even after its excitant influence had begun to travel, might be of some use by preventing its further action. An interesting point was, that the sympathetic disease appeared to begin as neuro-retinitis in no fewer than four of the nine cases; but this did not necessarily point to the optic nerve as the path along which the disease travelled, for inflammation of the ciliary nerves at their entrance into the eye leading to choroiditis near the optic disc would sufficiently account for the appearances noticed.—Mr. SPENCER WATSON made a few remarks.

Cases of Bone-Setting.—Mr. HOWARD MARSH read notes of some cases. No. I. A countryman, aged 50, dislocated his shoulder. The dislocation was at once reduced, and the arm bandaged to the side. Nine weeks afterwards, he came to London for advice. It was found that the limb was so stiff that he could not move the elbow more than two or three inches in any direction; and any movement, either on his part or during examination, produced great suffering, and he complained of constant severe aching from the shoulder to the elbow. It was noticed, however, that the joint was quite free from heat and swelling. When he had taken gas, the scapula was fixed, and the humerus was freely rotated on its long axis in the glenoid cavity, and then carried by a series of short jerks through all its normal range of movement. Numerous adhesions around the joint were felt to give way. He now lost much of his pain, and could move his arm freely except in an upward direction. A fortnight afterwards, his arm was carried, while he was under gas, freely above his head. After this, all his pain ceased, and he recovered the full use of his limb. No. II. A man, aged 24, in jumping from a cart, twisted his foot under him. Great pain and swelling followed, and the limb, from the instep to the middle of the calf, came out, he said, "all black and blue". He was laid up for a fortnight, and then took to walking with a stick. Eight months afterwards, he came to St. Bartholomew's hospital. The joint was still swollen, and the seat of severe pain if weight were thrown upon it. He had gone from hospital to hospital, and had been liberally supplied with bandages, elastic stockings, liniments, and the inevitable tincture of iodine, but he grew no better. The ankle was found free from unnatural heat—indeed it was unnaturally cold; the skin was bluish and shining, and the outlines of the joint were obscured by brawny swelling. The limb was a little drawn up, and flexion and extension were almost entirely lost. He took gas, and the joint was carried in short jerks through all its natural range. Numerous adhesions in the sheaths of the surrounding tendons were felt to give way. Within an hour, he walked freely about the ward, and, the next morning, walked from Hackney to the hospital, and reported himself fit to go to work on the limb. Six months later, he came with the ankle again out of order. He said he had been quite well till three weeks before, when the joint had become painful and weak. On inspection, nothing could be found amiss, and he was advised to have the part strapped, and to rest it. He, however, said he was sure if it were "moved" it would be all right. Gas was given, and the joint was carried into full extension and full flexion. Some slight adhesions were felt to give way. He wrote next morning to say that he had been walking on the limb, and found that he could now do so without either pain or limping. No. III was of a similar character. A man, aged 45, could bear no weight on his ankle nine months after a severe strain. The joint was quite free from heat. All his symptoms disappeared when the ankle was flexed and extended under gas, and in less than a week he was quite well. No. IV, a lad aged 17, of strumous family, was reported to have hip-disease. He could bear no weight on his limb, and his thigh was flexed, abducted, and rotated outwards. There was deep-seated pain at the back of the joint on any movement, and tenderness on pressure in this situation. There was no swelling. On examination, it was found that the hip-joint was sound, but it was believed there was strumous periostitis of the innominate bone beneath the external rotator muscles. He was told to rest, to have a course of blisters, and to take cod-liver oil. Three months later, as he was no better, he was taken to a bone-setter, who moved the limb. After this, he lost all his pain, and in a week was "all right". Just twelve months later, having in the interval been quite well, he was, on rising quickly from his chair, seized with the old trouble. He had great pain and felt sick, and the limb became intensely painful if any weight were thrown upon it. On examination, the limb was found flexed, abducted, and rotated outwards. Movement at once produced painful spasmodic contractions of the muscles, and there was excessive pain on pressure over the sciatic notch. He was put under gas, and the limb was gently carried through its complete range of flexion, extension, abduction, adduction, and rotation. Directly afterwards, though nothing seemed to give way or to slip, he lost his pain and could freely move his limb. He had had no relapse. While the preceding cases were examples of adhesions, this, Mr. Marsh believed, was one in which one of the external rotators of the thigh had slipped out of its place. He remarked that he had brought the subject of bone-setting forward because, undoubtedly, there were a numerous set of cases which forcible movement could speedily cure, but which had not hitherto been treated as commonly as was advisable by this means. These cases, as they made but little progress under the routine treatment of rest, liniments, and elastic stockings, frequently fell into the hands of bone-setters, by whose manipulations many of them were cured. He alluded principally to cases in which adhesions had formed in and around joints otherwise sound, as the result of injury or inflammation. Sir James Paget was the first to draw attention to this subject, in a clinical lecture given as long ago as 1867, and since published in the first and second editions of his *Clinical Essays and Lectures*. In this essay, the principles of forcible movement as a means of treatment were very fully and clearly laid down, and were rendered all the more distinct by being brought into contrast with those which regulate the use of perfect rest, so essential for joints which were the seat of inflammation, and especially of strumous disease. Displacement of cartilages and slipped tendons might be, and doubtless sometimes were, put right by bone-setters; but he believed the cases of adhesions—especially when they occurred after an injury, outside a joint which itself was healthy—offered by far the most numerous instances of improvement after forcible movement, and he expressed his conviction that they were much more frequent in practice than many had supposed. After referring to the classes mentioned by Dr. Hood in his lectures, the author stated that all he had observed led him fully to accord with the teaching of Sir James Paget, that, when joints after injury had remained stiff, "weak", and painful, and yet free from abnormal heat, beyond the usual period of convalescence, and when they had no history of any previous disease, and when a careful examination could detect no evidence of any of the diatheses, such as struma, or severe gout or rheumatism, the patient should be put under gas, and the limb should be carried in all directions through its full range of movement. As to the movement of particular joints, the author had seen good results in the shoulder, the finger-joints, the knee, and the ankle. He had not used the method in either the elbow or the hip, having met with no cases which seemed suitable for it. In conclusion, he stated that, if synovitis had been present, movement must be very cautiously employed. In two knee cases lately under observation, in which synovitis had subsided for eight or nine weeks, and the joints had become perfectly free from swelling and abnormal heat, a renewed attack of inflammation, with heat, pain, and considerable effusion, had followed manipulative treatment.—Mr. HULKE said the subject was interesting, as these cases were often an opprobrium to surgery; for surgeons dared not risk to do what bone-setters would, as these latter usually contrived to get a written indemnity beforehand for any damage that might be done. Then they would promise everything. He mentioned the case of a lady who had hip-disease, and to whom he recommended a ring-cushion to relieve pressure; but she was not satisfied, and applied to one of the bone-setters, who persuaded her that she had a dislocation. In his own case, when a joint had been for a time at rest after injury, a sudden fall seemed to restore him to perfect motion.—Mr. JOHN WOOD said that there were often adhesions outside the joint, especially the shoulder-joint, after injury, and these were the most successful in the hands of bone-setters. And there was something very like these arising from inflammation of the bursa outside the deltoid, which might be cured by means of manipulation or acupuncture. Where there were changes in the cartilage, the joints were less amenable to treatment; and in many cases where there was supposed displacement of tendons, there was really inflammation of the sheaths. He had seen much mischief done by bone-setters, especially in hip-disease, where forcible movement was extremely dangerous; and he had also known of fracture of the neck of the humerus caused by them. He would, therefore, in all cases deprecate quick jerks; he would try first the range of movements possible, and then gradually increase them. When the cartilages were gone, not much good could be done. Many of the cases where bone-setters were supposed to succeed were what were called hysterical spines. In some of these, there might be displacement of one or other of the smaller dorsal muscles.—Mr. THOMAS SMITH thought that many cases of stiffness after the union of a fracture were due to adhesions outside a neighbouring joint. One of the most troublesome set of cases was that following Colles's fracture of the radius, where there were often adhesions of the tendons to their grooves or to their sheaths. Here flexion with friction and shampooing often did good. Wrenching, again, often did good in stiffness of the ankle after fracture of the leg. He could hardly agree with Mr. Wood's ideas as to displacement of the spinal muscles.—Mr. C. Heath referred to a special class of cases where there was bruising of the parts in the neighbourhood of a joint, as in falls on the shoulder in the hunting-field. Time would not put those right; movement, more or less forcible, was necessary. It was not always possible to decide whether the adhesions were inside or outside a joint. The cracking often heard in forcible movement was alarming, but not, as he thought, dangerous.—Mr. Barwell thought there was often subluxation, especially of the shoulder and ankle, where a little manipulation put things right. He always liked to move the joint a few days after any injury near it. He also referred to a case of dislocation of the scaphoid, where severe measures were contemplated, but which was easily reduced by manipulation. As regards joints, he did not think that synovial membranes often grew together, but the cartilages might.—Mr. George Brown asked a question about wasted muscles after rheumatic inflammation and ankylosis.—Mr. Morris thought it was not advisable to drive too far the distinctions between adhesions inside and outside joints, especially referring to the shoulder and knee. And movement under chloroform did not always give certain results. There was often stiffness after slight fracture of the olecranon without displacement, should force be used in such cases?—Mr. Prescott Hewett said that, in most cases where bone-setters succeeded, the injuries were slight; as when there was some contraction in and around the joint, especially the knee. The acute symptoms lasted but for a time, though the stiffness remained; and then the patient applied to a bone-setter, who broke down the adhesions. In this respect, the treatment suited fairly well the knee and ankle, but not so well the shoulder—still less the elbow. Contractions of the toes frequently arose from bad shoes; and these were readily amenable to treatment. But too much force should not be used in any case. He had seen the neck of the thigh-bone broken; he had also seen inflammation and pyæmia after interference with the shoulder-joint. In one case, there was gangrene of the leg after fracture by a bone-setter, necessitating amputation at the thigh, and thus causing death.—The President said that the public ought to know that the profession could treat these cases; and narrated a case of hysteria where much mischief was done, the spine being all the time perfectly well.—Mr. Marsh replied.

MANCHESTER MEDICAL SOCIETY.

Wednesday, March 17th, 1880.

David Little, M.D., President, in the Chair.

Osteotomy.—Dr. Yeats showed four patients upon whom eleven operations had been performed for knock-knee and bow-legs. Ogston's operation for knock-knee was performed seven times, and the other four operations were simple subcutaneous division of the tibiæ and fracture of the fibulæ for bow-legs. The results were good; the previously deformed limbs were straight, the joints were free, the power of locomotion was unlimited, and the stature was improved. One of the cases had been operated on fifteen months ago, and another six months ago, and the results remained as good as after the operations. The good results of the knock-knee operations were said to depend on the separation of a sufficiently large portion of the lower end of the femur, including the internal condyle, and on removing the splint entirely at the end of the second week, and then instituting movements of the limb. In regard to the "bandy" or "bow" legs, Dr. Yeats was of opinion that simple subcutaneous transverse division of the tibia and fracture of the fibula with division of the tendo Achillis was sufficient to remedy any deformity of this nature, and, if one operation were not sufficient, a second one would complete the rectification for all practical purposes. There was no constitutional disturbance nor suppuration after any of the operations. The saw was used in every case, and the operations were performed under carbolic spray. The ages of the patients were respectively eight, eleven, fourteen, and eighteen years.

Locomotor Ataxy.—Dr. Dreschfeld showed two cases illustrating rare forms of locomotor ataxy. Case I. A man aged 53, an engineer, had syphilis in his youth, and began, seven years ago, to have lightning-like pains in the lower extremities, with diplopia and loss of control over his bladder at night, which symptoms (except the diplopia) persisted. There were now atrophy of both optic discs, Argyll Robertson's phenomena well marked, absence of patellar tendon-reflex, diminution with retardation of cutaneous sensibility in both lower extremities, slight loss of control over the sphincter of the bladder, and characteristic lancinating pains in the legs. The patient could stand and walk with the eyes shut, and there was absence of all inco-ordination on walking. There was entire absence of visceral trouble. The case was evidently one of *ataxia sine ataxiâ*. The pains were very much controlled by nitrate of silver. Case II was that of a man aged 50, a mechanic, with no history of syphilis. The present illness commenced fifteen years ago with inco-ordination in walking, and lancinating pains. There were now atrophy of both optic discs and contraction of the pupils, which reacted to accommodation but not to light; marked ataxy of the lower extremities, with atrophy and paresis of the muscles of the thigh; absence of patellar tendon-reflex; diminution of cutaneous sensibility in the lower extremities; lancinating pains in the legs; dislocation backwards of the left knee, with enlargement of the head of the tibia; and intracapsular fracture of the head of the right femur, with upward dislocation of the shaft and the presence of a mass of bone in the tendon of the right sartorius muscle. The joint-affections in the right hip came on seven years ago, when the patient was laid up with excessive lancinating pains in the right thigh; the gradual dislocation of the left knee commenced three years ago. The case illustrated well the arthropathies occasionally found in locomotor ataxy. At no time were there any visceral troubles.

Sclerosis in Patches.—Dr. Ross showed a patient with distinct ataxic symptoms, associated with slight exaggeration of the patellar tendon reflex. There were complete absence of all sensory phenomena of muscular tension, and paralysis of voluntary motion. Dr. Ross observed somewhat similar symptoms in the case of another patient, who now presented in the most marked manner the symptoms of sclerosis in patches. He thought it very probable that the further progress of the present case would prove that it was not a true case of locomotor ataxy.

New Uses of Old Remedies.—Dr. March (Rochdale) read a paper on this subject. He supported by cases his assertion that instances of sciatica that resisted all ordinary medication could be promptly cured by copaiba balsam. He recommended, in what he called chronic after-gout, a tedious affection always benefited by Bath or Buxton waters, the administration of citrate of lime; and gave a formula for making this salt. He advocated as an unfailing remedy the employment of minute doses of the bichloride of mercury in the treatment of dysentery, to the total exclusion of opium and astringents. He looked upon chloral, given in small doses, as of much service in typhoid fever and in diphtheria; but, on the other hand, he believed it to be distinctly injurious in scarlatina. He recalled a remark of Dr. Fothergill's, that belladonna is a stimulant of the respiratory centres, and strongly urged the use of this drug in cases of capillary bronchitis, especially in infants, to whom it should be given in small and decreasing doses.

OBSTETRICAL SOCIETY OF DUBLIN.

Saturday, February 7th, 1880.

E. B. Sinclair, M.D., President, in the Chair.

Ovum or Placenta Forceps.—Dr. Roe exhibited a forceps devised by him, and for which he claimed advantages over the instruments in general use, for the removal of an ovum or placenta; the principal points being that the direction of the blades was indicated by the handles, the absence of teeth, and consequent diminution of the danger of carrying infection, and the position of the joint being nearer to the handles allowed a greater separation of the blades with less separation of the handles.

Phantom Tumour simulating Pregnancy in an Ass.—The Rev. Dr. Haughton made a communication on a case of phantom tumour simulating pregnancy in one of the lower animals, and he hoped that a careful study of the phenomena in this case might help towards the more philosophical study of what occurred in the human female, as the mental disturbance, so large a factor in our notion of the phenomenon as it occurs amongst women, would be almost or altogether eliminated. Having purchased a fine specimen of a rare variety of zebra, he was anxious to provide a suitable partner for him; he therefore obtained a healthy three-year-old virgin ass. It was necessary to have a virgin, as it was known that the first intercourse gave a stamp to the subsequent progeny. Frequent and apparently satisfactory intercourse took place between the two. The ass came into season at intervals of five weeks, and remained so from ten to fourteen days, and its period of utero-gestation was eleven months. It was therefore easy to discern when the animal was in foal. After six weeks, the ass began to enlarge visibly, and a man much accustomed to the breeding of horses declared that he could "feel the foal inside her." The eleven months expired, and the ass came into season again without having given birth to a foal. After a lapse of four months, she was again given the zebra, and again she swelled, continued so for eleven months, and again gave birth to nothing. In this case, he considered that the mental element might be disregarded, for the ass could have no object in deceiving the zebra. It was at first thought possible, that she had aborted in the night and eaten the fœtus; but the most careful search showed not a trace of such an occurrence. On each disappearance of the swelling, her abdomen returned to its normal size in one day.—Dr. McClintock thought that it was not by any means impossible that something analogous to a psychological element might have operated in the case mentioned. Brutes had far more feeling and intelligence than they were usually given credit for, and a very strong feeling accompanied sexual intercourse in them.—Drs. Denham, H. Kennedy, MacSwiney, and the President also took part in the discussion.—In reply to Dr. McClintock, Dr. Haughton stated that he had no doubt that what the ancients called στοργή, the maternal instinct, was present, and that the ass's illusion of being in foal influenced her physiological condition; for her mammary glands were enlarged, and when the supposed pregnancy was over they subsided with the abdominal enlargement.

SURGICAL SOCIETY OF IRELAND.

Friday, February 27th, 1880.

E. Hamilton, F.R.C.S.I., in the Chair.

Vaginal Cyst in an Ewe containing Fœtal Remains.—Mr. B. W. Richardson exhibited the vagina of an ewe dilated into a cyst containing the remains of an aborted sheep, with numbers of bones and some wool. The mucous membrane of the dilated portion of the vagina was greatly thickened, and showed numerous outgrowths, some extending half an inch into the cavity, and formed pits into which the bones were closely packed. There was no appearance of any fœtal membranes, or any other covering than the vaginal walls. The cyst contained one hundred and seventy pieces of bone, and many of them could be well made out as corresponding to those of one fœtal sheep. Thus there were two scapulæ, two ilia, two humeri, two femora, and so forth. No trace of any of the soft parts or cartilage was visible, except a soft white substance which connected the vertebræ together. Mr. Richardson considered that the specimen was the remains of a partially aborted fœtal sheep which had become impacted in the vagina, in which disintegration of the soft parts took place, leaving only the bones and wool.

Cases of Ovariotomy treated Antiseptically.—Mr. William Stokes read the notes of the last two cases of ovariotomy which had come under his care. He brought the cases before the Society, not for any peculiarity in themselves, but because, though the result was in both cases most satisfactory, the antiseptic precautions adopted in each were essentially different. He, therefore, considered them a fitting base on which to raise a discussion of the still unsettled question of the therapeutic value of antiseptics, as recommended by Professor Lister, not only in ovariotomy, but in other operative measures also. Ovariotomy he considered to be the operation which had most crucially tested the merits of antiseptic surgery. Case i. *Bilocular Ovarian Cyst.*—The patient was an unmarried girl, aged 19. The circumference of the abdomen at the umbilicus was forty-one and three-quarter inches; and the measurement from the pubes to the xiphoid cartilage sixteen inches. The pedicle was short and thick, the operation easy, and the contents of the cyst as clear as spring-water, and the cyst-wall extremely thin. Thymol was the antiseptic employed, and the strictest precautions were used both at and after the operation. The recovery was rapid. On the fourth day, she had a smart attack of "uterine epistaxis", which, however, could not be regarded as an unfavourable symptom, the temperature at the same time rising to 102.8° Fahr. The feverishness subsided next day, and convalescence proceeded rapidly. Case ii.—*Multilocular Ovarian Tumour.*—The patient was a married woman, aged 33, the mother of nine children. The abdominal circumference at the umbilicus was thirty-eight and a half inches, and the measurement from the pubes to the ensiform cartilage seventeen inches. The tumour felt nodular to the touch, and could be freely moved in the abdomen. The tumour was very difficult to remove, owing to adhesions, and, consisting as it did of a number of grape-like cysts, was practically a solid one. The incision had to be very long, and reached from an inch and a quarter above the umbilicus to the pubes. The cyst walls were so exceedingly thin that many of them broke, and some fluid escaped into the peritoneum. The "toilet of the peritoneum" had most carefully to be performed, and in this case phenol was the antiseptic employed. The pedicle in this, as in the previous case, was secured with a carbolised silk ligature and returned into the abdomen, and a glass drainage-tube inserted. Immediate union of the wound took place, and there was not a single drop of pus visible during the whole case; and convalescence proceeded regularly and rapidly. This operation Mr. Stokes considered to have been surrounded with greater difficulties than any he had before performed. The number and extent of the adhesions, the size and nature of the tumour, the extent of the wound, and the escape of the fluid into the cavity of the peritoneum, and the consequent length of time necessary for its performance, taken in connection with the rapid and uninterrupted recovery, rendered the case, in his estimation, a remarkable triumph of the advantages of "Listerism". With regard to the pulse and temperature curves in cases of surgical fever, Mr. Stokes considered the former by far the most reliable as an indication of prognostic value, and, by noting the existence or want of accordance between these phenomena, the surgeon might be greatly helped in forming his opinion. Mr. Stokes then entered into an elaborate and powerful defence of "Listerism", answering the objections of its opponents *seriatim*. Mr. Savory had admitted that atmospheric organisms were a cause of putrefaction in wounds. No germ-theorist had ever considered atmospheric organisms the *sole* cause of putrefaction. Professor Lister, moreover, had stated that "healthy living tissue had the power of counteracting the development of those minute organisms, on the same sort of principle probably as the healthy plant can resist parasitic fungi. If a plant become enfeebled by cold, you saw fungi developed on it; but, if it became vigorous again, the fungi left it." So the healthy vigorous living tissue of the body could resist the development of the organisms. It ought to be remembered that the "receptivity to noxious influences" was a condition ever varying—being apparently absent in some, whilst very great in others.—Mr. Bennett agreed with Mr. Stokes in his view of the value of antiseptics, and thought that the success of ovariotomy depended on attention to details. He considered that the failures in antiseptic surgery which he had seen were simply due to neglect of details. He had never himself failed in a fair case whilst the skin was only damaged by a recent wound and no suppuration existed, except where he was able to put his finger down on the actual cause of failure, being his own negligence; and he thought that others would probably find the same.—In this view Dr. Barton also agreed.—The President, Dr. Doyle, and Mr. Wharton also took part in the discussion.

Owing to the lateness of the hour, Mr. Stoker proposed, and Mr. Corley seconded, that the further discussion of the subject should be postponed until the next meeting.

Friday, March 12th, 1880.

E. D. Mapother, M.D., President, in the Chair.

Injury of the Cervical Spine.—The President exhibited the vertebræ removed from the body of a boy who had fallen on the ice on St. Stephen's Day last. The *post mortem* examination showed great vascularity of the membranes with effusion corresponding to the sixth cervical vertebra, and partial articular diastasis of the bone. The anterior common ligament was stretched, but not ruptured. The boy fell at the ice-rink, two other persons falling on his neck. He was taken up unconscious, and remained so for half an hour. For the next fortnight, he seemed well, and only applied for hospital aid on February 19th, when he complained of intense pain in the neck and arms, the latter being paralysed. The head was thrown back and the shoulders raised. No displacement of the vertebræ could be made out at the time. Bed-sores formed rapidly, and he died on March 11th, eleven weeks after the accident.

A Chicken-Bone in the Larynx.—Mr. K. Franks exhibited a triangular piece of the breast-bone of a chicken, which had remained stuck in a man's throat for twenty-three days. It was sticking anteriorly into the thyroid cartilage of the left side, the other end being imbedded in the mucous membrane beneath the left cartilage of Santorini. The bone had entered while the man was sipping hot soup. He failed to dislodge it himself, and suffered considerably from spasmodic attacks. Things remained so for nearly three weeks, when, on the occurrence of a smart attack of hæmorrhage, he thought it advisable to seek medical aid, and applied to Mr. Franks at the Adelaide Hospital, who seized the bone with Mackenzie's forceps, but failed to remove it, owing to its impaction. Next day, laryngotomy was decided upon; but, when the anæsthetic was being administered, a spasm came on, he became sick, and a triangular piece of bone was ejected, measuring $1\frac{3}{8}$ inches × $1\frac{1}{8}$ inches × $1\frac{1}{16}$ inches, which was placed on the table.

Amputated Foot.—Mr. Wheeler exhibited the foot of a man, which he had amputated for compound dislocation of the ankle-joint, followed by caries of the astragalus and end of the fibula. He exhibited a cast showing the condition of the foot and leg.

Calculus.—Mr. L. Ormsby exhibited a calculus weighing fifty grains, which he considered to be lithic acid. It was removed by the lateral operation from a boy aged 4 years.

Diseased Knee-joint.—Mr. Richardson exhibited a knee-joint showing destructive disease, for which he had amputated the thigh.

Cases treated by Lister's Method, contrasted with the Mode of Treatment before Carbolic Acid came into Use.—Mr. Croly read a paper on this subject, in which he gave a *résumé* of his own practice, comparing his results obtained with and without the employment of antiseptic precautions. Looking back on his early practice, he said he remembered the great anxiety attending amputations or excisions, owing to the danger of erysipelas or pyæmia, which danger was now for a long time a thing of the past. Formerly, the pain attending the dressings was almost as severe as that of the operation; but, under the antiseptic spray and gauze treatment, there was almost no pain, and the great drain on the patient's strength from long-continued suppuration was avoided. For his part, he was thoroughly convinced of the advantages of Lister's method of treating wounds.

Adjourned Discussion on Mr. Stokes's Paper on Cases of Ovariotomy treated Antiseptically.—The discussion on Mr. Stokes's paper of the previous meeting was resumed by Mr. STOKER. While agreeing with Mr. Stokes on almost all points, he differed from him in the antiseptic he used. Carbolic acid he considered preferable to thymol. He deprecated the "modified antiseptic" treatment advocated by some of the members. In the Richmond Hospital, there had been within the last month several cases of erysipelas admitted; and, notwithstanding this, the disease had not occurred in any one of the numerous operations which had been performed during the time. That could hardly have occurred a few years ago. No surgeon would then have ventured to operate under such circumstanses.—Mr. LAMBERT ORMSBY declared himself to be one of those who preferred the "modified antiseptics". He did not consider the minute details enjoined by Lister to be necessary. Complete cleanliness in the dressing was, in his opinion, the chief point; the special antiseptic employed mattering little. He objected to Listerism also on the score of expense. It had been computed that, for an amputation, each dressing cost 1s. 2d. He thought that much of the credit usually accorded to Listerism was really due to the improvement in sanitation and nursing, and to the personal attention of the surgeon.—Mr. STORY spoke of the advantages which he considered antiseptics to yield in ophthalmic surgery. In St. Mark's Ophthalmic Hospital, he had employed the carbolic spray for many months in all operations. In dealing with the conjunctiva, it was of course necessary to employ very dilute solutions, as conjunctivitis was set up by the acid. He was in the habit of operating under the spray, having first washed the outside of the eyelids with two-and-a-half per cent. solution, the instrument being dipped in five per cent. solution.—Dr. McDONNELL regretted that the theoretical part of the question had so far been neglected, for on the determination of this the whole subject turned. What, in his opinion, Lister deserved the greatest credit for was for having imported into practical surgery the modern and received theory, which had long been adopted by chemists, regarding decomposition. Mr. Lister's endeavour was to "do all that human skill could do to prevent decomposition in the animal body". Lister's hypothesis was to surgery what the undulatory theory of light was to the physicist, or the Darwinian theory was to the zoologist; it was the working hypothesis.—Dr. W. THOMSON combated the idea put forward by some, that Listerism professed to be the sole system of antiseptics. What Listerism really professed to be was the system which yielded the most certain results. Professor Nägele had made an interesting discovery; viz., that bacteria could only live in fluids of a certain density. If the serum effused from a wound exceeded this density, those germs falling on it died. That might explain the immunity which some patients experienced from suppuration. In conclusion, after recounting the statistics on both sides of the question, he said that he did not think he would be justified in withholding from his patients the advantages which he believed antiseptic surgery offered in absolute security from immediate mischief and prolonged suppuration.—Dr. DARBY and Mr. MACNAMARA, jun., also took part in the discussion, which was adjourned till the next meeting.

FRIDAY, APRIL 2ND, 1880.

E. D. MAPOTHER, M.D., President, in the Chair.

Nasal Polypus.—Mr. CROLY exhibited a very large polypus which he had removed from the left nostril of a man aged 60. Six months before, the man first noticed that in wet weather his nose was stuffed; and, when he applied to Mr. Croly, the mass was protruding externally, but not backwards into the pharynx. As the pedicle was very broad and hæmorrhage was anticipated, the nostrils were plugged, the lips split, and a polypus removed, the circumference of which measured three inches. There was no fœtor, and the tumour was benign. Photographs and drawings of the appearance before operation were shown.

Lipoma Mixtum.—Mr. WHEELER exhibited a tumour which he had removed from the groin and external part of the thigh of a man aged 41. When first noticed, twenty-one years before, it was of the size of a pea. It grew gradually; and, three months before his admission to the City of Dublin Hospital, the skin broke over the tumour, which then became rapidly worse.

Excision of the Head of the Right Humerus.—Mr. THOMSON showed the diseased pieces of bone which he had removed from the humerus and scapula in a recent case of excision of the shoulder. The patient was doing well.

Adjourned Discussion on Mr. Stokes's Communication on Cases of Ovariotomy treated Antiseptically.—Dr. McCLINTOCK said that there were two points from which the subject might be regarded: 1, the scientific or theoretical; and 2, the clinical. The first was still a disputed question. The second was, therefore, for them the most important; for, even if the theory in this instance could be proved false, it would not be the first time that false theory had led to sound practice. The statistical evidence was unsatisfactory, as false deductions were often drawn, when very careful discrimination was not exercised to avoid confounding the *post hoc* with the *propter hoc*. It was a fact worth remembering, that the fœtus, dead *in utero*, did not develop gas or smell. There was some decomposition, but no putrefaction.—Mr. MACNAMARA said that Dr. Bastian's and M. Pasteur's experiments were diametrically opposite in their results, and therefore the theoretical question should depend on which of the two physiologists we considered the most worthy of credence. Deodorants were not the same as disinfectants. If germs were the cause of the disastrous result, whatever was used to ward off the disaster ought to be a germicide. Experiment seemed to show that, to destroy a germ, it was necessary to employ a heat of from 130° to 140° Fahr.; *i. e.*, sufficient to coagulate its albumen. Some said carbolic acid acted like a poison on the bacteria; but this was not proved by experiment. Carbolic acid was only one amongst many factors, the most important of which were the *vis vitæ*, the hygienic conditions, and cleanliness.—Mr. WHEELER said that the disciples of Lister asked one to believe that carbolic acid would destroy the harmful germs, while it spared the innocuous ones; for germs were found even under Mr. Lister's dressings. M. Pasteur had subjected germs to concentrated sulphuric acid, and yet they had survived. Was it likely, then, that dilute carbolic acid would destroy them? Lister's merit lay in having shown the importance of surgical cleanliness. Lister himself had a case of pyæmia, and yet it was stated by his followers that with Listerism one could "guarantee success". He called attention to the excellent statistics of Syme, Spence, and Callender, who used no antiseptics.—Mr. CORLEY said there were four links in the chain which ended in septicæmia: 1, germs; 2, an open wound; 3, a peculiar condition of the wound; 4, a peculiar condition of the patient. If any one of these links were absent, the effect was the same; the chain was broken. A great advantage gained by carbolic acid dressings was the immobility which they allowed. Even Mr. Spence used the carbolic gauze and other carbolised dressings in what he called the "simple method" of treating wounds.—Mr. BENNETT said subcutaneous tenotomy was the most perfect antiseptic operation that could be performed. Fractured ribs with emphysema never caused evil results, because the air had been filtered through the most perfect of all filters—the lungs. In empyema, as long as the external air did not get in, there was no fœtor; but, when once the air entered, the fœtor was awful. But, if the wound were treated antiseptically, there was no fœtor. It was not the air which was injurious, but something in the air, which the lungs in one case and the carbolic dressings in the other were able to remove.—Mr. CROLY considered thorough drainage the most important point in all Listerism. He considered it a slur on the grand old surgeons of former days to speak as some had done about surgical cleanliness.—Mr. STOKES, in reply, said he was sorry that the theoretical question had been alluded to at all, as time would not permit the full discussion of the double question, and as physiologists were still working at what was as yet unsettled. He did not think it necessary that the antiseptic used should be a germicide; all that was required was that the noxious action of the germs should be neutralised.—The Rev. Dr. HAUGHTON and the PRESIDENT also took part in the debate, and stated their disbelief in the efficacy of Listerism.

THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.—The twenty-eighth anniversary of this charity was celebrated at Willis's Rooms on Thursday evening, April 8th; Sir James Paget, Bart., F.R.S., in the chair. Amongst the company present were Lord Aberdare, Lord Gort, Lord Crewe, the Bishop of Rangoon, General Sir Richard Wilbraham, K.C.B., the President of the Royal College of Physicians, Dr. Andrew Clark, etc. The toast, "Prosperity to the Hospital for Sick Children", was proposed by the chairman in a most eloquent speech, which was warmly applauded. The secretary, Mr. S. Whitford, read a list of contributions, amounting to upwards of £1,900.

REVIEWS AND NOTICES.

ON THE INFLUENCE OF COLLOIDS UPON CRYSTALLINE FORM AND COHESION; WITH OBSERVATIONS ON THE STRUCTURE AND MODE OF FORMATION OF URINARY AND OTHER CALCULI. By WILLIAM MILLER ORD, M.D.Lond., F.R.C.P., Physician and Lecturer on Medicine at St. Thomas's Hospital, etc., pp. 179. London: E. Stanford. 1879.

IN the book of which the title is here given, Dr. ORD has very ably dealt with a subject of which little is as yet known—the influence which certain animal and vegetable products exercise on the form of crystalline action of various substances, especially those found in the urine. Dr. Ord's investigations, as he states in his introductory chapter, were to some extent foreshadowed by those of Mr. George Rainey of St. Thomas's Hospital, who, as far back as 1857, investigated the phenomena of what he termed "molecular coalescence", by which the shells of animals, bone, and other structures, were in his opinion formed. Subsequently, similar results have been obtained by Professor Harting of Utrecht and Professor F. Guthrie; and reference is also made to the researches of Ascherson (1841) on the forms observed in emulsions of oil and albumen.

Dr. Ord's researches have been carried on during the last twelve years. The collection of observations which he now puts forward he regards as aiding investigation, rather than as being of practical application to medicine or therapeutics. So far as they go, they are a highly valuable contribution towards the comprehension of the physical processes associated with life; and it would be premature to say that they will not ultimately assume a high practical value. Already they promise to be of much interest to medical practitioners who, finding, in their examination of urinary deposits, the same substance crystallised under most varied forms, are much embarrassed to explain the differences. Dr. Ord's investigations on the forms of uric acid in albuminous and in sugary urine are most interesting in this respect.

"In albuminous urine of specific gravity 1027 or upwards, yielding a free precipitate of nitrate of urea on the addition of an equal bulk of nitric acid, and subsequent cooling to 60° Fahr., I have constantly found forms......which may be arranged in three groups: 1. Small thick sharp-edged rhombohedra, almost cubical; 2. Rhombohedra having the obtuse angles rounded, and the axis forming the flat sides lengthened, whereby a long cylinder with flat sides is produced; 3. Rhombohedra having the margin of the flat sides swollen and rounded, the crystal between being thin and marked with diagonal lines. Secondly, with a lower specific gravity (1015 to 1021), forms......occur" in which "the cylinders are thicker and shorter. Lastly, in albuminous urine of still lower specific gravity (1009 to 1015), there are found, associated with very small rhombohedra, tub- or cork-shaped crystals (doliola). The rhombohedron is still to be detected under the disguise of the doliolum."

In urine containing sugar, the crystals of uric acid "tend to be tubular. Whereas with albumen the acute angles grow larger and the obtuse angles smaller till equality is obtained and the cube prevails, with sugar the obtuseness of obtuse angles and the acuteness of acute angles is increased; whereas with albumen the axis forming the flat sides of the rhombohedra is lengthened, with sugar that axis is shortened. Two forms of uric acid may be noted in connection with sugar in urine; one oblong or square in outline, with fine chiselled ends and thicker middle; the other much less common, with flat parallel surfaces and diamond-shaped or hexagonal outline."

An interesting series of researches on the formation of crystals of oxalate of lime was made by forming plugs of isinglass jelly in a number of glass tubes, filling the tubes with a slightly alkaline solution of potassium oxalate, and placing them with their plugged ends in a weak solution (about six grains to one ounce) of chloride of calcium. At the end of three months, sections of the gelatin plug were carefully examined, and were found to contain crystals of oxalate of lime. The forms on the side nearest the oxalate of potassium were very different from those on the side of the calcium salt, and a series of graduations led from one set of forms to the other. The principal forms observed, beginning from the calici end, were, 1, octohedra; 2, tablets; 3, ovoid rhombohedra; 4, calcareous (coalescing) dumb-bells; 5, wheatsheaves and crystalline dumb-bells—the homogeneous or "coalescence" forms predominating on the calcic side, and the crystalline forms on the oxalic side. In addition, Dr. Ord examined the action of electricity in the crystallisation of oxalate of lime, and the effect of substituting a plug of albumen for that of gelatin—his conclusion being that "albumen was evidently much more active than gelatin in controlling crystallising force".

Among Dr. Ord's experiments, there is one especially deserving of description. It is easily made, and shows, without the help of any instrument or reaction except those that are in the hands of all medical men, the influence of colloids on crystallisation.

"Nitrate of urea, as is well known, can often be obtained from urine without previous concentration. The crystals thrown down from urine of a specific gravity exceeding 1027, after the addition of an equal bulk of nitric acid, are shining flakes, often cohering in irregular masses, and distinctly darker than the urine. If urine of such specific gravity contain a moderate quantity of albumen, the addition of an equal bulk of nitric acid causes the solution of the first precipitate, and a perfectly clear liquid is obtained. The process of crystallisation is in this case very different. Instead of dark flakes, tiny globes of a light colour are suddenly seen suspended at several points in the liquid, and grow rapidly under the eye. They are composed of fine radiating acicular crystals, and look like little drops of fat. That albumen is the cause of this growth of spheres may be readily proved. Another portion of the fresh urine is freed from albumen by boiling, the addition of two drops of nitric acid, and filtration. The filtrate, treated as before with nitric acid, yields flaky crystals. The conditions of the experiment may be further simplified by making a solution of pure urea having a specific gravity of 1026, and by observing first the result of the addition of strong nitric acid in equal bulk, when white incoherent crystals of the nitrate are rapidly formed; and by subsequently adding a little egg-albumen to the urea solution before mixture with the acid. The spheres then formed (if cooling be not too rapidly effected) are of the greatest beauty, floating like snowballs in the yellowish liquid."

Besides that part of Dr. Ord's work which treats of the influence of colloids on the crystals found in urine, there are several pages on the formation and spontaneous disruption of urinary calculi (on which subject the author has published two clinical lectures in this JOURNAL); also on the crystalline forms of cholesterine in the presence of colloids; and a chapter giving very simple methods which can be used by anyone for recognising the composition of calculi.

The results of Dr. Ord's numerous experiments have led him to express opinions which he does not expect to be immediately accepted, but which, from their originality and from the new view which they present of certain of the most difficult phenomena of life, deserve attention. He is of opinion that, when we find in the tissues a considerable number of small round elements, it is an indication of a greater rapidity of growth than when we find a mass of larger elements; and that this division into a mass of smaller elements is due to molecular activity, which, in proportion as they increase in range relatively to the radius of any sphere, tends to throw the peripheral molecules beyond the range of the common attraction. Hence the necessity of the fissiparous division of nuclei and cells when their growth reaches a certain size. The fissure of the yelk is regarded by him as a striking illustration of this principle—the introduction of the spermatozoon and the starting of the process of development inducing (as must be supposed) new chemical relations, and tending to peristaltic contraction of the yelk.

The book is admirably got up as regards paper and printing, and is illustrated with eight plates (containing numerous figures) and twenty-five woodcuts, showing the various crystalline forms of the substances on which the experiments were made.

Our readers will find in it much that will instruct them; and the simplicity of the processes employed will probably lead many of them to follow the author in his interesting investigations.

THE DIAGNOSIS OF PERICARDIAL ADHESION.—After an analysis of the symptoms which have been given in earlier and in more recent times as diagnostic of pericardial adhesion, Dr. Riegel, in Volkmann's *Sammlung Klinischer Vorträge*, arrives at the conclusions (agreeing therein with the opinion expressed by N. Weiss in his work on the subject) that as yet we are far from possessing a constantly sure indication of the condition under consideration, and that it is only in rare cases that the diagnosis of pericardial adhesion can be readily made. This is especially the case when a high degree of systolic retraction of the apex of the heart, or even of a large portion of the neighbouring thoracic wall, is present. The presence of a systolic retraction points to little more than an impediment to the normal systolic movement of the heart; and other rare causes, which may lead to retraction, have to be excluded. If there be at the same time a diastolic collapse of the veins, or if the phenomena have been distinctly traced, under the eye of the observer, to pericarditis, the diagnosis is rendered more easy. The absence of the apex-beat becomes of diagnostic value, if there be evidence of previous pericarditis, and if, after this, the apex-beat, having been previously present, have gradually disappeared.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 17TH, 1880.

DEATHS FROM POLITICAL EXCITEMENT.

SEVERAL sudden deaths have been recorded during the past fortnight as having occurred in consequence of political excitement attending the elections. As many as four deaths from this cause are reported to have taken place in connection with the Birmingham election. One of the cases was that of a teacher of music, who was extremely excited over the election; and, after writing on some papers, "Vote for the Liberals", died. In the instance of a tradesman at Nottingham, whose death was said to be "the result of syncope", the son of the deceased referred his father's death to the great excitement he had manifested during the election and to his exertions in canvassing. In another instance, at Salford, at a meeting in support of the Liberal candidates, a Mr. Councillor Whittaker fainted after making a speech of twenty minutes' duration, and expired before he could be moved. This gentleman, it is stated, had for years been suffering from disease of the heart, and had been warned against the excitement of political meetings. Still another case occurred in connection with the election for Dewsbury and the Southern Division of the West Riding of Yorkshire. In this instance, it was a Mr. Matthew Ridway, a magistrate for Dewsbury, who was greatly excited by the interest he took in the return of the Liberal candidates, and dropped down dead suddenly. This gentleman, also, was known to be suffering from heart-disease.

It is curious to note that this kind of fatal excitement seems to have been limited to the Liberal camp; the Conservatives do not appear to furnish any instance of fatal excitement during the past elections.

There seems to be little reason to doubt that most of these cases were cases of cardiac disease or feebleness, in which any excitement attended with over-exertion was likely to be dangerous.

The peculiarly dangerous feature of electioneering excitement is, that it is commonly attended with undue exertion of the respiratory organs; long speeches and loud shouting and cheering being the usual method of giving expression to political sentiments. It is quite possible that, in some cases, death may have been due to apoplexy caused by excited cardiac action in persons in advanced age, or in others who were the subjects of extensive vascular degeneration, and in whom the walls of their brittle and degenerated cerebral arteries were unable to resist the strain to which they were subjected But it is most probable that, in the great majority of cases, the sufferers were the victims of valvular cardiac lesions, or of feeble dilated hearts, associated not unlikely with more or less pulmonary emphysema. In such cases, long speeches, or continuous shouting and cheering, producing a considerable strain on the respiratory functions, and the coexistence of nervous excitement removing the warning discomfort which, under certain conditions, would call the attention of the patient to the existence of respiratory embarassment, the balance between respiration and circulation, already maintained with some difficulty, is entirely lost, and the patient dies suddenly from cardiac syncope, the dilated right side of the heart and the pulmonary arteries being found over-distended with blood.

It is the duty of medical men to point out to their patients the existence of this danger, which applies with more or less force to all excitable persons who are advanced in years and the subject of the natural degenerations which age of necessity induces; more important, of course, is it to do so when the existence of any cardiac lesion is known or suspected. Persons who have been trained to public speaking know the necessity of attending to the respiratory functions, and a part of their training consists in learning to speak without throwing an unnecessary strain on the action of the lungs, by observing regular pauses for deep respiration, and in avoiding all hurried and excited articulation.

THE VALUE OF EXPERIMENTS ON ANIMALS IN THE PROGRESS OF MEDICINE.

II.

WE continue the enumeration of some of the instances in which results of value in the practice of medicine and surgery have been obtained by the performance of experiments on animals.

It has been demonstrated by chemical experiment that the composition of gelatin is very similar to that of albumen. This naturally led to the surmise that it might form a suitable substitute for the latter in the composition of food; and, as gelatin is obtained from bones, a new source of food seemed to be opened at once. The extent to which this idea gained ground in all classes of society is almost incredible. At the time of the French Revolution, a pamphlet was published by the French Government with a view to acquaint everybody with the wonderful properties of bone. "One pound of bone", it said, "gives as much soup as six pounds of meat, and the soup obtained from the former is of better quality than that prepared from meat." In 1841, Magendie and a commission of the French Academy of Medicine proved by experiments that dogs, which were fed on gelatin either with or without the addition of substances which stimulate the appetite, died after twenty days with all the symptoms of starvation. If bread were added to the gelatin, the animals were kept alive a little longer, but died afterwards.

Up to the middle of the present century, the functions of the pancreas were entirely unknown, although its secretions had been collected from dogs by De Graaf and others two centuries before. Valentin, in 1844, discovered its diastatic action in starch; Eberle found that it emulsifies fats; and Claude Bernard, by repeated experiments on animals, obtained the secretion, and found that it dissolves albumen and splits up fats. These observations have since been confirmed and extended by Corvisart and others. The information thus obtained has proved of much service in the practice of medicine, as it has led to the employment of the pancreatic secretion obtained from animals as an aid to treatment in certain cases of impaired digestion. The valuable observations of Dr. Roberts of Manchester, now being published in this JOURNAL, as well as other important researches of a kindred nature, are to a very great extent the practical, though indirect, application of results obtained from experiments on animals.

Much light has also been thrown on the function of the liver in recent years by experiments on animals. Claude Bernard established by experiment in 1857, that the function of the liver is not simply the secretion of bile, but also the elimination or elaboration of a material (glycogen) resembling starch, from which sugar is formed. This discovery threw an entirely new light on the origin of diabetes mellitus, and showed that, in opposition to what had been previously believed, the kidneys had nothing to do with the formation of the sugar which appeared in the urine. The researches of Bernard have been followed up by Hensen, Pavy, and other observers, with the result of adding much to our knowledge. Claude Bernard further discovered by experiment that, by puncturing the floor of the fourth ventricle, diabetes was artificially produced, and the same result has been found by others to follow lesions of some parts of the sympathetic system.

The dependence of the functions of the brain on a constant supply of arterial blood is well known; and this knowledge is of great importance in the recognition of certain symptoms and their treatment. Sir A. Cooper found that, on tying the carotid and vertebral arteries in dogs, the animals lost consciousness, and recovered it when the blood was again allowed to flow. In this way, the temporary loss of consciousness from retardation of the flow of blood in many circumstances is explained, and the treatment suggested. In a less degree, the diminution of the supply of blood to the encephalon produced sleep. Although this fact was surmised, it was not known with certainty until Mr. Arthur Durham trephined animals, and watched the state of the intracranial circulation in the waking state and during sleep. The conditions found were, great vascularity in the former of these states, and anæmia in the latter. This knowledge is utilised in prescribing for the sleeplessness depending on great irregularity of the heart's action, or on excessive throbbing of the vessels from fever or nervous excitement.

Experiments on animals have been most fruitful in increasing our knowledge of the functions of the different parts of the nervous system, and in improving the treatment of its diseases and injuries. Among these are, in the first place, the researches of Sir Charles Bell and of Magendie on the functions of the anterior and posterior roots of the spinal nerves; by which it has been shown conclusively that the former are motor and the latter sensory. The reflex function has also been largely made out by experiments on animals. Again, the functions of particular nerves have been ascertained by vivisection. It was formerly the practice to divide the portio dura in cases of tic douloureux, under the idea that it was a sensory nerve. By experiment, however, Sir Charles Bell ascertained that its function was motor; and that the sensory nerve of the face was a portion of the fifth nerve. The determination of the functions of the pneumogastric nerve, both in its relations to respiration and to digestion, and as the inhibitory nerve of the heart, has been the result of experiments on animals. Again, the system of vaso-motor nerves has been discovered by vivisection; and not only has their influence been thus ascertained, but also the part of the nervous centre on which they are dependent—the medulla oblongata.

Du Bois-Reymond, the well-known physiologist, pointed out that a special form of the painful neuralgic affection which is known as *migraine* (sick-headache) is accompanied by phenomena bearing a great resemblance to those produced by artificial stimulation of the sympathetic nerve, *i.e.*, constriction of the blood-vessels by the vasomotor nerves. It has been shown by vivisection that nitrite of amyl has the effect of diminishing the spasmodic contraction of the blood-vessels. Thus, by inhaling a certain dose of the nitrite of amyl, the patient obtains relief. In another form of migraine, the sympathetic nerve is not in a state of excitement giving rise to spasmodic contraction of the blood-vessels, but in a paralysed condition; the symptoms being exactly similar to those obtained by dividing the nerve for the purpose of experiment. Professor Berger of Berlin has cured a patient who had been suffering for ten years from this painful affection by galvanising the sympathetic nerve.

By means of experiments on animals, the treatment of angina pectoris has been rendered much more successful than it had hitherto been. Dr. Lauder Brunton, in examining a person suffering from this disease, found that, during the paroxysms, the blood-vessels became very tightly filled; and it occurred to him that the reason of the intense agony of angina might be from this excessive tension of the blood-vessels. One method of relieving the tension was to remove a quantity of blood, which, however, might be injurious. Another was, to find some means by which the blood-vessels themselves might have their tension diminished; and among the substances which he tried on animals was nitrite of amyl. He found that it would relieve the tension of the blood-vessels, and, by so doing, would put an end to or mitigate the paroxysms of agony which occur in angina.

Further illustrations of the value of experiments on animals are afforded by such cases as the following.

A girl is subject to daily paroxysms of convulsions. At first, it is impossible to detect their cause. On more careful examination, it is observed that the pupils of both eyes are abnormally dilated. It has been shown by vivisection that (*a*) the cervical portion of the sympathetic nerve is the dilator nerve of the pupil; (*b*) that stimulation of this nerve causes, besides dilatation of the pupils, constriction of the blood-vessels of the head, both of the brain and of the scalp; (*c*) that want of blood in the brain is apt to produce convulsions. By putting all these observations together, it appears more than probable that the convulsions of the patient are due to an affection of the cervical sympathetic. It has further been proved by vivisection that the above-mentioned phenomena are produced by certain fibres of the sympathetic nerve which pass through the spinal cord in the neck, and diverge from it in the lower cervical and upper thoracic region. This experience leads to an examination of the spinal column of the patient, when it is discovered that the vertebræ of the said portion are painful to pressure. Six leeches are applied to the affected spot. On the next day, the pupils are narrower, and the convulsions have ceased.

A man has had one side of his body paralysed. He begins to recover, and would improve much more rapidly if he could sleep at night. But his rest is interrupted by a continuous flow of saliva, which is caused by the abnormal activity of the glands on one side. It has been ascertained by experiments on dogs that the secretion of saliva is influenced by certain nerves. Other experiments have shown that atropin, the toxic substance of belladonna, paralyses the action of the salivary nerves. Accordingly, a dose of atropin is injected under the skin of the patient in the neighbourhood of the salivary glands. Two minutes later, his mouth becomes dry; after seven minutes, the flow of saliva has ceased entirely; and the patient enjoys a good night's rest. It has been shown by experiments that atropin paralyses not only the nerves which influence the secretion of the saliva, but also those which excite the secretions of milk and sweat, and the inhibitory cardiac fibres of the vagus nerve.

As Mr. Sampson Gamgee has well stated in an article in the BRITISH MEDICAL JOURNAL for July 22nd, 1876, surgery is deeply indebted for the progress which it has made to observations made on animals. "In the whole subject", says Mr. Gamgee, "of the arrest of hæmorrhage by pressure, ligature, and torsion, in the selection of the best materials for sutures, in the treatment of wounds of the intestines, in the discovery and demonstration of the pathology of pyæmia and allied states of blood-poisoning, in the repair of tissues, experiments on animals have preceded, and been the foundation of, progress in scientific surgery." Among the examples to which Mr. Gamgee refers are the observations of Scarpa and Porta on the ligature of arteries; of Shipton on the healing of wounds of the intestine; and of Chassaignac on the *écraseur*.

As an instance of the application of experiments on animals in increasing our knowledge of the process of repair of wounds and injuries, may be mentioned the investigation made by Mr. Spencer Wells as to the best way of closing the abdominal wound in ovariotomy, and particularly as to whether it would be advisable to sew the peritoneum into the wound. In order to be quite clear on this point, he performed a series of experiments on animals.

In the year 1843, while studying the mechanism of digestion, Blondlot attempted to elucidate some points which were not clear to him by inducing gastric fistulæ in dogs, so as to be able to collect the fluids secreted in the interior of the stomach, or to introduce food into the stomach, and study the changes which it underwent. This operation was almost without exception easily borne, and it was proved that the animals could be kept alive by feeding them through the opening. It was, indeed, previously known to some extent, through the observations of Dr. Beaumont on the case of St. Martin, that gastric fistula was compatible with human life. But the results of Blondlot's experiments led to the idea that in many cases of narrowing of the œsophagus, in which the patients were apparently doomed to die of starvation in consequence of the inability to take food, life might be prolonged, and health and strength restored. This idea was first put into practical form by Sédillot in 1849; and the operation of *gastrostomy*, as he termed it, has since been performed by many surgeons with the result of saving much human life.

It has been found in the course of experiments on animals, with regard to the excretion of urine, that, if both kidneys be cut out, the animal dies in a few days of poisoning by urea, which can no longer be excreted from the body. If, however, only one kidney be removed, the animal lives, the remaining kidney discharging the function of both. This experiment has been repeated in surgery with much success. In 1869, Professor Simon of Heidelberg extirpated a kidney in a woman in whom the ureter had been accidentally divided during ovariotomy. Before undertaking this operation, however, he made several experiments on animals, and established the fact that the removal of one kidney was compatible with life. Excision of the kidney, or nephrectomy, has since been performed successfully in several cases, and promises to become one of the recognised operations of surgery.

The function of the periosteum in the formation of bone was first pointed out experimentally by Duhamel in 1740. Further demonstration of the fact was given by Hunter in 1772. Michael Troja, an Italian surgeon, who lived in the end of the last and the early part of the present century, investigated the influence of the periosteum in reproducing bone after portions of the latter had been removed or had died. Professor Syme of Edinburgh (1837) followed up these researches; and, in 1858, M. Ollier of Lyons demonstrated, by a series of experiments on animals, that the periosteum has the property of producing bone, even when it is transplanted from one animal or human being to another. Heine of Würzburg excised entire bones of dogs—*e.g.*, the ribs, femur, humerus, etc.—but leaving the periosteum and the capsules of the joints; and found that, under these conditions, the bones and joints were so completely restored, that the animals were able to use their limbs as if nothing had happened. The knowledge thus obtained has been applied with excellent results, in numerous cases in which the removal of bone on account of disease has been necessary.

The treatment of heart-disease by the better knowledge of the action of digitalis has been the means of prolonging the lives of numbers of persons every year. This drug was only used by a few, and in a very imperfect and erroneous manner, until its action on the living heart was watched by Fothergill and others; and, by using other drugs so as to produce abnormal states as in disease, its precise uses were made out. It is now known exactly under what circumstances it should be given, and under what conditions it should be withheld; and the results are as striking as any known in the practice of medicine.

The properties of chloral, which forms such an useful substitute for opium in many cases where the latter drug cannot be given, would probably not have been discovered but for experiments on animals. By hypodermic injection of a solution of chloral, it was found by Oscar Liebreich that rabbits were thrown into a profound sleep, lasting from six to ten hours, according to the quantity used. On waking, the animal appeared quite well, and commenced eating as usual. The probable dose for human subjects was thus arrived at, and this useful medicine was introduced into hospital practice without exposing the patients to the risk which would have existed had it been necessary to test its effect on them in the first place.

It is known that different forms of galvanism have different effects in various forms of paralysis, owing very often to the nerve being destroyed in one case and not in the other—also according to the integrity of the tissue of the muscle. By exposing the different structures in an animal, the relative effects of galvanism on muscle and nerve can be seen; as well as the effects on muscle when the nerve has been for some time divided. These experiments have enabled physicians to understand the different reactions in the human subject, and have thus materially assisted not only in diagnosis but in treatment.

Among the most important results of research on animals in late years has been the light which it has thrown on the nature of fever. Up to a recent period, every specific disease, especially the exanthemata, was regarded as an entity composed of all the symptoms which accompany it. For example, small-pox or typhoid fever being accompanied by febrile symptoms, such as high temperature, it has been assumed that these symptoms are a necessary part of the morbid process which is going on in the body; consequently they were not treated, but rather fostered. A patient was kept in a hot room, in a warm bed, made to drink hot fluids, etc. Now, experiments on animals enable us to study the febrile state apart from the disease which caused it; and we find most of the symptoms in the exanthemates are due to the fever; so that, indeed, an excess of fever causes death. These experiments being put to practical use, it was found that a patient excessively ill with scarlatina or typhoid fever might have all these urgent symptoms removed by placing him in a cold bath; yet the disease might run its course as before. This showed that the severe and often fatal symptoms were due, not to the specific disease, but to the fever which accompanied it; and, therefore, that these should be removed rather than encouraged according to the older methods. No experiments on animals have been more fruitful with good results than those instituted to discover the nature of fever or pyrexia; and a happy conclusion to the reign of Mr. Simon at the Privy Council Office was the report of Dr. Burdon Sanderson on this subject.

LUNACY IN MIDDLESEX.

We recently had occasion to state that nearly every private lunatic asylum receiving pauper patients in the metropolis was reported to be full, and that it was therefore intended to send a number of lunatics of the latter class to Fisherton House, Salisbury, in order to make room in the home asylums for more urgent cases. It was noted, at the same time, that there were a number of vacancies (about fifty, nearly all for males) at the new Middlesex County Asylum at Banstead. The chief reason why the guardians of the various metropolitan unions and parishes do not avail themselves of this accommodation for patients, seems to be that the asylum in question is only suited for the reception of cases of the chronic and quiet class. It appears from the recently issued annual report of that asylum that, during the year 1879, no fewer than fifty-two patients were discharged thence to other asylums, the great majority of these being deemed unfit cases for treatment at Banstead; adding to these sixty-four patients who were discharged recovered during the year, we have a total of one hundred and sixteen cases which Dr. T. Claye Shaw, the medical superintendent, states should never have been sent to him. The new asylum for adult imbeciles at Darenth will also shortly be opened by the Metropolitan Asylums Board, and a number of the chronic insane (chiefly females) are, we believe, to be drafted thither from the county asylums at Colney Hatch and Hanwell.

From these facts, it would appear that there is at present no pressure on the accommodation already provided by the county of Middlesex and the metropolis for imbeciles, and for the large class of chronic, comparatively quiet lunatics. The difficulty seems to be to find room for recent cases, and for such chronic ones as exhibit tendencies to violence or suicide. The Committee of Visitors of the Hanwell Asylum state, in their last annual report, that, during the past year, the reply of "no room at present" had, in about six hundred instances, to be returned in answer to applications for vacancies, chiefly for female patients. It is also stated that the removal of all the chronic and harmless patients to the asylums at Banstead, Leavesden, and Caterham, has led to the accumulation at Hanwell of a far worse class of cases than were formerly treated there; the proportion of inmates who are "suicidal" or "dangerous to others" has greatly increased during recent years, and the Committee feel that the structural arrangements of the asylum are such as to render it undesirable that so large a number of these cases should be retained there.

It is true that the vacancies which will shortly be created at Hanwell and Colney Hatch by the removal of patients to Darenth will supply accommodation for acute cases for a time; but this will only increase the difficulties already felt at these asylums, owing to the accumulation of cases requiring an extra amount of special supervision. It is therefore anticipated that, before very long, it will become necessary for the county to provide further accommodation for pauper lunatics, notwithstanding the fact that the Banstead Asylum has been open little more than three years. It has been suggested that the erection at Colney Hatch and Hanwell of one or two small additional wards, specially suited to the accommodation of refractory patients, would meet the requirements of the case; this might be so for a time, and might also prove a convenience at the asylums in question, but it is very doubtful whether these already immense institutions should be further enlarged. We venture to hope that, when the question arises, the magistrates will take into consideration the desirability of providing for the county a hospital for the insane, at which, as far as practicable, all recent cases should be treated. Although an immense deal has been done of late years at Colney Hatch and Hanwell in the way of improvement, it must be admitted that these asylums are not structurally all that could be desired for the treatment of acute cases. The very large number of inmates which they accommodate (considerably over two thousand in each case) must also render it extremely difficult for the medical officers to give that individual care and attention to the patients which are so necessary in the treatment of curable cases.

In making this suggestion, we do not lose sight of the fact that a certain proportion of quiet working patients is necessary to the proper conduct of every pauper asylum, even though it be specially intended for the reception of acute and violent cases; the presence of quiet companions among the latter tends to allay mental excitement, and the work done by them is indispensable to the carrying on of the institution at anything like a reasonable rate of maintenance. One difficulty in Middlesex appears to be that, by the filling of the county asylum at Banstead, and of the metropolitan asylums at Caterham, Leavesden, and Darenth, with the chronic quiet patients, the asylums for acute cases are at present, and will be even further when the Darenth Asylum is open, deprived of their due proportion of chronic and quiet lunatics.

We regret to learn that Dr. W. B. Carpenter, the representative of the University of London in Firth College, Sheffield, has felt himself compelled to resign his position in consequence of ill-health.

The fatal cases of whooping-cough in London, which had been 115 and 142 in the two previous weeks, and averaged 150 during the thirteen weeks of last quarter, declined last week to 85, which were 3 below the corrected average weekly number in the corresponding week of the last ten years.

Typhus and typhoid fevers last week caused 101 deaths in St. Petersburgh. In Paris, 52 deaths were referred to small-pox.

The sixth International Ophthalmological Congress will be held in Milan on the first four days of September next.

A correspondent of the *Augsburg Gazette* writes, under date March 17th, that, during the last two days of the preceding week, four cremations were carried out in the Milan Cemetery.

Dr. Francesco Marzolo, Professor of Clinical Surgery in the University of Padua, and Rector of the University, died on March 19th.

A Commission for the revision of the German *Pharmacopœia* will meet in the course of next autumn; and it is expected that the new edition will be ready in 1881.

An universal exhibition of prehistoric German anthropology will take place at Berlin in August, on the occasion of the meeting of the German Society of Anthropology, Ethnology, and Preventive History. All the German States have been invited to join in this exhibition, which will comprise objects chosen from every museum in Germany. Professor Virchow is at the head of the Committee appointed to organise the necessary details.

The French Association for the Advancement of Science has received a donation of 20,000 *francs* (£800) from M. B. Burnet, the interest of which is to be applied in the promotion of scientific research.

At the annual meeting of the Paris Physical Society on April 2nd, a new use was made of M. Trouvé's electrical polyscope. M. Trouvé placed it in the stomach of a fish swimming in an aquarium, and, without its seeming to suffer any inconvenience, it radiated a light equal to one common candle.

At a recent meeting of the Paris Academy of Sciences, a paper was read by M. Brown-Séquard on some experiments showing that the anæsthesia due to certain lesions of the cerebro-spinal centre may be replaced by hyperæsthesia under the influence of another lesion of that centre. He comes to the conclusion, amongst others, that the theory that the conductors of sensitive impressions of the limbs intercross in the spinal cord must be rejected; and that one lateral half of the base of the brain may suffice for the transmission of sensory impressions from both sides of the body.

A paper was read at the meeting of the Paris Academy of Sciences on the 29th ultimo, by M. François Franck, on the reflex effects of ligature of one pneumogastric nerve on the heart after section of the opposite pneumogastric. In this a retardation or arrest of the heart occurs, almost as notable as if the cut nerve had been intact: this effect is shown to be reflex. M. Franck studied the phenomenon in relation to time, with what he calls a *névrotome à signal électrique.*

The Walker prize of one thousand dollars has been awarded by the Committee of the Boston Society of Natural History to Professor Joseph Leidy of the University of Pennsylvania, for his researches in natural history. The prize has been given only once before, to Alexander Agassiz, for his study of echinoderms.

A bust of Dr. Marion Sims was on March 12th presented to the Alumni Association of the Jefferson Medical College, Philadelphia, by the surgical staff of the College Hospital. It has since been presented by the alumni to the board of trustees of the College Hospital, and will be placed in the hall of the hospital.

THE BRIGHTON VOLUNTEER REVIEW.

At the Brighton Volunteer Review on Easter Monday, the principal field-hospital was established at the Warren Farm Industrial School, about a mile from the scene of action. Here the ordinary infirmary, two neat clean-painted rooms, served the purpose well. Surgeons Seymour Burrows (1st Sussex Artillery), J. Dixon, and W. Furner (1st Sussex Rifles), were in charge of eighteen beds. Happily both beds and appliances proved equal to requirements. About fourteen cases were treated: one of "ebriositas", one of sprained ankle, five of blistered feet, three of fainting, one of hæmoptysis (slight, in a youth aged 19, who had had it before), one of heart-disease (dilatation with emphysema), one of ague (he had been abroad, and he recovered quickly with quinine); and one—the most serious—of a brigade-major who, having worked and fasted from 4 A.M., fell from his horse in a giddy fainting condition, dislocated his right shoulder, and was badly bruised. The dislocation was promptly reduced at the field hospital. The ambulance worked well throughout. A second smaller field hospital, with about six beds, was presided over at the race-stand by Surgeon F. Egan (2nd Middlesex R.V.). Here two cases were admitted, one of sprained ankle, and one of bayonet-wound in the knee, not serious. No gun-accident occurred. The different regiments were accompanied by their own surgeons, who rendered all necessary aid on emergencies.

PUBLIC MEDICINE-CHESTS.

The French Minister of the Interior has lately issued an order for the provision, in communes where there is no *pharmacien*, of chests containing medicines and other materials necessary for use in urgent cases of illness or accident. A special committee has drawn up a list of the objects to be provided. The circular issued by M. Lepère states that each chest is to be divided into two compartments: one is to be reserved especially for the medical men, and the other is to be open to the public. The price of each chest is fixed at 200 *francs* (£8). Beyond this, the use of the medicines will be gratuitous. In concluding his circular to the prefects, M. Lepère desires them to communicate his instructions to the mayors and the municipal councils, and to desire them to take care that the chests are placed in the hands of none but trustworthy persons.

DEATH FROM SEA-SICKNESS.

DR. HARDWICKE held an inquest on the 12th instant into the cause of the death of an Irishwoman, aged 26, named Mary Shannon. It appeared that the deceased travelled from Dublin to London; and, upon her arrival, she complained of sea-sickness. She grew much worse, went to bed, and some hours afterwards was found dead. Mr. Times gave evidence to the effect that death resulted from rupture of a blood-vessel on the brain caused by excessive vomiting. The jury returned a verdict in accordance.

THE UNIVERSITY OF LONDON.

IT is stated, we are not able to say upon what authority, that Mr. Lowe will be raised to the House of Lords. If this occur, it will create a vacancy in the representation of the University. The University, which has now existed for upwards of forty years, has not yet been represented in Parliament by one of its own graduates. There are, however, graduates of the London University in prominent positions on the bench, at the bar, and in science. It is, indeed, quite unnecessary that the graduates should go out of their way to seek abroad what they have in abundance at home. In no university, for instance, is science more illustriously represented than in this; and it is to be hoped that, if a vacancy should occur, the graduates of both parties will unite to return to Parliament an independent scientific member of their own body.

THE AMERICAN MEDICAL ASSOCIATION.

THE thirty-first annual meeting of the American Medical Association, which in its objects and constitution resembles the British Medical Association, will be held in New York city on June 1st and following days. Professor Lewis A. Sayre will be the President, and Drs. W. M. Polk, M. A. Pallen, R. F. Weir, and E. H. Parker constitute the invitation and reception committee. No doubt the gathering will be a brilliant one; the well-known *bonhomie* and humour of the President will ensure good fellowship and geniality as well as valuable scientific work.

THE LATE DR. HEATON.

THE following minute of the Council of the Leeds School of Medicine has been sent to us for publication.

> "The Council desires to record its deep sense of the great loss it has sustained in the death of Dr. J. D. Heaton, whose valuable services were devoted to the Leeds School of Medicine with untiring zeal for a period of thirty-six years. Dr. Heaton lectured successively upon botany, materia medica, and practice of medicine, and three times occupied the presidential chair. For the last fifteen years, he fulfilled the onerous duties of treasurer to the school, in which capacity his mature judgment and watchful supervision conduced very materially to the success of the school. The Council further beg to tender to Mrs. Heaton and her family their deepest sympathy with them in their recent bereavement."

THE GERMAN SURGICAL CONGRESS.

THE ninth annual Congress of German Surgeons has been held this month in Berlin, under the presidency of Professor von Langenbeck. The first meeting took place on April 7th. The first article on the programme was a report to be made by Dr. E. Küster on tumours of the mammary gland, which was deferred from last year. Dr. Küster, however, reported that he had received only eleven replies from the medical practitioners to whom inquiries had been addressed; and that one of these came too late, and the remaining ten varied much in the manner in which they were drawn up, some of the contributors giving no numerical statistics. Dr. König of Göttingen contributed an article on the results of resection of joints in articular tuberculosis under antiseptic treatment. One hundred and seventeen resections—eighty-nine in the lower limb and twenty-eight in the upper limb—had been performed, with the result of seventy-four recoveries, eighteen failures (requiring subsequent amputation), and twenty-five deaths. Of the deaths, two were ascribed to carbolic acid poisoning, two to tetanus, three to septicæmia, and the remainder to general tuberculosis. Professor Esmarch of Kiel followed with a paper on bloodless operations. Herr Vogt of Greifswald read an article on the treatment of new growths by imbibition with Wickerheimer's fluid. This fluid, which contains a large proportion of arsenic, was injected by means of Pravaz's syringe. Dr. Peterson of Kiel read a paper on the high operation for stone in the bladder. Papers were also read by Dr. Kraske of Halle on a case of apparently mycotic disease of the maxillæ; and by Herr Ullrichs of Würzburg on the conditions of electricity of the arteries during vertical elevation.

THE PROPOSED NEW CHAIR OF PATHOLOGY IN PARIS.

OUR Paris correspondent writes: The Faculty of Medicine of Paris, like all the educational institutions, is under the control of the Minister of Public Instruction. Nevertheless, whenever a change is necessary or desirable, the Minister generally consults the governing bodies or heads of departments before coming to a decision. This, however, he has lately failed to do, and has officially announced his intention to create an additional Chair of Morbid Anatomy, without any reference to the Dean or the Council of the Faculty of Medicine. The professors, justly indignant with this slight, formed themselves into a committee to protest. Professor Germain Sée was appointed President of the committee, and his report was unanimously adopted by the twenty-eight members present, on the ground of inutility, the Chair already in existence being considered sufficient for all practical purposes. It was said that the new Chair was intended for a friend of the Minister, who is a well known histologist and a member of the French Parliament, and who induced the Minister to make a demand on the budget for the new Chair.

THE CUMBERLAND AND WESTMORLAND LUNATIC ASYLUM.

THE Cumberland and Westmorland Lunatic Asylum, which is under the superintendence of Dr. J. A. Campbell, was the scene of a fire in a portion of the roof of the female buildings on August 7th last. The conflagration, which originated in the flue of a hot-water boiler, was promptly extinguished, and special precautions have since been taken against the recurrence of an accident which might be easily converted into a terrible catastrophe. Dr. Campbell reports that the health of the establishment has been good, with the exception of an epidemic of influenza which occurred at the breaking up of the severe frost in March 1879, and affected upwards of fifty persons.

NEW REMEDIES.

AT the meeting of the Pharmaceutical Society on the 7th instant, Mr. Holmes called attention to some Chian turpentine, which has been recently recommended by Mr. Clay of Birmingham as a remedy for cancer, in which disease it was given in conjunction with sulphur. Several samples had been brought to Mr. Holmes during the past few days for identification, and two of these he had found to be Venice turpentine. The Venice turpentine was more honey-like in appearance than the Chian, notwithstanding that this characteristic had been mentioned as distinctive of Chian turpentine. Mr. Holmes also drew attention to the drug called "tonga", which has been recommended for neuralgia. Mr. Holmes had examined it, and had come to the conclusion that the active ingredient was the stem of a plant of the Arum family, belonging to the genus *Raphidophora*, and probably *R. pertusa*, var. *vitiensis*.

A NEW ANÆSTHETIC.

AT a recent meeting of the Edinburgh Odonto-Chirurgical Society, Mr. W. Bowman Macleve brought under the notice of the members a new combination anæsthetic, which he had been using for some time past with very successful results. It consisted in combining ethylen-dichloride with nitrous oxide gas. The manner of administration consisted in placing a small piece of sponge charged with ethylen-dichloride, retained in position by a clip, within the way-tube or supplementary bag of the nitrous oxide inhaler, leaving sufficient space on each side of the sponge for the free passage of the nitrous oxide into and out of the bag. Only about half a drachm of ethylen-dichloride was required. The time of inhalation to produce anæsthesia measured from sixty to ninety seconds, and the time of complete anæsthesia was from one minute and a half to two minutes and a half, which embraced a period of time sufficient to enable most of the operations required in the dental surgery to be comfortably performed. In all the cases in which he had used this anæsthetic, upwards of sixteen in number, there had been a complete absence of sickness, and only one case in which there might be said to have been the slightest approach to stertorous breathing. The pulse was slightly more accelerated than normal, but was full and strong, and there was no lividity, the lips alone, on the removal of the face-piece, presenting in any case, and that only occasionally, the faintest appearance of lividity. It had also this decided benefit over the single administration, that it produced a relaxation of the muscles, contrary to the almost spasmodic rigidity induced by nitrous oxide.

BROMIDE OF ETHYL AS AN ANÆSTHETIC.

SINCE the publication of the remarks on this subject in last week's JOURNAL, our attention has been called to a communication by Dr. Levis to the *Philadelphia Medical Times* of February 14th, in which he says that, in a former paper, he mentioned the claim of Dr. Turnbull to priority in the production of anæsthesia in man by the bromide of ethyl; but that, while he has no doubt that Dr. Turnbull was unconscious that he had been truly preceded in such administration, the merit really belongs to the late Mr. Nunneley of Leeds. At the meeting of the British Medical Association in 1865, Mr. Nunneley showed some bromide of ethyl and chloride of olefiant gas, stating that he of late used one or other of these in every serious operation which he had performed, either in private practice or at the Leeds General Infirmary. He stated that, at the time when he made experiments with them in 1849, the difficulty and cost of their manufacture were too great to allow them to be commonly used; but that this difficulty had been overcome. A summary of Mr. Nunneley's remarks was published in the BRITISH MEDICAL JOURNAL for August 19th, 1865. As regards the question whether bromide of ethyl be destined to come into general and permanent use as an anæsthetic, much will of course depend on still more extended observation than has hitherto been made. Mr. Clover, whose great experience makes him an authority in all matters relating to anæsthetics, publishes in this day's JOURNAL a note in which he expresses a preference for ethidene dichloride.

ABORTION.

A VERDICT of wilful murder has been returned by a coroner's jury against a herbalist at Yeovil named Colmer, and his wife. It appeared from the evidence given before Dr. Wybrants, the coroner for Somerset, at Crewkerne, that the deceased, a Mrs. Budge, visited Colmer; and, while in the house, it is alleged, an illegal operation was performed on her by Mrs. Colmer and her husband with the object of procuring abortion. The deceased returned home in the evening very ill, and died on the following day. A *post mortem* examination by Mr. Gatehouse of Bath, Mr. Wills of Crewkerne, and Dr. Galabin of Guy's Hospital showed that abortion had been procured before death, and that the body had been lacerated by the improper use of instruments.

METROPOLITAN WATER-SUPPLY.

DR. FRANKLAND reports, as the result of his analyses of the waters supplied to the metropolis during March, that, taking the average amount of organic impurity in a given volume of the Kent Company's water during the nine years ending December 1876 to represent unity, the proportional amount of such impurity in an equal volume of water supplied by each of the other Companies, and by the Tottenham Local Board, was: Kent 1.5, Colne Valley 1.5, Tottenham 1.6, New River 3.4, West Middlesex 4.2, Chelsea 4.4, Grand Junction 4.5, East London 4.8, Lambeth 5.3, and Southwark 6.4. The water delivered by the five Companies drawing their supply from the Thames was of superior quality to that delivered in February; but the Southwark Company's water was "still unfit for dietetic purposes", and showed excessive pollution with organic matter. The Lea water sent out by the New River Company was very superior to any of the Thames waters, but that distributed by the East London Company was inferior to three of the five Thames waters. The deep-well waters supplied by the Kent and Colne Valley Companies, and by the Tottenham Local Board, were of their usual excellent quality. The Colne Valley Company's water had alone been softened before delivery.—Dr. Hill, Medical Officer of Health for Birmingham, reports that the water supplied to that town was clear, and showed a decrease of organic impurity.—The Loch Katrine water supplied to Glasgow was reported by Dr. Mills to be light brown in colour; it contained little suspended matter, and was much softer than the softened water supplied by the Colne Valley Company.

MARTYRS TO DUTY.

ON the recommendation of the Municipal Council of Paris, there has been placed in the Children's Hospital in the rue de Sèvres a black marble tablet, in which are engraved, in gilded letters, six names, with the following inscription: "Morts victimes de leur dévouement en soignant les enfants assistés de la ville de Paris: 1879." The names on the list are: M. Gipondon, provisional *interne* in medicine, who was carried off by diphtheria on July 5th, 1875; M. Edouard Poirier, student in pharmacy, aged 25, who died of the same disease on January 30th, 1876; Madame Poirier; M. Ernest Prével and M. J. A. Tourné, aged respectively 26 and 28 years, who died in October 1879; and M. G. Reverdy, *externe* in medicine, who died at the age of 21 on February 2nd, 1880.

MURDER OF A FRENCH DOCTOR.

La France Médicale says that a horrible crime has lately been committed in the village of Saint Laurent. Dr. Eyffren, a medical man practising there, and his wife, were assassinated on the night of the 3rd instant, or early in the morning of the 4th. It is supposed that, after having retired to bed on the first floor, they heard the door of the house forced open, and went down stairs to find what was the matter; and that they were then attacked by the murderer. The body of Dr. Eyffren was found to have received fifteen wounds with a knife; that of his wife had three, one being through the heart. Dr. Eyffren was forty-five years of age, and his wife thirty-three. No motive for the murder is known. They were not rich; and, though their furniture was thrown about, the only article missed was a gold watch.

STATISTICS OF CANCER OF THE BREAST.

DR. J. OLDEKOPP has published, in the twenty-fourth volume of the *Archiv für Klinische Chirurgie*, a statistical summary of all the cases of mammary cancer occurring in Professor Esmarch's hospital and private practice from 1850 to 1878. With regard to age, most of the cases occurred between the forty-eighth and fiftieth years; in 123 patients, the age did not exceed 48; in 71, it was between 48 and 58; and, in 35, the age was 59 and upwards. In 21 cases, there are no particulars as regards age. Women who had borne more than six children furnished the greatest contingent, and next came those who had no children. There were 9 in this category, against 103 who had given birth to children. In 61 cases in which the information could be obtained, 15 had not, and 46 had, suckled their children. In 36 cases, mastitis had preceded; but in only 9 was it ascertained with certainty that the cancer had its starting-point in an induration or cicatrix remaining after the mastitis. In three cases, there had been contusion with extravasation; the extravasation, after some years, forming the centre of the new growth. In two cases, the seat of the primary nodule was a part of the breast which had been for some years pressed on by the string of a corset; in a third, it was a part that was often pressed on by a yoke. In 126 cases, the right breast was diseased, in 102 the left. The outer and upper part of the mamma was most frequently first affected; and this is ascribed by Dr. Oldekop to the greater liability of this part to injury. In three cases, the cancer was preceded by chronic eczema of the breast. Circumstances indicating the influence of hereditary tendency were noticed in eleven cases. The average duration of life from the commencement of the disease was, in the cases not operated on, 22.6 months; in those operated on, 38.1 months. On 225 patients, 287 operations were performed. Of these 225, there died in the hospital 28; viz., 5 from return of the cancer, and 23 from the operation; among these were 14 cases of total extirpation of the mamma with removal of the axillary glands. With regard to the influence of treatment on the mortality and on the time required for healing, Dr. Oldekop's statistics show no marked difference between the antiseptic and the non-antiseptic methods; he remarks, however, that erysipelas has been less frequent in Dr. Esmarch's practice since the introduction of the antiseptic method. The time after the operation at which the disease returned is noted in 112 cases. In 14 cases, it immediately followed the operation; in 15, it took place within the first month; in 23, within three months; in 15, within more than three and less than six months; in 13, from the seventh to the ninth month; in 14, from the tenth to the twelfth month; in 9, from the thirteenth to the eighteenth month; and in 8, within three years. In one doubtful case, the interval is said to have exceeded three years. At the time of the report, 44 of the women had remained free from a return of the disease; of these, six had died of intercurrent diseases; three within three years since the operation, and three after three years. In 15, the time during which they had remained free from relapse was under three years; and, assuming three years as the extreme time for a return of the disease, 26 could be regarded as definitely cured; in 10 of these, the infiltrated axillary glands had been removed with the mammary cancer. In some cases, a second operation was necessary. Although the number of cases in which a complete cure followed the operation is not large, Dr. Oldekop regards it as sufficiently encouraging to induce surgeons to operate early, and thus increase the chance of a good result.

THE TRANSMISSION OF TUBERCULOSIS.

A CONTRIBUTION to the study of the transmission of tuberculosis was read at the meeting of the Paris Academy of Sciences on March 29th, by M. Toussaint. From experiments on pigs, he infers that where tuberculosis occurs in those animals it is analogous to galloping consumption in man. The bovine species, on the other hand, which have tuberculosis much more often, have most often the chronic variety. Hence young pigs from tubercular parents soon die, and in adults which become tubercular the quick progress of the affection prevents reproduction. The facts also prove that tuberculosis is transmitted with the greatest facility (1) by ingestion of tubercular matters, (2) by heredity or lactation, (3) by inoculation with tubercular matter or blood, (4) by simple cohabitation.

SCOTLAND.

SCOTTISH UNIVERSITIES' PARLIAMENTARY ELECTION.

THE polling for the Universities of Edinburgh and St. Andrew's commenced on Monday, and is completed on Friday at 4 P.M.; that for Glasgow and Aberdeen commenced on Tuesday, and lasts till Saturday afternoon at 4. The voting is mostly by papers sent out by the Committees of the respective candidates, although in each University a few votes are tendered personally. It is, as far as possible, arranged by the two sides that the voting shall go on equally until one side is polled out. Of course, after that, all that goes to the other side constitutes the majority of its candidate. The result of the voting for the Edinburgh and St. Andrew's Universities at 4 P.M. on Thursday was, for Dr. Lyon Playfair, 2,481; for Mr. Bickersteth, 2,418. For Aberdeen and Glasgow, each of the two candidates, Messrs. Asher and Campbell, had, on Thursday afternoon, 1,448 votes.

UNIVERSITY OF EDINBURGH.

AT a meeting of the University Court held on Monday, Dr. James Dunsmure, F.R.C.S.E., was appointed additional examiner in Clinical Surgery, in place of Dr. Thomas Keith, retired. At the same meeting, arrangements were sanctioned under which Professor Alleyne Nicholson of St. Andrew's will act for Professor Sir Wyvill Thomson as examiner, and, so far as may be found necessary, as Professor of Natural History during the summer session. Mr. W. C. Williamson, of Owens College, Manchester, was recognised as a teacher whose course of lectures will qualify for graduation in the University of Edinburgh.

HEALTH OF GLASGOW.

IN his report on the health of Glasgow for the fortnight ending April 3rd, Dr. Russell, the medical officer of health, makes the following remarks. "It would appear, therefore, that the main features of the past fortnight's returns are two—an increase in the fatality of diseases of the lungs, and of the infectious diseases of children. Whooping-cough continues very fatal; and measles, which are very prevalent, begin to contribute substantially to the deaths. The last serious epidemic we had of measles was in 1874. Since then, a fresh crop of susceptible children has sprung up. From the rapidity with which measles covers a large area, it may kill a large number of children in a short space of time, and yet leave on the minds of isolated observers an impression of extreme innocence and innocuousness. In Glasgow, however, it caused, in 1871, about 900 deaths. The average age of all fatal cases of measles is only two years and three-quarters. It is not, therefore, children of school age who are likely to be killed by it, but the younger members of the family at home. Yet it is introduced into the families by the school-going children most frequently, and the greatest care ought to be taken to prevent children either going prematurely back after illness, or attending when this disease exists at home. The infectiousness begins before the eruption, and seems to be strongest then."

ARBROATH EPIDEMIC HOSPITAL.

AT a meeting of the Arbroath Police Commission acting as the local authority under the Public Health Act, held on Monday, it was reported that a suitable site for the much wanted Epidemic Hospital had been obtained on land adjoining the Infirmary belonging to the Rosebro Trustees.

GLASGOW DISPENSARY FOR SKIN-DISEASES.

THE annual meeting of the supporters of the above institution was held on the 9th instant, under the chairmanship of Dr. Andrew Buchanan. The directors' report, which was read and approved, showed that the dispensary continued to increase in usefulness, and that the new premises which had been acquired had proved of great service. From the physicians' report, it appears that there has been increase on the number of cases admitted, the number being 1,281 against 1,125 in the preceding year, while the total number of patients treated since the opening of the institution has been 21,859. From the financial statement submitted, it seems that the yearly income exceeded the expenditure, but there is still a considerable debt upon the premises.

REGISTRAR-GENERAL'S RETURNS.

FROM the Registrar-General's returns, it appears that the death-rate in the eight principal towns during the week ending April 3rd was 26.5 per thousand of estimated population. This rate is 2.3 above that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 15.1 per thousand—and the highest in Paisley—viz., 42.5 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 5.3 per thousand, being an increase of 0.9 on that for the previous week. Of these diseases, whooping-cough and measles appear to be the most prevalent—the former in Glasgow and Edinburgh, and the latter in Edinburgh, Dundee, and Leith. One death was recorded in Aberdeen from small-pox. Acute diseases of the chest caused 148 deaths, being 17 less than the number recorded during the previous week. The mean temperature was 44.8, being 5.4 higher than that of the week immediately preceding.

THE BORDER COUNTIES ASYLUM.

THE District Lunatic Asylum for the Counties of Roxburgh, Berwick, and Selkirk, which is beautifully situated at the foot of the Eilden Hills, near Melrose, is evidently in a very sound and satisfactory condition. The report of its Board of Managers, signed by Lord Polwarth, and the entries of the Commissioners in Lunacy, clearly indicate that the two hundred and thirty patients who are its inmates are treated skilfully and with kind consideration. Dr. Grierson, the Medical Superintendent, reports favourably as to the health of the community, which was, however, visited by a slight epidemic of erysipelas in the spring of 1879, and expresses his conviction, the result of long experience, that, while narcotics are not to be despised, active exercise in the open air is the best soporific in the class of patients with which he has to deal.

IRELAND.

At a monthly meeting of the Belfast Dispensary Committee held last week, the medical officers stated that the health of the town was good, the few cases of small-pox reported last month having been removed to the Union Hospital. The disease has not spread, and it is nearly stamped out in the district where it had first broken out. It was also reported that a larger number than usual had been vaccinated during the past quarter, in consequence of the new regulation reducing the time allowed for vaccination from six to three months.

BELFAST ROYAL HOSPITAL.

A special meeting of the Committee of Management of this institution was held last Monday for the purpose of electing a Senior House-Surgeon in the room of Dr. J. Clarke, who had resigned. Dr. Johnston proposed that Dr. James Camac Smyth, who had performed the duties of Junior House-Surgeon in a satisfactory manner, should be elected; more especially as it was intended to abolish the office of Junior House-Surgeon, and to have only one resident surgeon in future. Dr. Murney recommended Dr. Robert Moore as a candidate for the vacancy; and, on a poll being taken, twenty-four votes were recorded for Dr. Smyth, and twenty-two for Dr. Moore, the former accordingly being elected.

STEEVENS' HOSPITAL.

In consequence of the collapse of the medical school attached to the hospital, the circumstances connected with which we have already detailed in the Journal, further secessions from the surgical staff of this fine old institution have taken place. Mr. H. R. Swanzy, Professor of Ophthalmic and Aural Surgery in the Royal College of Surgeons in Ireland, has resigned the post of Ophthalmic Surgeon to the Hospital, and Lecturer on Ophthalmic Surgery in its School, and returns to the Adelaide Hospital to refill his former position there as its Ophthalmic Surgeon, which Mr. Rainsford's recent lamented death left vacant. Dr. Warren, late Lecturer in Anatomy in the Steevens' Hospital School and Curator of the Museum, has been appointed a Demonstrator of Anatomy in the School of the Royal College of Surgeons.

THE LATE DR. ROBINSON OF SKIBBEREEN.

At a meeting of the Dublin Mansion House Relief Committee, held on the 13th instant, an application was received from the Dean of Rosse soliciting a contribution in aid of the widow and seven children of the late Dr. Robinson. Deceased had contracted fever while attending fever patients in Hare Island, where an outbreak had taken place, and by his premature death his family had been left totally unprovided for. Mr. Layne Joynt, a member of the Committee, proposed that a sum of £100 should be allocated for the required purpose, as he knew of no better application of the funds than to apply them to the relief of the widow and orphans of a man who had been sacrificed in his endeavours to relieve the sufferings of others. A discussion took place; and, as it was found that allowing the grant would be irregular, and that the funds were inapplicable to such cases, it was finally determined to make an effort to collect some provision for Dr. Robinson's family, and appoint a committee to receive subscriptions and carry out the necessary details.

THE REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

The annual report for 1878 of the Medical Officer of the Local Government Board has only just been published, the delay in its appearance being doubtless due to the long-continued illness and subsequent death of Dr. Seaton. Dr. Buchanan, who writes the report as Assistant Medical Officer, under date of the 24th December last, comments at greater length on the work of the department than has of late been customary in these reports. After an allusion to the circumstances under which the volume comes to be edited by him, Dr. Buchanan draws attention to the continued successful working of the Vaccination Acts, with improvement that is satisfactory to note in the returns for the metropolis. Between 1875 and 1876, the percentage of children born in London and not finally accounted as to vaccination underwent an important reduction. In the earlier year this percentage was 9.3, in the latter year 6.5; the latter figure still indicating, however, an inferior degree of completeness in the metropolis as compared with other parts of the kingdom. The significance of the apparent shortcomings of the metropolitan returns is now being investigated in the department. During the year the public vaccination was inspected in 276 unions, comprising 1,396 districts. It is satisfactory to find that obedience by the vaccinators to the instructions, together with the proportion of first-class vaccination, is progressively increasing. At the present time, public vaccination is found to be of first-rate excellence in 74 per cent. of the districts visited, whilst grants are made to 51 per cent. of the public vaccinators whose work is examined. These awards were earned by twice as many vaccinators in 1878 as in 1872. During the year, 9,590 applicants were supplied with vaccine lymph by the department. From those who used the lymph, representations as to want of success with it were received from less than 4 per cent. Complaint of some untoward result attending the use of the lymph was made by six out of the 9,590 recipients. Each of these complaints was, according to custom, made the subject of special inquiry, with the result of exonerating the lymph from hurtful qualities. No hint of a case of syphilitic disease connected with vaccination was heard of from any one of the persons to whom the lymph was supplied.

It is matter for regret that the details have not been published of the experiments made for the department by Dr. Klein, under the supervision of Drs. Seaton and Burdon Sanderson and Mr. Ceely, in inoculating bovine animals with the material of small-pox. We learn, however, that at the end of the year Dr. Klein had obtained no affirmative result, though his operations had extended to the inoculation of 16 heifers and 15 milch cows, and though the lymph used had been taken from cases of small-pox at different stages of the disease. In view of the great interest which has recently been excited on this particular question, we are glad to find that it is intended, if opportunity should serve, to continue the experiments further. As to animal vaccination, Dr. Buchanan makes certain important observations, apparently based upon the results of an inquiry which Dr. Seaton himself undertook, in the autumn of 1878, into the results obtained on the continent with the use of calf-lymph. On these observations we shall take another opportunity of commenting.

Much time and labour are stated to have been given in the department to a critical reading of reports of local officers of health. Dr. Buchanan states that, as compared with those of previous years, the reports of 1878 seem to show that the officers and the authorities whom they serve are alike becoming more appreciative of their sanitary functions, and various collateral circumstances confirm this opinion. Inquiry by the board's own inspectors into exceptional prevalences of disease was made during the year in 14 instances, and extended to the districts of 30 sanitary authorities. The facts of the two most interesting of these inquiries—the "violet-powder" outbreak of skin-disease at Loughton, and the outbreak of milk-diphtheria in North London—have already been given in these columns.

The inquiry as to effluvium nuisances arising in connection with various industries, upon which Dr. Ballard has been more or less engaged since November, 1875, has now been brought to an end; and the third and concluding portion of his valuable report constitutes the greater portion of the blue-book. In former portions, industrial processes that are concerned with animals, animal substances, and with vegetable substances, have been considered; and in the present portion an account is given of various offensive processes wherein mineral substances are principally concerned, and of others wherein materials of mixed origin (animal, vegetable, and mineral) are dealt with. To this report, which in its now complete form constitutes one of the most important monographs upon the subject of public health that has ever been published, we may have occasion to refer in greater detail on a future occasion.

In the remaining sections of Dr. Buchanan's report, the events of the year as regards foreign epidemics are briefly sketched. The facts given, however, are now historical only, and need not be reproduced. The auxiliary scientific investigations, for which the board receives an annual grant from Parliament, were carried on during the year—Dr. Klein continuing his research into the anatomy of the lymphatic system of the skin and mucous membranes, and Dr. Thudichum his investigations into the chemistry of the brain. The reports on these inquiries are not now published, but are promised in the report for 1879, which, we may hope, it will be found possible to issue somewhat sooner after the period to which it relates than the one now before us.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-EIGHTH ANNUAL MEETING.

THE Forty-Eighth Annual Meeting of the British Medical Association will be held at Cambridge, on Tuesday, Wednesday, Thursday, and Friday, August 10th, 11th, 12th, and 13th, 1880.

President: DENIS C. O'CONNOR, A.B., M.D., Professor of Medicine in Queen's College, Cork.

President-elect: G. M. HUMPHRY, M.D., F.R.C.S., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

An Address in Medicine will be delivered by J. B. BRADBURY, M.D., F.R.C.P., Physician to Addenbrooke's Hospital; Linacre Lecturer in Physic.

An Address in Surgery will be delivered by TIMOTHY HOLMES, M.A., F.R.C.S., Surgeon to St. George's Hospital.

An Address in Physiology will be delivered by MICHAEL FOSTER, M.D., Hon. M.A., F.R.S., Prælector in Physiology in Trinity College, Cambridge.

The business of the Association will be transacted in Eight Sections.

SECTION A.: MEDICINE.—*President:* George Edward Paget, M.D., D.C.L., F.R.S., Cambridge. *Vice-Presidents:* George Johnson, M.D., F.R.S., London; P. W. Latham, M.A., M.D., Cambridge. *Secretaries:* W. B. Cheadle, M.A., M.D., 2, Hyde Park Place, London, W.; D. B. Lees, M.A., M.D., 2, Thurloe Houses, Thurloe Square, London, S.W.

SECTION B.: SURGERY.—*President:* William S. Savory, M.B., F.R.S., London. *Vice-Presidents:* William Cadge, F.R.C.S., Norwich; John Wood F.R.C.S., F.R.S., London. *Secretaries:* John Chiene, F.R.C.S.Ed., F.R.S.Edin., 21, Ainslie Place, Edinburgh; George E. Wherry, M.B., M.C., F.R.C.S., 63, Trumpington Street, Cambridge.

SECTION C.: OBSTETRIC MEDICINE.—*President:* W. S. Playfair, M.D., London. *Vice-Presidents:* H. Macnaughton Jones, M.D., Cork; Henry Gervis, M.D., London. *Secretaries:* R. N. Ingle, M.D., 21, Regent Street, Cambridge; C. E. Underhill, M.D., 8, Coates Crescent, Edinburgh.

SECTION D.: PUBLIC MEDICINE.—*President:* Henry W. Acland, M.D., LL.D., F.R.S., Oxford. *Vice-Presidents:* Arthur Ransome, M.A., M.D., Manchester; Thomas Pridgin Teale, M.A., F.R.C.S., Leeds. *Secretaries:* William Armistead, M.B., St. Mary's Villa, Station Road, Cambridge; Thomas Walker, M.D., 19, Westgate, Peterborough.

SECTION E.: PSYCHOLOGY.—*President:* J. Crichton Browne, M.D., LL.D., F.R.S., London. *Vice-Presidents:* G. F. Blandford, M.D., London; P. M. Deas, M.B., Macclesfield. *Secretaries:* G. M. Bacon, Hon. M.A., M.D., Lunatic Asylum, Fulbourn, Cambridge; Henry Sutherland, M.A., M.D., 6, Richmond Terrace, Whitehall, S.W.

SECTION F.: PHYSIOLOGY.—*President:* William Rutherford, M.D., F.R.S., Edinburgh. *Vice-Presidents:* Arthur Gamgee, M.D., F.R.S., Manchester; Robert McDonnell, M.D., F.R.S., Dublin. *Secretaries:* W. H. Gaskell, M.A., M.D., Grantchester, Cambridge; William Stirling, D.Sc., M.B., Marischal College, Aberdeen.

SECTION G.: PATHOLOGY.—*President:* Sir James Paget, Bart., D.C.L., LL.D., F.R.S. *Vice-Presidents:* Samuel Wilks, M.D., F.R.S.; W. Howship Dickinson, M.D. *Secretaries:* W. S. Greenfield, M.D., 15, Palace Road, Albert Embankment; Charles Creighton, M.A., M.D., Anatomical Museum, Cambridge.

SECTION H.: OPHTHALMOLOGY.—*President:* William Bowman, F.R.C.S., F.R.S., London. *Vice-Presidents:* Henry Power, F.R.C.S., London; Henry R. Swanzy, M.B., Dublin. *Secretaries:* W. A. Brailey, M.A., M.D., 38, King's Road, Brownswood Park, London, N.; David Little, M.D., 21, St. John Street, Manchester.

A Subsection of Otology will be formed, of which Mr. W. B. Dalby, F.R.C.S., of London, will be Chairman, and Dr. James Patterson Cassells of Newton Terrace, Sauchiehall Street, Glasgow, honorary secretary.

Honorary Local Secretaries: Bushell Anningson, M.A., M.D. (Hon. Medical Secretary), Walt-ham-sal, Barton Road, Cambridge; A. P. Humphry, Esq., M.A. (Hon. Reception Secretary), Corpus Buildings, Cambridge.

Letters relating to the strictly medical work (Sections, Museums, etc.) of the meeting should be addressed to Dr. Anningson; other letters to Mr. A. P. Humphry.

TUESDAY, AUGUST 10TH, 1880.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1879-80.
8 P.M.—General Meeting. President's Address; Annual Report of Council; and other business.

WEDNESDAY, AUGUST 11TH.

9.30 A.M.—Meeting of Council of 1880-81.
11 A.M.—Second General Meeting. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.

THURSDAY, AUGUST 12TH.

9.30 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, AUGUST 13TH.

10 A.M.—Address in Physiology.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting.

ACCOMMODATION IN CAMBRIDGE.

MEMBERS of the Association who propose to bring ladies to Cambridge on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, A. P. Humphry, Esq., 56, Corpus Buildings, Cambridge. The prices at which lodgings will be obtainable vary from three shillings to one guinea per day (inclusive of attendance) for a bed-room and sitting-room.

Hotels.—The following are the principal hotels in Cambridge.

"Bull" (Trumpington Street).—Bed, 3s. 6d.; sitting-room, 6s. to 10s. Attendance, 1s. 6d.; breakfast, from 2s.

"Lion" (Petty Cury).—Bed, 3s. 6d.; sitting-room, 5s. to 7s. 6d. Attendance, 1s. 6d.; breakfast, from 2s. 6d.

"Hoop" (Bridge Street).—Bed, 5s.; sitting-room, 7s. 6d. Attendance, 1s. 6d.; breakfast, from 1s. 6d.

"University Arms" (Regent Street).—Bed, 2s. 6d.; double bed, 3s. 6d.; sitting-room, 5s. Attendance, first day, 1s. 6d.; following days, 1s. Breakfast, with meat, 2s. 6d.; plain, 1s. 6d.

Applications for hotel-accommodation should be addressed direct to the landlords.

NORTH-WALES BRANCH.

THE next intermediate meeting will be held at Dolgelley on Tuesday, the 20th instant. Members desirous of reading papers are requested to notify the titles to the Honorary Secretary.

J. LLOYD-ROBERTS, *Honorary Secretary.*

YORKSHIRE BRANCH.

THE next ordinary meeting of this Branch will be held at Wakefield on April 28th. Gentlemen desirous of reading papers, etc., are requested to send titles, before the 12th instant, to

ARTHUR JACKSON, *Secretary pro tem.*

Sheffield, April 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE next ordinary meeting of this Branch will be held at Aberdare on Thursday, April 22nd. Gentlemen desirous of reading papers, etc., are requested to send titles without delay to one of the honorary secretaries.

ALFRED SHEEN, M.D.
J. HANCOCKE WATHEN, } *Honorary Secretaries.*

March 16th, 1880.

NORTH WALES BRANCH.

THE next intermediate meeting will be held at the Royal Ship Hotel, Dolgelley, on Friday, the 23rd instant, at 12 o'clock.

A discussion upon the "Zymotic Influence in Disease" will be opened by Mr. Edward Jones of Dolgelley.

It is requested that the titles of papers to be read may be communicated to the undersigned.

The Members will dine together at 3.30 o'clock.

Subscriptions may be paid to the Honorary Treasurer on or before the day of the meeting.

J. LLOYD ROBERTS, *Honorary Secretary*.

NORTH OF ENGLAND AND BORDER COUNTIES BRANCHES: CONJOINT MEETING.

A CONJOINT meeting of the above Branches will be held at Gilsland, on Thursday, April 29th, at 3 P.M. The Chair will be occupied by Dr. PHILIPSON, President of the North of England Branch, who will give a short address.

Gentlemen desirous of reading papers are requested to communicate with their Branch Secretaries at their earliest convenience.

J. SMITH, M.D., Dumfries.
J. K. BURT, M.B., Kendal.
T. W. BARRON, M.B., Durham.

STAFFORDSHIRE BRANCH: ORDINARY MEETING.

THE second ordinary meeting of this session was held at the board-room of the Infirmary, Stafford, on Thursday, February 26th, 1880: present, Dr. J. H. TYLECOTE, President, in the Chair, and nineteen members.

New Members.—The following members of the Association were elected members of the Branch: J. S. W. Baird, Esq., Congleton; W. R. Davies, Esq., Sandbach; Seymour Hugo Munro, Esq., Nantwich; Dr. H. Moss, Congleton; James Atkinson, Esq., Crewe; W. Matthews, Esq., Nantwich; A. R. Haughey, Esq., Crewe; J. E. Gunning, Esq., Silverdale.

Medical Education.—At the request of the Committee of Council, as conveyed in a communication received from the General Secretary, the meeting proceeded to consider the five resolutions passed at a general meeting of the Metropolitan Counties Branch, and agreed to the following.

1. That, on the supposition that the several subjects named in resolution No. 1 are additional to those required for the present preliminary examination, many members are of opinion that biology should be excluded.
2. The following was adopted as a substitution for resolution No. 2. "The term of professional education shall occupy at least *five* years. The first year must be devoted to a preliminary medical training, to be attained by attendance on the practice of a hospital, general dispensary, or union workhouse, or as the pupil of a legally qualified medical practitioner who dispenses his own medicine."
3. Resolution No. 3 was assented to.
4. It was suggested that biology should be added to the subjects mentioned in resolution No. 4.
5. Resolution No. 5 was assented to.
6. A resolution was adopted: "That the examination in materia medica and therapeutics be deferred to the final professional examination, and that attendance on lectures in that subject be compulsory in the third year of study at a medical college."

Communication.—Mr. ORTON (for Mr. SPANTON) read Notes on the Treatment of Fixed Jaws.

MAIDSTONE.—Like most old towns, Maidstone has many arrears in sanitary work to make up. Last year, a system of drainage was indeed brought into operation; but it appears not yet to have fulfilled its purpose, in consequence of the want of a constant supply of water for flushing purposes. What is the actual water-supply of the town, Mr. Adams does not state; but he gives particulars as to the unwholesomeness of the back streets of the town, the dilapidated character of some of the houses, the almost universal neglect of proper trapping of house-drains, the survival of old privy pits and cesspools, even in the densest part of the town, and the utter want of any system for the removal of house-refuse, which merit the particular and early attention of the Town Council. The deaths from zymotic diseases in 1879 were satisfactorily few, but the infant mortality was higher than it should be, and the deaths from diseases of the respiratory organs were unduly numerous. The general death-rate was equal to 19.52 per 1,000.

CORRESPONDENCE.

MISS LONSDALE ON THE PRESENT CRISIS AT GUY'S HOSPITAL.

SIR,—The article by Miss Lonsdale on the above subject in the current number of the *Nineteenth Century* is a remarkable production, and as a work of imagination must take higher rank than the somewhat vapid story of "Sister Dora" which won her notoriety.

Stripped of all verbiage, Miss Lonsdale, in this article, after describing the "old style" of nurse as an ignorant and immoral drunkard, goes on to accuse the honorary staff of Guy's and other hospitals of preferring this class of woman to the highly trained lady-nurse, for three reasons: firstly, because they are able to indulge in obscene language before the patients without let or hindrance; secondly, because the aforedescribed "old style" of nurse is no restraint upon the students coming in and examining patients at any hour; and thirdly, because the staff can prosecute experiments upon the bodies of their patients of such a nature that they dare not perform in the presence of a trained lady-nurse. All this is, of course, very ridiculous, and in itself not worthy of confutation; but it serves to bring up the subject of what is the best system of nursing—a question which is really of importance, and which cannot yet be said to be decided. The two points to which I here desire to refer are, whether the nurses should be under a government, so to speak, of their own, apart from medical supervision; and whether lady-nurses are preferable to the "old style" of nurse, who is taken from a lower social grade.

First, in regard to lady-nurses: theoretically, it does not matter in the least whether a nurse is a lady or not, any more than it matters whether an artist is a gentleman; the only thing that really matters in either case, is the sort of work they turn out. Does she know her work, and will she do it? That is the question, and not whether *honest* and *honour* are alike to her in the matter of aspiration. To claim greater tact, or kindness of heart, or gentleness of manner, for the lady than for her of humbler birth, is, to say the least of it, an evidence of arrogant ignorance of human nature.

As mere matter of fact, ladies, as a rule, do not make first-rate nurses; and the reason is obvious. With rare exceptions, they are essentially *amateurish*; or, if very much in earnest, are apt to be dominated by some principle or power, not necessarily an ally to be trusted in the management of the sick. Ladies take to nursing, as a rule, from some slightly morbid motive; they are "disappointed", or they want something with which to kill *ennui*, or they have religious convictions on the subject; none of which sentiments, we may venture to say, are likely to result in producing good *staying* workers.

To any one who is not blinded by prejudice, it would be evident that all that medical men want is the best *material*, and then the best *training* for their nurses; and certainly my experience is in favour of the nurse who is drawn from a social grade, perfectly respectable, but below that of a lady; for I find her less fanciful, more likely to faithfully carry out instructions, and less likely to break down from overstrain; and, if the two were allowed a fair field and no favour, I would back the old style (not Miss Lonsdale's caricature) of nurse against the new.

In regard to the second point—that of placing the nurses under a separate *régime* of their own—we have such a warning in the unhappy incident at the Pendlebury Hospital, which ended in the suspension of the senior physician (and I may add in the dismissal of the sister shortly afterwards), that we in Manchester are not likely to repeat the error of establishing this *imperium in imperio;* but in London, whose very vastness gives every newfangled scheme a chance of being adopted, a word of warning is no misplaced. This word of advice is, to study the history of the Pendlebury disaster, and be wise in time.

Avoiding all lesser details, the main thing in any system of nursing should be to provide a sufficient staff of thoroughly trained nurses to carry out the orders of the doctor, to whom they should look, and to whom alone they should look, for orders and for guidance. There is no reason why there should not be a sister-superintendent, or matron, or head nurse—call her what you will—who should be able to advise in any detail of nursing, and report to the medical man any dereliction of duty she may detect in any nurse under his special charge; but beyond this neither her orders nor jurisdiction should go.

Miss Lonsdale seems to think that the sisterhood possess some heaven-born intelligence or direct inspiration about nursing, apart from men-doctors' limited knowledge; who, indeed, are to be looked upon as mere prescribing or operating machines, with little comprehension of the really essential points in the management of sick persons. It is a credulous world. The *Nineteenth Century* prints the article; I dare say the world believes it.—Your obedient servant,

S. Messenger Bradley,
Surgeon to the Manchester Royal Infirmary, etc.

April 12th, 1880.

OBITUARY.

WILLIAM SHARPEY, M.D., LL.D., F.R.S.

We regret to announce the death of Dr. Sharpey, which took place at his residence, 50, Torrington Square, on Sunday last, April 11th. He had spent the winter at St. Leonard's, and had returned, a fortnight before his death, apparently improved in health. Subsequently, he had an attack of bronchitis, from which he became convalescent. On Sunday morning, after rising, he complained of weakness, and gradually sank, dying in the evening.

William Sharpey was born at Arbroath, in Forfarshire, on April 1st, 1802, being the son of an English gentleman, a native of Folkestone, who had settled there. He was, we are informed, a posthumous child. He commenced the study of medicine under Dr. Arrott of Arbroath, who had married his mother, and in 1818 was sent to the University of Edinburgh. In the autumn of 1822, he came to London and spent three months in dissecting in the then celebrated school of Joshua Brooks; after which he proceeded to Paris, and occupied the winter in the study of medicine and surgery in the hospitals. In 1823, he took the degree of M.D. in Edinburgh, and subsequently was for a short time engaged in the practice of his profession in his native town, Arbroath. Soon afterwards, he appears to have changed the plan of his life; and, for the purpose of educating himself for the scientific career which he had resolved to adopt, he proceeded to the Continent. After spending several months, which were devoted to general culture, at Rome, Naples, and Florence, he resumed the study of anatomy at Pavia, under Panizza. The following years were spent partly in Edinburgh, partly in Paris, Vienna, Heidelberg, and Berlin. At Berlin, he became the pupil and friend of Rudolphi, and by laborious anatomical studies laid the foundation of his future success and eminence. In 1830, he was made a Fellow of the Royal College of Surgeons of Edinburgh. In 1831, he became an Extra-academical Lecturer on Anatomy in Edinburgh, having his friend Dr. Allen Thomson as his associate. In 1836, on the resignation by Dr. Jones Quain of the Professorship of Anatomy and Physiology in University College, he was invited by the Council of that institution to fill the vacant chair. Some years after his appointment, the Professorship of Physiology in the University of Edinburgh was offered to him; he was, however, induced by the Council of University College to remain in London. He continued to perform his professorial duties until 1874, when he retired, and was appointed Emeritus Professor.

Dr. Sharpey was for many years a Fellow of the Royal Society, and was appointed Secretary of the Society in 1854, shortly after important changes had taken place in its administration, in the bringing about of which he, with others whose names are not less distinguished, had taken part. The beneficial effect of these changes in extending the Society's influence for the advancement of natural science was due in great measure to the sagacity and energy with which he administered such of its affairs as fell within the scope of his duties—duties for which he was singularly fitted by the extent and variety of his learning, by the wisdom of his counsels, by the wide range of his scientific interests, by the candour and justice which guided him in appreciating other men's work, and by his sympathy with every true and honest worker.

Dr. Sharpey was one of the first Examiners in Anatomy and Physiology in the University of London. He held the office many years, and was subsequently a member of the Senate of that body. He was also an examiner in the abovementioned subjects in the Royal Veterinary College. In 1861, he was appointed one of the Crown members of the General Medical Council, and held office until 1876; discharging, during a considerable part of that time, the duties of Treasurer. He was also a Trustee of the Hunterian Museum of the Royal College of Surgeons.

Dr. Sharpey was for many years a member of the British Medical Association. At the annual meeting in London in 1862, he delivered an admirably instructive address on the progress of Physiology; and he was a member of the Scientific Grants Committee which was established a few years ago.

In 1869, a number of Dr. Sharpey's pupils decided on recording their high esteem of him as a teacher and friend, by establishing in University College a "Sharpey Physiological Scholarship", in conjunction with the "Sharpey Physiological Laboratory". This scheme was, with his consent, carried out; and his approval of it was marked by his presentation to the laboratory of his valuable anatomical and physiological library, containing the works both of British and of foreign writers.

The scientific writings of Dr. Sharpey are not numerous; but they are characterised by careful observation and sound judgment. He contributed several articles to the *Cyclopædia of Anatomy and Physiology;* two especially, those on Cilia and Ciliary Motion, and on the Echinodermata, being the result of extensive and complete observation. He was not the author of any separate work, but on several occasions acted as one of the editors of Quain's *Elements of Anatomy*. His principal share in this was, we believe, the histological portion, which he rendered a very complete summary of the then existing knowledge of the minute structures of the human body. His last literary contribution was an article in *Brain*, a few months ago, on an interesting case of loss of memory which had come under his notice in 1824, in which the individual, a lady, had to be entirely retaught.

Dr. Sharpey was eminent as a teacher; in fact, perhaps more in this than in any capacity. For years, he was the greatest teacher of anatomy and physiology in this country, occupying a position here equal to that held by Johannes Müller in Germany. His style of lecturing was clear, and marked throughout by a candid and at the same time careful appreciation of the labours of other observers in his department. No new fact or statement was put before his pupils without having been first subjected by him to careful examination; and both his example and his comments must have had a healthy effect on the mental disposition of his hearers. As regards his scientific teaching, just as the influence of Johannes Müller's life and teaching is still powerful in that of his pupils, so we may confidently anticipate that Sharpey's work will follow him. Of the fellow-workers in his own field who are at this moment mourning his loss, there is perhaps not one who does not directly or indirectly owe him that which has made him what he is; nor should we be far wrong if we were to add that those who are best endowed owe him most.

We will conclude this sketch by quoting the final words of a notice of Dr. Sharpey in *Nature* of this week, to which we have already been indebted for a portion of what has preceded.

"The qualities which chiefly distinguished him intellectually were the variety of his knowledge, the accuracy of his memory (which he retained to the last without appreciable impairment), and his sound discrimination in all matters of doubt or controversy. To his friends he was endeared by his habitual consideration for the welfare and interests of others, his unwillingness to think ill even of those of whose conduct he disapproved, and his transparent truthfulness. When it is remembered how large was the circle of his acquaintance, and the number of those who, during the thirty-eight years of his professorial life, came under his personal influence, we may well moderate our grief at parting with him by reflecting on the good that must have accrued from the life and labours of one in whom so vigorous an understanding was united with so genial and sympathetic a nature."

His remains were conveyed on Thursday to Scotland, for interment at Arbroath.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 9th instant; and, when eligible, will be admitted to the pass-examination.

Messrs. Frederick L. Nicholls, William C. Beatley, William Tibbles, James Donald, and John L. Rodwell, students of the Charing Cross Hospital; John F. McMillan, Edgar R. Dimsey, William E. Ranson, Michael W. Russell, and Walter F. Wynter, of the Middlesex Hospital; Henry F. Iliewicz, Robert F. Fox, Michael Angelo, Robert Black, and Oliver W. Sharood, of the London Hospital; W. A. Winwood Smith, Percy Pope, Arthur F. G. Codd, and Percy Edgelow, of St. George's Hospital; Robert J. Collins, and Edward J. Jenkins, of St. Bartholomew's Hospital; and Charles H. L. Meyer, of Guy's Hospital.

Two candidates were rejected.

The following gentlemen passed on the 12th instant.

Messrs. John H. Thomas, John Sinclair, George Adkins, John C. Davies, Frederick H. Kenny, William Coates, Walter F. Dale, Ralph Holyoake, Raheem Buksh, and John W. Davis, of the London Hospital; Alan E. Tate, J. Harrington Douty, William Hern, Charles G. Brodie, and Sidney R. Dyer, of the Middlesex Hospital; David L. Jones, James K. Lewis, and Samuel Wyborn, of the Charing Cross Hospital; George Y. Eales, of St. George's Hospital; John H. Booth, of Guy's Hospital; and Charles R. Elgood, of University College.

Three candidates were rejected.

The following gentlemen passed on the 13th instant.

Messrs. Robert G. Lynam, Hugh R. Beevor, Joseph Pollard, James J. C. Donnet, John W. G. Kealy, Sidney Ellis, and Walter F. Brooks, of King's College; Ernest Hudson, William C. Wilkinson, William R. Buckell, Frederick J. Bollin, and Francis J. F. Culhane, of University College; Septimus F. Pruen-

D'Arcy Power, B.A.Oxon., and Alfred J. Anderson, of St. Bartholomew's Hospital; Arthur Goulston, Walter Hull, and David W. H. Llewellyn, of St. Thomas's Hospital; J. Rundle Cater, of St. Mary's Hospital; and E. A. Gaynes Doyle, of the Westminster Hospital.

Four candidates were rejected.

The following gentlemen passed on the 14th instant.

Messrs. Edward Skipper, Edward W. von Tunzelmann, Frederick Knight, Charles Renner, and Frederick H. Lane, of University College; Francis J. Walker, Harold Henley, and Hinton E. Bateman, of St. Bartholomew's Hospital; Henry Green, and Alfred H. Willoughby, of St. Mary's Hospital; Robert Sanderson, and Gilbert E. Butler, of the Westminster Hospital; William J. Stuppard, and L. Arthur Morgan, of St. Thomas's Hospital; G. David Porter, and Bertram H. L. Stivens, of King's College; and W. B. Crawford Treasure, of the Charing Cross Hospital.

Two candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 8th, 1880.

Pickering, Robert Whitworth, Park Road, Royton.
Kángá, Jamshedji Kharshedji, Bombay.
Usher, John Edward, Melbourne, Australia.

The following gentlemen also on the same day passed their primary professional examination.

Buckley, Thomas William, St. Thomas's Hospital.
Fenwick, William Cecil, Guy's Hospital.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

ALNWICK UNION—Medical Officer to the Lesbury District. Salary, £25 per annum.

BRECKNOCK UNION—Medical Officer to Devynnock District. Salary, £90 per annum. Applications on or before April 22nd.

BRISTOL GENERAL HOSPITAL—Consulting Physician.

CHILDREN'S HOSPITAL, Birmingham—Resident Medical Officer and Assistant Resident Medical Officer. Salaries, £80 and £40 respectively, with board, washing, and attendance. Applications on or before the 22nd instant.

*CITY PROVIDENT DISPENSARY AND SURGICAL APPLIANCE ASSOCIATION—Assistant-Surgeon. Salary, £100 per annum. Duties to commence May 1st.

*CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Manchester—House-Surgeon. Salary, £80 per annum, with board and residence. Applications, with testimonials, to the Secretary, on or before May 3rd.

CRICKLADE AND WOOTTON BASSETT UNION—Medical Officer Third District. Salary, £55.

DOVER HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £90 for first year (afterwards £100 per annum), with furnished apartments, board, attendance, etc. Applications to the Secretary.

GENERAL LYING-IN HOSPITAL—House-Physician. Applicants to attend at the hospital, with testimonials, on Monday, April 26th, at 4.30 P.M.

HOLYWELL UNION—Medical Officer to the Second District of the Whitford District. Salary, £42 per annum.

HUDDERSFIELD UNION—Medical Officer for the Crosland Moor Union.

LEEDS HOSPITAL FOR WOMEN AND CHILDREN—Consulting Physician.

LICHFIELD UNION—Medical Officer for the Ogley Hay District.

*LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary to commence, £108 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, to the Secretary, on or before April 26th.

MERIDEN UNION—Medical Officer to Meriden District and Workhouse.

METROPOLITAN FREE HOSPITAL—Assistant House-Surgeon. Board, lodging, and washing. No salary, but an honorarium at the end of six and twelve months. Applications, with testimonials, to the Secretary.

NOTTING HILL PROVIDENT DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished apartments, firing, lighting, and attendance. Applications, with testimonials, to the honorary secretary on or before May 25th.

*PORT OF LONDON—Medical Officer of Health. Salary, £500 per annum. Applications not later than April 22nd.

PRESCOT UNION—Medical Officer to Huyton District. Salary, £15.

*ROYAL AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Assistant-Surgeon. Salary, £170 per annum, with fees for midwifery. Applications on or before the 27th instant.

ROYAL SOUTHERN HOSPITAL, Liverpool—Junior House-Surgeon. Salary, sixty guineas per annum, with board, lodging, and washing. Applications, with testimonials, not later than April 28th.

SUSSEX COUNTY HOSPITAL—Dispenser. Salary, £75 per annum, rising at the discretion of the Committee to £100 per annum. Applications, with testimonials, to the Secretary, on or before May 5th.

WANGFORD UNION—Medical Officer to Bungay District. Salary, £90. Applications on or before April 26th.

*WESTMINSTER HOSPITAL—House-Physician. Appointment for six months, with board and lodging. Applications not later than April 27th.

WILTON UNION—Medical Officer to Fovant District. Salary, £80.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with an increase of £10 per annum for the two succeeding years, board, residence, washing, and attendance. Applications, with testimonials, not later than April 24th.

WREXHAM INFIRMARY AND DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished rooms, coal, gas, and attendance. Applications, with testimonials, to the Secretary, on or before April 20th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*FULLERTON, Richard, M.B., appointed Assistant Medical Officer to the City and County Lunatic Asylum, Stapleton, near Bristol.

*WARNER, Francis, M.D., appointed Lecturer in Botany to the London Hospital Medical School, *vice* J. G. Baker, F.R.S.

WIGHTWICK, Fallon P., M.R.C.S., appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, *vice* E. Mundy, F.R.C.S., resigned.

POOR-LAW MEDICAL APPOINTMENTS.

BURMAN, C. Clark, L.R.C.P. & S.Ed., appointed Public Vaccinator and Medical Officer for the Western District of Belford Union, and Medical Officer to the Workhouse, *vice* James Millar, M.D., resigned.

GRAHAM, Arthur, L.R.C.P., appointed Medical Officer to the Western Division of the Bingham Union.

HARGREAVES, M. K., M.B., C.M., appointed Resident Assistant Medical Officer to Shoreditch Infirmary, *vice* F. H. Walmsley, M.D., appointed Resident Assistant to Leavesden Asylum.

*LEEPER, George R., M.B., appointed Medical Officer to the Ederney Dispensary District of the Irvinestown Union, *vice* B. J. Graham, M.R.C.S.E., resigned.

MACKAY, John C., L.R.C.P.Ed., appointed Medical Officer to the Fourth District of the Halstead Union, *vice* W. Simpson, M.R.C.S.Eng., resigned.

MASON, Wm., L.R.C.P.Ed., appointed Medical Officer to the Second and Seventh District of St. Austell Union, *vice* R. F. Stephens, M.R.C.S.Eng., resigned.

MCLINTOCK, James, M.B., appointed Medical Officer to the Marsden District of the Huddersfield Union, *vice* J. Hesslegrave, M.R.C.S., deceased.

*MINORS, Richard, M.R.C.S., appointed Medical Officer to the Benenden District of the Cranbrook Union, *vice* A. A. Blakiston, M.R.C.S., resigned.

*PARSONS, Frederick J., L.R.C.P., M.R.C.S.Eng., appointed Medical Officer to the Morchard Bishop District of the Crediton Union, *vice* C. Snape, M.D.

ROBERTS, Nathaniel E., M.B., appointed Assistant Resident Medical Officer to the Workhouse and Infirmary of the Township of Toxteth Park, Liverpool, *vice* C. R. Woods, M.D., resigned.

ROBERTSON, R., M.D., appointed Physician to the Liverpool Workhouse and Fever Hospital, *vice* R. Gee, M.D., appointed Consulting Physician.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

BULL.—On the 7th instant, at St. Oswald's House, Stony-Stratford, the wife of William H. Bull, L.R.C.P.Lond., M.R.C.S.E., of a son.

MARRIAGES.

BROWNE—HECKELS.—On the 7th instant, at Edgbaston Parish Church, Henry Langley Browne, of Moor House, West Bromwich, to Gertrude Heckels, of Holmwood, Edgbaston.

FERNELL—PORTER.—On the 13th instant, at St. Mark's Church, Sheffield, by the Rev. T. Woollen Smith, M.A., Vicar of Calverton Notts, Henry George Tudor Fernell, M.A.Cantab., solicitor, to Edith, elder daughter of the late John Taylor Porter, F.R.C.S., of Sheffield.

HARRHY—ASHTON.—On February 25th, at Barkly Diamond Fields, Griqualand West, South Africa, William Rosser Harrhy, M.R.C.S., etc., Justice of the Peace, District Surgeon, to Sarah, youngest daughter of the Rev. William Ashton, Missionary of the London Mission Society.

DEATHS.

MACKENZIE.—At Dax, Landes, France, suddenly, on the 2nd instant, Dr. Duncan Mackenzie, of Kilcreggan.—All friends will please accept of this intimation.

SHARPEY, William, M.D., LL.D., F.R.S., formerly Professor of Anatomy and Physiology in University College, at 50, Torrington Square, aged 78, on April 11th.

LAST week, a coffee-stand was inaugurated in Smithfield Market, Belfast, being the ninth opened under the auspices of the Irish Temperance League in that town.

ROYAL COLLEGE OF SURGEONS.—The primary or anatomical and physiological examinations for the diploma of membership of the Royal College of Surgeons was brought to a close on Wednesday last, when, out of the 173 candidates examined, only twenty-seven failed to acquit themselves to the satisfaction of the Board of Examiners, and were consequently referred to their studies for three months. This compares favourably with the examination of the corresponding period of last year, when, out of 213 examined, forty-five were referred for three months, and seven for six months.

A MANIFESTO, addressed to medical students, has been issued by the Indian Medical Service Defence Fund. In it, the disadvantages of the formerly favourite service, as compared with the Army Medical Department under the new *régime*, are forcibly brought out. In the matter of position, pay, pension, and promotion, a large balance is shown in favour of the Army Medical Department. Moreover, there is a prediction hazarded as to the possibility of future attacks on the status of the Indian Service, which, apparently, in the opinion of the committee, has no secure tenure, even of its deteriorated position.

Public Health.—During last week, being the fourteenth week of this year, 3,792 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 23 deaths annually in every 1,000 persons living. The annual death-rate was 22 in Edinburgh, 24 in Glasgow, and 31 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Leicester 17, Leeds 17, Portsmouth 18, Brighton 18, Bradford 20, Bristol 22, Hull 22, London 22, Birmingham 23, Nottingham 23, Sheffield 23, Salford 24, Wolverhampton 24, Newcastle-upon-Tyne 25, Sunderland 25, Liverpool 26, Oldham 26, Manchester 29, Norwich 29, and again the highest rate 31 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.1 per 1,000 in the twenty towns, and ranged from 0.7 and 1.0 in Wolverhampton and Brighton, to 7.2 and 13.2 in Nottingham and Plymouth. In London, 1,532 deaths were registered, which were 246 below the average, and gave an annual death-rate of 21.8. The 1,532 deaths included 13 from small-pox, 26 from measles, 49 from scarlet fever, 11 from diphtheria, 85 from whooping-cough, 15 from different forms of fever, and 10 from diarrhœa—being altogether 209 zymotic deaths, which were 48 below the average, and were equal to an annual rate of 3.0 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 315, 334, and 395 in the three preceding weeks, declined again to 365 last week, and were 91 below the corrected weekly average; 219 resulted from bronchitis, and 103 from pneumonia. Different forms of violence caused 63 deaths; 57 were the result of negligence or accident, including 15 from fractures and contusions, 7 from burns and scalds, 5 from drowning, 2 from poison, and 19 of infants under one year of age from suffocation. Six cases of suicide were registered. At Greenwich, the mean temperature of the air was 44.8°, and 1.9° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 13.9 miles per hour, which was 1.6 above the average. Rain fell on six days of the week, to the aggregate amount of 0.41 of an inch. The duration of registered bright sunshine in the week was equal to 19 per cent. of its possible duration.

Bequests.—Miss Mary Wasey, late of Prior's Court, Chieveley, near Newbury, has bequeathed £3,000 to the Royal Berkshire Hospital, £2,000 to the Bath Hospital, £2,000 to the Cancer Hospital at Brompton, and £2,000 to the Consumption Hospital, Brompton.—Mr. Johnston Jonas Foster, late of Moor Park, Ludlow, Salop, has left to the Bradford Infirmary, the Bradford Eye and Ear Hospital, the Bradford Fever Hospital, and the Halifax Infirmary, £250 each.—Sir Thos. Bernard Birch, Bart., late of The Hazles, near Prescot, Lancashire, has bequeathed £300 to the Liverpool Infirmary, £200 to the Liverpool Dispensary, and £100 each to the Northern Hospital and the Southern Hospital, Liverpool.—The late Sir William Erle, P.C., formerly Lord Chief Justice of the Court of Common Pleas, has bequeathed £500 to the Royal Hants County Hospital; and £300 each to the Chichester Infirmary and the London Fever Hospital.—The late Rev. George B. Paley, formerly of Freckenham, Suffolk, has left £50 to the Cottage Hospital at Mildenhall.

At the Easter quarter sessions for the county of Gloucester, a licence was granted to Mr. Iles for a retreat for habitual drunkards under the provisions of the Act of last session.

A French druggist, carrying on business in Wardour Street, has been fined forty shillings at the Marlborough Street Police-court, for selling foreign medicines which had not been properly stamped. The prosecution was undertaken by the Inland Revenue authorities.

Vaccination.—Mr. Daniel Gibson, Public Vaccinator for the West District of the Hull Incorporation, has received a Government grant of £82 10s., for efficient vaccination in his district. This is the third consecutive grant Mr. Gibson has obtained.—Mr. William Powell has received, for the second time in succession, a Government grant for successful vaccination in No. 1 District of the Bromyard Union.

Brandon and Byshottles.—The trade in this district having revived, the population rapidly increased in 1879, and is now estimated at 10,690. During the year, 411 births and 172 deaths were registered, equal to rates of 38.44 and 16.08 per 1,000—an improvement on previous years. No fewer than 105 out of the 172 deaths were in children under five years of age—a fact of evil significance, which Mr. Blackett passes with no comment whatever. It would be well to ascertain the circumstances under which this distressing mortality amongst infants has occurred in the district. During the first four months of the year, scarlet fever prevailed, and was fatal in 22 instances. Whooping-cough and diseases of the chest were prevalent during the remainder of the year, the summer months being remarkable for wet weather. Forty-one of the deaths, or nearly a fourth, were uncertified—a matter that seems to call for some inquiry.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children. 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.: Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. William Adams will exhibit Casts of Contracted Fingers; Sir Joseph Fayrer, "On Hepatic Abscess".

TUESDAY.—Pathological Society of London, 8.30 P.M. The President: Multiple Ivory-patch Morphœa in process of rapid recovery (living specimen). Mr. Morrant Baker: Skin-Disease, probably Lichen-ruber (living specimen). Dr. Wm. Ewart: Ramifying Cyst in the Brain. Mr. Eve: 1. Aneurysm by Anastomosis of the Ear; 2. Laryngeal Perichondritis in Typhoid Fever and in Small-Pox. Mr. Sydney Jones: Elongation of Limb in connection with Knee-joint Disease (living specimen). Dr. Pearson Irvine: Aortic, Mitral, and Tricuspid Constriction. Mr. Walsham: Tumour of Spermatic Cord. Mr. W. Harrison Cripps: 1. Imperforate Anus; 2. Volvulus in an Infant; 3. Complete Necrosis of the Lower Jaw, with Cancrum Oris. Mr. R. W. Parker: 1. Diffuse Sarcoma of Liver in an Infant aged three weeks; 2. Ossifying Chondro-Sarcoma of Left Femur, with Secondary Growths; 3. Congenital Talipes Varus; 4. Talipes Calcaneus.—Statistical Society of London, 7.45 P.M. F. J. Mouat, "On the Education and Training of the Children of the Poor".

WEDNESDAY.—Association of Surgeons practising Dental Surgery. Council, 7.30 P.M. 8.30 P.M.: Mr. Christopher Heath, "Thirty-five Years' History of a Maxillary Tumour".—Hunterian Society, 8 P.M. Mr. Startin: Case of Acute Pemphigus; Mr. J. E. Adams, "A Case of Cancer of the Rectum, in which Excision and Colotomy were performed"; Mr. J. E. Adams, "A Case of Osteotomy of the Femur for Genu Valgum".

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Stokes (Dublin), "On Amputations through the Hip-Joint"; Dr. Southey, "A Case of Acute Rheumatism, with Multiple Embolisms"; Mr. Cripps, "A Case of Secondary Hæmorrhage from the Stump of the Thigh, with Calcareous Degeneration of the Vessels": Dr. Graily Hewitt, "A Case of Acute Hysterical Vomiting, of ten months' duration, caused by Displacement of the Uterus".—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Mr. J. G. Waller, "On an undescribed British Sponge of the genus Raphiodesma"; Mr. A. Martinelli, "On the Mechanism of the Stomata of the Holly".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

We cannot undertake to return Manuscripts not used.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A Derivation Wanted.

Sir,—Can any of your readers point out the derivation or origin of the ending -oma, as it occurs in the words fibroma, myoma, lipoma, hæmatoma, sarcoma, enchondroma, and numerous others? Its apparent signification is a tumour or swelling.

April 3rd, 1880. I am, yours, faithfully, Acromion.

⁂ The ending -oma is a common termination of Greek nouns formed from verbs in -όω, which are in themselves derivatives of nouns or adjectives. Thus, from δίκαιος, just, is derived δικαιόω, I justify, and from this the verbal noun δικαίωμα, a justification; from ὅμοιος, similar, ὁμοιόω, I liken, and from this ὁμοίωμα, a likeness; from χρυσὸς, gold, χρυσόω, I gild, and from this χρύσωμα, something made of gold. The derivation of hæmatoma from αἷμα (blood); of lipoma from λίπος (grease or fat); of sarcoma from σάρξ (flesh); through the medium of a real or hypothetical verb in -όω, is thus obvious. The termination -ωμα, and also other endings in -μα, as -ημα, -ασμα, -ισμα, etc., indicates as a rule something made or done of the nature indicated by the verb from which the word is derived. According to some grammarians, the nouns in -μα are formed from the first person singular, perfect passive, of the verbs; thus from χρυσόω, I gild, perfect passive κεχρύσωμαι, comes χρύσωμα. The word "fibroma", formed in the type of these Greek verbal nouns, is a hybrid; a Greek termination being affixed to a Latin root. The ending -oma has nothing of necessity to do with a tumour or swelling, as our correspondent appears to imagine.

Licentiate S. A.—The Pass Fellowship Examination of the Royal College of Surgeons of England takes place on the 28th May and following days. The examiners are Messrs. Holden, Le Gros Clark, Savory, Birkett, Marshall, Holmes, Cooper Forster, J. Wood, and Hulke. No distinction is made in either the primary or pass examination for the Fellowship for members of eight years' standing or any other period. All candidates have to undergo the same examination.

Royal College of Surgeons of England.

The following were the questions in Anatomy and in Physiology submitted to the candidates at the primary examination for the Membership of the College, held on the 2nd instant. In each of the two departments, the candidates were required to answer four (and no more) of the six questions.

Anatomy.—1. Describe the Calcaneum. 2. Describe the arrangement and attachments of the Perineal Fasciæ. 3. Give the attachments of the Trapezius Muscle; state what structures are exposed upon its removal. 4. Give the dissection required to expose the first portion of the Subclavian Artery on the right side. 5. Describe the course and relations of the Portal Vein; name its tributaries, and mention their anastomoses with the systemic veins. 6. The Brain being removed from the Skull, how would you proceed to expose the Corpora Quadrigemina?

Physiology.—1. Give the physical characters and chemical composition of the Blood; describe its Corpuscles. What purposes do they fulfil? 2. Mention the average period of eruption of the temporary and permanent Teeth. Describe the minute structure of a Tooth. 3. Give a description of the microscopical appearances presented by a transverse section of the Spinal Cord in the cervical region. What are the functions of the Cord? 4. Describe the course and minute structure of a Renal Tubule. What functions have been ascribed to its several parts? 5. How is the circulation of the Blood maintained? What is the average velocity of the Blood in the larger arteries and veins, and in the capillaries? By what means has this been ascertained? 6. What is the structure of Adipose Tissue? What are its uses in the œconomy? and what are the circumstances that lead to variations in its amount?

Antiquarian.—It has always been called "Charon's penny", and was placed on the eyes of the corpse for being ferried across the river Styx. In the fine ethnological collection in the Museum of the London College of Surgeons, you will find an ancient Roman coin, covered with the *verd antique*, fixed in the sockets of one of the skulls. In his *Nugæ Canoræ*, Mr. Wadd, a former member of the Council of the College of Surgeons, publishes the following on a vendor of nostrums.

"*Cito, tuto, et jucunde.*
" This Quack to Charon would his penny pay;
The grateful Ferryman was heard to say,—
'Return, my friend! and live for ages more,
Or I must haul my useless boat ashore'."

When are Convalescents from Scarlet Fever safe?

M. O. H. writes: In reply to "Medical Officer", I engaged a nurse-girl who had scarlet fever at the end of a September. In the beginning of the following January, she was placed in quarantine for a week in another village three miles off to get away from her brothers and sisters affected subsequently to September. Her hair was cropped short; and after a warm bath or two she was provided with perfectly new clothing, leaving the others behind her in the cottage. My little boy did not take the fever when the girl took charge of him immediately after the quarantine.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Help in Street-Accidents.

Sir,—So far as I understand F. P.'s letter in the Journal of April 3rd, he objects to my suggestions for dealing properly and speedily with all street-casualties by establishing lockers or depositories of simple aids at more frequent intervals than police-stations, because full explanation of the *modus operandi* is lacking. I fancy that if only the means for rendering assistance were provided, the method of action would be illustrated on the first occasion of their being required.

Your other correspondent, Mr. E. Nock, has undoubtedly seen the "St. John's Ambulance wheeled litter", which is an improved pattern of a similar one used in the Dano-Prussian war of 1864, and is perhaps the most complete of the kind. It is, however, expensive, costing £16; bulky, measuring nine feet long, four feet high, and three feet wide; the stretcher portion, which is detachable from the wheels, weighs seventy and a half pounds. This is, however, of not much moment, as it has not to be carried far by hand, and when placed upon the wheeled portion, which weighs seventy-eight and a half pounds (together one hundred and forty-nine pounds), the whole is propelled with the greatest ease, and runs lightly and evenly. For such an apparatus, which is more suitable for police-stations—I am pleased to learn that there are about twenty-five supplied with the wheeled litter—a large receptacle would be required. The whole cost for thus supplying one depôt would be a considerable sum. Then cabmen's shelters are but few and far between, and the caretaker would scarcely be the right person to have charge of the wheeled litter, nor could he leave his shelter to go to a case of accident. I believe there are very few watermen at cabstands of the present day. The police have generally charge of the water-standards; and I fear that the proper duties of the fire-brigade and escape-men would interfere, if not preclude them entirely from attending accidents.

What I should like to see started would be about twenty depositories, each containing a light, folding, portable stretcher, together with common splints of various sizes, two or three hanks of tow, a dozen each of rolled and triangular bandages, a strong broad strap and buckle—or Esmarch's elastic tube—accompanied by a firm pad or two for arresting hæmorrhage, and a bottle of ether and ammonia mixture with directions as a restorative. Each depôt, containing the above means, need occupy but small space, and could be placed horizontally against a wall or stood on end in a corner. They should be entirely under the control of the police—the authorities, it is presumed, would not object to this—and the spots selected should be the busiest "fixed points". The whole expense would probably not exceed £3 to £4 per depôt.

It must be manifest that the best means, without the necessary skill to use them, would be futile. This is, however, supplied by the Ambulance Department of the Order of St. John, which, by the excellent popular teaching it has inaugurated and continued, has in a great measure instructed police officers and other classes likely to be brought into relation with accidents in the readiest methods of dealing with them and conveying the injured to hospitals or wherever proper professional aid may be had. The depôts I advocate, at a total cost of, say, £60 to £80, would seem to be part of the scheme of the Ambulance Association; but it is almost too much to impose this further expense on their funds, which are at present not too abundant for the able work they are carrying on.—I am, etc., G. Carrick Steet.

130, King Henry's Road, N.W., April 6th, 1880.

G. H. B.—Apply to Mr. John Greene, Friday Bridge, Birmingham.

A Card.

A card, of which the subjoined is a copy, has been sent to us as a curiosity by a medical practitioner in Cheltenham.

"Mrs. Watkins, Professed Bosom Drawer, Gathered and Broken Bosom Curer, Blisterer and Leech Applier, and Rheumatism Rubber, No. 9, Chapel Street, Cheltenham."

Doctors' Conveyances.

Sir,—In reply to "Serendib", I believe that there are some serious drawbacks in the mechanical principles of the Blackburn steam-car in its present form that render it unfit for practical work. Should, however, a steam-car be invented suitable for the road, a great alteration will have to be made in the present Act of Parliament bearing on this subject, or the machine, however good this may be, will be useless. The Act specifies that all steam-carriages, traction-engines, or other conveyances driven by steam on the public highway in Britain, shall not exceed four miles an hour, and that a person shall proceed with a red flag a hundred yards in front of such engine.

With respect to engines being fitted to ordinary dog-carts, I am afraid this will not answer for several reasons. One of these is, that should the steam-coil lately brought out be found useless after being properly tested, a different form will have to be used, such as the conical tubular boilers used in the Shand fire-engine. These, if made of steel, should only be one-half the ordinary size, and work up to two hundred pounds pressure to the square inch with safety, using charcoal or coke as fuel. The most difficult matter would be to condense the exhaust steam without adding much to the weight of the machine; and in this I see a serious obstacle as applied to a light carriage. However, the exhaust steam might be partially condensed by a spray of cold water without any very complicated apparatus.

I am not aware if there be any Act against road-locomotives in Ceylon; but if not, and I resided in that country, I should feel very much inclined to try what could be done in that direction. The object I should aim at would be a small but strong tubular copper or steel boiler, with a large number of tubes built in the form of a cone—the boiler, of course, being of the vertical type—and tested up to three hundred pounds pressure to the square inch, and worked up to from one hundred and sixty to one hundred and eighty. This boiler can easily be constructed; is only a question of first-class materials and good workmanship; and is perfectly safe. The engine should be from one-and-a-half to two horse power, and could be built light to suit the machine.

Of course, I have only jotted down a rough draft of the course I should take, leaving it to superior mechanical skill to work in the details. If I can be of any service to "Serendib", I shall be pleased to communicate with him further on this important subject.—I am, etc., W. Henry Browne.

The Laurels, Aldbro, Hull, April 12th, 1880.

Sir,—Respecting the letter of Serendib, allow me to remark that the challenge tricycle, in my opinion, would meet the wants of medical men far better than any steam-engine. I have had a "Challenge" since last August, and I find it most convenient. I have booked at the rate of £800 a-year with one horse, trap, and a tricycle, besides having a few days' hunting out of the horse this winter. The tricycle is very easy to ride. The second day I had mine, I went seven miles on it without much fatigue; and mine being painted all over, it requires no washing but a bucket of water thrown over it. Two bags are fitted behind for carrying instruments, etc. For night-work, there are two lamps fitted in front. The machine can be stopped instantly by placing a foot upon the break, and can only be upset sideways. My machine cost £20, and I consider I have quite saved £20 already in horse and trap wear.—Yours faithfully, Economy.

The Guinea-worm.

Sir,—With reference to your article on Guinea-worm in the Journal for March 27th, the following remarks regarding the period of incubation of the parasite may be interesting.

A regiment of Native infantry, stationed at Madras, arrived there in February 1860. Cases of Guinea-worm were frequent among the native inhabitants in that neighbourhood, and were numerous at the time of the arrival of this corps. For twelve months no case was admitted into the regimental hospital; but in February 1861, cases began to occur. During that and the following four months, 135 cases were admitted, being 23 per cent. of the strength of the regiment. In the following year, 67 cases were admitted, being 16.34 per cent. of the total number of admissions from all diseases, and 10 per cent. of the total strength. From this it will be seen that while the natives at the station were suffering from Guinea-worm, the men of this regiment, though exposed to the cause—namely, bathing in the stagnant pools in the neighbourhood of their barracks—showed no symptoms for twelve months after their arrival: a strong proof that a period of incubation is necessary. Having had many opportunities of observing the origin and progress of this most troublesome and often formidable parasite, I believe that a period of from eight to twelve months is necessary for the full development of the worm in the human system. It is almost impossible to determine the exact time; for, after attaining its full size, the worm may remain in the cellular tissue without producing any inconvenience for some time. This is proved by its not unfrequently making its appearance at the surface, and, if not injured, disappearing again, the patient feeling no inconvenience till it reappears at the same place, or, as more frequently happens, at a spot in the immediate neighbourhood. Among natives in India I have seen Guinea-worm appear in every region of the body, no doubt owing to their want of regard to the purity of the water they use for purposes of ablution. Among Europeans I never saw a worm appear in any part of the body but the lower extremities. The most tedious and severe case I ever met with in an European was in the person of an officer, who was greatly puzzled to know how he could have become affected, not, as he supposed, having been exposed to any possible source of infection; but on questioning him as to his movements during the previous twelve months, he was not a little surprised to find that I attributed the presence of the worm to his having walked through some pools of stagnant water, though a period of eight or nine months had since elapsed, without his feeling any symptom of the presence of the parasite.—Yours faithfully,

Geo. Mackay, M.D., L.R.C.P.E., Deputy Surgeon-General
Inverness, April 2nd, 1880. Indian Army (retired).

Aristocratic Physicians.—Just two hundred years ago (1680) the Electoral Prince Charles, Count Palatine of the Rhine, was created a Doctor of Medicine at the University of Oxford; and in the same year the Marquis of Dorchester was made a Fellow of the Royal College of Physicians. The Duke of Montague, who died in 1749, and the Duke of Richmond, who died the following year, were both Fellows of the same College.

Inquirer.—The rule is, that, if it appear that the deceased person was attended a his death or during his last illness by any legally qualified medical practitioner, the coroner may require the attendance of such practitioner as a witness. There can be no doubt that the last qualified medical man who saw the deceased ought to be called to give evidence; but there appears to be nothing to prevent the coroner from summoning another.

Forgotten Benefits.

Sir,—Would any of your readers kindly advise me on the following matter? I am strictly a private practitioner; it is not my habit to ask fees or furnish accounts for my professional services. I accept the honorarium usually given to me. But regarding the case I am about to state, I wish to be told what should be done.

More than a year has elapsed since I attended a lady in her confinement. Before that period commenced, as well as during that time, I had to make occasional visits professionally to her family; and up to the present no fee has been offered to me. The lady's husband is wealthy, and highly respectable; in fact, "one of the upper ten". It would be disagreeable to solicit payment; perhaps it would be hardly professional; and it probably might give offence, and one might lose for the future the attendance on the family or friends. It is, therefore, difficult to know what to do; whether to apply at once, or to delay longer. I may observe that the family lives more than three miles from my house, which renders the oversight more unreasonable.—I am, etc., An old Member of B. M. A.

April 6th, 1880.

Ignoramus.—We do not feel able to answer the questions which our correspondent puts to us. But we would recommend him to consult any one of the leading physicians in the North of England; such as Dr. Philipson of Newcastle, Dr. Clifford Allbutt of Leeds, Dr. Shann of York, etc.

Perils of the Way to Doctors.

The *Union Médicale*, in its "Ephémérides Médicales, recounts that on April 1st, 1489, Maître Guillaume Lebuef, paid medical officer of the town of Metz, was returning from a professional visit to a person of rank, when Arnout Krantz and his soldiers seized on the doctor and his mule, and conducted them to the dark vaults of the château of Lutzelbourg. The city had to interfere very actively in order to obtain the release of its physician.

A Demonstrator.—The late Professor Partridge said that the best way to soften and clean a sponge was to put a teaspoonful of the liquor sodæ chlorinatæ in half-a-tumblerful of water and wash well.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. Fowke, not later than *Thursday*, Twelve o'clock.

Mr. J. Brindley James.—In the absence of any better evidence than is afforded by the letter of an anonymous correspondent in a public newspaper, we must decline to believe that any member of the medical profession would act in the manner to which our correspondent directs our attention.

L.R.C.S.I. asks for an opinion as to the advisability of an operation in hæmorrhoids continually recurring in a patient of sedentary habits; or whether the application of a truss is of any use.

The Treatment of Ozæna.

Sir,—In your issue of the 27th March last, Mr. Joseph Walsh asks for information as to the treatment of ozæna. Has he tried the following: Iodoform, 5 grains; æther ʒj; vaseline ℥j? A lady of my acquaintance, suffering from the same condition, has derived great benefit from the above prescription, for which I am indebted to Mr. Lennox Browne. The iodoform application is used with a camel's hair brush. A little, being introduced with the latter, should be sniffed up well into each nostril. The lady has also taken, under the same advice, chlorate of potash lozenges, and chloride of ammonium in a tonic mixture. This combination of good things has effected a most satisfactory change in the lady's condition.—Faithfully yours, C. R. Francis.

Clapham Common, S.W., April 13th, 1880.

Dr. W.—The primary examination at the College of Surgeons is just over. There were 173 candidates, against 213 last year.

The hood for the degree of M.D. in the University of Glasgow is of black silk, lined with scarlet silk.

Dr. A. D. Fraser (Edinbane).—Is it not just possible that the words "a few days" in C.'s letter are a *lapsus calami* for "a few weeks"? We would advise F. to make a courteous representation of the matter to C., and ascertain whether a satisfactory explanation cannot be obtained.

A Member.—A "M.B." has no more *legal* right than a "L.R.C.P.Ed." to prefix Doctor to his name.

A Teacher, Birmingham.—The following metropolitan hospitals are represented at the Board of Examiners of the College of Surgeons: University College, Mr. Christopher Heath, chairman; St. Bartholomew's, Messrs. H. Power and W. M. Baker; the London, Messrs. W. Rivington and J. McCarthy; Guy's, Mr. A. Durham; St. George's, Mr. T. P. Pick; the Middlesex, Mr. B. T. Lowne; and the Charing Cross, Mr. E. Bellamy.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

***** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.**

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. W. H. A. Jacobson, London; Mr. W. Humber, Nottingham; Mrs. M. A. Jeffery, Oxford; Mr. E. R. Morgan, Morriston; Mr. A. H. Benson, Dublin; Messrs. Rootes and Wintle, Ross; Mr. V. Jackson, Wolverhampton; Dr. Litton Forbes, London; Dr. Crichton Browne, London; Dr. A. D. Fraser, Edinbane, Skye; Mr. H. W. Hubbard, London; Dr. R. Carter, Bath; Mr. Max Greger, London; A Member; Mr. G. Eastes, London; Dr. J. Rogers, London; Dr. W. Walter, Manchester; Dr. Foster, New York; Our Paris Correspondent; Mr. W. P. Thornton, London; Dr. Ransome, Bowdon; Dr. J. R. Wolfe, Glasgow; Dr. Stonar, London; Dr. J. B. Caskie, London; Dr. J. Hardwicke, Rotherham; Mr. C. C. Burman, Belford; Mr. J. Farrar, Morecambe; Mr. Henry F. Baker, London; Dr. G. F. Masterman, Ixworth; Mr. C. J. Wright, Leeds; Messrs. Brazier and Son, London; Dr. H. L. Snow, London; Mr. J. S. Gamgee, Birmingham; M. O. H.; Anti-Harlequin; Mr. John B. Kerr, Culcheth; Mr. G. F. Hodgson, Brighton; Dr. S. S. Roden, Droitwich; Mr. W. H. Bull, Stony Stratford; Mr. A. S. Underwood, London; Mr. J. E. Ingpen, London; Mr. John Hewitt, Kersal; Mr. Nunneley, Leeds; Mr. W. H. Browne, Aldbrough; Dr. Bantock, London; Mr. S. M. Bradley, Manchester; Mr. R. Jeffreys, Chesterfield; Mr. J. Lloyd Roberts, Denbigh; Dr. Burney Yeo, London; Dr. C. Davidson, London; Messrs. Krohne and Sesemann, London; Dr. G. A. Blumer, Philadelphia; Our Dublin Correspondent; Mr. E. Whitby, Birmingham; Mr. J. B. James, London; Dr. F. Willcock, London; Mr. S. F. Murphy, London; Dr. J. Ewart, Brighton; Dr. Fairlie Clarke, Southborough; Our Glasgow Correspondent; Dr. T. More Madden, Dublin; L.R.C.S.I.; Dr. A. V. Macan, Dublin; Dr. C. R. Francis, Clapham; Mr. C. E. Shelly, Hertford; Mr. S. M. Quennell, London; Dr. Joseph Coats, Glasgow; Dr. W. Maccall, Cheetham; Dr. F. Taylor, London; Mr. J. R. Jenkins, Ruthvin: Mr. G. A. Phillips, Walsall; Dr. A. Hollis, Brighton; Our Edinburgh Correspondent; Sir R. Christison, Edinburgh; Dr. Burdon Sanderson, London; Dr. Allen Thomson, London; Dr. McKendrick, Glasgow; Dr. Struthers, Aberdeen; Dr. Pettigrew, St. Andrew's; etc.

THE CROONIAN LECTURES

ON

SOME POINTS IN THE PATHOLOGY AND TREATMENT OF TYPHOID FEVER.

Delivered before the Royal College of Physicians of London.

By WILLIAM CAYLEY, M.D., F.R.C.P.,
Physician to the Middlesex Hospital and to the London Fever Hospital; Lecturer on Medicine to the Middlesex Hospital Medical College.

LECTURE III.

In estimating the value of any particular mode of treatment, we base our judgment on two classes of facts. First, by the observation of individual cases, we see whether it appears to relieve the symptoms and exercise a favourable influence on the course of the disease. Secondly, we apply the test of statistics, and, by collecting a great number of instances, we ascertain the effect on the general rate of mortality. Now, both these methods are open to many fallacies. In the first place, if the observer be not familiar with the natural course of the disease, and the various deviations which are liable to occur, he is apt to ascribe to his remedies what is really the unaided effect of nature; secondly, he may confound temporary amelioration with permanent benefit, and may thus incur the danger of relieving urgent symptoms at the expense of diminishing the chances of ultimate recovery.

Both these mistakes have frequently been committed in the treatment of typhoid fever. Thus the early recovery of the abortive forms has repeatedly been ascribed to the effects of remedies, as calomel or emetics. Again, the great relief which bleeding often gives to the urgent symptoms of this, as of other acute febrile diseases, has in former times caused it to be extensively practised, with the effect of greatly increasing the mortality.

The second method is still more open to fallacy, so that it is often said in opprobrium that anything may be proved by statistics. But, nevertheless, they form the final test by which all modes of treatment must at last be decided. The fallacies of statistics depend on two main errors—first, an insufficient collection of facts; secondly, the comparing together of unlike instances. We must, therefore, in applying this test, take care to compare together only like instances, and, if possible, accumulate such an overwhelming number as ultimately to reduce all sources of error to the vanishing point.

Before, then, we are in a position to estimate the value of any particular mode of treating typhoid fever, we must be acquainted, not only with the natural course of the disease, but also with the usual rate of mortality, which of late years has, I think, been but little affected by treatment apart from nursing and feeding—the treatment generally practised being what may be termed the expectant, or, as some would prefer to term it, the rational method. This consists in not treating the disease at all. We begin by confessing that we are quite unable to arrest its progress or materially to modify its course, and all we aim at is to put the patient in the most favourable condition to support its effects. We see that he is carefully nursed and properly fed, that all injurious influences are as far as possible removed, and urgent symptoms are combated as they may arise. Thus, if there be severe diarrhœa, we probably give him astringents; if hæmorrhage, styptics; if he cannot sleep, we administer narcotics; if there be delirium, calmatives; and when his strength begins to fail, stimulants; if there be congestion of the lungs, we perhaps venture on a mustard poultice or a turpentine stoup; or if there be severe headache, an ice-cap. But we leave the fever itself to run its course unchecked.

We have now to consider what are the results obtained by this mode of treatment. The most trustworthy statistics are those afforded by hospitals, but in them the rate of mortality is no doubt higher than in private practice. This is partly owing to the previous condition of the patients, partly to the fact that the more severe cases seek admission into hospitals, and partly because they commonly do not come under treatment till late in the disease; and nothing so much increases the mortality of typhoid fever as delay in the commencement of treatment.

If we take the results afforded by the London Fever Hospital, we may divide them into two periods—1. A period of twenty-one years, during which the hospital received all the pauper patients of the metropolis; 2. A period of nine years, during which the pauper cases have been excluded, and the patients have consisted of artisans, domestic servants, policemen, *employés* in shops and houses of business, together with persons in a higher position, who have occupied private rooms. During the first period, 8,000 cases were admitted, and 1,519 died, giving a mortality of 18.9 per cent. During the second period, 590 cases have been admitted, and 80 died, giving a mortality of 15.9 per cent. These figures include a considerable number of cases which were admitted moribund, and died within twenty-four or forty-eight hours.

The Pauper Hospital at Homerton: cases, 1,509; deaths, 255; rate of mortality, 16.8 per cent.

The Stockwell Pauper Hospital: cases, 1,223; deaths, 301; rate, 22.6 per cent.

The principal general hospitals of London, taking the last ten or twelve years, give the following results. St. George's, cases, 387; deaths, 76; rate of mortality, 19.6. Guy's: cases, 295; deaths, 57; rate, 19.3. University College: cases, 163; deaths, 29; rate, 17.7. St. Bartholomew's: cases, 635; deaths, 104; rate, 16.3. St. Thomas's: cases, 445; deaths, 70; rate, 15.7. Middlesex: cases, 461; deaths, 72; rate, 15.6. King's College: cases, 318; deaths, 39; rate, 12.2. Total for the hospitals of London: cases, 14,125; deaths, 2,522; rate, 17.8 per cent. These figures no doubt include a considerable number of cases treated specifically.

If we take foreign statistics, we find that, in France, Jaccoud, with a collection of 60,000 cases, gives a mortality of about 20 per cent. The General Hospital of Vienna, with 17,000 cases, has a mortality of 22.5 per cent. The Hospital at Basle, with 1,718 cases, a mortality of 27.3; and generally, in the principal continental hospitals, a rate of mortality varying from 16 to 25 per cent.

The English Army gives the following results for a period of six years ending 1877: On home service, cases 545, deaths 131; rate of mortality 24 per cent.: On foreign service, cases 1,383, deaths 564; rate 40.7 per cent. The foreign returns are not, however, complete. In the Royal Navy, during a period of six years ending 1878, cases 414, deaths 110; rate 26.5 per cent.

Such, then, are the results of the expectant treatment of typhoid fever, with which, I think, we have little reason to be satisfied.

It does not fall within the scope of these lectures to give a description of the various methods which have been from to time introduced for the specific treatment of typhoid fever; they have most of them again, sooner or later, fallen into disuse, till at last a complete scepticism on the effects of treatment in this disease has been proclaimed by many of the highest authorities. Thus, Skoda says it makes no difference whether we do or do not administer remedies; and the same opinion has been expressed by many others. Of late years, however, a plan of treatment has been revived, which aims at controlling the fever and preventing its injurious effects on the organism, by keeping the temperature throughout the whole course of the disease under a moderate febrile heat.

Typhoid fever can hardly be looked upon as a malignant disease; upwards of 80 per cent. of the cases, if properly nursed and fed, will recover; and those who die are rarely struck down at once, overwhelmed by the virulence of the poison, but usually succumb after a protracted struggle. Hence it seems only reasonable to suppose that, if we can succeed in striking out one of the factors adverse to the patient, even if it be not the most important, this will generally suffice. So evenly is the balance poised in most cases between life and death, that the removal of the smallest weight from the opposite scale will give the preponderance to the side of recovery.

Now, the factor in typhoid fever which is most under our control is the febrile heat: it lies in our power to prevent the temperature throughout the whole course of the disease from rising above a very moderate height; and hence we may obviate those injurious effects which are directly or indirectly caused by the febrile state as such. The great acceleration of the pulse and breathing, the febrile oppression and malaise, the dry brown tongue, the thirst, the headache, the delirium, the stupor—may all be controlled. Nay, not only can we prevent the accession of these symptoms, but sometimes we can remove them after they have supervened. And, as a result, the granular degeneration and softening of the various organs and tissues, and the febrile consumption itself, may be in part checked.

Therefore, from Hippocrates downwards, to reduce the temperature has at all times been regarded as one of the most important indications of the treatment of fever. It would seem, then, that all we have to consider is how far we are able to effect this, and whether the means which we employ are in themselves devoid of danger; and I think a sufficient amount of evidence has been now accumulated to answer both these questions. With regard to the first, it can be experimentally shown that, by the repeated application of cold to the surface of the body—chiefly by means of cold water on the one hand, and on the other by the administration of certain drugs which have the property of reducing temperature, the most important being quinine, salicylate of soda, and digitalis—the febrile heat can almost always be controlled. Such being the case, the second and more important question arises: Is it always, or even generally, a safe and expedient proceeding? We must accordingly apply to it the two tests I have mentioned above—first, whether it seems to relieve the symptoms and exercise a favourable influence on the course of the disease; and, secondly, whether it diminishes the general rate of mortality.

The history of the introduction of what is now called the antipyretic treatment of fever is a very interesting and instructive one. The first person who treated febrile disease by systematically reducing the temperature by cold affusions was the celebrated Dr. James Currie; and he seems to have been induced to try this method by the account published by Dr. Wright of an outbreak of typhus on board-ship. Dr. Wright himself caught the disease, and, finding that the cold air of the deck relieved the febrile oppression, caused himself to be treated by cold affusions, and with such good results that he applied the same method to a passenger at his own request.

Dr. Currie, as is well known, systematically treated by cold affusions, and sometimes by cold baths, a great variety of febrile diseases, especially typhus, typhoid, and scarlatina, making careful thermometric observations; and he laid down rules by which we may still guide ourselves. It is interesting to see how soon he discovered that although, when applied late in the disease, this method would occasionally rescue the patient from a condition apparently desperate, nevertheless, to ensure success, it was absolutely necessary to have recourse to it at the very onset, before the fever had, as it were, got the upper hand. Although he does not expressly remark the lability of the temperature in fever, he was nevertheless quite aware how easily it may be raised or depressed by external agencies; and he describes a striking instance of a case of typhus where he caused a patient, who in his delirium had thrown off all his bedclothes, to be stripped to his shirt and exposed, in a state of nudity, to a current of cold air from an open window. The effect was to reduce his temperature from 104° to 101°, to calm the delirium, and to throw him into a quiet sleep.

Dr. Currie soon had numerous followers, both in this country and on the Continent. Thus Dr. Gregory applied it with great success in small-pox; Desgenettes, in Egypt, during an epidemic of plague, having witnessed the unexpected recovery of a patient who, in his delirium, threw himself into the Nile, was led to apply the cold bathing treatment with great success in this disease. Giannini, in 1805, became an ardent advocate of Currie's method. In 1813, after the retreat from Russia, a fearful epidemic of fever broke out among the troops and spread among the civil populations. At Berlin, it raged almost with the virulence of the plague; and, in the hope of doing something to check its ravages, Dr. Horn, the Director of the Charité Hospital, determined to follow the plan of treatment recommended by Currie. The results were most satisfactory, and fully confirmed Dr. Currie's experience. Since this time, the treatment, though very imperfectly applied, has never quite died out in the Charité at Berlin.

In 1821, the celebrated Priessnitz of Graefenberg founded what is commonly known as the cold-water cure. He was a man who had all the qualifications necessary for a successful empiric. He was entirely ignorant of science and medicine, of great common sense, self-confident, and a firm believer in his own system. In consequence, he soon became the fashion, and all the celebrities of Germany crowded to Graefenberg to be cured of all manner of diseases. Now, there can be no doubt that Priessnitz met with the most remarkable success in the treatment of acute febrile diseases, especially pneumonia. His plan was to immerse the patients in a shallow bath, and keep them in it sometimes for several hours; the effect being, of course, to subdue the febrile heat, and so relieve the most urgent symptoms. When we remember that the orthodox mode of treating pneumonia at this time was free bleeding, tartar emetic, and calomel, we must confess that the empiric was far in advance of his time.

Chomel practised the treatment in typhoid fever; Graves and Trousseau in scarlatina.

In 1850, Dr. Armitage, a member of this College, after visiting Graefenberg, with the consent of Professor Schoenlein and in conjunction with Dr. Traube, treated a large number of cases of acute disease, especially typhoid fever, in the Charité Hospital at Berlin, again with the most remarkable success; and, on his return to England, he published the results in a small work called *Hydropathy in Acute Disease.* It is impossible to read this book without at once seeing the great advantages of this method. Nevertheless, it failed to obtain the recognition of the profession, and the treatment of Currie may be said to have died out in the land of its birth. The reasons for this are not far to seek. In the first place, it conflicted with popular and professional prejudices; and, in the second, it is somewhat difficult to carry out.

Now, when facts conflict with prevailing theories, they are pretty sure to be ignored; and the prejudice that patients with fever are injuriously affected by cold is perhaps more deeply ingrained in human nature than almost any other. This theory or prejudice is by no means confined to the vulgar; it is largely shared—often, no doubt, unconsciously—by the profession. I expect most practitioners would be horrified at the idea of exposing a patient, prostrate and delirious from typhus, to a cold draught from an open window, in a state of nudity; and yet by this means Dr. Currie at once relieved the threatening symptoms, and the patient made a good recovery. Usually, when we are called to a case of fever, we find the patient warm in bed, covered by several blankets; a good fire in the room, all draughts carefully excluded, and everybody anxious lest he should catch cold. I have seen a case of typhoid where the temperature was 105°, and there were five blankets on the bed. Now, in health, it makes little or no difference to the internal temperature of the body whether there are five blankets or none; but in the labile temperature of typhoid fever it not unfrequently means a difference of 2°.

The revival of the antipyretic treatment must be ascribed to Dr. Brand of Stettin, whose method, variously modified, has now been adopted by most of the leading physicians in Germany, Austria, and Switzerland; and the number of cases thus treated is now so large that the results may be fairly estimated. Dr. Brand, in the last edition of his work, has collected upwards of eight thousand. From Germany, the treatment was introduced into France in a remarkable manner. Among the French prisoners in the late war who were confined at Stettin was Dr. Glénard, a clinical assistant at Lyons. An epidemic of typhoid broke out among the prisoners (twenty-three thousand in number), and ninety-three French soldiers were attacked. They were all treated by Dr. Brand according to his method, Dr. Glénard (certainly no partial witness) assisting, and they all recovered. Considering the very high rate of mortality of typhoid fever in times of war amongst troops depressed by hardships and dispirited by defeat and imprisonment, such a result naturally filled Dr. Glénard with enthusiasm; and on his return to Lyons, he introduced this mode of treatment into the Lyons Hospital, again with the effect of greatly reducing the rate of mortality; and it has since been extensively tried by many of the leading French physicians.

In England, since Dr. Wilson Fox published instances of hyperpyrexia treated by the cold bath, its utility in this affection has been generally acknowledged; but the systematic treatment of fever from its commencement in this manner seems at present only to have been tried tentatively in this country. Where it has been so tried, the results have been most satisfactory. I may refer to the series of cases reported by Dr. Ord in the *St. Thomas's Hospital Reports*. Though the treatment, according to Dr. Brand's view, was only partially carried out, the mortality was decidedly diminished.

Dr. Edes of Boston introduced the treatment into America, and he also speaks most highly of it.

Such, then, is a short and imperfect sketch of the history of this method of treatment. I now propose briefly to describe the manner of applying it, and the results obtained by it.

The principle underlying the treatment is to keep the temperature throughout the whole course of the disease, from its very commencement to its termination, under a moderate fever-heat; and the means employed to effect this are, in the main, abstraction of heat by the application of cold water, supplemented by the use of the drugs I have mentioned, though Dr. Brand is of opinion that, the more we confine ourselves to the former and the less we use the latter, the more favourable are the results obtained.

The modes of applying cold water are the cold bath, cold affusion, cold packing, cold compresses, and the graduated bath, which consists in placing the patient in a warm bath and gradually cooling it down. Each of these methods is adapted to special cases, but for general use the cold bath is by far the best and the least troublesome to apply, and the rule for its use is this: whenever the patient's temperature exceeds 102.2°, he should be put into a bath. It must be remembered that Dr. Brand always takes the temperature in the rectum. If we measure in the axilla, a somewhat lower height must be taken. He insists very strongly on the great advantages of rectum over axillary measurements, and there can be no doubt but that he is right; but I am so convinced of the impossibility of taking rectum temperatures six or eight times a-day in this country, even in hospital practice, that, except under special circumstances, I never attempt to do so. Next, with regard to the temperature of the bath; this must be regulated according to the patient's condition and the effect we wish to produce. As a rule, it should not exceed 70° Fahr., and may often be advantageously much lower; 65° to 70° may be taken as the average limits. The duration of the bath must also be regulated by the patient's condition and the effect it produces. We ought to cause a reduction of at least two or three degrees, and if this be not obtained, the next bath must be colder or longer. It must be remembered that the temperature usually continues to fall for some time after removal from the bath; it is therefore not necessary to take the temperature in the bath itself, but it should be done about half-an-hour after. The bath should be prolonged for some little time after distinct shivering has begun, watching, of course, the effect on the circulation. Usually the bath will be well borne for from ten to twenty minutes. The patient should then be put to bed, wiped dry, and covered with a blanket. In many cases, it is advisable to give some brandy or other stimulant before or during the bath.

In severe cases, the cooling effect of the bath often only lasts about three hours; therefore the temperature should be taken every three hours by day and night, and whenever the temperature rises to 102°, the bath should be repeated. The number of baths required will vary with the severity of the case. The rapidity with which the temperature rises after the bath is one of the best indications which we possess of the impression which the fever has produced on the nervous system. It would be a great mistake to suppose that the only or even the principal effect of the bath is to abstract a certain amount of heat from the body. It exercises a most powerful influence on the central nervous system, especially on the vaso-motor centres, and stimulates them to a resumption of their heat-regulating functions. This is shown by a well known experiment. Heidenhain found that stimulation of the sciatic nerve of a dog under curare caused a fall of nearly 2° Fahr. in the temperature of the internal organs, but that this fall did not take place if the animal were fevered; if, however, when in this state it were first cooled by being placed in a cold bath, the usual fall took place.

When, as is not very unfrequent, we meet with cases of typhoid in which there are stupor and great nervous depression, subsultus tendinum, and meteorismus, with only a moderate elevation of the temperature, the stimulating effect of the bath on the nerve-centres is of more importance than its refrigerating effect; and in such cases a cold bath of short duration, or cold affusion, is indicated. In other cases, a more prolonged bath of higher temperature is required for the more complete abstraction of heat. As soon as the immediate effect has passed off, the patient should be lightly covered with a sheet and thin counterpane, and perhaps a blanket over the feet, but all general woollen coverings should be strictly forbidden. During the past cold winter, I never allowed even a single blanket to a patient with typhoid fever in the Fever Hospital, as long as the temperature was raised. In other respects, the ordinary regimen should be observed. Abundance of cold drinks should be given; if there be headache, an ice-cap may be applied; if meteorismus or abdominal pain, a cold compress to the belly. Dr. Brand strongly recommends the use of cold compresses between the baths in all cases.

The other methods of abstracting heat are inferior in their effects, and are indicated in those cases where, from any reason, the cold baths are inadmissible. The graduated baths are useful in persons advanced in life, in cases of extreme prostration, where there is organic disease of the heart or lungs, where there is a tendency to syncope, or where, which is not often the case, the patient has an invincible repugnance to the cold baths. As an exclusive mode of treatment, they would be found impracticable, especially in private houses. Six or eight hot baths daily would be found to overtax the resources of most middle and lower class establishments; whereas the cold bath may be kept ready in the room, and the water need only be changed once or twice daily, a little warm water being added each time before it is used, or in hot weather some ice. Cold sponging and cold affusion are especially adapted to the milder cases, and the former together with iced compresses when, from hæmorrhage or peritonitis, we are afraid to move the patients. Cold packing is very inferior to bathing as a means of reducing temperature, and very troublesome to apply, but is sometimes more readily submitted to.

Liebermeister, Jurgensen, and most of the physicians who practise the antipyretic treatment, supplement the cold baths by the administration of those drugs which have the effect of lowering the temperature, especially quinine, salicylate of soda, and digitalis. Brand, however, deprecates their use, and only employs them where bathing is inadmissible. The great advantage they afford is that of diminishing the frequency of the baths; but they do not produce so favourable an effect on the nervous system, and sometimes themselves cause unpleasant symptoms. Their great use, then, is as adjuncts to the bath; but they cannot be employed generally as substitutes.

The most important of these remedies is quinine. It probably reduces temperature by diminishing oxidation, its effect being to impair the oxygen-carrying powers of the red blood-corpuscles. Quinine is very rapidly eliminated by the kidneys; and, in order to obtain the antipyretic effect, it is necessary that the blood should be highly charged with it. For this purpose, then, it is useless to give small doses at considerable intervals. One large dose should be given at once, or in divided portions within half an hour. To produce a decided fall of temperature in an adult, from thirty to forty grains are usually required. I generally give ten grains in suspension every ten minutes, till the required amount has been taken. This will often depress the temperature three or four degrees, and this depression is often prolonged for many hours. It is best given at night-time, when the evening exacerbation is subsiding, or after the temperature has been lowered by a bath, as it exercises a greater effect on a falling than on a rising temperature. Given in doses of thirty or forty grains in typhoid, quinine often causes some of the disagreeable symptoms of cinchonism, as deafness and singing in the ears. These, however, are of little consequence; a far more serious effect is vomiting, which sometimes follows its use. This may be sometimes prevented by combining it with opium, and administering ice.

Salicylate of soda, given in large doses, has a more powerful effect in depressing temperature even than quinine, and acts more rapidly. It has very largely replaced quinine in the treatment of typhoid fever in Germany; but, after a pretty extensive trial of it, it appears to me to possess all the disadvantages of quinine, and in addition it often has a very depressing effect; so that I now never give it where there are symptoms of prostration or failure of the circulation.

The only other of these antipyretic drugs of which I have any experience is digitalis, and it appears to be universally well spoken of. Dr. Murchison, who had very little faith in the advantages of quinine, says that digitalis is far too much neglected. The antipyretic property of digitalis is probably due to its action on the vaso-motor system. The primary effect is to stimulate the vagus nerve, and so to retard the heart's action; in larger doses, it accelerates the heart by paralysing the vagus; and in still larger doses it brings the organ to a standstill by directly paralysing its muscular fibres. With these effects, it causes contraction of the small arteries, and so increases the blood-pressure in them and diminishes that in the veins. This effect appears not to be due to its action on the vaso-motor centres, but to its direct stimulation of the peripheral nerves. Now, this contraction affects the internal arteries, especially those of the mesenteric system, much more than it does the superficial vessels; hence the blood is diverted from the heat-producing to the heat-dissipating organs, and consequently the temperature falls.

Considerable care is required in giving digitalis as an antipyretic in fever. We must administer full doses, or no effect is produced on the temperature; but we must be very careful not to go beyond the first degree of its action on the heart. When so given, it diminishes the frequency and improves the tone of the pulse, and tends to counteract that general arterial relaxation which is so marked in severe fever, and at the same time it lowers the temperature. It is, however, a dangerous remedy where the heart is softened by acute granular degeneration, and therefore ill adapted for use in the later periods of fever, when the protracted high temperature has already caused more or less of the change to have taken place in the heart.

Such, then, are the principal means at our disposal for keeping the temperature down during the course of typhoid fever. We have now to consider what are the effects on the symptoms and course of the disease.

[*To be continued.*]

Aston Manor.—In this rapidly progressing district, which is now more than three times as populous as in 1861, and eight times as populous as in 1851, sanitary work appears to be well sustained. The death-rate for last year (17.1 per 1,000) was 1.7 lower than the average of the last eight years, and the lowest yet recorded. Moreover, the infantile death-rate is diminishing, being last year 1.4 below the average; and only two deaths were registered from typhoid fever. The very low temperature at the beginning and end of the year caused a large increase in the deaths from diseases of the respiratory organs, which in fact numbered a quarter of the total deaths. On the other hand, diarrhœa greatly decreased, the deaths falling from 64 in 1878 to 17 in 1879, and the number during the third quarter from 48 to 5. The zymotic death-rate was 3.3 per 1,000, the actual number of deaths being 149, against 256 in 1878. Scarlatina caused 47 deaths, and was, according to Mr. May, largely spread by attendance at public elementary schools. Whooping-cough was very fatal, causing 107 deaths. Measles was fatal in 15 and diphtheria and croup in 27 instances. A disinfecting chamber has been provided by the authority, but an infectious hospital seems to be much wanted.

THE LUMLEIAN LECTURES
ON
THE DIGESTIVE FERMENTS, AND THE PREPARATION AND USE OF ARTIFICIALLY DIGESTED FOOD.

Delivered before the Royal College of Physicians.

By WILLIAM ROBERTS, M.D., F.R.C.P., F.R.S.,
Physician to the Manchester Royal Infirmary; Professor of Clinical Medicine to the Owens College.

Lecture II.[*]

PEPSIN AND TRYPSIN—DIGESTION OF PROTEIDS.

Comparison of the Action of Pepsin and Trypsin.—The action of pepsin and trypsin, although similar in the main results, is certainly not identical. There is a markedly larger production of leucin and tyrosin in tryptic than in peptic digestion. Moreover, the action of the two ferments on different proteids appears to vary both in character and in energy. Milk is much more readily digested by pancreatic extract than by artificial gastric juice; but in the case of egg-albumen the advantage lies decidedly with the gastric juice. The study of the digestion of egg-albumen by the two methods yielded some interesting results. I employed for this purpose a dilution of egg-albumen with water, in the proportion of one in ten. This remains uncoagulated after being boiled in the water-bath, and furnishes a favourable medium for studying the digestion of albumen—much more favourable than the chopped boiled white-of-egg usually employed. It permits the ferment to be at once brought into uniform and intimate contact with the particles of the albumen, thus obviating the irregularity and want of constancy which necessarily attend the operation of a solvent acting on solid pieces of variable size, which can only be attacked progressively from their surfaces. In the raw state, this solution is digested with extreme slowness by artificial gastric juice; and pancreatic extract is nearly inert on it; but after being boiled it is attacked with energy by both the gastric and the pancreatic ferments.[†] When the boiled solution was treated, in the warm chamber, with pepsin and hydrochloric acid the transformation of the albumen went on rapidly and without interruption to its close. In the earlier periods of the action, the mixture gave a dense precipitate with nitric acid and with ferrocyanide of potassium, but this precipitation became progressively less and less pronounced, until, at the end of two or three hours, these reagents only produced a slight haze. The albumen was now completely digested, or at least as nearly so as could be reached, for this remnant of a reaction persisted even after a further digestion of twenty-four hours.

When the same solution was treated with pancreatic extract, the progress of events was different. For an hour or two (the time varying with the quantity of extract added) there was no apparent change; but at the end of this time the mixture lost its diffluent condition, and became converted into a gelatinous mass, exactly resembling a thin starch jelly. By-and-bye the gelatinous matter broke up into little masses, which floated in a transparent liquid. At this point, the action seemed to be arrested. The floating masses of jelly remained almost undiminished in quantity after twenty-four and even forty-eight hours. When the mixture was filtered, the liquid portions came through perfectly transparent, and the jelly-like matter was left in the filter. The filtrate was found to be a rich and very pure solution of peptone, uncontaminated with any undigested or half-digested albumen. The jelly-like matter was found to be insoluble in water, hot or cold, but it dissolved readily in acids, and was rapidly digested by pepsin and hydrochloric acid. If a large amount of pancreatic extract were used, a considerable proportion of the jelly-like matter was slowly dissolved; but the main result was always the same, the pancreatic ferment was only able to convert a part of the albumen into peptone, whereas the gastric ferment converted the entire quantity, with the exception of an insignificant residuum.[‡]

In the case of milk, the relation of the two ferments is reversed. Tryptic digestion of milk is rapid, and leaves only a very slight residue, whereas peptic digestion is slow, and leaves a large residue. I have some further observations to make on the digestion of milk by pancreatic extract, but it will be more convenient to take up the subject when I come to speak of the use of this ferment for the preparation of artificially digested food.

Peptogens.—I may here advert to a singular view advanced by Schiff in regard to the production and secretion of pepsin and trypsin. Schiff found that when an insoluble aliment, such as white of egg (or fibrin, or meat which had been deprived of its soluble portions), was introduced into the stomach of a fasting animal no pepsin was secreted, and the albumen remained undigested; but if with the albumen certain soluble aliments were introduced into the stomach, then pepsin was produced, and digestion immediately began. To these substances, which had the power of provoking the formation and secretion of pepsin, Schiff gave the name of "peptogens". Among the most effective peptogens were found to be solutions of dextrine, extract of meat (or soup), infusion of green peas, bread (which contains dextrine), gelatin, and peptones. On the other hand, solutions of grape-sugar, soluble starch, fat-emulsion, or gum, had no peptogenic effect; and milk and coffee had not much. Schiff further found that peptogenic substances were just as effective when they were injected into the blood, or into the cellular tissue, or introduced as enemata into the rectum, as when they were introduced directly into the stomach. On the other hand, when peptogens were injected into the small intestine their influence was not observed; their effect seemed to be annulled by some action of the mesenteric glands, or by some change induced in them in their passage along the thoracic duct. On the ground of these experiments—and they were numerous and oft-repeated and gave constant and decisive results—he concluded that the absorption into the blood of these soluble aliments was a necessary preliminary of proteid digestion, that no pepsin or trypsin was secreted unless these substances existed beforehand in the blood. The first act, according to Schiff, of gastric digestion was the absorption from the constituents of a meal of these soluble peptogens by the veins of the stomach. On this followed immediately the secretion of pepsin, and the commencement of digestion proper.[*]

These views and experiments of Schiff have not been allowed to pass without challenge, but they have not yet been overturned. If they should be substantiated, they will give, curiously enough, a scientific sanction to the prevailing custom of commencing dinner with soup.

The Milk-curdling Ferment.

You all know that one of the most striking properties of gastric juice is to curdle milk. This property is utilised on a large scale in the industrial art of making cheese. Rennet, which has been used for that purpose from remote antiquity, is simply an infusion of the fourth stomach of the calf in brine. The curdling of casein by rennet does not depend upon the acid of the gastric juice, for it takes place when the milk is neutral or even faintly alkaline. It has until lately been believed that this property was an inherent attribute of pepsin, but this opinion is no longer tenable. Brücke succeeded, by a process which I need not particularise, in producing pepsin which had an energetic action on proteids, but which did not possess, except in the feeblest degree, the power of curdling milk. Mr. Benger also found that an extract of pig's stomach in saturated brine, while it possessed energetic action as a milk-curdler, had comparatively only feeble proteolytic powers. We must therefore regard the agent in gastric juice which curdles milk as a distinct substance from pepsin.

In the course of my experiments on pancreatic extract, I made the unexpected observation that the pancreas also contained an agent capable of curdling milk. I found this property in the pancreas of the pig, the sheep, the calf, the ox, and the fowl. In whatever way the extract of the gland was made, whatever solvent was used, this property of curdling milk was present in it; but the brine-extract exceeded all others in curdling capacity. If a few drops of extract of pancreas be added to some warm milk in a test-tube, the milk becomes a solid coagulum in a few minutes. Some minutes later, the whey begins to separate from the curd. In short, the action resembles exactly that of calf's rennet; and, so far as I know, you could make cheese with pancreatic rennet as perfectly as you can with gastric rennet. There is, however, not an absolute identity of the two agents. I said just now that gastric rennet produced curdling in neutral and even in faintly alkaline milk; but if the alkali exceed a very small proportion, ordinary rennet does not curdle milk. I found that an alkalescence, exceeding that produced by one grain of bicarbonate of soda to an ounce of milk, altogether prevented the milk from being curdled by gastric rennet. But this is not so with pancreatic rennet. You may add two, three, or four grains of bicarbonate of soda to each ounce of milk, and still the pancreatic rennet will induce curdling with undiminished energy. Milk is likewise curdled by pancreatic extract, when quite neutral, and even when very faintly acid. Indeed, it appeared to me that a very faintly acid milk curdled more actively with pancreatic extract than neutral milk, but not so actively as alkaline milk.

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[*] Concluded from page 577 of last number.

[†] In çooking this solution it is advisable to use the water-bath, for otherwise some of the albumen coagulates and cakes on the bottom of the vessel, and the liquid froths up in an inconvenient manner.

[‡] Most observers have noticed the occurrence of this indigestible residuum (named "Dyspeptone" by Meissner) in the artificial gastric digestion of proteids. I have noticed the same in the digestion of milk by pancreatic extract.

[*] See Schiff's *Leçons sur la Physiologie de la Digestion*, vol. ii, p. 200, *et seq.* Paris: 1867.

That the curdling agent of the stomach and pancreas is a true ferment, and not some inorganic chemical agent, seems to be proved by the fact that boiling, or even heating to 160° F. (70° C.) instantly destroys its power. I found, moreover, that, like other soluble ferments, it is precipitated, but not truly coagulated, by alcohol; for it recovers its solubility and activity when the alcohol is removed, even after a contact of several weeks.

The curdling ferment of the pancreas is a distinct body from trypsin, as the following experiments show. 1. Some brine-extract of pancreas (which was known to possess proteolytic energy) was acidulated with hydrochloric acid in the proportion of 1 per 1000, and then placed in the warm chamber at a temperature of 104° F. (40° C.) for a period of three hours. It was then carefully neutralised with bicarbonate of soda. When thus treated, the extract was found to have lost its proteolytic power, but its curdling action on milk was almost as energetic as ever. 2. A portion of the same brine-extract of pancreas was filtered under vacuum pressure through porous earthenware. The filtered product was found to possess an undiminished faculty of curdling milk, but it had almost no power of dissolving the curds. The curdling ferment had evidently traversed the earthenware freely, but only traces of trypsin had passed through.

What is the real function of the curdling ferment? Seeing its striking reaction with milk, one's first idea is that it must have something to do with the digestion of casein. But a little consideration shows that this idea is altogether improbable. Although all mammalia start life on a milk-diet, milk does not form a part of the normal diet of any adult creature except man. Nor can its universal presence in the mammalian digestive organs be regarded as a vestigial phenomenon—a "memory" of the suckling phase of their existence—for the same curdling property is found in the stomach and pancreas of the fowl, which never at any period of its life fed on milk. Moreover, it may be doubted whether the ferment in question is the actual agent which curdles milk on its passage into the stomach; for the acid of the gastric juice, which also curdles milk, would probably be beforehand with it, inasmuch as its action is a good deal more prompt than that of the ferment. In the pancreatic digestion of milk, the occurrence of curdling has appeared to me to be a distinct hindrance to the process. Has this ferment any true digestive functions? I think this is quite open to doubt. Its action on milk is apparently akin to that of the fibrin-ferment on blood, and it may likewise have some kindred purpose, but what that purpose may be I am unable to conjecture.

Emulsive Ferment: Digestion of Fats.

The digestive change undergone by fatty matters in the small intestine consists mainly in their reduction into a state of emulsion, or division into infinitely minute particles. In addition to this purely physical change, a small portion undergoes a chemical change whereby the glycerine and fatty acids are dissociated. The fatty acids thus liberated then combine with the alkaline bases of the bile and pancreatic juice, and form soaps. The main or principal change is undoubtedly an emulsifying process, and nearly all the fat taken up by the lacteals is simply in a state of emulsion, and not of saponification. It is, however, quite certain that both these processes do take place in the small intestine, though in very unequal degrees. The only question in connection with the digestion of fat which I propose to examine is: Whether these changes are produced by the operation of a soluble ferment, or by some other and different agencies? In his latest utterances on this subject, Bernard[*] insisted that the digestion of fat, like the digestion of starch and proteids, consisted in the action of a soluble ferment, which he named *Ferment Emulsif*. This ferment, he alleged, first emulsified and then saponified fats. In the intestine, the change scarcely went beyond emulsion—in this condition fat was found in the contents of the lacteals. Saponification took place almost exclusively further on, and, later, in the blood. It is certainly established that the pancreatic juice exercises a marked influence on the digestion of fats; and it is in the pancreas, according to Bernard, that the emulsive ferment is to be found. Bernard demonstrated that healthy pancreatic juice has quite a special faculty of emulsifying fats. Pancreatic tissue has also the same property. If a portion of fresh pancreas be rubbed up with fatty matter and water, you get an emulsion which is fairly persistent. I have not had an opportunity of examining the behaviour of pancreatic juice with fatty matter, and cannot therefore speak of its properties; but it is singular if, as alleged, the effect of pancreatic juice and pancreatic tissue on fat be due to the presence of a soluble ferment, that the extracts of pancreas possess none of the same power. I have made extracts of pancreas in various ways—with simple water, with chloroform-water, with dilute spirit, with solutions of boracic acid, of borax, and of both combined, with glycerine and water, with brine, and with solution of salicylic acid and of salicylate of soda; and yet I could not satisfy myself that any of these extracts possessed any special power of emulsifying fats, nor of liberating the fatty acids and inducing saponification. Paschutin[*] states that the emulsive ferment of the pancreas can be extracted by a solution of bicarbonate of soda. An extract of pancreas, made by myself with a two per cent. solution of bicarbonate of soda, was indeed found to have a very marked emulsifying power; but it had the same power, even in an enhanced degree, after being boiled, which showed that its emulsifying properties could not depend on the presence of a soluble ferment.

I was equally unsuccessful in my attempts to verify the alleged power of extracts of pancreas, and of crushed pancreatic tissue, to liberate the fatty acids. When fresh pancreas, finely triturated with sand, was digested with milk in the warm chamber, I could not obtain satisfactory evidence of the development of free acid from the decomposition of the fat of the milk by a soluble ferment. The pancreas itself yields a slightly acid solution when infused in water, and a mixture of milk and pancreatic tissue always showed a slight acid reaction; but when this primary acidity was neutralised, no further production of acid took place until such a time had elapsed as was sufficient to permit the development of organised ferments and the origination of the lactic fermentation. If the development of organised ferments were prevented by the addition of antiseptics—such as chloroform or a combination of boracic acid and borax—a mixture of milk and crushed pancreas remained neutral for several days. The same results followed when I operated on emulsions made with crushed pancreas and lard or olive oil. In my numerous observations on the digestion of milk with various pancreatic extracts, I never could detect the production of an acid reaction, unless organised ferments were permitted to intervene.

I obtained similar negative results with almond emulsion. Bernard attributed the formation of an emulsion when almonds (or other oily seeds) were rubbed up with water, to the presence in the seeds of a soluble ferment. But I found, to my surprise, that almonds which had been boiled for seven hours still produced a perfect emulsion. As all known soluble ferments are destroyed by boiling, this result seems irreconcilable with Bernard's view. I also found that almond emulsion, kept in the warm chamber for six or eight hours at a temperature of 100° Fahr. (38° C.), showed not the slightest evidence of an increase of its original faintly acid reaction. It appeared to be more probable that the fatty matter in the almond existed in the seed in the condition of a solid emulsion; and that the formation of a fluid emulsion by trituration with water was due simply to the liberation of the minutely divided oil-particles, rather than to the intervention of a soluble ferment.

It is with considerable hesitation that I venture to place myself in even apparent contradiction with so great an observer as was Claude Bernard; and I by no means pretend that these observations traverse the main conclusions for which he contended as to the digestive transformations of fat in plants and animals. The views which Bernard developed on the digestive process are based on inductions so wide, and observations so multiplied, that I feel satisfied that their substantial accuracy will be ultimately established in regard to fat, as they have already been established in regard to starch and cane-sugar.

Some observations made by Brücke promise to throw a fresh light on the digestion of fat. Brücke found that oils and fats which contained an admixture of free fatty acids—in other words, which were more or less rancid—were emulsified by a slight agitation with a weak solution of carbonate of soda. J. Gad extended these observations, and showed that even simple contact of a rancid oil with the alkaline solution was sufficient to effect a mechanical division of the oily matter. I have repeated these observations, and the results are certainly remarkable. The different behaviour of two specimens of the same oil, one perfectly neutral and the other containing a little free fatty acid, is exceedingly striking. I have here before me two specimens of cod-liver oil—one of them is a fine and pure pale oil, such as is usually dispensed by the better class of chemists; the other is the brown oil sent out under the name of De Jongh. I put a few drops of each of these into these two beakers, and pour on them some of this solution, which contains two per cent. of bicarbonate of soda. The pale oil, you see, is not in the least emulsified; it rises to the top of the water in large clear globules;

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[*] Claude Bernard, *Leçons sur les Phénomènes de la Vie*, tome ii, page 346. Paris: 1879.

[*] Hoppe-Seyler, *Physiologische Chemie*, p. 257. Berlin: 1878.

the brown oil, on the contrary, yields at once a milky emulsion. The pale oil is a neutral oil, and yields no acid to water when agitated with it—in other words, it is quite free from rancidity; but the brown oil, when treated in the same way, causes the water in which it is shaken to redden litmus paper. I was surprised to find that olive oil (salad oil), which appeared quite sweet and had not the slightest taste or smell of rancidity, gave a milky emulsion with the soda solution. This oil did not yield any acid reaction to water when agitated therewith. Nevertheless, it evidently contained a little free fatty acid (probably oleic acid, which is insoluble in water, and therefore does not acidify water shaken up with it); for, when a portion of this oil was washed with a strong solution of carbonate of soda, and then allowed to separate, the oil thus freed from acid no longer gave an emulsion with the weak soda solution. It would appear that an admixture of only a very small proportion of free fatty acid is sufficient to induce emulsification—a quantity so small as not to cause any appreciable rancidity to the senses of smell or taste. This specimen of almond oil is to all appearance perfectly sweet; but it communicates a rather sharp acid reaction to water shaken up with it, and it gives, as you see, an instantaneous and perfect emulsion with the soda solution.

The bearing of these observations on the digestion of fat is plain. When the contents of the stomach pass the pylorus, they encounter the bile and pancreatic juice, which are alkaline, from the presence in them of carbonate of soda. Thus the fatty ingredients of the chyme, if they only contain a small admixture of free fatty acids, are at once placed in favourable circumstances for the production of an emulsion without the help of any soluble ferment, the mere agitation of the contents of the bowel by the peristaltic action being sufficient to effect the purpose.

This view of the matter renders it necessary that fresh inquiries should be made into the effect of gastric digestion on fats. It has hitherto been supposed that fatty and oily substances undergo no change in the stomach; but it is quite possible that something may have been overlooked. It was noticed by Richet, in the patient with a gastric fistula, that the fatty matters were detained a long time in the stomach, and that they only passed through the pylorus with the last portions of the meal. It is also a familiar experience to most dyspeptics, that rancid eructations are a frequent occurrence in the later stages of gastric digestion. If it should turn out that, among the complex operations taking place in the stomach, there occurred some slight decomposition of the neutral fats, and a liberation of a small quantity of free fatty acid, such a result would supply the necessary condition for the emulsification of the neutral fats in the duodenum. In speculating on this subject, it is difficult to shut one's eye to the possibility of the intervention of formed or organised ferments in the digestive process. It is well known that fatty acids are liberated in the decomposition of neutral fats by bacterioid ferments (zymophytes); and the presence of ferments of this class in the living stomach has been so repeatedly observed that it may well give rise to the suspicion that they are a normal ingredient of the gastric mucus, and have a normal function to perform in the digestion of some portions of our food. It is not, however, desirable to push speculations of this kind in advance of observed facts; and I only mention them as hints for further inquiry in regard to the digestion of fat.

MR. FURNEAUX JORDAN'S LITHOTOMY.

In reply to Mr. C. Heath's remarks, I would say that in the fullest notes of my clinical lecture, from which the published report was condensed, I refer to his useful suggestion respecting the use of a probe at a certain stage in the operation for lithotomy. Mr. Heath and Mr. Teevan differ so widely touching the incision at the neck of the bladder, that there is plenty of room for an "infinite variety" of opinion. Mr. Heath says any incision at the neck of the bladder is, as a rule, "uncalled for". Mr. Teevan tells us to cut the neck of the bladder even in little boys with a "big knife". He refers with just pride to twenty-two successful cases so cut. Mr. Teevan is quite correct in saying that the lateral method is very safe in boys. I have performed the operation in upwards of forty cases without a death. But I also agree with Mr. Heath, that it is not necessary to carry the knife into the bladder in every case. Twice within the last few months, and frequently before, I have removed small calculi with more limited incisions.

So far, the criticisms on my operation have been based on opinion, not on experience. I do not complain of this. An expert has a right to give opinions on new operations before he tries them; and a wise man will certainly not relinquish an operation which he knows, and likes, and excels in, for an untried operation. I have suggested a method of lithotomy which must stand or fall on its intrinsic merits. In one case, it served me well when no other proceeding was open to me. Whether it be found of general utility, or only of exceptional utility, or of no utility at all, time will show.

Furneaux Jordan.

ABSTRACT REPORT OF LECTURES ON THE COMPARATIVE ANATOMY OF MAN.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, LL.D., F.R.S.,

Conservator of the Museum, and Hunterian Professor of Comparative Anatomy in the College.

Lecture IV.—The Races of America.—(*Continued.*)

The physical or anatomical characters of the American native people taken as a whole, leaving out for the present the Eskimo, may be described as follows. In stature, they vary considerably. Among them are the tallest known people on the earth, the Tchuelches or Patagonians, who, though not the fabled giants of the earlier voyagers, appear by all trustworthy accounts to attain an average in the male sex of from 178 to 183 *centimètres*, which exceeds that of any other race. Some of the North American Indians—for instance, the Iroquois—are also very tall. On the other hand, the Fuegians, and especially the Peruvians, are small. There is, however, no pigmy race on the American Continent like the Bushmen, Negritos, and Lapps of the Old World. The hair, always a characteristic of primary importance in zoological anthropology, is remarkably uniform. Its prevailing, if not universal, colour is black or very dark brown. The pale and auburn colour of the hair of Peruvian mummies is probably due to accidental bleaching, and the fair hair said occasionally to be met with in existing tribes may be the result of European admixture. It is always straight and lank, though sometimes coarse and sometimes silky in texture, depending upon the thickness of the individual hairs. In transverse section it approaches the circular form perhaps more nearly than in any other race, though in this and in other characters it resembles that of the Asiatic Mongolian people. On the scalp, the hair grows abundantly and often to a great length; in many North American Indians it has been known to trail upon the ground when the person is standing upright. Not less characteristic is the rarity or absence of hair on the face and other parts of the body. The skin is smooth and soft, and of various shades of brown, though cinnamon, or as it is usually termed copper colour, is the most characteristic. Some Californian Indians and the now extinct Charruas of Uruguay were said to be nearly black; and some scattered tribes, both in North and South America, are described as being nearly as fair as Southern Europeans. The tint of hair appears to have no relation to the external conditions, such as heat, moisture, etc.; though the features of various tribes and of particular individuals in each tribe show considerable diversity, a characteristic type prevails throughout the great majority of the whole people from north to south. The forehead is usually retreating; the face wide in the molar region, narrowing towards the chin; the brows prominent, overhanging rather small, sleepy, half-closed eyes; the nose long from above downwards and narrow. The nose, as seen in profile, is usually arched, rather sunk at the root, then projecting somewhat horizontally, and making a tolerably sharp bend down to the tip, which is not produced down below the septum. Though this form is very frequently found amongst all tribes, there is some diversity, and the profile is sometimes simply arched and sometimes straight, but a broad flat nose is very rarely met with. The mouth is wide and prominent; the lips rather thin; the chin well formed, narrow, but prominent; the whole face below the eyes long and large, the malar bones projecting laterally, and the lower jaw large.

With regard to the cranial characters of the Americans, the same difference of statement has been made respecting their external appearance. Morton's assertion of the general sameness in the skulls from all parts of the Continent has been contested by others. But the controversies relating to this subject have nearly all turned upon one character alone, that is, the relative breadth of the cranium compared to its length, to the neglect of many others of probably equal importance. The prevalence of artificial cranial deformity, spoken of in a previous lecture, causes much difficulty by limiting the number of crania possessing their natural form at our disposal; but still there is sufficient evidence to show great variation in the cephalic index in American skulls. Although such extreme dolichocephaly as is met with amongst the Eskimo is very rare among true Americans, the larger number of crania of Indians, excepting those of the inhabitants of the west coast of North America and the region west of the Andes in South America, namely, Peru and Bolivia, as well as Patagonia, are mesaticephalic or moderately dolichocephalic; but the two forms are curiously intermixed, or at all events found in different tribes inhabiting adjoining regions, much in the same way as they are in Europe. As the inhabitants of the two extreme ends of the Continent, the Eskimo and the Fuegians, are both dolichocephalic, though in the case of the latter the evidence of cranial form is not yet so complete as might be desired, and as certain skulls apparently of great antiquity, which have been discovered in Patagonia and Brazil, are of the same form, it has been conjectured that the primitive inhabitants of the Continent were a race with long and narrow heads, and that the branchycephalic race are a later influx. The characters of the bones of the face exhibit, as is often the case, greater uniformity than those of the cranium proper. The frontal region is almost universally low and retreating, and the supraciliary ridges are generally well developed in the males. This and the form of the nose distinguish them from the majority of Asiatic Mongols. Nasal bones compressed laterally and hollowed near their upper ends forming a marked projection forwards at their lower ends, and giving the characteristic high bridge to the nose of the bony face, are found in the great majority of American skulls from all parts of the Continent. The tendency to the narrow form of nasal aperture, so very marked in the Eskimo, prevails throughout the American Continent, the average index of 123 specimens being 47.2, which is almost as low as that of Europeans; while a really platyrhine nose, such as is the rule among Negroes and Australians, is rarely if ever met with. The form of the orbit is also characteristic, being almost invariably large, round, and high, having an average index in 129 examples of 91.5. In the artificially flattened heads, this index is greatly increased, as the depression of the forehead drags the superior margin of the orbit upwards, often so much as to cause the vertical height to exceed the horizontal diameter. The malar bones are always full, and project laterally; and the nasi-malar angle, though somewhat diminishe by the shape of the nose, approaches to that characteristic of the Mongolian races. The forward projection of the jaws is not very great, though more so than in the white and less than in the black races; but in many cases there is a tendency to prognathism. The lower jaw is large, and the chin fairly prominent. The teeth are of moderate size and vertically implanted. Morton found the average cranial capacity of one hundred and fifty-five ancient Peruvian skulls to be 75.0 cubic inches, which is less than that of almost any other known race. It has been thought that some error may have crept into his method of measurement; but his estimate is probably not far wrong, as the average of forty-seven male skulls in the College collection is 1,345 cubic *centimètres*, and of fifty females 1,194 cubic *centimètres*, giving a mean for both sexes of 77 cubic inches. On the other hand, the barbarous tribes of Indians of both North and South America gave, in Morton's hands, an average capacity for both sexes of 84 cubic inches; and the Chinooks from the mouth of the Columbia river have remarkably capacious skulls, the average of seven males in the College collection being 1,589 cubic *centimètres*, larger than those of any other race, but those may be rather exceptional specimens. It is, however, perfectly certain that the crania of the comparatively civilised Peruvians were much smaller than those of the Indians of the North-West or the Patagonians, or even Fuegians; but, as Morton remarks, the former, living under a thoroughly organised paternal government, seem neither to have thought nor acted except at the dictates of a master, while the brain of the savage was always in a state of activity to provide against the necessities and dangers of his daily life. But it is possible that it may depend upon some general law connecting the size of the brain with the prevailing temperature, as inhabitants of cold climates have usually a larger brain-capacity than those who live in tropical countries.

The general characters of the American cranium are thus rather negative than positive; but on comparing it with those of other races, it will be seen that it has no affinity whatever with that of any of the Negroid people, Australians, Melanesians, or true Negroes. From these it differs in every essential character; but with the Mongolian it presents many affinities, especially in the form of the orbit, narrowness of the nose, and the great size and forward projection of the malar bones. It is by the latter character especially that it differs from the European cranium. The prominence of the nasal bones is sometimes the only distinction between American and North Asiatic skulls. Although Mongolian in the general type of face, it never presents such an extreme exaggeration of that type as is to be seen in the Eskimo, from which it can be always readily distinguished. The best argument for the unity of the American race—using the word in a broad sense—is the great difficulty of forming any natural divisions founded upon physical characters. Although certain special modifications prevail in different districts, and the Mongolian resemblance is greatest on the West Coast, the same forms certainly appear at widely separated parts of the Continent. Skulls from Vancouver's Island, from Peru, and from Patagonia, can be shown which are almost undistinguishable from one another; but the materials at hand are not yet sufficient for following out this interesting investigation to a satisfactory conclusion.

ANEURISM OF THE LEFT VENTRICLE.*

By JOHN RICHARD WARDELL, M.D., F.R.C.P.,
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THIS term is now understood to imply a pouching, irregular bulging, or partial dilatation of the wall of a chamber of the heart, and communicating with the interior of the viscus. It may or may not protrude and alter the external configuration of the ventricle; and it may be said, as the rule, to signify degeneration of the muscular structures. Pathologists now very nearly restrict the occurrence of this affection to the left side of the heart. It is true cardiac aneurism, and it does not mean that general eccentric dilatation to which this name was applied by the older authors. It is more common in men than in women. Of forty cases given by Thurnam, thirty were in males and only ten in females; and it may supervene at any period of life.

Some time ago, an example of this affection came to my notice. A gentleman, of more than middle age, suddenly fell down in his drawing-room. He was, when first seen, lying partly on a sofa and two chairs, supported by his friends and servants. His face was livid, the eyelids were closed, nostrils dilated, mouth open, and the tongue was slightly protruding, which, with the under lip, was swollen, and of a darker hue than the face generally. The pupils were firmly contracted; not the slightest pulsation could be detected in any of the larger arteries, nor could the hand or ear discover the feeblest action when placed over the præcordial region. There were two or three slight, apparently spasmodic, attempts at inspiration; and, on his being moved higher up the sofa, the pressure on the chest and abdomen occasioned a noise in the throat familiar to those accustomed to *post mortem* examinations, but which was regarded by certain of his friends who stood by as groaning. Life was extinct.

On inspection, the body was that of a corpulent well-formed man. On dividing the integuments over the chest and down the abdomen, there was a subcutaneous stratum of fat, varying from an inch and a quarter to two inches in depth. On the removal of the sternum, the pericardium was seen considerably distended. On opening it, which was accidentally done, a considerable quantity of yellowish serum escaped, which, however, was not measured. On slitting up the pericardium to a greater extent, a loose dark clot of blood was discovered to completely encircle the heart, and, consequently, the viscus was quite concealed. On carefully removing this mass of coagula, it weighed ten ounces. The heart was lying in its normal situation, and of its natural size. On being examined *in situ* to detect, if possible, the source of the hæmorrhage, a rent was discovered, about an inch and a half in length, with unequal edges. It was situated in the centre of the left side of the left ventricle. Around the heart, externally, the investing serous membrane was separated from the muscular substance to at least an inch and a half in diameter; and, on carrying the investigation deeper, the external rent was found to enter a cavity formed in the substance of the wall. It communicated with the interior of the left ventricle by a sinuous connection. The muscular tissue of the heart was considerably altered in colour and consistency, presenting the appearance of red softening; it was of a deep claret hue, and, under very moderate pressure of the fingers, the substance was readily torn. No appearance of pus was discovered. The walls were of normal thickness, and all the valves sound. No other morbid appearances were revealed in the thoracic organs. The abdominal viscera were healthy, with the exception of the kidneys, which were extensively diseased. They were embedded in an enormous quantity of fat, much enlarged, and of a claret colour or reddish-black; and both were lobulated, as in the fœtus. The capsules of each presented ulcerative patches, two of which in the left kidney were very deep, of conical shape, their bases being towards the surface, and they extended from half to three-quarters of an inch into the substance of the organ. The capsules were thickened, and readily torn off. On longitudinal section being made of these organs, there was considerable congestion; the tubular portions of both were completely obliterated, with the exception of a small part of the cones in the right kidney.

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* Read before the West Kent and East Sussex District of the South-Eastern Branch

True aneurism of the heart is a disease of rare occurrence, and comparatively but few cases have been recorded. It is, however, a subject of great pathological interest, notwithstanding that we can know little or nothing of its presence during life; and it must be admitted, wherever it exists, it is a condition which must inevitably pass on to a fatal termination. Latham speaks with emphasis on this fact of the non-recognition of the disease. He says our clinical acquaintance with those diseases during life has not kept pace with our knowledge after death; that they have sometimes had their beginning and progress without there being suspicion of anything wrong with the heart. And again, he remarks that sometimes they have been attended with suffering enough to alarm the patient, and by symptoms enough to enable the physician to infer damage of the heart, and even to anticipate its fatal event, but not to be sure of its nature: such as faltering and failure of the circulation, and dyspnœa and anguish, either constant with occasional aggravations, or altogether occasional and in paroxysms; but whether constant or occasional, never attended with any previous auscultatory signs. The last named writer cites a case in which, from first to last, the disease was undistinguished by any living phenomena. It has already been said that it is a pathologic change almost always observed on the left side of the heart. There have been some exceptional cases recorded in which the affection was located in the right ventricle. The immunity of the right side has been variously accounted for. Some have attributed its freedom to a want of power in these walls; others to the peculiarity of the valves at the right auriculo-ventricular orifice, which only incompletely close, and thus relieve the pressure by more or less of reflux within the right auricle; and it is clear there is generally far less tensory power in the right chambers. In looking to the etiological reasons why it is almost always in the left heart, it may be instanced that the arterial tissues are endowed with a higher degree of organisation and vitality than the venous; they are far more prone to acute inflammatory action; the arterial blood is more stimulating to the vascular coats, and the greater mechanical power of the left cavities is apt to lacerate the lining membrane and damage the muscular substance.

Corvisart was the first author of importance who described this lesion with accuracy, and, although Morand and Laennec speak of it, the former confines his observations to valvular aneurisms; and the latter, from his remarks, would lead us to infer that he had not met with true circumscribed ventricular aneurism. This author, in referring to Corvisart's case, terms it partial dilatation; and subsequently says he had never met with anything of the kind. Some sparsely scattered cases are to be found in medical literature long antecedent to the time of the last named authority. Brachet, Cruveilhier, Hope, Latham, Andral, Chassinat, Elliotson, Craigie, and Douglas have given accurate accounts of the disease; but the best and most comprehensive articles on this subject are by Thurnam, Quain, and Peacock. Of seventy-four cases collected by Thurnam, in fifty-eight it occurred in the left ventricle. Of this number, it was discovered in the apex of that chamber in twenty-seven of the inspections, and at the base of the ventricle in twenty-one cases, and at an intermediate portion of the ventricle in fifteen examined. Of three hundred and three examples collected by Quain, it was at the apex in one hundred and thirty-eight, at the base in one hundred and one, and intermediately in only sixty-seven. Of more recent cases which have been given, in fourteen it was at the apex, in eleven at the base, in eight intermediate, and in six at the septum. The order of its occurrence, then, is the apex, base, external wall, and septum. In the instance above recorded, the aneurism was in the centre of the ventricle. It may occur in any part of the wall of the chamber. These aneurisms greatly vary in size; they may be of all magnitudes, from that of a horse-bean to that of an orange, or even, in exceptional instances, to dimensions equal to that of the heart itself. Dr. Wales of the United States Navy, some time ago, published a case in which the aneurismal sac was so large that, regarded *in situ*, the bystanders thought the man had two hearts. At the base and septum, they are small. At the apex, they attain the largest extent. They may be circumscribed or diffused—that is, the lines of their boundary may be clearly defined, as when, by a narrow and cannulous passage, the enlargement communicates with the ventricular cavity; or there may be no line of demarcation, and the opening may be hemispherical—of the full diameter of the aneurismal pouch. The diffused variety is far more commonly met with at the apex. And it may here be remarked that the reason why the apex is more frequently the seat of cardiac aneurism is, doubtless, because there the wall of the chamber is thinner, and consequently the tissues are at that place more distensile. In thirty cases referred to by Peacock, in four they were named merely small; in five, they were compared to hazel-nuts or filberts; in one, to a pigeon's egg; and in six, to fowl's eggs. The margins are generally indurated by fibro-cartilaginous or osseous thickening. This line of boundary may assume the condition of a dense ring. In the case above described, the edges were merely irregular or ragged. The lining of the cavity presented a thin, easily lacerable membrane, which seemed a continuation of the endocardium. When an aneurism of this kind has originated from internal pressure, the endocardium may be so stretched as to cover in unbroken form the interior of the abnormal cavity. When the lining membrane has been inflamed, its corrugated and more opaque condition render its lines of demarcation more easily determinable. From the attenuated, or rather the abolition of, muscular structure at the point of rupture, it is to be inferred that, in this instance, life had for some short time, at least, been carried on; whilst the thickened visceral pericardium had alone maintained the integrity of the aneurism. The edges of laceration were precisely such as would result from a sudden tear. No organised lamellæ intervened like those which are found, and which for so long a period sometimes oppose the fatal catastrophe in aneurisms of the larger arteries. Sometimes, however, organised lamellæ, in greater or less amount, are formed in the pouch. In the more chronic cases, this kind of thickening is more common.

The etiology of these aneurisms can only be considered in conjunction with their pathology. Softening of the parietes has repeatedly been noticed. The wall may be of dark red, or reddish brown, or of the fatty shade of colour; and in certain examples the tissue has become easily broken down beneath the fingers. It has been thought that those primary lesions of the blood which occur in certain acute diseases, such as in continued, malignant, and the eruptive fevers, or in purpura and renal disease, and also in syphilis, may be regarded as the first causes of the pathologic change. It has been conjectured that coagula contained in the chamber might give rise to a localised expansion of the walls; but, unless in connection with some other circumstances, such could hardly be assigned as a reason. A prominent and ever accompanying state is a feebleness and a loss of resistive power in the wall. A fibro-transformation is the very usual appearance revealed on inspection, and such can in most instances be referred to a chronic myocarditis. It is true, there may have been, for a starting-point, ulceration of the endocardium and some giving way of the lining under great muscular efforts and the consequent ventricular tension. The membrane may have become thickened, with loss of elasticity, and slight solution of continuity ensue; the fissure would then become wider. Bloody detritus may be deposited until such an amount becomes accumulated as to exert pressure on the subjacent muscular structure. The lining membrane sometimes exhibits villous vegetations. In chronic myocarditis, a gradual softening and degenerative change in the heart-fibre eventuates; and, as the inflammation of the pericardium and endocardium is nearly always the result of acute rheumatism, the last named affection is thus the more remote cause of ventricular degeneration; and, as a still more fundamental cause, blood-change is the primary morbid condition. Thickening and opacity of the endocardium are, however, generally the first cognisable alterations, and these are detected with more or less dilatation of the wall. With the progress of the affection, a dense yellowish or yellowish-white substance is discovered; and this may be mixed with more or less of muscular fibres, or the muscular substance may have been absolutely abolished. In certain cases, a large portion of the ventricular wall had been transmuted into such a pale dense product. This kind of new formation has by no means the resistive capabilities of the normal muscular tissue, and it would seem it is evidently liable to considerable distension. In certain instances, in which syphilis was regarded as the primary cause, gummata were discovered in the sac. Under the microscope, after the disappearance of the transverse and longitudinal striæ, the fibrillæ become broken down and reduced into fine granular detritus intermixed with oil-globules. Afterwards, according to Niemeyer, the more advanced structural changes, irregular ramifying products, are noticed, of scar-like reddish-white substance, mixed with and substituting in greater or less degree the heart-wall. Some pathologists have named this degenerative condition as steatomatous. In some cases, the transformation is really cartilaginous, and in very exceptional examples the change passes on to be osseous. Dr. Wilks showed at the Pathological Society a very remarkable instance of this conversion. A man died of phthisis, and, on examination, the apex of the heart was adherent to the diaphragm. On the organ being removed, a hard bony tumour of the size of a pigeon's egg was projecting from the apex, which, on further inspection, proved to be a thin osseous case filled with fibrin, and connected with the left chamber by an oval opening. And this tumour was lined with a smooth dense membrane, which was continuous with the endocardium; and, what was still more singular, this bony transformation had resisted rupture, and the man died, as stated, of another disease. It has been observed that embolism of some arterial branch may be succeeded by the molecular death of some particular part; and thus the sequel of a more extended inflammatory process becomes emphasised at some apparent spot and limited to a circumscribed area; and at such places there may not only be external pouching, but at such parts the rupture occurs. When the bulging is very large, the visceral pericardium may not cover it; the endocardium is often atheromatous; and the reflected pericardium also may assume a milky opacity. When these changes have taken place, the serous membrane, under its transmutation, cannot be freed from the muscular structure, or that product which has substituted true muscular tissue.

When the rupture takes place, it is generally at the apex of the aneurismal tumour and in the direction of the muscular fibres; and this catastrophe is not in the earlier stage of the sacculation, but it comes to pass in the more chronic condition, when the pouch-coverings have become thinned by absorption, until at length they are unequal to systolic pressure, or by some increased exertion of sudden straining, or by lifting some weight, or when at the stool. The body of a girl of fourteen was taken into University College Hospital, who had died very suddenly; and there was found, on examination, a thimble-like pouch at the base of the left ventricle, which was of cellulo-fibrous formation, covered by the peri- and lined with the endocardium. The sac gave way at the extreme point of projection, where the covering was the most thinned. Mr. Spencer Watson recorded an example of left ventricular aneurism which was of somewhat hemispherical configuration, and which gave way at the apex. In this last cited instance, the microscope showed pale yellowish fatty patches beneath the endocardium. In both of these cases, hypertrophy was the accompaniment. Of seventeen inspections of rupture given by Hayden, in fourteen the occurrence took place in the outer wall of the left ventricle; and of twenty-two cases of rupture adduced by Quain, it was seen in the external wall of this ventricle in no fewer than fourteen examples. It is a fact to be held in remembrance, that cardiac aneurism, unlike arterial aneurism, is quite as liable to occur from fourteen to thirty years of age as from sixty to seventy; and writers on this subject agree that this early tendency is mainly or almost always attributable to the precedence of acute rheumatism, which has already been instanced as the chief cause of the affection.

It has above been remarked, that ventricular aneurism cannot be indicated by any of the ordinary rules by which we are guided in diagnosis. In the example which I have now recorded, the gentleman had, prior to his death, a slight paralytic affection, as shown by numbness of the left arm. For several months before his decease, he had complained of pain and discomfort at the posterior part of the thorax, immediately below the point of the scapula. But these symptoms are precisely such as occur in other forms of organic heart-disease, and they could throw no light on the exceptional nature of this affection. Peacock is inclined to believe that, if any specific symptoms can be relied upon, such are a sense of pain and weight at the region of the heart; but all who are conversant with cardiac pathology are aware that, in other organic forms of change in this viscus, the patient will thus complain of his ailment. Again, in some of the examples given by various authorities of the complaint, the patient was hardly inconvenienced; in others, the symptoms were characterised by no marked or peculiar indications; and in certain others there was hardly any evidence of a malady so grave and fatal. In the various forms of hypertrophy, and in valvular disorganisation, præcordial pains and heaviness are by the patient not unfrequently named. In right-side hypertrophy more especially, there is commonly a feeling of heavy dragging downwards; and not unfrequently uneasiness and a more or less pronounced degree of pain are the accompaniments. In those instances in which cardiac aneurism is small, and consequently where the action of the chamber is not mechanically much interfered with, the ordinary physical signs may give no information, nor may the patient be much discommoded. In such examples as have been narrated, and in which the tumour had attained large dimensions, there were recognised the more common states of cardiac enlargement. With scarcely an exception, when cardiac aneurism has been discovered on inspection, this pathologic change has been a surprise and in nowise expected. More than one aneurism may be present in this ventricle.

MOUNTAIN ASH.—But little information is to be gleaned from this report, beyond the fact that the death returns show the district to be improving. The death-rate has been steadily decreasing, and is now at the comparatively satisfactory figure of 18.6 per 1,000; whilst the deaths from typhoid fever (two) are many fewer than was usual a few years ago. None of the other zymotic diseases were fatal in the district, except whooping-cough, which caused three deaths, and seems to have been very prevalent.

ON THE ALLEGED DANGERS OF INTRA-UTERINE INJECTIONS OF PERCHLORIDE OF IRON IN CASES OF *POST PARTUM* HÆMORRHAGE.*

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ALTHOUGH it is generally acknowledged in this country that the injection of solutions of the perchloride of iron into the uterus is a very reliable and effectual method of arresting *post partum* hæmorrhage, there is, nevertheless, a very prevalent feeling that the practice is not without dangers of its own. This feeling varies greatly in intensity in different individuals. Some regard the danger as scarcely greater than that which attends all intra-uterine applications. Others consider it to be so great as to make the operation unjustifiable under any circumstances; while many who resort to this method of treatment in urgent cases, do so with anxious forebodings as to what the result of it may be. The object of the present paper is to determine what the dangers of the operation in question really are; whether they are such as to make it unjustifiable or even undesirable to resort to it at all; and, if not, how the dangers may be best avoided. The value of injections of perchloride of iron in cases of flooding after labour, was probably first taught by Professor d'Outrelepont of Würzburg, who used them in the same way as is now done, and wrote on the subject thirty or forty years ago (*Obstetrical Journal*, vol. ii, p. 91). In this country, although a practitioner here and there had used the injections, the first apparently who called attention to the practice was Dr. Robert Barnes, who recommended it in his Lettsomian Lectures in 1857. In a lecture published in the *Lancet* in 1862, Dr. Barnes again called attention to the subject, and again in 1865, at a discussion at the Obstetrical Society of London on Puerperal Fever, in the course of which he spoke strongly on the importance of preventing great loss of blood, which loss itself was an undoubted predisposing cause of puerperal fever (*Obstetrical Society's Transactions*, vol. vii, p. 36). Finally, in November 1869, Dr. Barnes read an exhaustive paper before the same Society, on the Treatment of Hæmorrhage after Labour, showing the necessity in certain cases for some means more reliable than the "ordinary measures", the value of injections of the perchloride of iron as meeting this want, their possible dangers, and the best means of guarding against them. A long discussion followed, in which all the speakers agreed as to the value of the perchloride as an uterine styptic; two only, Drs. Wynn Williams and J. H. Aveling, suggesting that the method of swabbing might be safer than that of injecting (*Obstetrical Society's Transactions*, vol. xi, p. 219). At the beginning of 1870, Dr. Barnes published the first edition of his *Lectures on Obstetric Operations*, in which his method of using the injection is explained, and the cases in which he recommends it are defined. The great popularity of this book has caused the operation to be very widely known and practised. Long and animated discussions as to its merits have taken place in the medical journals and at the various obstetrical societies. Many are the lives which its advocates believe they have saved by its means. On the other hand, a considerable number of patients have died after the use of the injection; whether in consequence of it, or in spite of it, I shall have to consider presently.

I shall now refer briefly to every published case which I can meet with, in which death has followed upon the intra-uterine injection of a solution of the perchloride of iron for the arrest of primary *post partum* hæmorrhage. I exclude from consideration cases of secondary hæmorrhage, and of hæmorrhage from abortion; for Dr. Barnes himself does not advocate the injection of the perchloride in such cases, but recommends dilatation of the cervix, careful removal of remnants of placenta, etc., swabbing the interior of the uterus (if necessary) with solution of the perchloride, and so on. One of the earliest practitioners in this country to employ the iron injection was Dr. Hugh Norris of South Petherton, who used it as early as 1859, but did not publish his observations until 1869. He then gave details of seven labours, after which he had injected the perchloride, besides referring to several cases of abortion in which he had used the solution on plugs. In two of the cases of labour, death followed. The first was a case of placenta prævia; the patient was nearly dead when Dr. Norris arrived. He delivered, and injected solution of perchloride immediately. No further hæmorrhage took place, but the patient never rallied, and died of exhaustion four or five hours after delivery. The other fatal case began with convulsions, was bled to thirty ounces, calomel and croton oil were administered, and the forceps used to expedite delivery, which was effected six hours after the first convulsion. Profuse hæmorrhage took place some hours after the birth. Dr. Norris found the patient greatly exhausted, and injected the perchloride. No further loss took place but the patient gradually sank, and died of exhaustion twenty-four hours after the delivery (BRITISH MEDICAL JOURNAL, 1869, vol. i, p. 327).

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* Read before the Liverpool Medical Institution, March 1880.

In 1872, Dr. Playfair published an interesting case of a lady whose uterus was injected with the perchloride on account of very severe *post partum* hæmorrhage. No fresh hæmorrhage took place for three hours, but the patient was then in such a critical state that transfusion was resorted to. The patient rallied, but a fresh gush of blood appeared, and the injection was repeated. Slight reaction followed, then a fresh gush, for which another injection was given. After this, there was no further hæmorrhage, but the patient sank, and died seven hours after labour (*Lancet*, 1872, vol. i, p. 108).

The next fatal cases which I find recorded are those which were referred to during the important discussion which took place at the Obstetrical Society of London in February and March, 1873, upon a paper read by Dr. Heywood Smith, entitled "Treatment of *Post Partum* Hæmorrhage by the Intra-uterine Injection of Perchloride of Iron". The cases referred to in the course of this debate require careful attention, since upon them has been founded a great deal of the opposition to this method of treatment which some obstetricians have manifested (*Obstetrical Society's Transactions*, vol. xv, pp. 44 and 65).

Dr. H. Smith's case does not bear very directly upon our subject, since it was one of secondary hæmorrhage, commencing on the tenth day after labour. The chief interest of the paper, however, arose from the discussion which it elicited, in the course of which Dr. Snow Beck made the astounding statement that, although he had never used it himself, he had seen nine or ten cases in which death followed the injection of perchloride of iron for *post partum* hæmorrhage, all the women presenting symptoms similar to those of puerperal fever. This assertion naturally excited the greatest surprise, and repeated attempts were made to induce Dr. Beck to substantiate his statement by a narration in detail of the cases. These attempts, however, met with very partial success. About a year after the discussion, Dr. Beck published details of four cases (BRITISH MEDICAL JOURNAL, 1874, vol. i, pp. 267 and 301), of which the following is a brief summary.

Case 1 was Dr. Heywood Smith's case over again. Dr. Beck had not seen the patient, but had examined the uterus after death.

Case 2 was that of a patient whose uterus was injected with the iron solution for hæmorrhage following her third confinement. On the fifth day, symptoms of fever set in, with swelling of the abdomen, and subsequently delirium and typhoid symptoms. Dr. Beck says he saw the patient on the fourteenth day after labour. She died on the twenty-second day.

Case 3 was a very similar one. Febrile symptoms began on the third day. Dr. Beck was called in on the eighth, and the patient died on the fifteenth. These two cases presented similar *post mortem* appearances. There was no peritonitis. The uterus was large and doughy; its sinuses were filled with thin dark-brown or black blood; no signs of pus anywhere, and no clots in the uterine veins.

Case 4 was not seen by Dr. Beck, but the uterus was sent to him by "a medical friend in Yorkshire", and presented the appearances just described. The history, also, was precisely similar to that of cases 2 and 3; fever commencing on the third day, and death taking place on the twenty-first day after labour. Up to the time of his death, some years later, Dr. Snow Beck published no more of his cases. The nine or ten fatal cases which he asserted that he had himself seen, resolved themselves into two cases seen by himself, and two others in which he had examined the uteri after death. Of these four, one was the case of secondary hæmorrhage which had already been published by Dr. Heywood Smith. As regards the other three, I believe I am correct in saying that they are not looked upon by the leading London obstetricians as altogether satisfactory, since in neither of them did Dr. Beck mention the name of the practitioner with whom he saw the patient; and, although these practitioners were publicly invited to come forward and substantiate Dr. Beck's statements, no one ever acceded to the invitation. But to return to the discussion at the Obstetrical Society: after Dr. Heywood Smith's paper, the following cases were referred to by subsequent speakers as having terminated fatally.

Dr. Routh had seen one case in which a weak solution of the perchloride was injected for *post partum* hæmorrhage with the desired effect. On the third or fourth day, puerperal fever set in, and the patient ultimately died.

Dr. Graily Hewitt had seen a similar case. The patient did well for three days, when puerperal peritonitis set in, followed by other grave complications, and the patient died five or six weeks after labour.*

Dr. J. J. Phillips had used the injection several times; only one of the cases had terminated fatally, and he could not in the least degree connect the death with the injection. He subsequently remembered seeing a case of placenta prævia, in which the patient died of the labour, notwithstanding the use of the perchloride.

Dr. Playfair had used the injection many times, and only once (in the case above described) unsuccessfully.

Dr. Murray had used it in ten cases, in three of which it was too late, as the patients were already moribund, and died shortly afterwards; the other seven did well. Dr. Bantock had seen one case in which the injection appeared to cause much pain, and death followed seven or eight hours afterwards.

During the years 1873 and 1874, a long and animated discussion on the use of the perchloride of iron took place in the BRITISH MEDICAL JOURNAL and the *Obstetrical Journal*, and a very large number of successful cases were reported. The following are the only unsuccessful cases alluded to, besides those above enumerated.

Dr. Lombe Atthill, who had used it successfully in several apparently hopeless cases, reports one in which symptoms of fever set in on the fifth day, and the patient eventually died. He does not consider that this was due to the perchloride, as the lady was in very bad health before the labour, and the hæmorrhage was so violent that Dr. Atthill says she would have been dead in a few minutes if it had not been for the injection (BRITISH MEDICAL JOURNAL, 1873, vol. ii, p. 628).

Dr. P. B. Giles relates several cases of *post partum* hæmorrhage treated by injection of the perchloride. All were successful except one. In this case, the placenta was peeled off with great difficulty under chloroform. The uterus did not contract, and perchloride was injected. Signs of pneumonia appeared on the fifth day, followed by typhoid symptoms, and death on the thirteenth day. After death, recent peritonitis, with much pus in the abdomen, was found; pus in the walls of the uterus at the placental site, but not elsewhere; no plugging of the iliac or femoral veins; congestive pneumonia, with effusion (*Obstetrical Journal*, vol. i, p. 441).

Dr. Holman of Reigate reports several successful cases; and also one in which the patient did not rally, but sank three hours after labour. After death, a large number of fibroids were found in the uterine wall, and others attached to the peritoneal surface of the womb (BRITISH MEDICAL JOURNAL, 1874, vol. i, p. 575).

In March 1874, a paper was read before the Dublin Obstetrical Society by Dr. Lombe Atthill, narrating several cases in which he had used the perchloride successfully, as well as the one fatal case above noticed. In the course of an interesting discussion which followed, Dr. More Madden related ten cases in which he had employed the iron treatment; of which the following two terminated fatally. One was a case of secondary hæmorrhage, occurring during an attack of small-pox, on the eighth day after labour, the patient sinking rapidly in spite of the injection of perchloride. In the other case, the patient did well until the seventh day; symptoms of metritis appeared on the eighth day; these subsided under treatment, but a low typhoid pneumonia set in, and the patient died on the twenty-first day after labour.

Dr. McClintock had used the remedy in four cases, one of which was unsuccessful, the patient dying of hæmorrhage; probably, as Dr. McClintock explains, because the uterus was not previously emptied of clots, and therefore the solution could not properly come into contact with the uterine walls.

Dr. Ringland related a case in which metritis and peritonitis supervened, the patient passing into a typhoid condition, and dying thirty-one days after her confinement (*Dublin Journal of Medical Science*, vol. lvii, p. 346).

In December 1874, a paper was read before the Obstetrical Society of Edinburgh by Dr. Connel, describing an extremely severe case of *post partum* hæmorrhage, in which, as a last resort, he injected perchloride of iron. The hæmorrhage ceased, but an hour and a half afterwards, the patient suddenly threw herself round on her hands and knees and expired. The author adds that some red blood had begun to show again, and that the slight recurrence of hæmorrhage, coupled with the patient's sudden muscular effort, was enough to extinguish life, she being already in a state of extreme exhaustion. The discussion which followed showed that the Edinburgh school of obstetricians generally disapproved of the iron treatment, although they had had little or no personal experience of it. Dr. Simpson had used it once, but too late, as the patient was just sinking. This was the only other actual case referred to, although most of the speakers spoke against the practice (*Edinburgh Medical Journal*, vol. xx, p. 752).

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* This same case is narrated at length by Dr. Snow Beck (although he never saw the patient) in the *Obstetrical Journal* for February 1874. Dr. Hewitt, however, says that "the facts of the case and the details of the treatment related by Dr. Beck are absolutely untrue in their most essential particulars" (*Obstetrical Journal*, vol. ii, p. 94); and Dr. Barnes says, "I have it from direct authority that his information was drawn from the monthly nurse who attended" (BRITISH MEDICAL JOURNAL, 1874, vol. i, p. 696).

In the journals for 1875, I find the following fatal cases referred to.

At a meeting of the South-Eastern Branch of the British Medical Association, Mr. Stilwell of Epsom read a case of a woman, aged 43, in labour with her first child, who died, after delivery and injection of perchloride of iron, of sudden collapse. No particulars are given, and I have been unable to obtain any, Mr. Stilwell having died in the meantime (BRITISH MEDICAL JOURNAL, 1875, vol. i, p. 60).

Mr. T. P. Morgan reports the case of a patient, aged 40, in her twelfth confinement, whom he injected three times in succession with solutions of the perchloride, increasing the strength each time. At each injection, the hæmorrhage ceased, but returned shortly afterwards, and the patient sank. No obvious cause for the recurrence of the bleeding is mentioned (*Lancet*, 1875, vol. ii, p. 188).

Mr. H. W. Boddy of Manchester reports a case in which sudden death occurred during the injection of perchloride for persistent, but not very profuse, *post partum* hæmorrhage. The following details must be mentioned. Having prepared sixteen ounces of fluid of the proper strength, and having passed the pipe of an ordinary enema-apparatus well up to the fundus, Mr. Boddy goes on to say, "The nurse then worked the syringe, while I held the pipe in its position. The hæmorrhage ceased immediately on the injection of the solution; and, during the first part of the process, the patient made no complaint, and the uterus began to firmly contract." During the last two or three strokes of the syringe, the patient complained of pain in the belly and of cramps; she gave a shriek; a general convulsion took place, and she died. Then mark this concluding statement. "The uterus was firmly contracted round the injection-tube, some little force being required for its withdrawal" (BRITISH MEDICAL JOURNAL, 1875, vol. ii, p. 488). A number of correspondents, including Drs. Swayne, Atthill, and Barnes, pointed out the probable cause of the untoward result in this case, viz., that, the uterus contracting firmly round the tube after the first few strokes, and the operator failing to maintain with his fingers a passage through the cervix for the outflow of the injected fluid, but continuing to inject the whole of the sixteen ounces, some of the fluid was probably driven through the Fallopian tubes into the peritoneum, causing, in the woman's already exhausted state, fatal shock. Mr. Boddy's candour in publishing this case is worthy of all praise and of imitation; and the lesson it teaches is a very important one.

At a meeting of the Dublin Obstetrical Society, in April 1877, Dr. Lombe Atthill related the case of a feeble half-starved woman who, after her eighth confinement, had a constant oozing of blood, until she was extremely exhausted. The perchloride was used, the hæmorrhage stopped, and the patient rallied for a time; but she soon became collapsed again; ether was injected subcutaneously; then transfusion of blood was performed; but the woman did not rally again, and died six hours after labour. Dr. Atthill's only regret in this case was that the perchloride was not used earlier.*

At a meeting of the London Obstetrical Society, in January 1878, Dr. Herman showed the uterus of a woman who had been injected with the diluted iron solution, and, the hæmorrhage continuing, a rag soaked in the undiluted solution was pushed up into the uterus. The hæmorrhage continued, and the patient died. The specimen showed that the lower part only of the uterus was corrugated by the stronger solution; and subsequent speakers suggested that, if the entire uterus had been swabbed with the "liquor fortior", the hæmorrhage would probably have ceased and the patient have had a good chance of recovery.

Dr. Hayes referred to a case which he had seen, in which only the nozzle had been introduced into the os, and the injection failed to arrest the hæmorrhage from which the patient died; also to a second case, in which the woman died of exhaustion after difficult labour, in spite of the injection of the perchloride (*Obstetrical Society's Transactions*, vol. xx, p. 2).

Dr. Routh referred to the case which he had mentioned at a previous meeting; and to a second case, of which he has kindly furnished me with the following particulars. The labour proving tedious, Dr. Routh was called in consultation, and the forceps was applied. Free hæmorrhage followed; and, the uterus proving inert, perchloride was injected. The hæmorrhage ceased for three hours, but the patient continued very weak; at the end of that time, a slight discharge of blood took place, and the patient fell back and died.

The report of the Rotunda Hospital, Dublin, for 1877, contains a notice of the following case. A patient, who had severe *post partum* hæmorrhage, was treated by injection of perchloride of iron, which stopped the bleeding. On the fifth day, she became maniacal, and died on the ninth day after labour (*Dublin Journal of Medical Science*, vol. lxvi, p. 162).

In the report of the same institution for 1878, I find the two following cases referred to.

E. P., aged 22, was admitted in a very exhausted state from accidental hæmorrhage. After the labour also, severe bleeding occurred; perchloride was injected with temporarily good effect, but the patient notwithstanding sank. M. H., aged 23, very feeble and anæmic, suffering from tertiary syphilis, was delivered of a putrid fœtus; profuse hæmorrhage followed; cold water was injected; then hot water; ether and ergot were injected subcutaneously; after which the womb contracted; but the general symptoms were very alarming; the patient was restless, feeling smothered, and unable to see. At this critical juncture, the uterus relaxed and hæmorrhage recurred; then a violent convulsion came on. Although the case was desperate, it was decided to inject perchloride. About six ounces of diluted solution were thrown up. The uterus did not contract; respiration immediately ceased, and she was dead. After death, it is simply stated that "general thrombosis throughout the entire venous system" was found (*Dublin Journal of Medical Science*, vol. lxviii, p. 337).

Dr. Atthill spoke of this case at the Cork Meeting of the British Medical Association, as one in which the iron appeared to cause sudden death (BRITISH MEDICAL JOURNAL, 1879, vol. ii, p. 367). On this point, however, he writes to me as follows: "I am not sure that I was correct, in my remarks at Cork, in attributing her death for certain to the iron. I was not then aware that she had had, previously to its use, an attack of convulsions. The patient was evidently moribund; and, though possibly the iron may have had an injurious effect, it seems, on knowing the particulars, to be hardly fair to charge it with the fatal result. I have used iron thus very often, and never had any unpleasant consequences. In the case I am referring to, my only regret is that the iron was not injected earlier."

In the course of the debate on the report of the Rotunda Hospital for 1878, Dr. Kidd mentioned a case in which both hot water and perchloride injections failed, and he lost his patient. He apparently gave no details of the case (*Dublin Journal of Medical Science*, vol. lxviii, p. 347).

The only other published case which I know of is a very recent one, and is reported by Dr. Herman in the *Obstetrical Journal* for January of the present year (1880). After the first syringeful or two had been injected, the patient seemed a little uneasy, but said she was not in pain. After a few more syringefuls, she gave a faint cry, threw up her arms, and gasped for breath. A few sighing inspirations followed, and then she was dead. Dr. Herman says the case suggests that "when a quantity of fluid is injected into the uterus, if there should, from contraction of the cervix, or any other cause, be a hindrance to the easy escape of the fluid thrown in", there is danger of clots in the uterine vessels being forced into the general circulation. From which I gather that he thinks such a hindrance to the return of the fluid was probably present in this case. It therefore serves to emphasise the lesson, already taught us by Mr. Boddy's case, to be most careful in keeping a free vent for the return of the injected fluid.

[*To be continued.*]

BAKEWELL RURAL DISTRICT: NORTHERN DIVISION.—In this district, there were 292 births and 222 deaths in 1879, equal to rates of 25.06 and 18.9 per 1,000 respectively. In the third quarter of the year, the death-rate was but 16.4 per 1,000—a result ascribed by Dr. Fentem to the exceptionally small fatality from diarrhœa during the cold and sunless summer, and the marked decrease of infant mortality. Only 6 deaths from zymotic diseases occurred during the year, 2 being from whooping-cough, 2 from typhoid fever, and 2 from diarrhœa. The district seems to be well looked after by the medical officer of health.

HELMSLEY RURAL DISTRICT.—This is an unusually thoughtful and good report, showing much real work and painstaking care. The death-rate of the district for 1879 was 17.0 per 1,000, a diminution of 1.8 from the average. The infantile death-rate was satisfactorily low, and only two deaths occurred from zymotic diseases. The most remarkable feature in the mortality is the large proportion of deaths from pulmonary diseases, which caused exactly a third of the total deaths. Dr. Low ascribes this fatality to the misty atmosphere prevailing in the wooded villages of the district, the damp state of the soil, and the faulty construction of the houses. The births numbered 129, of which no fewer than 13 were illegitimate. This exceptionally high proportion is made by Dr. Low the text of some highly interesting remarks on the neglect and cruelty to which illegitimate children are subjected by baby-farmers in the district; and the matter is clearly one that deserves some legislative interference.

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* *Dublin Journal of Medical Science*, vol. lxiii, p. 578. This case is also described in the Report of the Rotunda Hospital for 1877 (*Dublin Journal of Medical Science*, vol. lxvi, p. 149).

CLINICAL MEMORANDA.

A CASE OF GANGRENOUS PNEUMONIA.

On March 17th, 1880, I saw with Mr. Clayton of Leeds a man aged 42, who had had pneumonia for exactly a week. Mr. Clayton had already diagnosed commencing gangrene of the lung. The patient was a commission-agent, unmarried, supposed to have been in fairly good health until a week ago, when he was seized with a shivering fit during a walk in the country about his ordinary business. He was a man of regular and temperate habits. Three years ago, he had been much shaken in a railway accident; one membrana tympani had then been ruptured, leaving him deaf on that side; and it was thought that he had never quite regained his former standard of health and strength after the accident. For a year or two past, he had had considerable anxiety in business. In addition to this, he lived in a new house at the end of a terrace, and the walls of his bedroom were very damp.

I found him propped straight up in bed; his face was slightly jaundiced and dusky; eyes rather wild; skin perspiring; pulse quick, but tolerably full (it became much smaller and quicker when he afterwards lay down on the affected side). There was not very urgent dyspnœa. The breath was very disagreeable, the odour being unlike any ordinary "bad breath". The odour varied in intensity, and was said to have been much worse on the previous day. The sputa were greenish-black, not very abundant, having the same odour as the breath. There was diarrhœa, especially after food. He had just been purged, having eaten, a quarter of an hour previously, some bread and milk; and his attendants said that the bread and milk seemed to pass through him and to appear unaltered in the motion in those few minutes, much to their surprise. We did not, however, see this motion; neither could any urine be obtained for examination. He answered our questions quite sensibly, though not very readily; but he did not ask us any, nor did he express any concern about his condition, nor any curiosity as to what we thought of it. At the end of the examination, he lay down on the right side; but he did not seem comfortable, and was glad to be again propped up. The front of the right chest was very dull at and below the second rib; little sound of any kind was heard on auscultation over this dull area. The dulness did not, however, cross the middle line; and the heart was not at all displaced. The first interspace, though dull, was less so, and some coarse crepitant *râles* were audible there. In the right interscapular and the posterior axillary regions, loud blowing breath-sounds were heard, the expiratory sound being the stronger. Towards the base, these sounds were not so marked. The voice was too weak to enable us to draw conclusions from fremitus and vocal resonance. It seemed probable, however, that there was some fluid in the pleura; but, as he had had the characteristic sputa of pneumonia from the second day, the odour and appearance of which had changed on the preceding (sixth) day, and as the amount of fluid did not seem to be great and it was not likely to be pus, no puncture was made in the chest. The left lung was normal, with the exception of a few rhonchi. Temperature 103.5°. Food and stimulants in small and very frequent doses were ordered, and quinine was given in two-grain doses; but the patient died in a few hours after our visit. A *post mortem* examination could not be obtained.

T. Churton, M.D.,
Physician to the Leeds Dispensary and Leeds Fever Hospital.

STERNO-MASTOID TUMOUR OR INDURATION.

The following case may be of interest, in connection with those recorded by Mr. Parker, at page 515 of the Journal. W. H., a healthy child, aged 7 months, received a severe bruise on the right side of the head, the result of a fall, on March 17th. Two days afterwards, he was attacked with convulsions, which recurred at intervals for about twenty-four hours, the left side being chiefly affected. Next day, I noticed a hard swelling at the upper extremity of the left sterno-mastoid muscle, close to its insertion. The swelling remained stationary for about twelve days, when it became very much inflamed, increased in size, and ended in suppuration. It was treated as an ordinary abscess, and healed up in a few days, but the original induration was not much affected.

In his remarks, Mr. Parker states that these tumours are noticed, as a rule, very shortly after birth; that they generally occur on the right side; that the induration is most marked close to the sternal origin of the muscle; and that they disappear spontaneously, leaving no appreciable changes behind them. This case differed in all these points, as it followed convulsions and not parturition, was situated on the left side, at the upper extremity of the muscle, and it suppurated.

J. Johnston, M.D., Bolton.

OBSTETRIC MEMORANDA.

THE ABSORBENT WOOL-PAD.

Mr. Sampson Gamgee of Birmingham has strongly recommended absorbent wool as a surgical dressing; and has expressed his opinion that, in obstetric practice, he thought pads of this wool would be of the greatest service. Through the kindness of Mr. Gamgee, I obtained sufficient material; and, after a trial of about two months, have no hesitation in saying that these pads of absorbent wool are admirably adapted for receiving the lochial discharge after confinement, or in cases of abortion. The pads can be made antiseptic with carbolic or boracic acid, thymol, or terebene, which will render them more pleasant for use. When saturated, they are easily destroyed by burning; therefore, much washing is avoided, and the risk of infection is thereby lessened. The pads are much more comfortable than an ordinary napkin, and, well warmed, are soothing to the smarting genitals. Messrs. Southall Brothers of Birmingham have prepared and put up these pads in boxes of a dozen each; and they can be obtained from them direct, or through any respectable chemist. I would, however, remark that the pads prepared by Messrs. Southall are too small for obstetric purposes, and I have therefore used two in place of one.

I feel confident that wool pads, made of absorbent wool, will, if they can be obtained cheap enough, be used in obstetric practice in preference to the hard linen napkins. Their superiority cannot be questioned. They can retain much more lochial discharge; their softness is a source of comfort to the patient; and their destruction a matter of cleanliness. To those also who are believers in and followers of Lister, an antiseptic midwifery can be carried out in practice, which was difficult to manage before; and to Mr. Sampson Gamgee obstetric practitioners are indebted for the suggestion. In every case in which I have used the pads, the patients have expressed their satisfaction at the feeling of comfort derived from these pads, which is certainly a consideration where the parts are tender and smarting, over and above the fact of their cleanliness.

William Berry, M.R.C.S.Eng., etc.

ERGOT SUPERSEDED.

In a communication from Dr. S. W. Smith, in the Journal of March 20th, mention is made of the use of Weit's elastic ball-plug in cases of *post partum* hæmorrhage. I do not know this instrument by name; but of the value of the common India-rubber inflating pessary, in cases both of accidental and of unavoidable hæmorrhage, I can speak in the highest terms; so much so, that I have never gone to a labour case, for the last twenty years and upwards, unfurnished with one.

It is my custom, immediately after delivery of the patient, to apply externally above the pubes an oval air-pad (ten inches by seven in diameter), which is retained in place by a belt of stout webbing, six inches wide, fastened by a single strong steel buckle of the width of the belt. Should hæmorrhage take place in spite of this pressure (an extremely exceptional occurrence), then the introduction of the elastic pessary, in a flattened and folded state, to the upper part of the vagina, and its inflation to the size of the fœtal head, will form a complete barrier.

In cases of placenta prævia, with an undilated or rigid os uteri and flooding, the pessary introduced and dilated to the size of the fœtal head, not only acts as an effective plug, but at the same time as a most efficient dilator of the os uteri. If its use be associated with administration of ergot, delivery will frequently ensue within four or five hours. There is no necessity to remove the pessary, which by its presence seems to expedite delivery. It acts as a painless, or comparatively painless, dilator of the soft parts, and is finally extruded by the advancing head or presenting part of the fœtus.

For the purpose of inflating the pessary, I use a common India-rubber ball, perforated on opposite sides. To one perforation is attached a conical boxwood stem; the opposite perforation is covered by the thumb during compression. The advantage of this inflater is, that the pessary is more rapidly filled with air than it would be by a syringe; and, what is of more importance still, the operator can, before introduction, ascertain how many injections will be required to inflate the pessary to the required size. S. S. Roden, M.D., F.R.C.S.Edin.

Bequests.—Mrs. Harriett Mulligan has left £100 to the Adelaide Hospital, Dublin. Mr. John Coleman has bequeathed £50 to the Belfast Royal Hospital. Mrs. Eliza Smith-Barry has left to the Cork Lying-in Hospital, Cork Fever Hospital, and Home for Incurables, the sum of £20 each. Mr. Henry Tate, by a donation of £50 to the Belfast Royal Hospital, has qualified as a life governor.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

GUY'S HOSPITAL.

OPHTHALMIC CASES.

(Under the care of Mr. C. HIGGENS, Assistant Ophthalmic Surgeon to the Hospital.)

CASE I. *Opacity of the Lower Part of the Cornea from Exposure.*—Henry H., aged 7, first came under Mr. Higgens's care on October 14th, 1879. The right eye had been removed two years and a half before for some disease. The left eye began to discharge shortly afterwards. There was now opacity of the lower third of the left cornea. The opacity was superficial and non-vascular; it was evidently caused by exposure; its upper margin was well defined, and reached in a straight line from side to side of the cornea. The eye could be closed, but not so easily as it should have been. On inquiry, it was found that the eye was always partially open during sleep. On the right side was a small ill-fitting artificial eye. The lids of both eyes were granular. The boy was ordered to take five minims of liquor ferri dialysati three times daily; the left eye to be carefully bandaged at night. Up to November 25th, very little improvement took place. On December 12th, the patient came without the artificial eye, which had been broken about a week; the opacity of the left cornea was evidently clearing. It was now discovered that the artificial eye had scarcely ever been removed since first worn; it had always been left in at night. The lids could not be closed over it; as a consequence, the left eye could only be closed with an effort, and came partially open as soon as the patient went to sleep. The mother said that the eye was now always closed at night, and she had had no occasion to use the bandage since the artificial eye had been broken.

On January 2nd, 1880, the opacity was clearing rapidly. The patient was still (February 9th) under observation, but only came occasionally to the hospital.

This case is only interesting as an uncommon cause of exposure of the cornea. No suspicion was ever entertained that the artificial eye was worn at night, until it was accidentally broken and the improvement in the sound eye noticed.

CASE II. *Extreme Spasm of Accommodation in a Case of High Degree of Hypermetropia.*—Florence H., aged 13, first came to Mr. Higgens on May 2nd, 1879. She was attending a school, and worked about nine hours a day; of late, the sight had become very defective, and she had great difficulty in reading by artificial light. There was convergent strabismus, the left eye squinting habitually and being extremely amblyopic. In the right eye, vision was = $\frac{6}{9}$, with manifest hypermetropia of one dioptric. The ophthalmoscope showed hypermetropia of three dioptrics in both eyes, with astigmatism in the left; also white borders to some of the retinal blood-vessels. She was ordered to use a solution of sulphate of atropin, four grains to one ounce, three times a day.

May 5th. Both eyes appeared to be fully under atropin. In the right eye, vision was = $\frac{6}{18}$; with + 3.50, vision was = $\frac{6}{6}$. The left eye was the same as before. The ophthalmoscope showed hypermetropia of about 3 dioptrics in the right eye, and 4.50 dioptrics in the left. She was ordered to use glasses of + 3 dioptrics for all near work, and to practise the left eye separately for half an hour every day.

August 11th. The eyes were irritable and painful; the squint had nearly disappeared; in the right eye, vision was = $\frac{6}{9}$; and with + 3.50, $\frac{6}{9}$. She was ordered to use + 3.50, light blue, for all purposes, and apply a solution of sulphate of atropin, half a grain to one ounce, twice a day.

October 6th. The condition was unchanged.

January 22nd, 1880. The eyes were very painful; the patient constantly frowning and blinking when looking at any object, near or distant. The right eye read no letters at 6 *mètres* with – 4 dioptrics; vision = $\frac{6}{18}$. Small print (Jäger 2) could be read, but was held at 3″ from the eyes. *The ophthalmoscope showed myopia in both eyes.* She was ordered to use a solution of sulphate of atropin (four grains to one ounce) three times a day, and to wear protectors.

January 26th. Both eyes were under atropin. The ophthalmoscope showed hypermetropia of 3.50 dioptrics in the right eye, and of 5 dioptrics in the left eye. With the right eye, vision was = $\frac{6}{36}$; with + 3.50, it was = $\frac{6}{9}$. No astigmatism could be detected. She was ordered to continue the atropin drops.

February 9th. All the unpleasant symptoms had passed off. In the right eye, vision was = $\frac{6}{36}$; with 4 dioptrics, = $\frac{6}{9}$. She was to use the drops once every other day, to wear the protectors constantly, and on no account to attempt to read or do any kind of near work.

REMARKS BY MR. HIGGENS.—Cases of spasm of accommodation are common enough. Patients often present themselves apparently slightly myopic (about 1 dioptric), but being in reality hypermetropic to about the same extent. I do not remember to have seen a case in which such a great alteration in refraction took place as in that reported. Upon the original hypermetropia of 3.50 dioptrics, myopia of 4 dioptrics supervened; so that, by spasm of accommodation, the refraction had been increased by over 7 dioptrics, and that by action of the ciliary muscle quite out of the control of the patient. There would have been nothing uncommon in the patient seeing equally well with — 4 D or + 3.50 D, because the "amplitude" of accommodation at her age (thirteen years) is considerably more than 7 dioptrics; so that she could have seen in spite of the — lens. The peculiarity lay in the persistence of the high degree of tension quite apart from any voluntary effort. The treatment in this case is plain enough. The ciliary muscle must be kept paralysed by atropin, and the eyes entirely at rest, until the tendency to spasm has passed off. After that, convex lenses must be worn constantly. No doubt, if the patient were allowed to go on without treatment, she would eventually become permanently myopic.

The slighter degrees of spasm of accommodation are so common, that I always suspect the condition whenever a patient—more especially a young lady from school—is brought to me complaining that she has lately become near-sighted. I have no doubt that the long hours of study, often with bad light, assisted by a want of proper exercise—conditions existing in most ladies' schools—have to account for very many cases of induced myopia.

Two Cases of Conical Cornea, treated by Removal of the Apex of the Cone.—Lizzie M., aged 22, was admitted on January 13th, 1879. She had done a good deal of fine sewing and fancy work, and much reading. Five years ago, she began to notice that she was becoming more near-sighted, having always been slightly so. The near sight gradually increased, more especially in the right eye. The sight grew worse and worse for three years, at the end of which time she was nearly blind with the right eye, and could not distinguish a person at the other side of the room with the left. She was obliged to hold a newspaper within six inches to read at all, and could then only make it out with difficulty. For about two years, the sight remained about the same. For the last three months, both eyes had been growing worse, and very rapidly so in the last month. The patient was rather delicate and very hysterical. The right eye made out Snellen D=4 (with — 3.50), at eight inches, with a horizontal slit D=3 at sixteen inches; with a small circular opening vision was = $\frac{6}{36}$; and she read D=2.25, at eight inches. The left eye read D=1.25 at five inches; with small circular opening vision was = $\frac{6}{24}$.

The patient was placed fully under the influence of an anæsthetic. A small elliptical piece, extending through the whole thickness of the cornea, was removed from the apex of the cone, by transfixing with a Gräfe's knife, cutting out upwards. The edge of the small flap so made was then seized with iris-forceps, and removed by cutting through its base with the same knife. Both eyes were closed with strapping, and wet lint and a bandage were applied.

January 23rd, 1879.—In spite of directions given to the patient that she was not to open the eyes, she had done so whenever she could get a chance. All went well for a week, but now there was a good deal of pain, and the eyelids and conjunctiva were swollen.

January 25th.—The eye being examined, the cornea was found infiltrated with pus.

February 13th.—A cicatrix was visible in the centre of the cornea. The surrounding parts were clear. There was a good perception of shadows.

February 21st.—Iridectomy was performed downwards and outwards.

May 5th.—The iridectomy pupil was closed. There was perception of shadows.

Lucy R., aged 18, was admitted on December 15th, 1879. The sight of the right eye had been gradually failing for about three years; that of the left for about twelve months. With the right eye she could see large objects, as the hand held in front of it, but could not count fingers; by the aid of a small circular opening in a metal plate, she made out a letter here and there of Snellen D=4. The left eye read Snellen D=4, with a small circular opening D.6, at four inches; vision was = $\frac{6}{36}$ with —5.50. The apex of the cone was removed in the right eye, as in the previous case; both eyes were closed with strips of strapping, and wet lint and a bandage were applied.

December 29th.—Both eyes had been constantly bandaged, the lint being changed daily; but neither had been opened. There had been no pain nor swelling of the lids; the wound had healed; the anterior chamber was re-established; there was no anterior synechia.

January 15th, 1880.—The right eye read $D=1.5$, at four inches, without any aid; there was a small central corneal opacity.

REMARKS BY MR. HIGGENS.—Removal of a portion of the cone, comprising the whole thickness of the cornea, is the operation almost invariably performed by Mr. Bader and myself in cases of conical cornea. The results obtained are, as a rule, very satisfactory. The failure in the first of the two cases reported was, I believe, entirely owing to the stupidity of the patient, who would not allow her eye to remain quietly bandaged.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.

A CASE OF TRAUMATIC EYE-BALL TENSION: SUBCONJUNCTIVAL SCLEROTOMY.

(Under the care of Mr. W. SPENCER WATSON.)

C——, AGED 65, was struck by a stone in the right eye about ten days before admission on March 10th, 1880. He suffered severe pain, and the sight was reduced to a mere perception of light, the anterior chamber being at first half full of blood. The effused blood, however, disappeared in a few days, and the pain was relieved by the use of morphia ointment applied to the brow and temple. It was now noticed that the iris was tremulous, and this was due to a partial dislocation of the lens, the lower edge of which was tilted against the iris at its lower part on every movement of the eye. The tension was in excess. Eserine drops were now used: but the tension remaining, and vision being scarcely improved after its use—the pupil still remaining fixed and the iris tremulous—an upward subconjunctival sclerotomy was made on March 22nd. Since then, the tension has been normal, and he can now (April 12th) make out letters of No. 20 of Jäger's test-types. He is now quite free from pain. There is a protrusion of the iris in the sclerotic wound, but this causes no inconvenience, and is not visible in ordinary positions of the eyelids; the pupil, however, is slightly displaced upwards.

REMARKS BY MR. WATSON.—In the treatment of severe injuries of the eye, with laceration of the ligament of the lens and tremulous iris, the indications are not at all clear. The movements of the displaced lens are a source of danger, and, as in this case, may give rise to eye-ball tension probably by obstructing the free passage of the aqueous from the anterior to the posterior chamber. I was induced to try the effect of sclerotomy rather than iridectomy in the hope of being able to leave a new channel for the passage of aqueous through the filtrating cicatrix in the sclerotic without causing any further displacement of the lens. If iridectomy had been performed, there would have been a danger of thrusting the lens either forward into the anterior chamber, or backwards into the vitreous, and also some danger of allowing the latter, which had in all probability been damaged by the original injury, to escape through the wound. The sclerotomy (leaving a bridge of conjunctiva over the wound in the sclerotic) was made with a slow movement of the blade of the knife, and the aqueous was thus allowed to exude slowly from the puncture and counterpuncture. The risk of intra-ocular hæmorrhage was by this means rendered as slight as possible, and, as in this case blood had been already recently effused into the anterior chamber, the danger from this cause was very considerable.

CYLINDRICAL EPITHELIOMA OF THE BREAST.

IN association with the article on Mammary Tumours in the JOURNAL for March 20th, the following case is of interest. In the spring of 1879, I removed, at the Stanley Hospital, the breast of a woman aged 45, for what was believed to be a small nodule of scirrhus. It was about three-fourths of an inch in diameter, placed just outside the areola and infiltrating the skin, which was a little raised over it. The patient first noticed it twelve months before, since when it had slowly increased, and without pain. The nipple was quite healthy. After the operation, the patient made a good recovery, and when last heard of there was no return. The naked-eye appearance of the growth when cut across was still that of scirrhus, and at the whole circumference it was infiltrating the neighbouring tissues. Microscopically, it consisted of columns of cylindrical cells, separated by a fair amount of fibrous tissue. The cells were mostly in a single layer, though there were spots where they were massed together in alveoli, this being quite the exception. They were not so perfect and distinct as in an ordinary adenoma. The growth was very much like a section from the deep part of a cylindroma of the stomach or intestine, and I came to the same conclusion as Dr. Thin, that it was a "duct-cancer". At the same time, it appears to me that this growth is as distinct from all forms of adenoma as is the more common scirrhus; the distinction being that, as in the latter, it is primarily an epithelial growth.

F. T. PAUL, F.R.C.S., Liverpool.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 20TH, 1880.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

On Some Appearances, probably of Parasites, in the Voluntary Muscles of Enteric Fever.—Dr. BUCHANAN read, on behalf of Mr. W. H. POWER, a paper on this subject. Mr. Power's attention was first called to it by the discovery of hæmatoid worms closely resembling trichinæ in the body of a boy who had died on board the training-ship *Cornwall*, of a disease supposed to be typhoid fever, that had affected many of the boys in the ship. Investigation rendered it nearly certain that in all the cases the disease had been parasitic in its nature, rather than enteric. The parasites resembled trichinæ in size, but they were not encysted, and they were more transparent than trichinæ generally were. This might be due to the rapid course of the disease in this case, and to the fact that the examination was not made until two months after death. In order to follow up the matter, Mr. Power made examinations of the voluntary muscles in two cases of undoubted typhoid fever. The first case was a young man, a patient in St. Thomas's Hospital under the care of Dr. Cory, admitted for typhoid fever, who had died of perforation on the twenty-third day of the disease, the bowel being found *post mortem* to present well marked typhoid ulceration. In the pectoral muscle were bodies resembling parasitic worms. They were very numerous, and when first seen were apparently living. In length and in breadth they were about one-fourth the size of the trichina spiralis, and there was an interior canal which appeared to be covered at one part by some internal tissue or organ. Similar bodies were found in the muscles of a boy who died in Greenwich Hospital from peritonitis, at an early stage of unquestionable typhoid fever. In neither case were all the muscles affected, the diaphragm being in both free from the worm-like bodies. Further examination led to the discovery of smaller bodies, possibly having some relation to the larger bodies, but much more numerous than the latter. They were, however, not easily seen, a very slight interference with the slide being sufficient to remove them from view. The larger parasite-like bodies were more numerous in portions of the muscle which had undergone decomposition; but this was not true of the smaller bodies. It was doubtful whether the increase in the number of the larger bodies was apparent only, or whether it depended upon actual growth or multiplication. The author of the papers did not profess to do more than record the observed facts, with a view to encouraging investigations on the part of other pathologists.—The PRESIDENT, after remarking on the important nature of the paper that had been read, said that he feared the facts presented were too novel to admit of much discussion at present.

Recovery from Morphœa.—The PRESIDENT referred to a case of ivory-patch morphœa that he had exhibited a year ago. The patches occupied certain definite areas of distribution, corresponding to the distribution of certain nerves. The disease had now almost disappeared, there being only left a little stiffness of the skin at the seat of the patches. This was the most rapid case of recovery that he had ever seen.—Mr. MORRANT BAKER mentioned a case of the same disease which he had seen a few weeks ago. At that time, there were numerous large patches, which had since almost entirely disappeared. The patient stated that the disappearance took place very quickly, after a considerable hæmorrhage from the bowels.

Rare Form of Skin-Disease.—Mr. MORRANT BAKER narrated the case of a woman, aged 53, who presented numerous large rough warts, deeply pigmented patches in various parts of the body, but especially on the extensor aspect of the limbs. The patches itched very much, but did not discharge. The disease had lasted for two years and a half. The disease was essentially of a papular or tubercular nature, the large patches being formed by the confluence of a number of tubercles. The skin between the patches was also deeply pigmented. At the elbows, the disease looked like lichen ruber; elsewhere it was more like psoriasis or prurigo. He thought that probably the case ought to be looked upon as belonging to the class to which the President had given the name "lichen psoriasis".—The PRESIDENT said that he had applied the term "lichen psoriasis" to "lichen ruber" because this disease was really a form of psoriasis. He thought that many of these diseases would be much simplified if it were recognised that they were polymorphic, the same malady appearing under many different external characters, the treatment being in all cases essentially the same. He thought that Mr. Baker's case belonged to the category of psoriasis, and the question raised by him was one of name rather than of nature.—Dr. PYE-SMITH thought the case was one of psoriasis.—Mr. BAKER, in reply, said that one dermatologist of experience had called the case eczema, and another had thought it did not belong to either of these categories.

Ramifying Cyst in the Brain.—Mr. EWART showed the brain of a man aged 31, who had been admitted into St. George's Hospital in July 1878, having within the previous eighteen months suffered from three severe attacks of headache and vomiting; and for some months before admission there had been signs of mental derangement. On admission, he suffered from fits of numbness in both hands; he soon afterwards became violent, and then comatose, and died. The right cerebral hemisphere contained a large cyst enclosed in an irregular-shaped and smooth-walled cavity traversed by numerous vessels. The cyst-wall, which was composed of a very thin membrane, was quite separate from the lining of the cavity; so that the interior of the cyst did not communicate with the cavity. The cyst-wall was elaborately folded in upon itself; so that there was no real space, but only a potential cavity enclosed within it. The circulation of the anterior part of the brain was very abnormal. The anterior cerebral arteries were connected by two communicating arteries; but the left anterior cerebral came to an end shortly after giving off the second communicating vessel. The right ended in a knob, from which a number of vessels arose, two of them being of considerable size, and representing the two anterior cerebrals. The right middle cerebral was larger than normal; but many of its branches were occluded by great hypertrophy of the intima. The case was probably one of congenital malformation; but, if so, it was very strange that there should have been no symptoms until the patient was twenty-eight years of age. They were probably brought on at last by some change in the condition, or by some irritation.

Aneurism by Anastomosis of the Ear.—Mr. EVE showed a specimen of an ear presenting this condition, which had been removed by Mr. Thomas Smith from a girl aged 21. At birth, there had been a small pulsating lump in the upper part of the pinna, which had been ligatured when the girl was fifteen years of age. The lump had, however, gone on increasing in spite of a second operation two years later, and finally it involved the whole pinna. There were moderate pulsation and a humming *bruit*. There was enlargement of the right common carotid, and of the temporal and posterior auricular arteries. Under the microscope, there was great increase in the number of arterioles and capillaries, which anastomosed so as to form a very close network. The walls of the arterioles were extremely thin in proportion to the size of the vessels, and were composed of an epithelioid layer supported by a layer of condensed connective tissue. There were a number of capillaries in process of formation, by means of branched protoplasmic filaments communicating with the epithelioid cells of neighbouring capillaries. Injection had in some instances penetrated into the roots of the processes. The growth probably arose directly from the original nævus by an extension of the morbid process.

Laryngeal Perichondritis in Typhoid Fever and Small-Pox.—Mr. EVE showed two specimens of this condition in typhoid fever, and one specimen in which it had occurred in small-pox. The latter case was that of a man aged 36, in whom laryngeal perichondritis supervened during convalescence. Tracheotomy was performed, but the patient died. The epiglottis and arytæno-epiglottidean folds were œdematous, and the arytænoid cartilages were necrosed and surrounded by pus. One of the cases of typhoid fever was a man aged 27, who died on the fifty-third day of the disease. There were no laryngeal symptoms, but, after death, the arytænoid cartilages were found to be necrosed. The other case was in a woman aged 27, in whom laryngeal symptoms came on after an attack of hyperpyrexia, the larynx presenting very similar appearances to those seen in the last case. It was generally thought that the laryngeal disease was due to an extension into the deeper tissues of typhoid or variolous ulcers of the larynx; but Gestier, after showing that the great majority of cases occurred during convalescence from severe attacks of typhoid fever, suggested the probability of its being due to the profound debility of patients convalescent from these diseases. This view was maintained by Mr. Eve, for, in all of the cases narrated by him, the attacks had been very severe; there was no trace of ulceration in any other part of the larynx, and the disease did not take place at the time when specific ulceration is liable to occur. He believed that no case was on record where the perichondritis could be clearly traced to extension downwards of specific ulceration.—Dr. GREENFIELD had seen this condition of the larynx many times in patients who had died of typhoid fever. He agreed with Mr. Eve in his views of the pathology of the process. In several cases, the abscesses were only found by cutting through the mucous membrane, proving that they did not owe their origin to ulceration of this membrane. He believed the condition might be recovered from without any serious effects being produced. The abscesses were usually found in the posterior commissure of the larynx, near one or other arytænoid cartilage. The cases he had seen had most commonly occurred in typhoid fever of a severe type, terminating fatally from the intensity of the disease.—Dr. GOODHART thought these ulcers were more common in some epidemics of typhoid fever than in others. For a long time, he had sought them in vain, but he had seen five or six within the last eighteen months.—Dr. FREDERICK TAYLOR had seen a case occurring in a patient who had suffered from a greatly prolonged attack of typhoid fever, finally dying of perforation. An American author had recorded a case of stenosis of the larynx after typhoid fever.—Mr. EVE, in reply, stated that in none of his patients had there been any signs of pyæmia, all the evidence pointing to the perichondritis being a localised inflammation.

Specimen of Aortic, Mitral, and Tricuspid Constriction.—Dr. PEARSON IRVINE showed a heart in which all three conditions were present, taken from a woman aged 37, who had suffered from short breath from a child. When first seen, there were all the signs of severe cardiac affection. There were two separate systolic murmurs at the apex, a diastolic murmur at the apex, which did not, however, run up to the first sound, and a systolic murmur at the base. There was a double contraction of the ventricles. *Post mortem*, there was extreme dilatation of the right auricle, also of the right ventricle, and there was slight hypertrophy of the left ventricle. In the left auricle was an old clot, nearly filling its cavity, but enclosing a channel for the passage of blood. The patient had had acute rheumatism seven years previously, and the question arose whether the cardiac condition had been acquired then or had existed from birth. Possibly there might have been a congenital condition which was modified by the acute rheumatism. There was no trace of pericarditis.—Mr. EWART had seen a very similar case, with the exception of the aortic constriction. In that case, the left auricle was almost filled with old clot, through which a sinuous channel found its way.

Tumour of Spermatic Cord.—Mr. WALSHAM showed a tumour removed from a child aged 4 years, who had suffered from congenital hydrocele. The tumour appeared when the child was about three years old, growing above the testicle, and preventing the hydrocele fluid from returning into the abdomen. The growth was found, after removal, to be apparently of intratubular origin, being composed of tubular systems of cells enclosing channels. He thought the tumour had originated in the remains of the Wolffian bodies.—Dr. GOODHART remarked that a very similar specimen had been shown by Dr. Gairdner, and was by him supposed to be a lymphoma. In that case, the tumour had several times disappeared spontaneously. This disappearance was possibly due to the tubular arrangement of the cells, which had allowed part of the morbid growth to be carried away piecemeal along the tubes which formed part of the tumour.

Specimen exhibited by card.

Mr. SHATTOCK: Persistence of communication between the Rectum and the Genito-Urinary Tract, in a newborn male child.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

WEDNESDAY, MARCH 3RD, 1880.

JAMES LITTLE, M.D., in the Chair.

Case of Fatty Heart.—Dr. HENRY KENNEDY detailed a case which he considered a very typical example of one of the forms of fatty heart, such as had been described by Dr. Wilks. The patient was a woman aged forty years, unmarried, who, in June 1879, underwent an operation for the removal of an uterine polypus. Shortly afterwards, she became subject to chronic dysentery, which utterly prostrated her. On admission to hospital in January 1880, she was obviously in a dying state. There was commencing arcus on the upper portion of each cornea. The heart beat fifty-six times a minute; its sounds were distinct and musical in character. Her mind was clear, but she answered questions slowly. She lived for five days after admission, during which period she had a violent and long-continued attack of vomiting. After death, the heart was found atrophied, weighing exactly six and three-quarter ounces. To the naked eye, it was pale and faded; whilst, under the microscope, it presented a good example of "tabby striation". The valves and the aorta were healthy. The right vagus nerve had undergone fatty degeneration, but the left vagus was healthy. Dr. Kennedy alluded to the probable connection between this state of the right vagus and the slow cardiac action. The vomiting he regarded as perhaps due to a passive congestion of the stomach from the languor of the circulation, and the slowness of speech he attributed to a possible fatty change in the medulla oblongata.—A brief discussion ensued, in which Mr. F. T. PORTER, Dr. MACSWINEY, and the CHAIRMAN took part.

Iodic Purpura.—Dr. G. F. DUFFEY reported a case of iodic purpura, which had occurred in the person of a wine-porter, aged 25, who sought admission to Mercer's Hospital for subacute articular rheumatism. A year previously he had suffered from rheumatic fever, and he had a mitral regurgitant murmur. He affirmed that he had always been moderately temperate, and he denied ever having had syphilis. On the day of his admission (October 6th, 1879), he was ordered ten grains of iodide of potassium three times a day (℥ ss. per diem) in water; and on October 29th, the dose of the iodide was increased to fifteen grains, with which, in consequence of his anæmic condition, was combined tartrate of iron. On the evening of November 6th—that is, exactly one month after his admission—the patient having taken the iodide continuously, and with apparent benefit all the time, to the total amount, presumably, of about two and a quarter ounces—he complained to Dr. Duffey's clinical clerk (Mr. H. G. Myles) of a slight sensation of warmth and itchiness in both shins. Mr. Myles, on examining the legs, noticed an eruption on them of small round spots, which the patient had not himself observed before, or on any previous occasion, and which he was confident was not there that morning. The next day, he had had a good night and felt well; his appetite was good; there was no fever; and now no heat or itchiness in the shins. There were slight swelling and a little redness on the dorsum of the foot, similar to what he had had on former occasions, and which was ascribed to rheumatism. Over the lower four-fifths of the anterior and lateral aspects of both legs, and on the dorsum of both feet, was a copious eruption of small discrete purpuric spots. They were circular, of a dark blood-red colour, varying in size from that of the head of a pin to that of a lentil; they did not disappear upon pressure, and were not elevated above the surface. They were confined to the legs, chiefly the anterior tibial regions, and the insteps; and, with the exception of a few acne-like spots on the forehead and under the left clavicle—probably, also, due to the iodide—there was no other cutaneous affection or discoloration of the skin. The gums were not spongy; and there was otherwise no hæmorrhagic tendency. No constitutional disturbance of any kind existed. There was no coryza, no feeling of languor, depression, or weakness, and no albumen in the urine. The iodide was at once discontinued, and the eruption grew gradually fainter in colour, and finally disappeared; and in eleven days not the slightest trace of it could be distinguished. Subsequently, on the iodide of potassium being resumed, the rash reappeared. Iodide of sodium was then substituted for the potassium salt, but half an ounce of it failed to produce any eruption. The iodide of ammonium was next (December 4th) ordered in ten-grain doses in water three times daily. The same evening, after two doses (twenty grains) of the medicine, as he was sitting before the fire, the eruption reappeared—chiefly on his right leg, and more towards its posterior aspect than on former occasions. His leg felt hot before the rash came out, probably only in consequence of his sitting close to the fire at the time, but there was no itchiness, or other constitutional or local symptom of any kind. The medicine was discontinued, and on the third day the eruption had quite disappeared again. He was shortly afterwards discharged from hospital in good health. Dr. Duffey illustrated his case by an able bibliographical summary of the literature of the exanthems produced by iodine and the alkaline iodides. He pointed out that the appearances and symptoms in his case did not correspond with that form of purpura sometimes met with in rheumatic patients, described by Schönlein, in 1839, under the name of "peliosis", or "purpura rheumatica" ("roseola rheumatica"). It was suggested that, possibly, the relatively large proportion of potassium salts in the red blood-corpuscles, and of sodium salts in the plasma, might have some as yet unrecognised bearing on the point.—Dr. WALTER SMITH said it was most important to be able to diagnose medicinal rashes. He knew of two cases of persons who were sent into hospital for measles, but it turned out that what they were suffering from was copaibal rash. Another patient that he knew of thought she was getting scarlatina, but had only taken quinine. Thus mistaken opinions might be arrived at from ignorance of the fact that iodide of potassium caused this curious purpuric rash. Last December, a woman, aged 39, became an extern patient at the Adelaide Hospital for ulcers of the left knee, which were probably syphilitic. He gave her iodide of potassium two or three times a day. Next morning, her legs were mottled with a red rash; but it was limited to her legs, and scarcely appeared above her knees. The rash persisted as long as she took the medicine; but, if the latter were omitted for a day or two, the rash disappeared. The same rash had come out a year previously on her getting the same medicine. Iodide of ammonium acted similarly in this patient's case.—Mr. TICHBORNE said that, some time ago, he had read a paper before the Royal Irish Academy, in which he proved that the mere act of solution dissociated, to a limited extent, a salt into a free acid and free base, the free acid and base coexisting in the solution as a mechanical mixture, and not in chemical combination. The amount of this dissociation was subject to three or more influences, but was chiefly determined by the chemical force exerted between the two, being counterbalanced by the dissociating influence of heat; so that, the amount of dilution being the same, the percentage of dissociated acid would be determined by the temperature. Mr. Tichborne, in these experiments, had been in the habit of using phenol-phtalein as an indicator, which gave colourless solutions with acids, and neutral solutions and red solutions with alkalies. The dissociation of salts could be evidenced by this indicator. The dissociated acids or bases were always set free in equivalent proportions, but the one which was the most chemically active produced its specific action on the indicator. A few days ago, Dr. Duffey had put a question to him as regarded the relative decomposition of the alkaline iodides. He, consequently, determined to submit those salts to an examination. He had been struck with the remarkable coincidence of his results with Dr. Duffey's experience of the therapeutical action of those drugs, which, in his opinion, gave undoubted evidence that iodic purpura was entirely due to a decomposition of the salt in the animal economy, and that its power in that respect was directly in ratio to the decomposibility of the salt.—Dr. BARTON detailed a case of iodic purpura which had come under his observation. He asked Dr. Duffey whether the majority of the cases he had quoted were in syphilitic patients.—Dr. J. W. MOORE mentioned two cases illustrative of the toxic effects of free iodine. Both patients were delicate females, and therefore perhaps likely to be susceptible to the influence of drugs.—The CHAIRMAN had seen poisonous effects of iodine produced as frequently by very small doses as by large doses. He commonly gave the iodides in light claret, with satisfactory results.—Dr. DUFFEY, in reply to Dr. Barton, said that his impression was that about half the patients in whom iodic purpura occurred had been syphilitic.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, MARCH 3RD, 1880.

J. W. F. SMITH-SHAND, M.D., President, in the Chair.

Larva in a Gum-boil.—Dr. ALEXANDER OGSTON exhibited, on behalf of Mr. Craven of Thurso, a living larva of one of the *Elateridæ* about an inch in length, removed from a gum-boil. The larva was supposed to have found its way into the gum-boil through the antrum.

Operation for Club-Foot.—Dr. A. OGSTON showed a patient on whom he had performed a new operation for club-foot.

Excision of the Hip-Joint.—Dr. GARDEN showed a patient (a boy) on whom he had performed excision of the hip-joint, which was followed by great reaction. Afterwards, amputation at the hip-joint was performed, as the bone was found to be unhealthy beyond the part excised. The amputation was followed by very little reaction. The boy made a good recovery, and was found, when exhibited at the meeting, to have a good stump.

Chronic Peritonitis.—Dr. GARDEN showed a preparation of the whole of the contents of the abdominal cavity of a woman who had died from chronic peritonitis. The patient from whom the specimen was taken was first seen in October last, when she complained of a swelling of the belly, which had begun on the left side. This swelling was tapped, and a large quantity of ascitic fluid removed. After several tappings, the patient gradually sank from exhaustion, and died in February last. On examination, the peritoneum was found to be excessively thickened, forming as it were a strong cyst, enclosing those organs or portions of organs which have a peritoneal covering. Externally, the appearances and feel resembled very much those of an ovarian cyst. During life, the affection was thought to be malignant disease of the left ovary.

Traumatic Tetanus.—Dr. CARLYLE (Buxburn) read notes of a case of tetanus occurring after an injury; with reference chiefly to its treatment. The patient, a middle-aged healthy workman, had his right forefinger crushed by machinery so severely as to require amputation through the second joint of the finger. Two days afterwards, one-third of the flap of the stump was found beginning to slough, and for this, linseed poultices were applied for two days, when the slough separated, the stump looked clean and healthy, and carbolic oil (1 in 20) was applied. On the evening of the same day—the fourth from the accident—he complained of difficult breathing and sharp pain in the epigastrium; and as there were no physical signs in the chest to account for the state of the breathing, it was supposed to be tetanic, and a fourth of a grain of extract of belladonna was ordered, to be repeated every five hours. Next morning, his condition was as before, with pain and stiffness about his neck, and difficulty in opening his jaws added. The pectoral and recti muscles were rigid; the skin moist; temperature 101°; pulse 90, strong. The surface of the stump was very sensitive, but otherwise healthy. There was no tenderness along the nerves of the finger, hand, or arm. The part was placed in linseed poultices with tincture of opium, and the pills were continued, the nourishment being fluid. Next day—the sixth—he was reported as having been very restless during the night, and crying out occasionally from pain. When seen, his limbs and trunk were rigid and somewhat bent backwards; he was unable to open his jaws, and had taken nothing since the previous afternoon, owing to inability to swallow. Skin moist; temperature 103.4°; pulse 104. Thirty grains of chloral-hydrate in solution were injected into the mouth; and in about half an hour, he could swallow a little; otherwise, he remained as before, and the pain and stiffness became worse shortly afterwards. The stump, healthy looking, was dressed with carbolic oil, and the chloral was repeated every four hours. On the seventh day, he was rather easier, and could open his jaws about a quarter of an inch and swallow fairly, but the muscles of the trunk were still rigid. Temperature 103°. He was directed to continue the chloral as before. On the ninth day, he could open his jaws half an inch, and swallow fairly well. The rigidity, pain, and difficulty of breathing continued. Temperature 102.6°. On the eleventh day, he was still improving, and could open his jaws nearly to their full extent and protrude his tongue, and the muscular rigidity was quite gone. He had become irritable, obstinate, with flushed face, congested conjunctivæ, and cramps in the legs; and the chloral was discontinued. On the same evening, during the nurse's absence, he got up and pushed his left arm through the glass of a window, receiving on the arm a superficial wound about an inch long, which was dressed with water-dressing. On the thirteenth day after the first injury, and after a good night, he was again seized with epigastric pain, but there was no rigidity. Next day, trismus and general rigidity were present, and these were stated to have come on gradually from the previous evening. Thirty grains of chloral were given immediately, and twenty ordered every six hours. On the sixteenth day, he was free from rigidity, but the pain in the epigastrium remained. From this time, he improved, and had no return of the tetanic symptoms.—Dr. A. OGSTON thought the meeting much indebted to Dr. Carlyle for bringing before it a case so interesting. Traumatic tetanus seemed to him one of those diseases in which cures were effected in some cases by remedies which, in other cases, appeared to do no good whatever.—Dr. CARLYLE, in reply, said the effects of the chloral-hydrate in this case were so rapid and so marked, that he could not doubt the cure had been the result of the remedy. When, on the fourteenth day, the dose of chloral was administered, the jaws could not be separated beyond an eighth of an inch; but, in fifteen minutes from that time, they could be separated half an inch. After the very first dose, he was only half an hour before he began voluntarily to swallow, and there was a decided improvement perceived after each dose during the progress of the case.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, MARCH 9TH, 1880.

H. C. CAMERON, M.D., Vice-President, in the Chair.

Acute Tuberculosis of Lungs.—Drs. MCCALL ANDERSON and FOULIS showed the lungs and larynx of a girl, aged 19, who had died four days after admission to the hospital of acute tuberculosis. On *post mortem* examination, the body was found to be emaciated; the left pleural cavity was filled partly by air and partly by turbid serum; there were a few old adhesions near the left apex; the left lung was compressed and flattened against the spine. No rupture in the lung could be detected. On section, the lung was seen to be studded by miliary tubercles, singly and in groups; at the base, there was a small pus-filled cavity, about the size of a plum, and near it several minute cavities. In the right lung, the tissue was bright-red, subcrepitant, and free from tubercles, except at one or two spots. On the posterior wall of the larynx, there was a slightly eroded patch, with an apparent infiltration of the mucous glands near it. No tubercles were seen in any other organ.

Disease of Spine without Curvature.—Dr. CLARKE showed a spinal column, with disease limited to the second and third dorsal vertebræ. The intervertebral disc was gone, leaving a cavity, which contained a small bony sequestrum. The bodies of the two vertebræ were united by bony pillars on each side of the cavity, which had prevented curvature from taking place; the right pillar was also ankylosed to the third rib.—To compare with Dr. Clarke's case, Dr. FOULIS showed the spine of a middle-aged man, in whom a gradually increasing paraplegia had set in four weeks before death. The body of the sixth dorsal vertebra was completely eroded and destroyed, and surrounded by thick pus. There was no curvature or deformity, although the pus had made its way into the spinal canal, and so compressed the spinal cord. Dr. Foulis remarked that it was not uncommon for disease of the spine to exist, even in an advanced degree, without curvature.

Post mortem Examination of the Middle Ear.—Dr. FOULIS showed the method he had used during the last thirteen months. Before describing it, he wished it to be understood that this method was not proposed as a substitute for the methods of Toynbee, von Troeltsch, or Lucae, etc.; but only as a means to be used in those cases where, from want of time or permission by friends, or other causes, the ear could not be minutely dissected. As a matter of fact, the ear was neglected at *post mortem* examinations; and it was to give a ready and rapid means of opening the middle ear that he brought the subject up. If with a chisel the petrous bone were split along a line parallel to the squamous plate, and falling on the outer slope of the eminence caused by the superior semicircular canal, the tympanum would be split open, together with the mastoid cells. As a rule, the stapes were separated from the incus, and a good view was obtained of the parts in the tympanum, and also of the state of the mastoid cells. If the cochlea or semicircular canals required further examination, the loose bit of the petrous bone might be again split in various directions, or examined more minutely in the way laid down in books. The plan proposed gave only large sections of the ear, and could not be regarded as applicable to those cases where a previous history of ear-disease and other circumstances indicated the need for a minute examination; but, for the ordinary run of *post mortem* work, it gave accurate enough results. Dr. Foulis had examined in this way the ears of one hundred and twelve cadavera, and in seventeen of these (about one in seven) there was distinct disease, suppuration or destruction of the membrana tympani, or other coarse lesions.

Specimen of Talipes Equinus.—Dr. MCPHAIL showed a cast of an articulated preparation of the bones of the foot of a gentleman aged 40. Amputation was performed in consequence of painful ulceration of the toes, and the inflammation of numerous adventitious bursæ. The patient had slight talipes varus of the other foot. Both deformities were congenital, and no attempt to remedy them had previously been made. The cast showed the extreme bending across the instep, often supposed to be characteristic of acquired talipes equinus; and this was rendered more striking by a small swelling exactly similar to that often caused by projection of the astragalus, but which in this case was due to an old consolidated bursa. The bones were remarkably light, and contained much oil. The preparation showed that the deformity was caused by a twisting downwards and slightly inwards of the anterior portion of the os calcis and astragalus, with very little, if any, drawing up of the os calcis behind the ankle. Dr. McPhail remarked that, in operating on such a foot as this for the cure of the deformity, the tissues in the sole would require division, and division of the tendo Achillis would be almost unnecessary.

Osteotomy: Death from Diphtheria.—Dr. MACEWEN showed the femur from a boy, aged 7, upon whom he had operated for the cure of marked genu valgum. A wedge of bone was removed antiseptically, and the limb straightened. Everything went well till the seventh day, when the patient became ill of diphtheria, and died in two days. On examination of the lower end of the femur, the superficial wound was found quite united by primary union, and the ends of the fragments by a firm plastic tissue-like callus. There was no pus whatever, and the knee-joint had not been implicated.

Normal Length of the Condyles of the Femur.—Dr. CLARKE gave a summary of his observations as to the normal length of the condyles of the femur. He had been led to undertake the investigation, because of the difficulty experienced by surgeons in ascertaining if any given case of knock-knee were due to elongation of the internal condyle of the femur, in consequence of there being no recorded normal measurements, and no definite statements as to the average difference in the length of the two condyles. In measuring the internal condyle, he took as his upper limit the spine for the insertion of the adductor magnus, and for his lower the margin of the articular surface at the extremity of the bone; the external condyle was measured from the prominence immediately above the popliteal groove to the articular margin. The measurements were taken with small callipers, and recorded in *millimètres*. Of one hundred femora, the average length of the external condyle was 35.84 *millimètres* (1.4 inches); and of the internal, 43.59 *millimètres* (1.7 inches)—showing an average difference of 7.75 *millimètres* (0.3 inch). In no case was the external longer than the internal condyle.

CHARING CROSS HOSPITAL.—The treasurers of this hospital appeal to the public for funds. It appears that the necessary cost of maintenance of the institution, containing one hundred and eighty beds, is £12,000 *per annum*. This sum has been forthcoming until the last two years, when the receipts have fallen off to such an extent, that the hospital is in debt to the amount of £4,000. Unless speedy and substantial aid is now afforded, the Council will be obliged to close some of the wards.

REVIEWS AND NOTICES.

Vorlesungen über Neuere Behandlungsweisen der Syphilis. Von Dr. Carl Sigmund, Ritter von Ilanor, etc. Zweite vielfach vermehrte Auflage, pp. 160. Wien: Urban und Schwarzenburg. 1880.

Lectures on Novel Modes of Treatment of Syphilis. By Dr. Carl Sigmund. Second enlarged edition. Vienna. 1880.

The first edition of these lectures was chiefly devoted to the general treatment of syphilis; to the present edition are added remarks on the proper mode of investigating cases, local treatment, diet, prophylaxis, therapeutics, and mercurial salivation.

The author points out that gonorrhœa and soft chancre have nothing to do with syphilis; they show themselves in two or three days after contagion, whereas the incubation period of syphilis lasts from eight to fourteen days, and sometimes longer. Gonorrhœa and chancre also run their course in four to six weeks in ordinary cases, while syphilis always lasts some months, and often several years. As regards a second attack of syphilis, Sigmund remarks that he himself has seen only very few cases where reinfection appeared probable, and that more careful investigation left him in doubt as to the reality of its having occurred. In the diagnosis of a case of syphilis, full inquiry should be made into the previous history of the patient; all his surroundings, and the general state of his constitution should also be taken into careful consideration. Subjective symptoms are usually unreliable; therefore only such subjective signs as agree with the objective should be accepted by the physician. The syphilitic poison is not exhausted in less than two years on an average. The disease is curable in most cases, but not in all. According to Sigmund's experience, the period between contagion and the appearance of the primary lesion of syphilis varies from eight to fourteen days; the interval between contagion and the first outbreak of the general skin-eruption is about six to eight weeks. As to local treatment, extirpation of the indurated initial lesion is strongly recommended, the knife or cautery being used for the purpose. On this point, the author remarks that there is no other way known of preventing general syphilis; he does not, however, bring forward any cases of his own to support his view. The wound left after excision of the indurated sore heals as quickly as do wounds in healthy persons. Whenever the smallest breach of surface can be detected after exposure to contagion, some disinfectant, such as carbolic or salicylic acid, thymol, or iodoform, should be immediately applied. Much stress is very properly laid on the preparatory treatment of syphilis; it is, says Sigmund, of the utmost importance that the various secreting organs as well as the skin should be in good working order before specifics are given. Scrupulous cleanliness and attention to hygiene are indispensable at every stage of the disease.

Passing on to the important question of general antisyphilitic treatment, it is laid down that specifics are useless, and even sometimes injurious, during the first six or eight weeks of the disease, and that only local treatment is necessary at this time. By delaying general specific treatment until later, Sigmund considers that the physician obtains much more reliable information on which to ground an opinion as to the particular form of specific remedy required, and also as to the best mode of its administration. With respect to the period at which general specific treatment should be commenced, there is, no doubt, considerable difference of opinion, both in this country and abroad, though we fancy most practitioners of the present day would be inclined to give mercury as soon as an indurated sore, accompanied by slow painless enlargement of the proximate lymphatic glands, could be satisfactorily made out. Be this as it may, we cannot at all agree with Professor Sigmund in his next opinion, viz., that, even in the secondary stage, general antisyphilitic treatment should only be resorted to when several organs or systems of the body are implicated; or when one particular organ or part of the body is severely attacked; or lastly, when the general health and nutrition of the patient are manifestly suffering from the influence of syphilis. Daily experience proves how large a proportion of the cases of grave tertiary visceral affections occurs in those who have been untreated or insufficiently treated during the early stages of the disease. In many such instances, also, no history of primary or secondary symptoms can be elicited, even though there may be no motive for concealment on the part of the patient; this shows pretty clearly that some of the worst forms of late syphilis have been preceded by insignificant early manifestations; in other words, by symptoms which, according to Sigmund, do not require constitutional specific treatment at all. We are, however, glad to find that the author upholds the employment of mercurials in tertiary syphilis; he remarks that many of the most serious affections of the bones and viscera yield to mercury when the iodides alone have little or no effect. In this view, those who have had much experience of syphilis will certainly concur.

Want of space prevents us from giving a more detailed notice of these interesting lectures. We recommend our readers to study them for themselves. The general and local treatment of the various affections due to syphilis is carefully and minutely considered; and none can fail to derive profit from a perusal of the whole work, embodying as it does the matured views and opinions of one who has had an almost unrivalled experience in the treatment of all forms of venereal disease

NOTES ON BOOKS.

Materia Medica and Pharmacy. By W. Handsel Griffiths, Ph.D., etc.; edited and in part written by G. F. Duffey, M.D.—This book was originally written a few years ago by the late Dr. Handsel Griffiths for the use of medical and pharmaceutical students; and since his death, it has been carefully edited by Dr. Duffey. It is characterised by the exclusion of nearly all matter relating to therapeutics, which, in the opinion of the author, ought to be dissociated in teaching from materia medica proper and pharmacy. It consists of two parts. In the first, the articles of the materia medica are described, viz.: 1. Inorganic substances; 2. Organic substances, from the vegetable kingdom and from the animal kingdom. The second part of the volume treats of the pharmaceutical preparations. In the course of the book, a number of useful tables are introduced, giving information under the heads of name and habitat; part used; *British Pharmacopœia* preparations; strength; dose; action and use. We can recommend this book to students as an useful and trustworthy summary of pharmaceutical knowledge, and to practitioners as a handy book of reference.

Memorial in Honour of Ephraim McDowell, "the Father of Ovariotomy". By Samuel D. Gross, M.D., LL.D., D.C.L.Oxon. The memorial oration was delivered by Dr. Gross at Danville, Kentucky, at the dedication of the monument erected to the memory of Dr. Ephraim McDowell by the Kentucky State Medical Society on May 14th, 1879. The idea of every patriot that his native land is better than any other, and that his countrymen have some special claim for admiration in all other countries, is often illogical; yet it is healthy, it leads to great deeds, and compares favourably with cynical remarks often heard now-a-days about one's country being on the wane. This memorial proves how Kentucky can "proudly boast" that one of its greatest men is McDowell. The natives of Kentucky erect a monument to a man who was famous, not for killing men, but for saving women; not for overcoming foreign statesmen by argument at a congress, but for being practically the "father of ovariotomy". The task of the author of the memorial is a grateful one. He expatiates on the private and professional virtues of a man whose history is well known to the medical profession in Great Britain. We congratulate Dr. Gross on the manner in which he has discharged his duty to the memory of his great countryman.

Myopia, by Dr. E. Landolt (London: Harrison and Son), may best be described as an essay on the pathology of myopia. According to the author, there are three varieties of the affection—viz., the myopia of an eye essentially healthy, functional myopia due to spasm of accommodation, and myopia symptomatic of disease, that is, of choroiditis. The last of these three subdivisions is treated of at considerable length. He believes that in a perfectly healthy eye no amount of work can ever be sufficient *per se* to induce myopia. In order to its development, there must be present some morbid condition of the tunics of the eye, by which their power of physiological resistance has been sensibly impaired. Choroiditis, in some form or other, is, in his opinion, the main agent in the production of malignant or progressive myopia. But choroiditis depends in turn, when idiopathic, on some constitutional taint, some acquired or hereditary vice of assimilation. Developing this hypothesis still further, the author seeks by it to explain the greater prevalence of myopia in some countries rather than in others. He finds that all communities in which myopia is, so to say, endemic, are those which labour under geographical or climatic disadvantages, and which are therefore essentially poor. This natural poverty, combined with a large share of intelligence or mental activity on the part of the inhabitants, has tended to reduce their standard of physiological resistance, while it has quickened competition and favoured a too general and too early acquirement of knowledge as a means of existence. Hence a vicious circle, inducing constitutional feebleness, choroiditis, and acquired myopia. The author has treated his subject in a very skilful and effective manner, and makes out a strong case in support of his views. The essay is a valuable contribution to the pathology of myopia, and not less interesting from a hygienic than from an ophthalmological point of view.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

Hyoscyamia as a Hypnotic and an Antispasmodic.—At a recent meeting of the New York Therapeutical Society (*New York Medical Record*, March 27th), Dr. E. C. Seguin read a report on the action of hyoscyamia, in which he gave the following provisional conclusions. 1. It acted upon the pupil as a mydriatic. 2. It reduced the pulse gradually, and increased arterial tension. 3. It checked body-heat. 4. It produced hallucinations and delirium. 5. Its use was occasionally attended by a rash. 6. In large doses, it produced sleep and something like paralysis or paresis, and might induce retention and dysuria. 7. Theoretically, it was indicated in mania attended by restlessness, delusions, and suspicions, and in insomnia and convulsive affections. 8. It had been of special service in acute or subacute mania, insomnia, and those cases characterised by mischievous delirium. 9. It induced sleep more certainly than chloral, and without being followed by bad effects. 10. In paralysis agitans, it could do what no other remedy could do. 11. It was a diuretic of no mean power. 12. The curative power did not seem to be great. In acute chorea, its use might play an important part. It could be given in small doses with ease hypodermically. The doses were from one-twentieth to one grain of the amorphous, and from one-hundredth to one-twenty-fifth of a grain for hypodermic use. Distinct effects might be obtained from one-hundredth of a grain. The following formula was given for hypodermic use: ℞ Hyoscyamia (Merck's crystallised), 1 grain; glycerine, water, of each 100 minims; pure carbolic acid, 1 drop. Each minim contained one-two-hundredth of a grain. Tablets containing one-fiftieth of a grain were convenient for use by the mouth.

PATHOLOGY.

Defect of the Pericardium.—Dr. Hans Chiari describes, in the *Wiener Medizinische Wochenschrift* for April 3rd, a case of almost complete deficiency of the parietal pericardium. The subject was a man aged 46, who had died of cirrhosis of the liver and tubercular peritonitis, with old tuberculosis of the apices of the lungs. No special physical signs had been noticed during life on the part of the heart, except accentuation of the second sound in the pulmonary artery, which was attributed to the state of the lung. On removing the sternum, the heart was found lying quite free in the left pleural cavity, in immediate contact with the median surface of the left lung. Both lungs were adherent at the apices, and were here the seat of old indurations enclosing cheesy and calcareous masses; elsewhere they were œdematous. The apex of the right lung formed a separate lobe about the size of a hen's egg; and the upper lobe of the left lung was divided into two by a nearly horizontal fissure. The heart, which appeared normal in structure, lay in its normal situation with regard to the thoracic walls. The mediastinal layer of the left parietal pleura was found to the right of the heart, and extended into the right half of the thorax. From its left surface, along with the visceral pleura for the left lung, the visceral pericardium was developed, proceeding forwards from the hilus of the left lung. The transition from pleura to pericardium was for the most part direct, without folds. Only at the part where the pleura passed over the vena cava inferior there was a duplicature about three *centimètres* in depth, which, gradually becoming a crescentic fold, could be followed for seven *centimètres* along the posterior circumference of the auricle as far as the hilus of the left lung. This duplicature contained some adipose tissue. The mediastinal layer of the right parietal pleura was in its usual situation. The mediastinum was only three *centimètres* wide; it contained a little fat, and the usual structures (aorta, œsophagus, etc.) in their normal position. The left phrenic nerve alone was abnormal in position: it lay on the outer surface of the pleura, where the mediastinal passed into the parietal portion, crossing the heart obliquely to the diaphragm, into which it passed at an almost right angle. The diaphragm itself appeared quite normal, except that the middle division of the central tendon was somewhat smaller than usual.

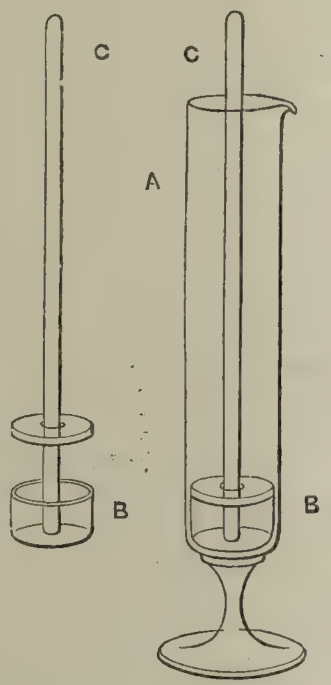
MEDICINE.

Epilepsy in Syphilitic Patients.—Dr. C. Pellizzari describes three cases in *Lo Sperimentale* for 1879 (abstract in *Wiener Med. Wochenschrift*, No. 13, 1880). In the first case, the subject was a man aged 38, who sixteen years previously had had cutaneous syphilis, of which the scars were still present. The left half of the face and the left upper limb had been the seat of convulsive movements for about a year, and defæcation and micturition occurred involuntarily. Soon after his admission, the left leg was also observed to be affected, and later the whole body. Death was preceded by a considerable rise of temperature. At the necropsy, the cerebral lobes and the dura mater were found to be adherent, and there was a considerable development of connective tissue in the cortical substance of the brain. In the second case, the patient was eight years old, the child of a syphilitic mother. It was said to have suffered only a short time from unilateral convulsions. No direct cause could be discovered beyond thickening of the pia mater of the right paracentral lobe. The third patient, a man aged 36, had been syphilitic sixteen years and epileptic two years. At first he had only headache, afterwards stuttering and convulsions, and then aphasia. At the same time with the headache, a sore appeared on the lower lip. This healed under mercury; the treatment, however, had no effect on the convulsions, which affected the right side; and his memory became impaired while he was taking mercury. Consciousness was still unimpaired a short time before death, even when the convulsions affected both sides. Death was preceded by a rise of temperature. There was softening of the left lobe of the brain as far as the corpus striatum; the meninges in this part were much thickened and adherent.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. DOBELL'S SEDIMENT-COLLECTOR.

A contrivance by which sediments may be accurately collected for analysis and microscopical examination has long been a desideratum. The sediment-collector, designed by Dr. Dobell, and manufactured by Messrs. Maw, Son, and Thompson, completely answers all the ends desired. The collector B, which is attached to the rod C, is first passed down to the bottom of the glass A. The fluid to be examined is then poured into A. After a sufficient time has been allowed for complete deposition, the glass disc D is slipped on to the rod C, and allowed to sink quietly through the liquid and settle on the top of the holder B, thus securely shutting in the sediment, the whole of which can now be brought up for examination by means of the rod C. If it be desired to wash the sediment, it is only necessary to fill the glass A with distilled water, and reintroduce the holder B with its cover on. If this be done cautiously, the water finds its way to the sediment without disturbing it. This may be repeated until it is thought that the sediment is sufficiently clean. The principle of this contrivance is applicable of course to larger instruments which, when made of suitable materials, and of sufficient size, may be used for collecting sediments in tanks, ponds, etc., for analysis.



THE ABSORBENT WOOL-PAD.

We have received from Messrs. Southall Brothers of Birmingham some specimens of the absorbent pads prepared by them under the instruction of Mr. Sampson Gamgee. The pads are made of very soft cotton-wool, rendered absorbent by the removal of oily matter and other impurities, and enveloped in bleached gauze. They can be rendered, without impairment of their physical properties, styptic or antiseptic by being treated with borax, tannin, iodine, benzoic acid, carbolic acid, and other substances. They are of great service in the dressing of operation wounds, and in foul ulcers and incurable wounds; and also, as Mr. Berry points out in an article in another page, they are very useful in obstetric practice. Their great softness and elasticity render the pads, one might almost say, luxuriously comfortable to the patients; and by their use the surgeon may be materially aided in carrying out the principles of rest, pressure, and cleanliness, often so essential in treatment. We have no doubt that these absorbent pads will come into very general use. In a clinical lecture which he has lately published, Mr. Gamgee remarks that the idea of the pads was suggested to him long ago by reading the chapter on muslin and cotton-wool, in the *Simplified Surgery* of Mayor of Lausanne.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

Subscriptions to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. Francis Fowke, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 24TH, 1880.

THE EPSOM COLLEGE CASE.

The case of Howell *versus* West and Jones, which was concluded in the Queen's Bench Division of the High Court of Justice last week, with a verdict for the defendants on all the points, was one of considerable interest to medical men. The plaintiff was Mr. Thomas Symonds Howell of Wandsworth, a member of the Royal College of Surgeons of England; and the defendants were the Rev. William Delancy West, D.D., Head Master of Epsom College, and Mr. Arthur O'Brien Jones, a Fellow of the Royal College of Surgeons of England.

It was contended for the plaintiff that a contract had been entered into between him and the Head Master, by which the latter had undertaken that Kyrle Howell, the plaintiff's son, should, in the event of his being sent to Epsom College, be under the personal care of the Head Master, as one of his private boarders; and, further, that in the event of any illness happening to Kyrle Howell, the Head Master had undertaken to have him treated in his house, where there were usually between twenty and thirty boarders, instead of sending him to the College Infirmary; and that the Head Master had undertaken to do this "in any circumstances", and notwithstanding the nature of the illness. The agreement, if there were such, is a remarkable one, especially when we consider the position of the contracting parties: the one, the Head Master of a large school, responsible for the welfare of two or three hundred boys; the other, a qualified medical practitioner of nearly forty years' experience. We might even say that such an agreement was rash and dangerous, unjustifiable and illegal. For this alleged contract, on the part of the Head Master, amounted to this: that he undertook, in the event of the plaintiff's son being attacked with any infectious disease—such as scarlet fever, measles, diphtheria, or small-pox—to have him treated in his private house, at the risk of infecting his own immediate boarders, and mediately through them a school of two or three hundred boys. That such an agreement, if made, would have been legally binding, or that the Head Master of Epsom College ever made so rash a compact, we find it difficult to believe. But, extraordinary as was the alleged contract, it is more extraordinary still that it should have been entered into by the plaintiff, a medical man of nearly forty years' experience, and therefore, presumably, a man with some knowledge of infectious disease. Apart altogether from the danger to the family of the Head Master, his boarders, and the school, one would have thought that a medical man would have hesitated many times before he committed his child to the care of a head master prepared, on occasion, to turn his school into a hospital for the treatment of the infectious fevers. For what the Head Master of Epsom College was said to have promised to do for the plaintiff's son, he was presumably ready to promise and do for others; and thus his house was, at any moment, liable to be a more dangerous residence for boys than an infectious hospital proper, because, in the latter, some provision is made for the safety of such uninfected persons as may by mistake happen to be sent to them. The plaintiff's contention is only to be admitted upon documentary evidence of the clearest kind. An understanding that such an agreement arose out of a casual conversation, and was really intended to be kept, is contrary to common sense; and it is not surprising that the jury found for the defendants—a finding in which we entirely concur. The Head Master of Epsom College appears to us not only to have acted rightly, but we fail to see that he could have acted otherwise without incurring dangers of the gravest kind. The suggestion that he might have taken lodgings for his boarders, or sent them home, requires no formal refutation. He might have done so; and, by so doing, might have spread scarlet fever into every lodging and home into which his boarders were sent.

But the most remarkable side of the case is not the legal one of breach of contract, but the medical one of unskilful treatment. It was alleged gravely, on the part of the plaintiff, that the defendant, Arthur O'Brien Jones, had imperilled the life of the plaintiff's son by moving him a distance of two hundred and fifty yards, on the sixth day of a scarlet fever, from a room the temperature of which was 10° or more above 50°, to one of which the temperature was barely over the latter figure; that in consequence of this change from the higher temperature to the lower, the rash had struck in; and that the removal and the low temperature of the College Infirmary, taken together, had been the cause of death. That this was the plaintiff's view, his letter to the Head Master will leave no one in any doubt. In that letter, he says the desperate nature of the case was due to the removal, and he describes the removal in the circumstances as an outrage of "one of the first principles of medicine". For this doctrine there is no foundation; the removal of scarlet fever patients in the first week, and when the rash is well out, not merely a distance of a few yards, but a distance of two to five miles, being a question the practicability and safety of which have been established by the London Fever Hospitals, where, from 1873 to 1877, nearly five thousand cases were treated, the majority of whom must have been conveyed at least about two miles, and yet no one ever heard that any one of the physicians of these hospitals had protested against the practice. The suggestion as to the rash generally, and to that of the face in particular, is utterly erroneous. In the letter from which we have quoted, the plaintiff says, speaking of his child's condition on the afternoon of the sixth day of the disease, "He had not a particle of colour or rash on his face", apparently expecting that it should be there, entirely oblivious of the fact that there is rarely much rash on the face at any time, and that, even if there had been any in this particular case, by the sixth day of the disease, as a part of the natural order of events, it would have been gone, and the patient would have presented the pale figure which the plaintiff describes, wholly irrespective of temperature relations. The condition of the plaintiff's child, which he so graphically describes in his letter of February to the Head Master, is a correct picture of a severe case of scarlet fever about the end of the first week, and such as those who are familiar with the disease, treated under temperatures varying from 40° to 60° Fahr., know to be entirely independent of temperature relations within, at least, the limits named.

In the course of the trial, a question arose as to the importance of keeping the temperature high in cases of scarlet fever, and as to whether the admission of draughts would be injurious in such a case, or any exposure to cold would make the rash livid and tend to throw it in. Why the temperature should be high, when it should be so, and how exposure to cold, and what degree of cold, tends to throw the rash in, are questions on which there is not yet an unanimous agreement of opinion, even among experts in the treatment of febrile diseases. Of course, it cannot be maintained that it would be preferable to treat scarlet fever patients in their earlier as well as in their later stages in rooms of, for fever patients, a high or unbearable temperature. The precise temperature within which practitioners would prefer to treat scarlet fever is, within limits, variable; some preferring temperatures of 60° Fahr. all through, whilst others prefer temperatures of 50° Fahr., or even lower, especially in the earlier stages of the fever, when the patient himself is very hot; but, whilst noting these preferences, we believe that there will be practically an unanimity of opinion amongst those whose experience of scarlet fever is large, that a temperature of 50° would not do harm. If, however, it be maintained that such a temperature of itself would do harm, we must dissent from such an opinion; and the statement that it would tend to "throw the rash in" is unintelligible. When people speak of rashes "striking in", they are really making confession of ignorance. We know that at a certain time in the history of all infectious fevers the rash disappears; but how it does so nobody knows; and the phrase "striking in" is but a popular fancy, which has no foundation outside the imaginations of the laity who invented it.

A short synopsis of the history of scarlet fever will show this. A person is taken suddenly by shivering and vomiting, to which succeed, in a few hours, fever and a rash on the neck and chest; the face, which is usually flushed as if the ears had been well boxed, is for the most part, if not entirely, spared by the rash. By about the fourth day of the disease, sometimes earlier, rash and fever will have reached their maximum intensity, and from this day both decline rapidly towards the seventh, when the rash will in most cases have disappeared entirely. Any flush or rash which may have been present on the face will have certainly disappeared earlier; and the face will be found to be rather pale, and desquamation may be noticed about various parts of the head and face. And all this takes place, not as the result of any ward temperature, be it what it may, but as phenomena of the natural history of the disease. It is impossible that what observers have noted over and over again in temperatures varying from freezing point to 70° Fahr., should be the result of a temperature of 50° Fahr., supposing the plaintiff's son to have been exposed to it by being entirely uncovered. Scarlet fever patients have again and again been successfully treated in freezing temperatures; and water of a temperature of 50° may be poured upon them, not only without detriment, but with advantage.

The foundation of the belief which we are contesting is the notion that fever patients are in some way specially susceptible to the influence of cold; and in order to avoid this, as it is thought, only too fatal influence, one finds air excluded as if it were poison, and the unhappy patient loaded with coverings as if his temperature were seven degrees below, instead of seven degrees above, what it ought to be. Now this is altogether a mistake. Fever patients are not only not, in their earlier stages at least, specially susceptible to cold, but rather specially insusceptible, a fact which is shown by their almost entire freedom from diseases recognised to be due to cold; and this for the obvious reason that they are themselves unnaturally hot. What the fever patient dislikes is heat, not cold. To avoid the former, he is constantly throwing off the coverings, preferring, in some instances, to lie naked. He craves for cold water, which, even in the depth of winter, he prefers *iced*. He finds it a relief to be sponged with cold water; and yet it is gravely maintained that air of a temperature of 50° Fahr. playing over the head and face of a boy whose temperature was five degrees above normal was injurious. To those who have studied fever-patients at the bed-side, the bare statement will be its own refutation.

Admitting, however, all that was said on the part of the plaintiff of the evil effects of a temperature of 50° Fahr., what was the difficulty about putting on an extra blanket? It would have been as easy to put a flannel gown on the boy or an extra blanket as to paste up the joints of the windows to keep out "draughts". We would not say that an insufficiency of fresh air was the cause of the boy's death; but by the closing of the windows and the window-sash crevices, that which more than any one thing else would have helped his recovery—to wit, abundance of fresh air—was withheld from him.

With every desire to sympathise with a brother practitioner who has suffered a severe domestic loss, we cannot approve of the course taken by the plaintiff in instituting the recent prosecution. We have already expressed our opinion regarding the alleged contract between the plaintiff and the head-master; and we have only to add our conviction that Mr. Jones was entirely right in his treatment of the case, and that the action against him was a proceeding much to be regretted.

PROVIDENT DISPENSARIES FOR THE METROPOLIS.

It will be in the recollection of our readers that last year, on June 21st, a large representative meeting was held at the Cannon Street Hotel for the establishment of a metropolitan association for the purpose of arranging on provident principles for the ordinary medical treatment of the industrial classes in due relation to the hospitals. A Provisional Committee was appointed to prepare a scheme, which they were instructed to submit to a subsequent meeting. The Provisional Committee was thoroughly representative. It included members sent by the great friendly societies; others selected from the managers of the Hospital Saturday Fund, the Charity Organisation Society, the governing bodies of hospitals; and Mr. T. Holmes, Mr. E. Hart, and Dr. J. Rogers as representing the medical profession in the metropolis. The Provisional Committee thus constituted has held a considerable number of meetings; and the ultimate outcome of their deliberations was submitted to a very influential assembly at the Cannon Street Hotel last Saturday. The large hall at the Hotel was three parts filled with delegates from friendly societies from all parts of the metropolis. The scheme had been previously circulated among the bodies invited to take part in the deliberations, so that its provisions were well understood by the major part of those assembled at the Cannon Street Hotel. It may also be as well to remark that the step now taken is the actual result of meetings held by the medical profession, to protest against the demoralising effect of out-patient charity at our general hospitals.

The provident system was advocated by us as a remedy for hospital abuses more than ten years ago. It was urged at meetings of the Metropolitan Counties Branch in 1869; and the arguments held in the JOURNAL at that time are more than borne out by subsequent experience. We are not inclined to endorse all that has been said regarding the condition of out-patient relief. There is much to be said in favour of its continuance, but it must be in some modified form; and the scheme set forth on Saturday appears to point in the right direction. It points out that the proper function of the hospital is to act as the consulting physician or surgeon in serious and difficult cases, and to provide that in-patient treatment be forthcoming for those who really require it; whilst the provident dispensary should take the place of the ordinary medical attendant. The medical officer acting for the dispensary would visit the cases at home when necessary, would look after the sanitation of the dwelling, make himself acquainted with the constitution of the different members of the family, and act on the principle of prevention as far as possible; whilst, when second opinions were required, they could be had at once by the poor as well as by the rich. It is also proposed in the scheme that nursing should be undertaken, and thus disease be more efficiently combated than is otherwise possible in the homes of the poor; the nurses employed to be skilled nurses, able and willing to follow out the instructions of the medical officers. It is shown in the scheme that these benefits can only be obtained by combination; and that the principle partially carried out by friendly societies for the men should be applied, also, to the women and children of the poor man's family, so that the new system would enable the poor man to escape from the taint of dependence and pauperism which is now generally involved in the application to hospitals for medical relief. It is remarked that similar institutions have succeeded in the provinces and in isolated districts in London itself. It is believed that the benefits can be obtained only by the power of co-operation, and that a small monthly sum would be sufficient to secure the advantages offered; whilst, in the aggregate, a much larger sum would accrue to the medical profession as a whole than now probably stands as bad debts in the books of those medical men whose practice is in a great measure among the poor, whilst it would not deprive them of anything.

The scheme suggests that a joint-stock company should be formed to raise the capital necessary to provide dispensary buildings, which could be let to the districts requiring them at a moderate rental. It also points to the parochial endowments which exist within the city walls, and which remain credited to phantom parishes, now the sites of railway-stations and offices, and all but without a poor population.

It appears that some of these endowments might be utilised for the purpose, without injustice to the donors. It is suggested that the popularity and usefulness of the medical profession would be increased, and its general position improved, by the proposed arrangements. The scheme concludes by recommending that the association be registered under the Friendly Societies Act by the name of the "Metropolitan Provident Association", and that its first council or governing body should consist of the Provisional Committee, with power to elect six additional representatives from among the delegates sent by the friendly societies.

The adoption of the report was moved by Mr. Stansfeld, who made an able speech in support of the scheme; and, after a very lengthened discussion, the plan suggested was approved, and the Council elected as proposed. It contains the names of Mr. Stansfeld, M.P.; Mr. J. R. Holland, M.P.; Sir C. Trevelyan, K.C.B.; Sir T. Fowell Buxton; The Treasurer of Guy's Hospital; Sir Rutherford Alcock; Mr. T. Holmes; Mr. Ernest Hart, and several representatives of friendly societies. The name of Dr. Alfred Carpenter, who attended as delegate from the Social Science Association, was added to the list, and the society was ordered to be legally constituted. We cannot but hope that the promoters of the movement will act with judgment, and be careful of the interests of all concerned. The details of the plan have to be worked out; and, when they have been put forth, we will again consider the project. In the meantime, we invite criticism, so that the weak points may be perceived before any harm is done. It is quite possible that mischief might result to us as a profession as well as good; but we have confidence in some of the men who have been appointed directors of the movement, who will be able to put in such safeguards that the people intended to be benefited may not be left out in the cold, whilst its advantages may only be seized upon by the thrifty and well to do. This is the rock which will require skilful piloting to escape from.

THE INDIAN MEDICAL SERVICE.

"SECOND thoughts are best." On January 2nd, 1880, the Government of India published a General Order (No. 13), which filled the service with dismay. By this order, all the surgeons-general in the three Presidencies, five deputy surgeons-general in Bengal, four in Madras, and two in Bombay, were abolished by one stroke of the pen, leaving to the service exactly one-third of the administrative officers guaranteed to it by Act of Parliament. For two months and fifteen days the medical officers of the Indian army were left to chew the cud of the bitter thoughts engendered by this order. When a sufficient amount of heart-burning, irritation, and discontent had been created, the "Governor-General in Council and Her Majesty's Secretary of State" were pleased to publish what is called a "continuation" of Order No. 13, dated the 15th of March. How far the issue of this "continuation" order is due to the unmistakable expression of universal condemnation pronounced by the press of India and the medical press of England against the sweeping injustice of Order No. 13, we cannot say; but it was in a high degree impolitic and ill considered, as we showed at the time, to publish the Government scheme of reorganisation in this disjointed fashion. The only possible end served by it was to fill the minds of those affected by it with alarm, and to propagate distrust in the minds of young medical men who were looking to India for a career.

Under this unaccountably delayed Order of the 15th March, 1880, the following is the administrative staff of the Indian Medical Department in the several provinces of India:—One surgeon-general with the Government of India on a monthly salary of 2,700 rupees; one deputy surgeon-general, with local rank of surgeon-general, for civil medical administration in Bengal, 2,250 rupees; one deputy surgeon-general, with local rank of surgeon-general in the North-Western Provinces and Oudh, 2,250 rupees; one deputy surgeon-general, with local rank as above, for the Punjab, 800 rupees; one deputy surgeon-general for civil medical administration in the Central Provinces, 1,800 rupees; one surgeon-general for civil medical administration in Madras, 2,500 rupees; one secretary to the surgeon-general, Madras, 800 rupees (consolidated); one surgeon-general for civil medical administration in Bombay, 2,500 rupees; one secretary, 800 rupees (consolidated). This restores to the Bengal service five, to Madras one, and to Bombay one, of the administrative appointments swept away by the Order of the 2nd January.

The eighth paragraph of the "continuation Order" rules, "That although the administration of the Indian Medical Department is divided into two branches—civil and military—Indian medical officers will remain as non-military officers; those in civil employ being only lent to the Civil Department, and liable to be called on for military duty in the event of their services being required".

We must not omit to notice that officers holding appointments which are abolished under these orders—viz., the superintendent-general of vaccination, Punjab, and the sanitary commissioners for the Central Provinces and British Burmah—will receive a personal allowance, making the emoluments of these future offices equal to the pay they now draw. It is a notable fact, that the surgeons-general with the Government of India and with the Governments of Madras and Bombay, will, under this new Order, not only perform the duties of civil medical administrators, but also be heads of the Indian Medical Departments in their respective Presidencies. In fact, it would appear that they are, with the single exception of military administration, to have more authority than the old surgeons-general swept away by the summary Order No. 13 of the 2nd January, 1880.

We conclude this notice as we began it, by quoting once more the good old proverb, "second thoughts are best". If this new Order be not the outcome of second thoughts, all we can say is, that the action of the Government of India in this matter has been such as to give countenance to this view of the case.

THE INCUBATION PERIOD OF SMALL-POX.

IN a recent note, we referred to the incubation period of small-pox as being twelve days; and no doubt this is the period usually accepted by the profession as the number of days which elapse between the infection and the first symptoms of illness. Mr. Vacher of Birkenhead has, however, to some extent challenged this dictum in a report recently published by him on the small-pox epidemic in that town during 1877; and it may be well, therefore, to say a word or two on the subject. The late Mr. J. F. Marson, who was resident Medical Officer of the Highgate Small-pox Hospital for more than forty years, and whose practical experience of the disease was probably unique, states definitely, in his article on Small-pox in Reynolds's *System of Medicine* (vol. i, 432-482), that the period of incubation of small-pox is twelve days from the date of receiving the variolous germ. After the stage of initiatory fever, lasting forty-eight hours, the disease appears on the skin on the fourteenth day after the infection, the precise time being after thirteen times twenty-four hours have elapsed from the moment of taking the disease. Mr. Marson's experience led him to believe that the time, from taking the disease to its appearance on the skin, was never longer than fourteen days. He knew of three or four instances in which it seemed likely that the disease had appeared between the tenth and eleventh days after receiving the infection; but they were cases occurring after vaccination, under which condition other stages of the disease are often interrupted or cut short. Still, these cases have been so few that they can hardly be relied on; but the others, on the contrary, many in the aggregate, can hardly have failed to indicate the real period.

It is doubtless true that but very few cases afford a decided opportunity for judging of the precise time of incubation, perhaps not more than one in fifty or more; but still these few cases are the very cases of value for deciding the point, and they have to be carefully watched for to be found.

Dr. Ashby has given two or three striking instances in which the period of incubation was settled, during the outbreak of small-pox at Newark, with a considerable degree of exactness, and it may be opportune that we should quote them here. A woman left a common lodging-house, whilst suffering from small-pox, and went to another house, on

June 5th. On June 16th, three of the inmates of the house, and on June 17th another of them, began to be ill with small-pox. A man left Newark, and remained away a fortnight. He returned and went to an infected house there, and took some clothes from another house where there had been a case. He began to feel ill just twelve days afterwards, on September 21st. A woman, who had been nursing at the small-pox hospital, left it and went to her home in Newark on September 11th. On September 23rd, her daughter, living in the same house, began to be ill with the disease. There were no other cases in that part of the town, and it was afterwards ascertained that the woman had given up only a portion of her things to be disinfected before leaving the hospital. There can be no reasonable doubt that the infection was conveyed in her clothes to the daughter.

Mr. Vacher does not adduce his cases with any idea of dogmatising on the subject. As he very properly says, any evidence in this connection is instructive and useful. But his experience of 1877 leads him to believe that the period between the exposure to infection and the commencement of the eruption is "nearly always from twelve to twenty days". In one case, a young woman, employed as a barmaid, went home with small-pox on the afternoon of December 24th, where she remained one night, being removed to hospital on the 25th. This night she slept in the same room as her mother and little sister, and, on January 11th, the latter became indisposed, and, two days' later, the characteristic eruption began to appear. The period of incubation would thus appear to have been from nineteen to twenty days. The next case was the mother of the two previous patients, who manifested a distinct eruption on January 26th, doubtless catching the disease from the young child. This would make the period of incubation thirteen days. A little girl, suffering from scarlatina, was admitted to the fever hospital on January 17th, at 9 P.M., at the urgent request of her friends, who were warned of the risk she incurred from the small-pox cases in hospital. On the afternoon of the 29th, she appeared very well, but on the 30th she felt feverish, and on the 31st the eruption of small-pox began to appear. The child came from a remote corner of the district, where there had been no small-pox, and there can be no doubt she caught it at the hospital. The period of incubation was, therefore, under fourteen days. A man was sent into the fever hospital on May 29th, the eruption being then still coming out. On June 15th, the rash appeared on the man's wife, and this would make the period of incubation seventeen or eighteen days. On the whole, the cases of departure from the usual period of incubation, brought forward by Mr. Vacher, do not seem to us to invalidate the general conclusion arrived at by Mr. Marson, after years of study; but, as they touch a question of important etiological interest, we have thought it due to Mr. Vacher to record them.

THE Vice-Chancellor of the University of Cambridge has appointed Professor Humphry, M.D., F.R.S., to the office of Sir Thomas Rede's Lecturer for the ensuing year.

PROFESSOR VIRCHOW has been returned to the German Parliament for the second electoral district of Berlin, as the candidate of the United Liberals. As is well known, he has already for several years occupied a prominent position in the German legislative body.

WE are glad to learn that the Medway Union Guardians have resolved that the children in the union schools shall be taught swimming by competent persons at their new baths, about to be opened. The guardians were unanimously of opinion that the art of swimming should be part of the education of the children of both sexes.

THERE is no resident surgeon in the island of Sark, which has a population of nearly six hundred. When medical aid is required, it has to be obtained from Guernsey. With the view of securing the services of a resident medical man, the Court of Sark has resolved to contribute £40 annually towards making up any deficiency in the income which a surgeon might derive from his practice.

SURGEON-MAJOR SAMUEL ROWE, of the African Medical Service, Governor of Her Majesty's West African Settlements, has been appointed an ordinary member of the second class, or Knight Commander, of the order of St. Michael and St. George.

DURING the thirteen weeks ending the 3rd instant, the metropolitan death-rate averaged 27.3 per 1,000, against 23.6, 25.6, and 27.1 in the corresponding periods of the three years 1877-8-9. In England and Wales, exclusive of London, the death-rate last quarter was considerably lower than that which prevailed in the corresponding three months of 1879, whereas the rate in London showed a slight increase.

MEDICAL MEMBERS OF PARLIAMENT.

THE general election which has recently concluded has produced no increase in the small number of medical men in Parliament, while there has been some change of persons. Dr. Brady, who has represented the county Leitrim for a long series of years, has retired; and so also has Dr. Lush, for several years member for Salisbury. Dr. Brady will be remembered as having taken an active part in the discussion of the question of medical reform before the passing of the Medical Act of 1858, and as having been the author of one of the Bills considered in the House of Commons; while Dr. Lush has also, in more recent times, paid much attention to the same subject, as well as to that of Poor-law medical relief. The zeal which these gentlemen always exhibited in the House of Commons on behalf of their profession merits grateful acknowledgment. Of the former medical members, Sir Trevor Lawrence, Dr. C. Cameron, and Mr. Mitchell Henry retain their seats; and the number is made up to its former strength by the election of Dr. Farquharson for West Aberdeenshire, and Dr. Lyons for the City of Dublin. Of the qualifications of these gentlemen, from a professional point of view, we have already expressed our opinion; and we are convinced that they will not fail to realise the anticipations formed regarding them.

MR. GEORGE W. HASTINGS, M.P.

WHILE we are referring to the recent election of medical members of the House of Commons, we must not omit to record with satisfaction (independent of all political feeling) the election of Mr. G. W. Hastings, the son of the founder of the British Medical Association. A quarter of a century ago, Mr. Hastings gave most valuable aid to the Association in its endeavours to promote the passing of a Medical Bill, and for some years was Secretary to the Medical Reform Committee of the Association. His knowledge of the subject will doubtless be of very great value whenever the question of medical reform comes again before Parliament.

ANOTHER DEATH FROM POLITICAL EXCITEMENT.

WE pointed out last week that, in some of the cases of death from political excitement which had occurred, it was probable that the cause of death was apoplexy, due to the giving way of degenerate cerebral vessels, under the strain of undue cardiac excitement. A case in point has occurred since we wrote, in the person of Mr. J. S. Wright, M.P. for Nottingham. The death was very sudden, and happened at a meeting of the School of Art Committee at Birmingham, of which the deceased was Vice-Chairman. It appears that the Committee Room had to be approached by a considerable flight of stairs, "rather a tremendous trudge for any one in years". It was this trudge up a heavy flight of stairs, conversing (as he is said to have been) all the time, which most probably determined the fatal event. It cannot be too frequently pointed out to those persons of advanced years who are anxious for a very active life, that *qui va doucement, va loin*.

THE PATHOLOGY OF TYPHOID FEVER.

AT the meeting of the Pathological Society on Tuesday evening, a communication was read by Dr. Buchanan relating to some observations which had been made by Mr. W. H. Power on the condition of the voluntary muscles in typhoid fever. Mr. Power had made an investigation into the causes and nature of an outbreak of febrile disease on board the training ship *Cornwall;* the result of which was given in the number of this JOURNAL for April 3rd. Mr. Power has since examined the condition of the muscles in undoubted cases of typhoid fever, and he has found that, in the two cases he has examined, certain of the voluntary muscles contained bodies which, though differing widely in various points from trichinæ, yet offered sufficient resemblance to these parasites to suggest the possibility of their being nematoid worms of some other kind. Mr. Power does not himself give any positive opinion on the nature of these bodies, nor does he go into the question of the relation they bear to the disease in which they were found. He merely records the fact of having found them, leaving the elucidation of their true nature to a future period. There are several points which suggest themselves in connection with the above account. In the first place, the fact having been established that the outbreak on board the *Cornwall* was beyond doubt one of trichinosis, the motive for examining the muscles in undoubted cases of enteric fever must be found in an admission of the possibility that enteric fever is either caused by, or is intimately associated with, the presence of parasites of comparatively high organisation in the body. The statement that there were actually found in the muscles of such patients bodies which, by their appearance, suggested the probability of their being nematoid worms, tends to prove that this suggestion is not so improbable as it might at first sight appear. At any rate, it is a fact that an able medical officer of the Local Government Board is making a series of observations to prove whether typhoid fever is or is not a form of trichinosis. In the present state of the investigation, we feel ourselves unable to offer any opinion on the suggestion; and we can only say that, if the connection between typhoid fever and nematoid worms be proved, we shall have to modify profoundly our views of the specific contagious diseases. Whilst the relation which bacteria and other minute organisms bear to these diseases is attracting so much attention, it is certainly curious to find that we shall have to entertain the possibility that gross organisms, such as the nematoid worms, may bear an important part in the pathology of one of these diseases. The establishment of the connection above indicated would produce so great a revolution in pathology, that the greatest care will be required in carrying on the investigation. Considering the degenerative changes which muscles may undergo in febrile conditions, and which have been abundantly proved to be present in typhoid fever, it will require much stronger evidence than any which is adduced before we can accept the view that certain appearances in muscle are due to the presence of a hitherto unknown parasitic worm.

DENTAL LEGISLATION.

THE memorial of the Association of Surgeons Practising Dental Surgery, addressed to the General Medical Council, of which we gave an abstract on March 27th, has been met by a counter-memorial from the British Dental Association. The latter body claims to represent the opinions and interests of surgeons practising dental surgery (thirteen of whom are members of its board, and seventy of whom petitioned Parliament to pass the Dentists' Bill) as fully as the Association of Surgeons Practising Dental Surgery; and to represent, in addition, the interests and opinions of the licentiates in dental surgery, and of such other of the registered dental practitioners who conduct their practice in conformity with professional usage. The counter-memorialists urge that the "consideration of the Dentists' Act with a view to its amendment or repeal", before that Act has been brought into full operation, and before its value when in full operation has been tested by experience, would be not only premature, but altogether unprecedented; and, furthermore, that the provisions of the Act at the time of its passing were fully understood, and that hitherto nothing has occurred in the operation of the Act which calls for or would justify such consideration. It is alleged that, in respect of registration, the Act follows in the lines of all preceding compulsory registrations, excepting in so far that more complete provision is made for the correction of the *Register* than has hitherto been provided for the expurgation of a first issued and consequently imperfect *Register.* Considerable progress has been made, but sufficient time has not been given for bringing into active operation the ample means provided for correction. In respect to the interpretation of the term "engaged in the practice of dentistry or dental surgery", it is contended that paraphrases would not constitute or supersede the necessity of a legal interpretation; and that what constitutes a *bonâ fide* practising in the eye of the law can be determined only upon a case being submitted to a law court. In answer to the alleged incompetence of the General Medical Council to carry out the provisions of the Dentists' Act, the report of the Executive Committee on the construction and working of the Council is quoted, wherein it is stated that "the Committee are of opinion that the Council is quite adequate for the performance of the additional duties"; and reference is also made to the expressions of gratitude conveyed to the Council by the British Dental Association and by the Western Counties Dental Association for the prompt and efficient manner in which the Dentists' Act has been carried into effect. In reply, it is stated that the question raised in the memorial respecting the use of the term dental surgeon, etc., has been very fully discussed and conclusively decided: 1. By the Medical Council on two occasions; 2. By the Parliamentary Bills Committee of the British Medical Association; 3. By Parliament itself when the Dentists' Bill was in committee; 4. And subsequently, by the Surgical corporations in the wording of their respective dental diplomas. A person who is declared by a surgical corporation to be duly qualified to practise the "art and science of Dental Surgery", and to be a Licentiate in Dental Surgery of that Corporation, is, beyond contradiction, by the nature of his qualification, a dental surgeon. For the future, no unqualified person can be registered; and it is not usual for Parliament to pass laws to act retrospectively. If foreign qualifications are to be registered, the foreign titles must be accepted, whether they happen to include the term doctor, surgeon, or any other. It is pointed out by the counter-memorialists that the Medical Council, by separate resolutions, objected to accepting the duty of originating schemes for the examination, etc., either of medical or dental practitioners; that the resolution requesting that the Dentists' Bill be made to conform to the Medical Bill, referred in distinct terms, not to the Lord President's Amendment Bill as stated by the memorialists, but to the Bill as amended; and, furthermore, that the Dentists' Bill was amended by the Government when in the House of Lords; indeed, had been so amended on the afternoon on which the Council passed the conformity resolution. The Council, in a resolution, declined to delegate the power to a committee to erase names from the *Register,* excepting such as had been "convicted in a court of law of felony or misdemeanour". In conclusion, the counter-memorialists submit that the Association of Surgeons practising Dental Surgery, have in their memorial put forward allegations which cannot be supported, and have otherwise altogether failed to make out a case which would justify a "consideration of the Dentists' Act with a view to its amendment or repeal". On behalf of the British Dental Association, and in the interests of dental education, an earnest hope is expressed that the General Medical Council will refuse to sanction any tampering with the Dentists' Act, until it has had a full and fair trial, and until defects are clearly recognised. The memorial and counter-memorial are printed in full in the *Monthly Review of Dental Surgery*, April 1880.

SERIOUS ACCIDENT TO DR. C. H. H. SAYRE.

WE very much regret to learn from New York that Dr. C. H. H. Sayre, the son of Dr. Lewis A. Sayre, met with a very serious accident on the evening of the 5th instant. It appears that he by some means caught the heels of his boots in the stone border of a railing at the Gilsey House Hotel in New York, and fell through an open space into a flagged area twenty feet below. In descending, his head struck a gas-pipe, which made him turn a half somersault, and he landed on his knees. When picked up, he was quite insensible. His father was sent for, and he was carried home. With characteristic courage and coolness, Dr. Lewis A. Sayre took charge of the case, assisted by several eminent surgeons. A very severe compound comminuted fracture of the left thigh-bone was discovered. It was found necessary to remove the ends of the bones; after which drainage-tubes were inserted, and the limb was put up in cotton-wadding and a plaster-of-Paris bandage. The patient recovered consciousness under the operation, and no anæsthetic was used. Dr. Sayre is of opinion that his son's chances of recovery are very uncertain; but we trust that the youth of the sufferer, who is but twenty-seven years of age, may operate in his favour, and that Dr. Sayre may witness the restoration of his son to health, if not to his former activity. He has, we may be assured, the sympathy of his European friends and *confrères*.

METROPOLITAN IMPROVEMENTS AND OVERCROWDING.

A MEETING was lately held at the Town Hall, Holborn, respecting the delay by the Metropolitan Board of Works in carrying out the proposed widening of Gray's Inn Road under the Metropolis Street Improvement Act, 1877, and the erection of dwellings for the industrial classes on the vacant site in Liquorpond Street under the Artisans' Dwellings Act. The complaint was of a twofold nature: first, that trade was being ruined by the delay; and, secondly, that there is dreadful overcrowding in consequence of the pulling down of two hundred houses, and the non-erection of dwellings in their place. The Rev. A. H. Mackonochie of St. Alban's, Holborn, said that the overcrowding had caused much injury to health and morals; in consequence, the the parents and children, many grown up, living in the same room; in some instances, there were the father, mother, and six or seven children living and sleeping in a room twelve feet square; beds were pushed into cupboards, and other apartments were not fit for a pig. The Metropolitan Board of Works have applied to Mr. Secretary Cross to allow dwellings for the industrial classes, who will be displaced by the improvements, to be erected on the cleared site in Liquorpond Street, the new buildings to be deemed part of the improvement, and not of the Artisans' Dwellings Scheme, because the inhabitants of the pulled-down dwellings have already found house-room elsewhere. This Mr. Cross has refused, as, in his opinion, it would make the protection of the Act illusory. The Metropolitan Board have, therefore, stayed any further action in consequence of the enormous loss in selling the cleared sites for artisans' dwellings, instead of utilising the frontages for shops and good-class dwellings. They also object to carrying out the schemes in the same manner as heretofore, because they consider that it would be subsidising the industrial classes by providing them with dwellings at an artificially low rate. The evil is undoubted, and should be remedied by the Metropolitan Board in some way; and it is certainly taking a very one-sided view of the matter to put the expense on one side, and not to take some credit for the diminution in rates which is almost sure to follow the lessened sickness and death-rate. The outlying districts have already received a considerable number of those who have been displaced by the demolition of their dwellings; and if the railway companies, who have pulled down numerous houses of the poor without making new accommodation for the inhabitants, would run more frequent workmen's trains, a good deal of the present overcrowding might be avoided.

THE NATIONAL ORTHOPÆDIC HOSPITAL.

A COURSE of five lectures will be delivered at this hospital on the following Wednesdays, at 5 P.M. on each day. May 5th, Introductory Lecture on Spinal Curvature, by Mr. W. Adams; May 12th and 19th, On Club-foot, by Mr. F. R. Fisher; May 26th and June 2nd, On Genu Valgum and Rachitic Deformities, by Mr. Osman Vincent. The lectures, which are open to all members of the profession, will be of a practical character, and will be illustrated by cases in the hospital, models, etc.

INFANT MORTALITY AT WORCESTER.

IN his annual report for 1879, Dr. Strange brings forward again the question of the infant mortality at Worcester, to which he has devoted so much of his attention. He claims as the outcome of his observations to have proved that the *dictum*, that the proportion of deaths of infants under one year of age to every thousand births is a true test of the sanitary condition of any town or neighbourhood, is not true. We cannot profess to concur entirely with Dr. Strange's view—indeed, we have already shown cause against it (vol. i, 1879, p. 744); but it may be well to state briefly what are the reasons which have induced him to come to this conclusion. It appears that, during 1879, the number of deaths at Worcester amongst children under five was 235 out of a total of 741, a number which is very much less than in any former year, and 132 less than in 1878. In former years, the proportion of deaths of children to the total deaths was nearly two-fifths, but last year it was less than one-third. In 1878, there died of infants under one year of age 244; in 1879, 183 such deaths were registered. The proportion of deaths per thousand births, which in 1878 was 189, was reduced in 1879 to 150. Dr. Strange gives an interesting table showing the diseases from which children under five years of age died during the year, together with the rank of their parents, and from this he draws the following conclusions. Gentry, professional men, and tradesmen, comprising from a fourth to a third of the population, lost only 30 children by all diseases, which is only one-eighth of the total deaths. Artisans, *i.e.*, persons, male and female, working at a trade or in factories, comprise about a third of the population, and in this class no fewer than 113, or nearly half the total deaths, occurred. Nearly another third is made up of clerks, domestic servants, labourers, etc.; and in these classes, 89 children died. Thus it was amongst the class of artisans and workwomen that the mortality amongst children was most excessive, a result which corresponds with that of 1878, and constitutes a grave charge against the domestic management of their children by this class of persons. Dr. Strange gives, also, a table which shows that the mortality from wasting diseases bears almost exactly the same proportion in 1878 and 1879; and he observes, "whilst situation as to damp, crowded, or dilapidated streets or dwellings has, no doubt, some undefined effect in causing the death of infants; whilst exposure to cold and insufficient clothing account for a few more; whilst contagious and infectious diseases carry off some others; the great bulk of the deaths are inexplicable from any of these causes, or all of them combined". The conclusions deducible from his tables Dr. Strange takes to be these. 1. Difference of situation in the town causes but a trifling disparity in the proportion of infantile deaths. 2. Soil, water, and cleansing appear to have a varying but trifling effect on the proportion of such deaths. 3. Season, cold and heat, have but the most trifling effect, setting aside summer diarrhœa in hot seasons. 4. Epidemic diseases prevail irrespective of sanitary conditions, the deaths in 1878 having been exactly three times the number of those in 1879, almost all sanitary conditions having been similar. 5. The proportion of deaths amongst artisans and workwomen far exceeds that of the higher and middle classes, and considerably exceeds that of servants and labourers. Dr. Strange regards himself, therefore, as "justified in asserting, most positively, that, as regards Worcester at least, the dictum that the proportion of deaths of infants under one year of age to every thousand births is a true test of the sanitary condition of any town or neighbourhood is not true". It is satisfactory to find that an "Auxiliary Health Society" has been started in the town under favourable auspices, for the purposes of instructing the poor in the advantages of good food, good cooking, of fresh air and cleanliness, and of the proper management of children; and we trust that the efforts of this Society may tend to decrease the excessive mortality amongst infants in the city, from whatever cause it may arise.

A PUBLIC WANT.

A MEMORIAL, signed by Dr. Willard Parker, Dr. C. R. Agnew, Dr. T. W. Dwight, and other influential persons, has been presented to the New York legislature, recommending the establishment of a State Board of Health. New York is almost the only state in the Union which has no public registration of births, marriages, and deaths; and in only three or four of its cities is there provision for any sort of record of these. The memorialists suggest that the functions of the Board should comprise popular instruction and explanation, the publication of brief reports on the leading sanitary questions of the day, and the skilled investigation of subjects which particularly affect the public health.

DEATHS FROM INTEMPERANCE.

THE New York correspondent of the *Boston Medical and Surgical Journal* says that Dr. Nagle reports that, during the year 1879, two hundred and fifty-five deaths in New York were directly attributable to intemperance, the immediate cause of death being classified as follows: Fracture of the skull, two; congestion of the brain, nine; nephritis, forty-two; delirium tremens, eighteen; alcoholism, seventy-one; and pneumonia, nineteen. Of the individuals thus dying, one hundred and five were natives of Ireland, eighty-four of America, thirty-five of Germany, ten of England, four of France, and one of Scotland.

SMALL-POX IN LONDON.

THE deaths from small-pox, which had been 4, 9, and 13 in the three preceding weeks, were 9 last week, of which 7 occurred in the Metropolitan Asylum Hospitals at Homerton and Deptford, and 2 in private dwelling-houses. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 167, 172, and 177 in the three preceding weeks, further rose to 178 on Saturday last; 44 new cases of small-pox were admitted to these hospitals during last week, against 47 and 42 in the two previous weeks. The Highgate Small-pox Hospital contained 22 patients on Saturday last.

A LUNACY COMMISSION IN CONSTANTINOPLE.

A CORRESPONDENT writes from Constantinople:—No small amusement has been caused here by the constitution of the commission (!) appointed to decide the question whether the deliberate murder of the Russian colonel riding with M. Onou was the act of a madman. The Sultan is understood to have insisted on superintending the nomination, and made out a list, which, of course, was adopted, and which included the Professor of Botany, the Professor of Geology, and the Professor of Chemistry. It was not apparent how these learned gentlemen should have acquired expertness in such a subject, and the commission is estimated accordingly. The so-called madman is a member of the Sultan's body-guard, and has not been removed to any asylum, but is still in the guard-house near the palace in which the Sultan resides. The persistency with which the Sultan protects this assassin, and the curiously devised farce of testing his insanity, has not imposed on any one. The ambassadors have refused to allow their physicians to be compromised by playing any part in it.

THE WEATHER AND HEALTH IN PHILADELPHIA.

THE Philadelphia correspondent of the *Boston Medical and Surgical Journal* writes:—The winter of 1879-80 has been with us the mildest remembered; and the record of the weather for the past ninety-one years shows that the present winter is the warmest we have had during that period. The average temperature of the winters during that long time was 31.67°, while the average temperature of the past winter was as high as 38.65°. It might be thought that such warm weather during the winter months would be injurious to health, but the statistics of deaths for the months of February 1879 and 1880 prove that such is not the case this year. During that month last year it rained but twice, the other storms being snow; in the same month this year it rained on six different days, the amount of water falling being nearly double what it was the year previous. The temperature during that time was, on an average, nine degrees warmer than during the corresponding time of the previous year; yet in 1879 the number of deaths was 1,446, while in 1880 the number was 1,211. According to the tables prepared by the registrar of the Health Board, the deaths in Philadelphia during the twelve weeks between the last day of November, 1879, and February 21st, 1880, reached 3,996, while for the same period last year they amounted to 4,602, showing the deaths for this winter to have been 606 less than last year.

LEAD-POISONING.

MR. G. A. ROGERS, the medical officer of health for Limehouse, has recently reported to the board of works of the district upon a case of lead-poisoning that had come under his notice. He stated that he had visited the factory where the deceased (a woman) had been employed, and had been informed that her particular duty was to pack the dry white lead in casks. During the operation of packing, minute particles of white lead become detached, and these, floating in the atmosphere, are inhaled, and so enter the system. Mr. Rogers remarks hereupon that this is undoubtedly the most dangerous of all the work in the factory, and contributed by far the greater proportion of the cases of lead-poisoning. Messrs. Johnson (the proprietors of the factory) have, it seems, provided small cambric bags to cover the mouth and nose during the operation. The workwomen wear a peculiar dress; their hands are incased in gloves, and their hair is gathered under a covering designed for the purpose. Notwithstanding all these precautions, cases of lead-poisoning will occur; and one of the guardians took the opportunity of informing the board that scarcely a week passed without cases of lead-poisoning being taken into the sick asylum of the district.

GRADUATION CEREMONIES IN AMERICA.

SOME at least of the universities and colleges in the United States appear to understand how to make matters very pleasant at the "annual commencements", at which the degrees are conferred on the successful candidates. For instance, we have before us, in the *Cincinnati Lancet and Clinic* of March 6th, an account of the recent "commencement exercises" of the medical colleges of Cincinnati. That of the Miami College of Medicine was held in Robinson's Opera House, and the order of proceedings was as follows. 1. While the members of the Faculty were taking their seats, the overture Jubel, by Bach, was played by the Cincinnati orchestra; 2. Prayer by the Rev. Dr. Pratt; 3. Orchestral selections; 4. Address by Professor Murphy, the Dean; 5. A flute solo by a member of the orchestra; 6. Degrees conferred by Bishop Jaggar, one of the trustees; 7. Presentation of special prize of 100 dollars to the candidate who had passed the best average examination in all the subjects; 8. The "Turkish Patriot" by the orchestra; 9. Valedictory address by Professor Mussey; 10. Benediction by the Rev. Dr. Pratt. At the commencement exercises of the Medical College of Ohio, which were held in the Cincinnati Music Hall, the addresses were interspersed with performances on the organ.

DIPHTHERIA AND SEWER-GAS.

THE influence of sewer-gas in the production of diphtheria has not always received the attention it deserves; and it seems, therefore, important to chronicle well-authenticated cases which seem to have no other cause than the introduction of drain-air into the houses invaded by the disease. Two such cases have recently been recorded as occurring at Newquay, in Cornwall, by Dr. Ballard of the Local Government Board, whose caution as an etiologist is well known. It appears that a new tenant commenced one August to occupy a detached and almost new house, the water-closet of which was drained into a covered and unventilated cesspool in the garden. This house had been previously occupied for a short time by a family who had been quite free from illness while residing there. In one of the bed-rooms, there was an open rain-water cistern, having an overflow or waste pipe which discharged itself into one of the drains connected with the cesspool. The only trap it had was a bell-trap on the top of the pipe, which, when subsequently examined, was found to be dry. From this pipe offensive smells had been noticed as proceeding for some time, and from the room they more or less pervaded the house. In the room where the cistern was situated one child slept alone; another child slept with a nurse in a different room. On January 2nd, the child who slept in the room containing the cistern was attacked with diphtheria and died. No one else in the house suffered. The other fatal case referred to occurred in a good house, which was occupied by a family of whom eight children with the mother slept in a large attic room, beneath the floor of which was a rain-water cistern. The waste pipe of this cistern was trapped with a bell-trap, and it terminated in the soil-pipe of the water-closet. All the children who slept in this room had attacks of diphtheria of varying degrees of severity, and one of them died. On subsequent examination of the bell-trap, it was found to be dilapidated, dry, and quite ineffective to prevent the rise of foul air from the waste pipe and through the floor into the attic.

SCOTLAND.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS.

THE report of the Registrar-General on the eight principal Scotch towns for March shows that there were 2,801 deaths registered, of which 1,441 were of males and 1,360 of females. Allowing for increase of population, this is 277 below the average of the same month during the previous ten years. The mortalities in the various towns were per 1,000: Greenock 19, Perth 21, Aberdeen 22, Leith 24, Edinburgh 25, Glasgow 27, Dundee and Paisley 31. Of children under five years of age, there were 1,304 deaths, equal to 47 per cent. of the whole. In Perth, the infantile mortality was as low as 26 per cent.; while in Leith it was as high as 57 per cent. Zymotic diseases caused 17.2 per cent. of the mortality. Whooping-cough, as usual, caused a good many deaths, amounting to 5.1 per cent. of the whole mortality; while measles caused 5.1 per cent. This rate was much exceeded in Edinburgh, Dundee, and Leith, where the mortalities from this cause were 7.4 per cent., 15.7 per cent., and 17.8 per cent. respectively. Of 42 deaths due to fever, 11 were registered as typhus, 27 as enteric, and 6 as simple continued fever. Croup, scarlet fever, and diphtheria caused 28, 21, and 21 deaths respectively. Apoplexy and paralysis caused 161 deaths, cardiac diseases 143 deaths, and premature birth debility 75 deaths. Phthisis pulmonalis caused 297 deaths, equal to 10.6 per cent. of the whole mortality; other affections of the respiratory organs caused 642 deaths, or 22.9 per cent. Eleven individuals over 90 years of age died, of whom three were males and eight females; the eldest, a male, was 99. There were 3,911 births, of whom 2,024 were males and 1,887 females. During the month, the mean barometric pressure was greater by 0.233 inch, the mean temperature greater by 1°, the mean humidity greater by 2, the rain-depth less by 0.53 inch, and the wind-pressure less by 0.78 lb., than the averages for the same month during the last twenty-three years. The highest mean temperature was at Leith (41.8°), and the lowest at Perth (40.6°).

GLASGOW AND EDINBURGH UNIVERSITIES.

THE contests for the Lord-Rectorships of the Scottish Universities again approach. In November 1880, there will be elections in Glasgow and Edinburgh. Already public notice has been given that Mr. Bright has consented to be nominated by the Liberal students of Glasgow University, and Sir W. Vernon Harcourt has consented to stand on the same interest in Edinburgh. No public announcement of the Conservative students' candidates has yet been made.

PARLIAMENTARY REPRESENTATION OF THE SCOTTISH UNIVERSITIES.

THE contests for the four Scottish Universities have resulted in the return of two members holding opposite political views, but in no way altering the position of the two parties in Parliament. While it was confidently expected that Mr. Lyon Playfair would have won more easily, very few expected that Mr. Asher would have gained an actual majority in Glasgow. It will be observed that the larger University in each case had the majority on one side, while the smaller university linked with it went even more markedly in the other direction.

FUNERAL OF DR. SHARPEY.

THE funeral of Professor Sharpey took place at Arbroath on Saturday. The remains, which arrived on Friday, were conveyed to the house of Dr. Sharpey's half-sister, Miss Arrott. Previously to leaving for the Abbey Burying-ground (the place of interment), a religious service was performed by the Rev. George Logan of Inverbrothock. The funeral was a private one; but, as a mark of respect for the deceased, most of the shops along the line of route which the mourning-coaches took were closed, and the steeple bell tolled at intervals. On arriving at the Abbey gate, the coffin was removed from the hearse and borne to the grave. The pall-bearers were Dr. James Arrott, Dundee (Dr. Sharpey's half-brother); Mr. R. W. Phillip, solicitor, Arbroath; Professor Allen Thomson, London; Messrs. Alexander Gordon, C. W. Corsar, and Alexander Balfour, manufacturers, Arbroath; and Mr. George Miln, solicitor, Arbroath. Among others present were Provost Reid of Arbroath; Dr. Nimmo of Dundee; Dr. Wemyss of Broughty Ferry; Dr. J. Crichton of Arbroath; Mr. W. K. Macdonald, Town Clerk; Mr. John Chiene, surgeon, Edinburgh; etc. A large crowd of spectators thronged the streets and collected in the churchyard; among them were not a few aged persons whose memories carried them back to the early days of their distinguished townsman, whose past career has shed such lustre on his birthplace, and whose personal qualities endeared him to all who knew him. The statement in last week's JOURNAL and in *Nature*, that Dr. Sharpey practised for some time in Arbroath was, we are informed, an error.

ABERDEEN UNIVERSITY COUNCIL.

AT a meeting of the Aberdeen University Council, held last week, the most important business was the motion of Professor Struthers regarding the formation of a Chair of Pathological Anatomy in the Medical Faculty of Aberdeen University. Dr. Struthers gave very sufficient reasons for his motion; and it was unanimously adopted, and notice of it intimated to the Court.

IRELAND.

A NOTICE of motion has been given by a guardian of the Cork Union, that a petition be presented to Parliament in favour of an allocation of a part of the Surplus Church Funds, for the purpose of erecting cottage hospitals in the populous districts of Ireland which are at least five miles from any workhouse.

THE NEW ROYAL UNIVERSITY IN IRELAND.

THE Chancellor and Senate of the new Royal University of Ireland were appointed under the Sign Manual of Her Majesty on Monday last. The Chancellor is His Grace the Duke of Abercorn, late Lord Lieutenant of Ireland; and the Senate consists of 36 members, 18 being Protestants and 18 Catholics. There are eight medical members.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

MR. A. H. CORLEY, Lecturer on Surgery in the Carmichael College of Medicine and Surgery, and Surgeon to the Richmond Hospital, has been elected a member of the Council of the College, in the place of Dr. B. G. McDowel, appointed an Examiner for the Letters Testimonial and the Fellowship of the College.

DR. LYONS, M.P.

THE committee of medical men who were constituted to secure the return of Dr. Lyons as one of the members for Dublin in the new Parliament are to entertain that gentleman at dinner this day (Saturday) at the Shelbourne Hotel.

ST. VINCENT'S HOSPITAL.

IN order to meet the requirements of the resolution recently adopted by the Royal College of Surgeons in Ireland as regards instruction in ophthalmic surgery in the case of candidates for its diploma, the authorities of St. Vincent's Hospital have established a special dispensary for the treatment of ophthalmic disease, and also a special ward for in-patients of this class. Mr. Denis D. Redmond, L.R.C.S.I., Assistant-Surgeon to the National Eye and Ear Infirmary, Stephen's Green, has been appointed to the post of ophthalmic surgeon to the hospital.

DEATH OF A CENTENARIAN.

A MAN named Kennedy recently died at his residence, near Tullamore, at the alleged age of 105 years. It is stated that documentary evidence proves his extraordinary age; but, besides this, it is known that he was arrested as a rebel in 1798, eighty-two years ago, which circumstance alone would tend to prove that he was at all events one hundred years of age. Until the last twelve months, Kennedy was able to walk, on an average, over ten miles a day.

ASSOCIATION INTELLIGENCE.

YORKSHIRE BRANCH.

THE spring meeting of this Branch will be held at the New Hospital and Dispensary, St. John's, Wakefield, on Wednesday, April 28th, at 3 P.M. The following communications have been promised.

1. Dr. Rabagliati: The Classification and Nomenclature of Disease.
2. Mr. Fowler: The Conservative Surgery of the Hand.
3. Dr. James Braithwaite: A Note on the Treatment of Subinvolution of the Uterus.
4. Mr. Miall: A Note on the Treatment of Chronic Joint-Disease.
5. Dr. Tibbits: On the Modern Theory of the Action of Digitalis.
6. Dr. H. C. Major: Observations on the Histology of the Brain in Senile Atrophy.
7. Mr. Snell: On Orbital Tumours.
8. Dr. Holdsworth will show a Patient with Progressive Muscular Atrophy, and relate short notes of the case.
9. Mr. Thomas Walker: A Case of Poisoning by the Escape of Gases from a Coke Stove.

The members will dine together at the Strafford Arms Hotel, at 5.30 P.M. Tickets (not including wine), 6s. each. Gentlemen intending to dine are requested to give notice as soon as convenient to the Secretary *pro tem.* ARTHUR JACKSON, *Secretary pro tem.*

MIDLAND BRANCH.

A MEETING of this Branch will be held at the New Bath Hotel, Matlock, on Wednesday, May 5th, at three o'clock, "to consider the resolutions of the Metropolitan Counties Branch upon medical education".

Dinner at five o'clock. Tickets 5s. 6d., exclusive of wine.

Members intending to dine are requested to communicate with

F. W. WRIGHT, *Honorary Secretary.*

4, Full Street, Derby, April 1880.

NORTH OF ENGLAND AND BORDER COUNTIES BRANCHES: CONJOINT MEETING.

A CONJOINT meeting of the above Branches will be held at the Shaw's Hotel, Gilsland, on Thursday, April 29th, at 3 P.M. The chair will be occupied by Dr. PHILIPSON, President of the North of England Branch, who will give a short address.

The following papers have been promised.

1. Dr. Smith (Dumfries): The Hypodermic Use of Pilocarpin.
2. Dr. Wilson (Wallsend): The Results of Maternal Shock upon Fœtal Development.
3. Dr. Lockie (Carlisle): Ulcerative Endocarditis.
4. Dr. Reid (Newbiggin): A Fortnight in a Retreat or Home for Inebriate Ladies.
5. Mr. Erskine Stuart (Dunse): Vasomotor Neuroses; their Therapeutics; illustrated by a case of Vasomotor Paralysis.
6. Dr. Legat (South Shields): Notes of a Case of Hæmatoma Auris.
7. Dr. Gibson (Newcastle): The Nature and Treatment of Pleuritic Effusion.
8. Dr. Barron (Durham) will introduce specimens of Mr. Gamgee's Absorbent Dressings.

Dinner at the Shaw's Hotel at 5 P.M. Tickets, six shillings each, exclusive of wine. Members intending to dine are requested to give notice to their Branch Secretaries at their earliest convenience.

J. SMITH, M.D., Dumfries
J. K. BURT, M.D., Kendal
T. W. BARRON, M.D., Durham } *Honorary Secretaries.*

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of this district was held in the Board Room of the Brighton and Hove Dispensary on April 6th; JARDINE MURRAY, Esq., in the Chair.

Communications.—The following communications were made.

1. Pathological Specimens.
2. A Case of Locomotor Ataxy in a Boy. By Dr. Hollis.
3. Two Cases of Disseminated Sclerosis. By Dr. Withers Moore.
4. Case of Paralysis in a Girl, with unusual Symptoms. By Dr. Fussell.
5. Primary Cancer of the Liver. By Dr. Ewart.
6. A Case of Elephantiasis. By Mr. W. Furner.
7. Mr. Jardine Murray exhibited Mr. Sampson Gamgee's Absorbent and Antiseptic Surgical Dressings.

Next Meeting.—It was resolved that the next meeting be held at Tunbridge Wells, about the middle of May, and that Dr. Fairlie Clarke of Southborough be invited to take the chair.

Dinner.—The members dined together at the Grand Hotel at 6 P.M.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the offices of the Association, 161A, Strand, on Wednesday, April 14th, 1880—Present: Dr. CARPENTER (President of the Council) in the Chair; Dr. G. M. Humphry, F.R.S. (President-elect); W. D. Husband, Esq. (Treasurer); Dr. T. C. Allbutt, Dr. J. T. Arlidge, Dr. M. M. De Bartolomé, Dr. L. Borchardt, Dr. J. B. Bradbury, Dr. C. Chadwick, Dr. J. Ward Cousins, Dr. A. Davidson, Dr. G. F. Duffey, Dr. R. W. Falconer, Dr. B. Foster, R. S. Fowler, Esq., Dr. E. Long Fox, Dr. W. C. Grigg, Mr. Arthur Jackson, Dr. C. E. Lyster, Dr. E. Malins, Mr. F. E. Manby, Mr. F. Mason, Dr. C. Parsons, Dr. T. L. Rogers, Dr. E. H. Sieveking, Mr. H. Stear, Dr. A. P. Stewart, Dr. W. F. Wade, Dr. E. Waters, Mr. C. G. Wheelhouse:

The minutes of the last meeting were read and found correct.

Read letters of apology for non-attendance from Mr. Alfred Baker, Dr. Edwin Morris, and Dr. Alfred Sheen.

In reference to continued minute 492, the President of the Council reported that the Subcommittee appointed for the purpose had drawn up a resolution upon the subject of the resignation of Dr. Farr, and that the same had been forwarded to the Right Honourable the Earl of Beaconsfield, with a letter from the President of Council, both of which, together with the reply of Lord Beaconsfield, appeared in the JOURNAL of February 14th last (page 262).

In reference to continued minute 489, the President of the Council reported that there had been a meeting of the delegates of the universities, colleges, and other public bodies to consider the arrangements for the meeting of the International Medical Congress in 1881, and that the interval between the 4th and the 14th of October had been fixed for the time of holding the meeting. The President of the Council then read a letter from the President-elect, proposing that a business meeting only of the Association be held in the year 1881, and that the whole energies of the Association be directed to assist in making the meeting of the International Congress a success.

A discussion ensued, but no resolution was proposed.

Resolved: That the consideration of the replies of the Branches on the subject of Medical Education be deferred till the replies of the whole of the Branches have been received.

Read minutes of the Journal and Finance Committee, together with the minutes of the Office and Printing Subcommittee, both of to-day's date.

Resolved: That the minutes of the Journal and Finance Committee, together with the minutes of the Office and Printing Subcommittee, both of to-day's date, be approved, and the recommendations carried into effect.

The minutes of the Journal and Finance Committee contain recommendations for the payment of accounts to the amount of £1,017 8s. 5d., and the examination of paid accounts for the quarter of £1,837 17s. 9d., a total of £2,779 2s. 2d. for quarter; the consideration of the financial statement for 1879; and the investment of £1,000.

Resolved: That Dr. Borchardt be appointed a member of the Journal and Finance Committee, in the vacancy caused by the death of Mr. Callender, F.R.S.

Resolved: That the financial statement for the twelve months ending the 31st December last be approved, adopted, and published in the JOURNAL, in accordance with By-law 33.

Resolved: That the 142 candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the Association.

Resolved: That the President of the Council, the Treasurer, and Dr. Foster be appointed a Subcommittee to draw up the draft annual report.

Read circular from the London and Westminster Bank, asking for new power of attorney for the receipt of dividends on consols.

Resolved: That the corporate seal of the Association be attached to the new power of attorney for the receipt of dividends on consols.

Resolved: That the corporate seal of the Association be attached to the Stewart and Middlemore Trust Deeds in duplicate, and that the duplicates be forwarded to the founders of the funds.

The seal was then attached to the power of attorney to enable the London and Westminster Bank to receive dividends on consols, and to the Stewart and Middlemore Trust Deeds in duplicate, and the seals relocked in the presence of the Committee of Council.

The minutes of the Committee for Procuring Legislative Restriction for Habitual Drunkards of the 28th January last were read, and it was

Resolved: That the minutes of the Committee for Procuring Legislative Restriction for Habitual Drunkards of the 28th January last be approved.

The minutes of the Habitual Drunkards' Committee contain recommendations that an institution be established for the treatment of inebriates by the aid of voluntary subscriptions, and supported by payments of patients, and that the name of such institution be the Dalrymple Retreat for Inebriates.

FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31ST, 1879.

Summary of Receipts and Payments for the Year ending December 31st, 1879.

DR.]—To Receipts:—	£	s.	d.	£	s.	d.
Cash in hand on January 1st, 1879:—						
At London and Westminster Bank	1,774	0	0			
At Office	35	7	10			
				1,809	7	10
Subscriptions	8,147	6	5			
Advertisements	4,965	19	11			
Sundry Sales of Journals	723	11	1			
Ditto Reprints, Binding Covers, etc.	58	3	5			
Interest	92	0	2			
				13,987	1	0
Sale of Waste and Sundries				4	6	3
Balance of Scientific Grants Committee				177	5	6
				£15,978	0	7

CR.]—By Payments:—	£	s.	d.	£	s.	d.
Editor				500	0	0
Sub-Editor				160	0	0
Contributors				1,251	6	10
Reporting				243	1	2
Engraving				37	4	2
Sundry Journal Expenses	93	4	11			
Rent of Editors' Room	5	5	0			
				98	9	11
Journal Printing	2,376	2	9			
Ditto Richards, 1878	848	17	2			
Paper	2,679	8	1			
Address Bands	141	17	5			
Postage	908	4	8			
				6,954	10	1
Scientific Grants, 1879-80				282	0	0
Committees:—						
Parliamentary Bills Committee	13	16	6			
Medical Reform Committee	7	8	2			
Hospital Out-Patient Reform Committee	3	5	6			
Hire of Rooms for Committee of Council	10	10	0			
				35	0	2
Auditors' Fee				63	0	0
General Secretary				550	0	0
Rent				400	0	0
Salaries and Wages				638	13	4
Postage				173	6	7
Office Expenses	149	3	8			
Ditto Petty Cash Sundries	53	17	2			
				203	0	10
Stationery				109	2	11
Ditto Office and Small Stationery				41	12	6
Miscellaneous Printing				191	9	8
Ditto 1878				66	3	0
Reprints				72	3	9
Copying and Assistance				119	2	9
Furniture and Fittings				278	14	4
Printing at Annual Meeting				71	17	9
Coals and Gas				35	12	8
Cleaning Offices				50	13	3
New Premises				235	19	1
Architect's Fee				67	3	8
Legal Charges				146	17	8
Plant and Type				779	13	0
Rates and Taxes				61	18	4
Expenses of Journals to Canada	14	10	4			
,, to India	6	18	3			
				21	8	7
Medal—Wyon				31	7	6
Bank Charges				11	5	6
Balance of Amount paid to Branches				2	14	7
Branch Charges				2	7	8
				13,987	1	3
London and Westminster Bank	1,974	12	10			
At Office	16	6	6			
				1,990	19	4
				£15,978	0	7

Revenue Account, or Profit and Loss for the Year ending December 31st, 1879.

DR.]	£	s.	d.	£	s.	d.
Editor				500	0	0
Sub-Editor				160	0	0
Contributions				1,341	1	11
JOURNAL:—						
Printing	2,497	1	4			
Paper	2,695	8	7			
Postage	924	11	11			
Address Bands	128	17	0			
				6,245	18	10
Printing Journal—Richards				31	12	6
Wood Engraving				37	4	2
Reporting				234	13	2
Journal Expenses:—						
Editor's Postage	34	18	1			
Newspapers	7	1	2			
Sub-Editor's Expenses, Telegrams, etc.	12	17	0			
Boy's Wages	30	16	11			
Sundries	7	11	9			
				93	4	11
Scientific Grants, 1879-80				300	0	0
Committees:—						
Parliamentary Bills	13	16	6			
Medical Reform Committee	7	8	2			
Hospital Out-Patient Reform Committee	3	5	6			
				24	10	2
Auditors' Fee				63	0	0
General Secretary				550	0	0
Rent				320	0	0
Taxes	65	11	6			
Fire Insurance	17	6	0			
				82	17	6
Miscellaneous Printing:—						
Printing in connection with Committees Association Printing Journal and Editor's Printing Printing in connection with Advertisements Reprints	210	0	3			
Printing at Annual Meeting, Cork	71	17	9			
				281	18	0
Binding Covers and Reading Cases				15	1	9
Reprints				60	13	4
Salaries and Wages				638	13	4
Postage				171	13	9
Sundry Office Expenses:—						
Printing Office	18	8	0			
Advertising	1	12	6			
Travelling Expenses, Telegrams, etc.	25	18	10			
Carriage	1	4	4			
Travelling and Expenses of Clerk	10	7	0			
Sundries (office)	93	5	10			
Ditto Petty Cash	53	17	2			
Copying and Assistance	119	2	9			
Cleaning Rooms	50	13	3			
				374	9	8
Stationery—Account Books, Ledgers, Paper for Proofs, etc.	109	2	11			
,, (office)—Pens, Ink, Envelopes, Paper, etc.	68	4	6			
				177	7	5
Coals and Gas				26	11	11
Bank Charges				11	5	6
Branch Charges				2	7	8
Plant Depreciation Fund				125	0	0
Sundries, Expenses of Foreign Journals, Medal, etc.				61	4	1
Furniture and Fittings				50	0	0
Premises Redemption Fund				75	0	0
				12,055	9	7
Subscriptions, losses from death, etc.				325	6	4
Advertisements, Discounts, Allowance, etc.				554	4	2
Profit for the year carried to Balance-Sheet				2,311	6	1
				£15,246	6	2

CR.]	£	s.	d.
Subscriptions	8,268	6	6
Ditto from former years	54	17	2
Advertisements	5,645	17	10
Sundry sales of Journal	733	7	7
Ditto Reprints, Binding Covers, etc.	86	5	5
Interest—one year, £3,132 0s. 6d. Consols	92	0	2
Balance on Scientific Grants	125	17	8
Discounts and allowances on Printing and Paper Accounts, and Stamps	235	7	7
Sale of Waste and sundries	4	6	3
	£15,246	6	2

Balance Sheet, 31st December, 1879.

LIABILITIES.

Dr.]	£	s.	d.	£	s.	d.
Contributions				457	11	3
Journal Printing Account				40	19	0
Furniture				32	10	0
Subscriptions paid in advance				397	12	2
Advertisements paid in advance				20	10	5
Plant and Type				86	5	7
Taxes				16	13	4
Stationery				36	9	3
New Premises				21	12	10
Wood Fund				25	0	0
Due to Branches				5	4	6
Reprints				3	11	4
Copying				8	8	0
Scientific Grants				18	0	0
Cheques unpresented				14	3	7
Postage on Journal				16	7	3
Reserve Fund for depreciation of Plant	125	0	0			
,, ,, added for 1879	125	0	0			
				250	0	0
Ditto redemption of cost of alterations of new Premises	50	0	0			
,, ,, ,, 1879	75	0	0			
				125	0	0
				1,575	18	6
Balance on January 1st, 1879	6,219	8	6			
Profit for the year from Revenue Account	2,311	6	1			
Total excess of Assets over Liabilities				8,530	14	7
				£10,106	13	1

ASSETS.

Cr.]	£	s.	d.	£	s.	d.
Subscriptions: amount due				727	15	2
Advertisements				1,769	16	7
Sundry Sales				103	8	6
Interest due on consols				46	0	1
New Premises, at cost				1,157	11	11
Furniture and Fittings				445	2	11
Plant and Type, at cost				865	18	7
Consols (£3,132 0s. 6d.), at cost				3,000	0	0
				8,115	13	9
Cash in hand:—						
At London and Westminster Bank	1,974	12	10			
At Office	16	6	6			
				1,990	19	4
				£10,106	13	1

STEWART FUND.

£400 invested in 4 per Cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

Dr.]	£	s.	d.
To balance brought forward	12	4	8
Interest, one year, on £400	15	13	4
	£27	18	0

Cr.	£	s.	d.
By balance carried forward	27	18	0
	£27	18	0

MIDDLEMORE FUND.

Dr.]	£	s.	d.
To balance	511	6	5
Interest, one year, on £500 4 per cent. North British Railway Debenture Stock	19	11	8
	£530	18	1

Cr.]				£	s.	d.
By purchase 4 per cent. North British Railway Debenture Stock	288	7	6			
Ditto	219	5	6			
				507	13	0
By balance carried forward				23	5	1
				£530	18	1

We have examined the foregoing accounts with the books and vouchers of the Association, and find the same to be correct.

PRICE, WATERHOUSE, & CO., 44, Gresham St., E.C.

March 25th, 1880.

UNIVERSITY OF OXFORD.—At a congregation holden on April 15th, the following degree was conferred:—*Doctor in Medicine:* Ernest Henry Jacob, Corpus Christi College.

UNIVERSITY OF CAMBRIDGE.—At a congregation holden on April 15th, the following degree was conferred:—*Doctor of Medicine:* John Abercrombie, Caius College.

SPECIAL CORRESPONDENCE.

PARIS.

Dr. Bury's Treatment of Cholera by Copper.—M. Bert on Anæsthetics.—The Carica Papaya.

MORE than a quarter of a century since, M. Burq first enunciated his important discovery that coppersmiths and others concerned in the manufacture of copper utensils, etc., generally enjoyed an immunity against attacks of cholera; and this immunity M. Burq ascribes to the preservative influence of that metal on the economy, which, if sufficiently saturated with it, would be to cholera what vaccine lymph is to small-pox. The natural inference would therefore be, that we have in copper a valuable therapeutic agent, if not a specific against cholera. About four years ago, M. Burq observed that, during an epidemic of typhoid fever in Paris, among the workmen, amounting to more than thirty thousand, employed in the manufacture of copper articles, only two deaths occurred from the malady. From this, M. Burq concludes that the remedy would be worth trying in typhoid fever, in which affection he was in hopes it would be as beneficial as in cholera, and expressed himself to this effect in the paper he lately read before the Academy of Medicine on the above subject. M. Pidoux, however, refuted the assertions of M. Burq by stating that, during the epidemic of cholera in 1865-66, he confided to M. Burq's care forty patients of his hospital ward, all of whom were treated with copper, but not one of them recovered. This result is certainly not very encouraging, and, however useful the copper treatment may be in purely nervous affections, its efficacy in zymotic diseases is very questionable.

M. Paul Bert has undertaken a series of experiments with the view of studying the extent to which nitrous oxide, chloroform, and ether, may be employed as anæsthetics without danger. Until now, the proper dose of these agents has not been fixed; that is to say, the limit between the quantity sufficient to produce simple and temporary anæsthesia and that which would be fatal to life. With the exception of experiments by Baudelocque, by which he endeavoured to ascertain the exact dose of chloroform necessary to produce anæsthesia, nothing seems to have been done in this direction. M. Bert has endeavoured to supply the desideratum in a very interesting paper he lately read before the Biological Society of Paris, and in which he gave the results of his experiments, which he conducted as follows. A large vessel is provided with two tubes, one of which is connected with the trachea of an animal experimented on, and the other with a balloon filled with oxygen, containing a definite quantity of chloroform, and arranged in such a way that the animal breathes pure air together with the vapours of chloroform; the carbonic acid which the animal exhales is absorbed by some ground charcoal saturated with caustic potash. When the chloroform is reduced to vapour, the animal is made to breathe; it is then seen, as indicated by Baudelocque, that 20 *grammes* of chloroform to 100 *litres* of air suffice to make the animal sleep. Under these conditions, the animal goes quickly to sleep, and can breathe for an indefinite time. This quantity of 20 per cent. being represented by 1, if the dose of the chloroform be doubled and raised to two, death ensues very rapidly. If the mean quantity, 1 to 1½, be administered, the animal dies in fifteen minutes. Chloroform is, then, a poison, in so far that there is no intermediate dose between that which may be given with safety and that which proves fatal, whereas there are many other substances whose intermediate doses occupy a considerable range, and therefore deserve the name of medicaments, such as morphia, for example. The experiments of M. Bert have for the present been confined to chloroform. He will report on the results obtained by ether and by nitrous oxide under pressure, but he states that he is already in a position to express himself in favour of the latter. It is, however, certain that, if the effects of chloroform when first introduced into practice had been studied as above described, surgeons would never have administered it as they have done and still do every day, though clinical observation does not confirm the results obtained by physiological experiments; as, after all, the number of deaths from chloroform as an anæsthetic is very small in proportion to the number of persons to whom it is daily administered. In reply to a question put by one of the members present as to how children bore the inhalation of the nitrous oxide under tension, M. Bert replied that children enjoyed the same advantages with the gas as with chloroform, that is to say, they fell asleep with the same marvellous facility and rapidity with the one as with the other.

A few months ago, Dr. Bouchut introduced into therapeutics a new substance possessing strong digestive or peptonising powers, which he obtained from a tree which grows in Brazil, called the "carica papaya".

M. Wurtz, the celebrated chemist, has examined this substance chemically, and M. Bouchut medically; and they have submitted the results of their combined experiments to the Academy of Sciences, from which we learn that the plant partakes of the properties of the animal and vegetable kingdoms, and that the liquid, extracted from it by means of incisions through the bark and placed in contact with raw meat, coagulated white of egg, and gluten, softened these substances in a few minutes, which were completely digested in a few hours, at a temperature of 40° C. (104° F.). Milk was coagulated, and the precipitated curds were soon dissolved by it. False membranes removed from the throats of croupous patients, worms, such as ascarides and tæniæ, were affected in the same way. The two experimenters have come to the conclusion that this liquid contains a digestive ferment analogous to what is found in carnivorous plants. From this they have extracted a sort of vegetable pepsin, to which they have given the name of "papaine". When it was placed in contact at a dose of 20 *grammes* at 40° C. with 56 *grammes* of moist fibrin and 200 cubic *centimètres* of water, for forty-eight hours, adding to this a few drops of prussic acid to prevent putrefaction, the fibrin was entirely dissolved; the weight of the insoluble residue was less than that of the original pulp. Ten *grammes* of pulp, well washed, were digested at 40° C. with 17 *grammes* of moist fibrin and 50 cubic *centimètres* of water, and the addition of one drop of prussic acid. The whole was dissolved in twenty hours, with the exception of a residue weighing 3 *grammes* in a moist state. From the last experiment, it will be seen that there has not only been complete dissolution of the fibrin, but transformation into pepton, that is to say, complete digestion. The solvent property of this new substance seems to be so great that, even in the most minute quantities, it dissolves or digests animal tissues, whether in a physiological or a pathological condition, with the greatest facility. This suggested the idea of employing it as a therapeutic agent in neoplastic affections; and M. Péan, the eminent surgeon of the St. Louis Hospital, tried it in four cases of cancer, by injecting 1 *gramme* of a solution of papaine in the proportion of 1 to 10. The tumours, though very large, were speedily softened, and the liquid extracted therefrom by aspiration, and examined at the laboratory of the School of Medicine, was pronounced to resemble in all respects veritable pepton. Notwithstanding this apparently good result, M. Péan did not consider it prudent to continue the remedy, as the injections caused severe pain and a high degree of fever. Moreover, as above stated, it attacked every tissue, whether in a morbid or a healthy condition; it is, therefore, considered unsafe as a surgical application; but even in the medical cases it had to be given up, as, for instance, in dyspepsia, for which it was considered peculiarly suited; for it was discovered that, even administered in very minute doses, it had the effect of digesting the internal coat of the stomach.

CORRESPONDENCE.

CONVERSION OF BILIRUBIN INTO UROBILIN.

Sir,—By a series of simple experiments, I have succeeded in converting the colouring matter of bile into urobilin. The methods which I have adopted are different from any hitherto published. In so far as Maly's assertion with regard to the action of sodium amalgam on bilirubin is concerned, I can support him; but I have been led to draw a somewhat different conclusion as to the agent which brings about the transformation. I find that it is brought about by oxidation, and hope soon to be able to publish a full account of the facts in support of this view. Meantime, I wish to get credit for priority in the publication of this brief statement.—I am, etc.,

Chas. A. MacMunn, B.A., M.D.

A NEW ANÆSTHETIC.

Sir,—In your last number, mention is made of a new anæsthetic, described as a combination of nitrous oxide gas and ethyl*en* dichloride, and introduced in Edinburgh by Mr. Macleve.

I have not used the ethylen dichloride; but I suspect that the substance alluded to is ethidene dichloride, and I have been giving this with laughing-gas for the last fifteen months to more than a thousand cases in hospital and private practice. On the whole, I think ethidene dichloride a better anæsthetic than ether or chloroform, and can confirm all that Mr. Macleve says of it; but I have found that, when given beyond a certain strength, it causes vomiting and depression of the heart's action; and I fear that the plan recommended, of pouring it on a sponge in the tube or supplemental bag, without the means of regulating the strength of the vapour, will produce ere long results less satisfactory. It will be found that half a drachm is not always sufficient; and, if a larger quantity be used and it run through into the inhaler, the dose may be made strong enough to produce serious results. Chloroform applied in the same way would answer very well in the majority of cases; but in an exceptional one it would yield the vapour too abundantly for safety.

I have found a small-sized gas and ether inhaler answer my purpose; but I have no doubt the portable regulating ether-inhaler, charged with about two-thirds of the usual supply of ether, would do equally well. In all cases of ethidene-inhaling, the pulse should be watched as well as the breathing.—I am, etc.,

J. T. Clover.

3, Cavendish Place, Cavendish Square, W., April 20th, 1880.

PHYSICIANS AND PATIENTS.

Sir,—I should be glad to know if any of my brother physicians find themselves placed, as I frequently do, in a disagreeable position by the conduct of patients.

First let me repeat a canon of conduct for a consulter that appeared in your columns long ago. Consider (1) the interests of the patient; (2) those of the surgeon; (3) your own.

A patient comes twenty miles to consult me. I find he has been till the last week under the care of his ordinary medical attendant, a friend of my own. I refuse to prescribe except by communicating with him, which I purposely do by post. The surgeon is much annoyed with the patient, writes to me saying so, and that he declines further attendance on the case, as he had not been informed of any wish for a consultation, to which he would have gladly acceded.

What should I have done? What should I do?

1. The risk to the patient is that he has no treatment.
2. The risk to the surgeon is that another may be called in to take his place.
3. The risk to the physician is that he will get no more fees; and also that there is left in the mind of the surgeon a feeling of annoyance or reflection of annoyance that such a thing has occurred with that particular physician.

Again; I am called to a case by a surgeon. We meet two or three times. After the lapse of three weeks, the patient is brought to my house, convalescing, but not satisfactorily, since the surgeon had left off attendance, considering him able to do without more treatment. I send him off, telling him he has behaved very badly and ungratefully to his doctor, who had treated him so successfully, whom he ought to send for again at once. He does so, confesses what he has done, when the surgeon says he shall decline further attendance, as he has behaved in that way to him. Thereupon, he is brought again to me next day, and is very much surprised that I send him away with the assurance that under no circumstances should I prescribe for him except in consultation.

What should I have done? What should I do?

The risks are as before.

1. The patient suffers for want of treatment.
2. The surgeon will find himself superseded.
3. The physician gets no fee at all, as he could not charge for the two rebuffs administered to the patient.

Ignorance of the etiquette of asking the surgeon for a consultation is almost universal, especially among the middle and lower middle classes. When I have remonstrated at the breach of it, I have been met with "I should not have thought of taking such a liberty with you as not to come here first to ask you to arrange it!"

I hold that the consultee should, as nearly as possible, never compete with the general practitioner by attending cases alone; also, that it is unjust, ungenerous, and unwise to do as so many do—prescribe for a case, ask no questions, and say nothing about it. They are always found out sooner or later. But if the feeling and conduct of the consulting physician be not reciprocated, what is he to live upon?

My name is freely at anybody's service, but I think it better to ask your permission to subscribe myself F.R.C.P.

April 15th, 1880.

Hospital for Diseases of the Chest, City Road.—The sixty-seventh anniversary festival of this hospital was held on Wednesday last at Willis's Rooms; His Royal Highness the Duke of Connaught in the chair. In proposing "Prosperity to the Hospital", His Royal Highness remarked that it was founded in 1814 by his grandfather, the Duke of Kent; its origin being, he believed, largely due to the exertions of Dr. Isaac Butts. He regretted to say that there was a debt of £1,500; and the object of the festival was to reduce this debt, and to increase the annual subscriptions by £500. Subscriptions to the amount of £1,590 were announced during the evening.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

REPORT OF MEDICAL OFFICERS OF HEALTH.

Up to the present time, Medical Officers of Health have been left very much in the dark as to the general impression left upon the minds of the Medical Officers of the Government by the perusal of their reports. Individual officers have perhaps received an officious letter from Whitehall, complaining of the absence of certain particulars which, according to the official instructions, should have appeared in the reports; and, in very rare instances, an officer may have been commended for the excellence of his report. But it is manifest that Officers of Health, with their few opportunities for examination of the work of others, cannot have been able to find out whether the reports of Medical Officers of Health, taken in bulk, are improving or otherwise. The following remarks by Dr. Buchanan, the Medical Officer of the Local Government Board, extracted from the just-published report on the work of the Medical Department for the year 1878, will, therefore, be read with very general interest.

"During 1878, as in other recent years, much time and labour have been given in the Medical Department to a critical reading of reports, annual and special, by local medical officers of health. These reports have enabled a fair judgment to be formed—first, of the ability of particular officers of health, and of their devotion to their duties; and, secondly, of the extent of sanitary operations in various districts. Many medical officers of health, as well among those acting for combined districts as among those acting for separate districts or divisions of districts, and including officers of health for both large and small areas, have shown themselves actively and intelligently inquiring into the sanitary circumstances of their districts, and into the conditions of disease prevalent therein; and their reports and advice on these subjects have been of a character to deserve the fullest confidence of sanitary authorities, and to serve as guides in efficient local administration; while informing the inhabitants of the district of facts that ought, in the interests of health, to be known and acted on by them. At the other extreme, reports have been received that are quite perfunctory and without value, giving no evidence of knowledge of sanitary science or of acquaintance with the sanitary wants of the districts. So, with the sanitary work by the authorities of the various localities, when the report of the medical officer of health has enabled an opinion to be formed on the subject, some authorities have been shown to be doing their best to promote the sanitary welfare of their districts, while others have appeared to be careless or daunted by the first difficulty that has presented itself. The total impression left by the reports of the year 1878, as compared with those of preceding years, is, it is satisfactory to note, that officers of health and the authorities whom they serve are alike becoming more appreciative of their sanitary functions; and various collateral circumstances confirm this opinion. The Department has, of course, very limited opportunities of judging as to sanitary progress in those districts from which insufficient reports by medical officers of health are received; but, so far as its independent opportunities have gone, they have not unfrequently tended to show a relation between unsatisfactory execution of the functions devolving upon medical officers of health and shortcomings in the performance of sanitary duties by the authorities."

ENTERIC FEVER AND POLLUTED WATER.

Dr. Ballard, of the Local Government Board, has recently presented a report on a very curious and puzzling outbreak of enteric fever at a collection of houses at Tolcarne Head, in the district of Newquay, Cornwall, a seaside place which has been much resorted to of late years by visitors during the holiday season. Newquay has an evil reputation for enteric fever, and, indeed, for a great many nastinesses, since, as Dr. Ballard observes, there is scarcely even a pretence of ordinary sanitary administration made by the local board of the place. About twenty years ago, it was visited with a very severe and fatal epidemic of enteric fever, and the attention that was drawn to it in 1874, when five out of thirteen gentlemen forming an university reading party, and lodging at a single house, were attacked by enteric fever, will be well remembered. Inquiry, which was instituted by Dr. Blaxall of the Local Government Board at the instigation of Sir James Paget, whose son was one of the reading party, showed that the outbreak was mainly caused by the escape of sewer-air in the immediate vicinity of the dwellings and in some instances into the dwellings themselves. The epidemic broke out in Newquay towards the end of June 1874, and attacked both residents and visitors in the various lodging-houses. Dr. Blaxall himself saw thirty or forty cases of various degrees of severity; and he observed "that the distribution of the fever coincided in a remarkable manner with the ramifications of a sewer", the outlet of which was situated on the beach in the immediate vicinity of the cliff on which stands the house at which the reading party were lodging. The total number of observed cases that occurred during the epidemic could not be ascertained; but a list of seventy-two cases did not include many cases in the club practice of the only resident medical practitioner.

Since 1874, the Local Government Board have been in fitful correspondence with the local authority as to sewerage and refuse removal, until the fresh outbreak of fever in 1879 rendered it necessary to send down an inspector to inquire into the circumstances of its new prevalence. Dr. Ballard's account of the cases and of the sanitary surroundings of the locality is extremely minute and very difficult of condensation; but his conclusions may be thus stated. In May 1879, a Staffordshire clergyman, Mr. E., his wife, his three little daughters and another little girl, a governess, and four women-servants, came to live at a house (No. 2) on Tolcarne Head. On May 26th or 27th, sixteen or seventeen days after coming to the house, Mrs. E. was taken ill of enteric fever. On June 3rd, one of the daughters, who had been ailing previously, was found to be suffering from enteric fever; and on the same day the little visitor was also taken ill. The mother of the latter, coming on a visit to Tolcarne on June 10th, left on the 20th, and on July 2nd was seized with a very severe attack of enteric fever. On June 25th, another daughter was attacked; and on July 6th one of the servants, who had nursed the sick children. Last of all, the youngest daughter was attacked; and when seen on August 13th had been ailing for a fortnight previously. Ultimately, all those attacked recovered; but out of twelve persons in the house, seven suffered from attacks of fever. Of the remaining six persons, two are believed to have had fever previously, and were so far protected from a second attack. On July 4th, two lads who were working at some unfinished houses adjacent to No. 2 were seized with enteric fever, and one died. About the same time, viz., on July 7th, the house No. 3 was invaded, and two children were attacked. The servant appears also to have been ill on July 11th, and had to go home with a mild attack of fever. On July 11th, the wife of the occupant of another house called Seaward Villa, was attacked, and died on August 2nd. Afterwards, five out of fourteen persons who slept in this house between the end of June and the beginning of August were attacked by fever. It must be mentioned that all these houses got their water-supply from a well on the premises of a hotel erected in the block of houses at Tolcarne Head, and that they drained into a large cesspit near the edge of the cliff. Dr. Ballard shows at length that foul smells habitually proceeded from the part of the cliff at which the exit-pipe from this cesspit debouched, and that there was no doubt that the sewage in the cesspit (which was ill-constructed and leaky) percolated through the loose soil to the well. The sewage which leaked out certainly ran away into the soil and disappeared; and the dip of the stratification is southerly in the precise direction of the well, and the level at the bottom of it.

Here, therefore, in the foul air which the people at Tolcarne had to breathe, and the foul water which was supplied to them to drink, there was quite enough to account for the spread of enteric fever when once the infective principle of that disease had gained admission into the drains or into the well; and though Dr. Ballard could not trace conclusively the source of the specific infection, he is able to say pretty positively that such infection did actually take place. A consideration of the facts relating to each case and household invasion has satisfied Dr. Ballard that both the abovementioned conditions were actually concerned in the spread of the fever, the polluted well-water having evidently been the principal agent in the production of the disease.

HOW SMALL-POX IS SPREAD.

It is not a little surprising to find that, notwithstanding the wealth of experience which has been accumulated, and the universal terror with which small-pox is regarded, utter recklessness should be shown, even by those who ought to be better informed, in disseminating its infection. We reproduce the following instances of such dissemination from the last published annual report of Dr. Woodforde on the Berkshire combined district, because they appear to us to point several useful morals: the importance of information of the existence of cases of infectious disease being sent to the sanitary authority as soon as recognised; the necessity of the provision of means of isolation for such cases; the importance of seeing that the vaccination of the district is systematically looked after and early and properly performed; and the importance of the fullest exercise of the special powers possessed by the guardians with regard to this disease, and of the rigid prosecution by the sanitary authority under the 126th section of the Public Health Act in all cases of exposure of infected persons.

The family of a baker at Bright Waltham, near Wantage, including a lad employed in the bakehouse, were attacked with small-pox. While still in a condition to spread infection, the latter went about his work, delivering bread in the neighbouring villages as usual, and also sending home his linen each week to his mother's at Winterbourne, near Newbury, by the carrier, to be washed, subsequently returning home himself without any previous disinfection of either his person or his clothing. The mother and her eldest daughter were the first to take the disease.. As soon as it was reported to the sanitary authority by the medical man in attendance, the most stringent precautions were taken to prevent it from spreading beyond the infected house, and with success. Subsequently, it was again brought into the village, and also into another village; but a trained nurse was at once obtained, strict quarantine was maintained, as in the previous instance, all necessaries were provided by the guardians, and the inspector kept up a continued supervision of the infected premises.

At Newbury, the child of a tramp was attacked while at a common lodging-house in the centre of the town. The mother, on finding her child unwell, took it in the first instance to a druggist opposite, and afterwards fetched medicine for it, keeping the child in her room and telling the landlord that it only had a rash to which it was subject. In the meantime, the parents frequented the common kitchen, and allowed or induced a young woman lodging there to come up into the sick-room (where she contracted the disease, of which she subsequently died at Maidenhead). The landlord then insisted on qualified medical advice being obtained, and the case was at once pronounced to be small-pox. Several lodgers left immediately, before any steps could be taken to stop them, nor could they be traced afterwards. It was subsequently ascertained that one family went to a lodging-house in Hungerford, where, a fortnight afterwards, they fell ill with the complaint, and two of them died. The original case recovered, as did the mother of the child, who took the disease mildly in due course.

Early in April 1878, small-pox was brought into the village of Aldbourn (near Hungerford) from London, by a girl who had returned from a visit to a relative living at Holloway, from whose house a case of the disease had been removed to the Small-pox Hospital. The girl was not attacked until some days after her return, and she went about the village freely until then, visiting her neighbours. The cottage (an ill-ventilated one) was one of several enclosed in a small walled-in square. Other attacks followed in some of the cottages adjoining her own; one proved fatal, and a good deal of difficulty occurred at first in preventing the villagers from exposing themselves to the infection.

About the same date, an outbreak occurred at a lodging-house in Maidenhead, to the actual origin of which no clue could be obtained. It is most probable, however, that it was contracted by the sufferer at his lodgings, from some one who possibly had it so lightly as not to attract attention; and as most of the other lodgers were tramps, staying but a few days in the place, this might easily happen, while the fact that four cases in the house commenced within two or three days of each other, points to their having been infected about the same time and from one source. Fortunately, it was practicable to entirely isolate a considerable portion of the house, converting it, in fact, into a temporary hospital for the sick, and leaving the rest, with its separate staircase and (detached) kitchen, for the use of the lodgers still in the house, who were revaccinated and kept under inspection for a fortnight, after which they were allowed to leave when they and their belongings had been disinfected. A trained nurse was engaged, who attended most carefully to the sanitary arrangements, as well as to the nursing of the cases placed in her charge; and though two or three more of the inmates were attacked a few days after the earliest cases already mentioned, the precautions taken were entirely successful in preventing the infection from spreading to any one not actually infected before the first man took to his bed. To this there was a single exception; the clergyman who visited the sick took the disease very mildly. The complaint was, however, conveyed to the landlord of a country inn by a man living at the Maidenhead lodging-house, who at that time (April 11th) was only feeling unwell, the rash not having made its appearance; on the 25th, the landlord (unvaccinated) sickened and ultimately died; on the 27th, a neighbour visited the house, the case not having been pronounced distinctly variolous at that time; he did not actually see the patient, but on May 10th he also sickened, and on the 13th the rash came out—this case ended in recovery. Another fatal attack occurred at Bray. This man made a coffin for and assisted at the burial of one of the persons who died from the complaint at Maidenhead. He was said to be of intemperate habits and unhealthy constitution; three weeks elapsed between the ascertained exposure to infection and the appearance of the rash, but he had been unwell a few days earlier.

The cases due to infection from Maidenhead did not, however, stop here. A case occurred in May at Abingdon, at a lodging-house, the sufferer being a child (unvaccinated) of a tramp, who, before reaching Abingdon, had come from Maidenhead. On the thirteenth day after arrival, the child fell ill, and the attack proved fatal. Towards the end of June, another undoubted case was reported in Stert Street, and it is possible the infection came from the preceding one, as a younger sister of the patient (who attended the National School, which was very near the lodging-house just referred to) had gone through what was at the time supposed to be a light attack of chicken-pox a fortnight before.

Small-pox also appeared on two occasions in the parish of Binfield. The first was limited to a single case occurring in a cottage isolated in the middle of a large walled garden; the patient brought the infection from London, from which she had just returned; but precautions as to isolation and disinfection being rigidly enforced, it did not spread. The second outbreak was also the result of infection brought probably from London; the first case was in a cottage situated in the centre of a number of others occupied by labouring people, and it proved fatal, the patient being a young man, but unvaccinated; other non-fatal attacks followed in the same tenement, and the undertaker, who lived at nearly a mile distance, also caught the complaint.

In all these cases, Dr. Woodforde exerted himself manfully, and often with gratifying success, to prevent the further spread of the disease; but, as will be manifest from what precedes, the greater part of the mischief had been done before he knew anything of the existence of the disorder.

POOR-LAW MEDICAL APPOINTMENTS.

Conry, John T. Crosbie, L.K.Q.C.P.I., appointed Medical Officer to the Salford Union Workhouse, *vice* C. A. Mercier, M.B., resigned.

Leeper, George Reginald, M.B., appointed Medical Officer of Ederry Dispensary District, Irvinestown Union, *vice* B. G. Graham, M.R.C.S.Eng., resigned.

Levinge, E. G., M.B., appointed Medical Officer of Lucan Dispensary District, *vice* A. J. Watson, L.K.Q.C.P.I., deceased.

Vaccination.—Mr. J. O'C. Hynes, Public Vaccinator to District No. 2 of the Nottingham Union, has been awarded a Government grant of £55 14s. for vaccination. This is the second grant which Mr. Hynes has received.

MILITARY AND NAVAL MEDICAL SERVICES.

Naval Medical Service.—The following appointments have been made:—Staff-Surgeons—Septimus Evans, to the *Impregnable*, for the *Nautilus*; Joseph Wood, M.D., to the *Himalaya*; Duncan McN. Johnston, to the *Hector*. Surgeons—G. H. S. Barker, to the *St. Vincent*, for the *Martin*; W. D. Isaac, to the *Boscawen*, for the *Seaflower*; William Tait, M.B., to the *Impregnable*, for the *Nautilus*.

Deputy Surgeon-General Sir Anthony D. Home, K.C.B., V.C., has been appointed principal medical officer of the Madras Army, in succession to Surgeon-General T. Crawford, M.D., who replaces Surgeon-General Innes, C.B., as principal medical officer in India.

Surgeon-Major J. M. Cunningham has been appointed surgeon-general for India, in succession to Dr. Beatson, under the newly reconstituted amalgamated Medical Department. The scheme provides for a surgeon-general for India, with a salary of 2,700 rupees *per mensem*; a surgeon-general for Madras, and other for Bombay, with salaries of 2,500 rupees; and deputy surgeons-general, with the local rank of surgeons-general, for Bengal, the North-West Provinces, the Punjaub, and the Central Provinces. Officers will be selected by the Government of India for the Bengal Presidency, and by the Governments of Madras and Bombay for those presidencies respectively. The surgeons-general with the Government of India and with the Governments of Madras and Bombay will, in addition to performing civil administrative duties, be heads of the Indian Medical Department in their presidencies. In all provinces where a sanitary commissioner is sanctioned, the Sanitary Department remains distinct from, and not subordinate to, the Medical Department. The claims of officers holding appointments which have been abolished under these regulations, are satisfied by a personal allowance, making up to them any loss in salary in their new posts.

THE NAVAL MEDICAL SERVICE.

Sir,—Feeling convinced that the Naval Medical Service might be made more popular, I wish to solicit attention to some defects with which I am acquainted from actual experience, and which, as well as pay, etc., deserve attention.

1. A constant cause of discontent is enforced idleness. It often happens that the surgeon has nothing whatever to do with the sick. He merely accompanies the senior medical officer on his visit, and, at its conclusion, reports any changes on the list to an executive officer: the second, third, or fourth in command. The surgeon has full professional qualifications; he is often a graduate in Medicine and Arts; and he has undergone special training at Netley. He is naturally very indignant when he finds that his chief occupation is that of a messenger. Besides this mean and humble duty, he has a journal to keep. It is chiefly filled with a record of meteorological observations, so tabulated that they can never be of scientific or hygienic interest or value.

2. The executive officers believe that it is in their interest to lower the status of civilian officers; and surgeons, with others, have to suffer. The executive alone administer the law and settle disputes. So far as is known, in all quarrels and under all circumstances, when civilian and executive officers have been opposed, the civilians have always been proved to be most conclusively in the wrong.

3. Naval officers see very little of the world. They enter various ports, but see very little of the lands they visit. They enter into scarcely any society.

4. The social discomforts of a naval mess are great and almost inevitable. The members are crowded together for a commission lasting from three to five years. They are unable to get away from each other; hatred and quarrels almost always ensue.

5. There are, it is true, in some of the larger ships places where the sick may be seen and treated with propriety and efficiency. There are other ships in which the space set apart for the doctors is the dirty corner in which the seamen's urinal stands Possibly, to suggest privacy, a canvas screen is stretched across this consulting-room. It is unnecessary to remark on such an arrangement; it gives, however, an apt example of the manner in which the profession and its duties are considered in the Navy.

6. The cabins are necessarily small, but they might be much better lit without impairing the ship. It is impossible to cultivate any hobby in an ordinary cabin.

7. A surgeon is only allowed to resign as an exceptional favour. He has, even then, to pay his passage home if on a foreign station; he loses also on his outfit, which costs, it may be mentioned, about £200. At present, all applications of junior surgeons to resign are refused. The only chance they have of escaping without dishonesty is to commit some offence against discipline, and get themselves dismissed by court-martial; that, of course, is a very unpleasant exit.

8. Although it is only remotely probable that the surgeon will ever do any professional work under existing arrangements, he may after reforms have been introduced. It is to be hoped that he will then be better equipped. His instruments now are inefficient, clumsy, and obsolete; they are expensive, costing from £16 to £20. The surgeon pays for them; but they are a regulation set, and he can exercise no option as to what he shall carry. The medicine-chests are absurdities.

The Naval Medical Service is a scandal to the profession and a laughing-stock. It is impossible to make a young man like it when he finds, as he usually does, that he is not allowed to do anything beyond keeping a journal of another man's doings and reporting the sick-list.—I am, sir, yours obediently, A Naval Surgeon.

A Centenarian.—Dr. W. S. Field of Ridgefield, Connecticut, writes to the *New York Medical Record* that a woman died recently in South Salem at the age of 101 years and 3 mouths. Her age is well authenticated.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on April 20th.

Messrs. James I. Paddle, Albert Street, N.W.; James S. McDonagh, Hampstead Road; Charles Rinner, Harley Street; and Mark F. Sayer, Finchley, students of University College; Arthur D. Gripper, Ware; Frederick R. Walters, Croydon; and Charles B. Richardson, Great Hadham, of St. Thomas's Hospital; William N. Puddicombe, Edgware; and John R. Harris, Bayswater, of Guy's Hospital; William A. Day, Hampstead, of the Bristol School; Arthur P. L. Wells, Windsor, of the Edinburgh School; William A. Hewitson, Newcastle-on-Tyne; Walter T. Clegg, Liverpool; James M. Chadwick, Manchester; John H. H. Richardson, Sparbrook, Worcestershire, of the Charing Cross Hospital; Howard H. Tooth, Brighton, of St. Bartholomew's Hospital; Lloyd Francis, Carmarthen, of the London Hospital; Francis J. Spranger, Cadogan Place, of St. George's Hospital; Valentine Matthews, Torrington Square; and Donald Alexander Fraser, Weston-super-Mare, of St. Mary's Hospital.

Nine candidates were rejected.

The following gentlemen were admitted members of the College on the 21st instant.

Messrs. Alexander Hill, Lee, S.E.; Robert W. Mead, Whitby; Walter G. A. Bedford, Sydenham; William E. Hoyle, Newcastle-on-Tyne; Audley C. Butler, Piccadilly, of St. Bartholomew's Hospital; Henry Ewbank, Plymouth; Reginald Pratt, Billesdon; Frederick H. Tinker, Southport, of University College; Arthur T. Sloggett, Cambridge Gardens; William Collier, Stapleford; John W. Jerome, Jersey; Septimus Farmer, Nottingham, of King's College; Henry H. Bovill, James Street, S.W.; Albert H. Langridge, Dunstable; and Herbert G. Ashwell, Nottingham, of Guy's Hospital; Rees R. Jones, Newcastle-on-Tyne; and Richard J. Owen, Llandovery, Carmarthen, of the London Hospital; William C. Jones, Llyswen, Breconshire, of the Middlesex Hospital; and Ashley C. Bridges, Worcester.

Six candidates were rejected.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 16th, 1880.

Aldridge, William Edward, Fonthill House, Birmingham.
Collier, William, Infirmary Road, Sheffield.
Counsellor, Charles Eye, Cradley Down, Sussex.
Meeson, Alfred, 42, Mill Street, Liverpool.
Stacey, Herbert Gleeson, Park Street, Leeds.
Taylor, Thomas Percy, Bocking Braintree, Essex.
Terry, Henry George, Bilboa House, Mells, Frome.

The following gentleman also on the same day passed his primary professional examination.

Bowman, Richard, St. Mary's Hospital.

King and Queen's College of Physicians in Ireland.—At the usual monthly examinations for the licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, April 5th, 6th, 7th, and 8th, the following candidates were successful.

For the First Professional Examination.—Adela Bosanquet, John Edward James Deane.

For the Licence to Practise Medicine.—Matilda Charlotte Chaplin Ayrton, Chas. James Barry, Joseph Bradley, John Joseph Daly, James Davison, John Knox Denham, Anthony Kidd, Charles George Drummond Mosse, Cornelius O'Brien, John Pollock, William James Swanson.

For the Licence to Practise Midwifery.—Matilda Charlotte Chaplin Ayrton; Jas. Davison, Anthony Kidd, Edward Erskine Moore, Cornelius O'Brien, Oliver William Sproulle, William James Swanson.

The following additional licentiates have been recommended for the membership of the College, and will be admitted on taking the necessary declaration.

John Frederic Knipe, 1856, Finglas; Henry Beaumont, 1867, Surgeon R.N.; Patrick Magenis Rice, 1867, Galway; John Joseph Crean, 1868, Surgeon A.M.D.; David James Freeman, 1871, Waterford; Joseph Byrne, 1872, Londonderry.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

The following vacancies are announced:—

ALNWICK UNION—Medical Officer to the Lesbury District. Salary, £25 per annum.

BASINGSTOKE UNION—Medical Officer of Health. Salary, £120 per annum. Applications, with testimonials, not later than April 29th.

BRISTOL GENERAL HOSPITAL—Consulting Physician.

CITY PROVIDENT DISPENSARY AND SURGICAL APPLIANCE ASSOCIATION—Assistant-Surgeon. Salary, £100 per annum. Duties to commence May 1st.

*CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Manchester—House-Surgeon. Salary, £80 per annum, with board and residence. Applications, with testimonials, to the Secretary, on or before May 3rd.

*CUMBERLAND INFIRMARY, Carlisle—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications, with testimonials, to the Secretary on or before May 11th.

*DEACONESSES' INSTITUTION AND TRAINING HOSPITAL, Tottenham—House-Surgeon. Salary, £150 per annum. Applications, with testimonials, not later than May 7th.

*DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Assistant-Surgeon. Salary, £170 per annum. Applications, with testimonials, to the Secretary, not later than April 27th.

GENERAL LYING-IN HOSPITAL—House-Physician. Applicants to attend at the hospital, with testimonials, on Monday, April 26th, at 4.30 P.M.

HOLYWELL UNION—Medical Officer to the Second District of the Whitford District. Salary, £42 per annum.

*HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications, with testimonials, on or before May 8th.

HUDDERSFIELD UNION—Medical Officer for the Crosland Moor Union.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT—Visiting Physician.

LICHFIELD UNION—Medical Officer for the Ogley Hay District.

LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary to commence, £108 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, to the Secretary, on or before April 26th.

METROPOLITAN FREE HOSPITAL—Assistant House-Surgeon. Board, lodging, and washing. No salary, but an honorarium at the end of six and twelve months. Applications, with testimonials, to the Secretary.

NOTTING HILL PROVIDENT DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished apartments, firing, lighting, and attendance. Applications, with testimonials, to the honorary secretary on or before May 25th.

PORTLAND-TOWN DISPENSARY—House-Surgeon. Salary, £80 per annum, with apartments, gas, coals, and attendance. Applications and testimonials to the Honorary Secretary.

*ROYAL AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Assistant-Surgeon. Salary, £170 per annum, with fees for midwifery. Applications on or before the 27th instant.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace Road—Attending Medical Officer. Applications to the Secretary on or before May 1st.

ROYAL SOUTHERN HOSPITAL, Liverpool—Junior House-Surgeon. Salary, sixty guineas per annum, with board, lodging, and washing. Applications, with testimonials, not later than April 28th.

SUSSEX COUNTY HOSPITAL—Dispenser. Salary, £75 per annum, rising at the discretion of the Committee to £100 per annum. Applications, with testimonials, to the Secretary, on or before May 5th.

*UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications, with testimonials, not later than May 18th.

*VICTORIA HOSPITAL FOR CHILDREN, Chelsea—House-Surgeon. Honorarium of £50 per annum, with board and lodging in the Hospital. Applications, with testimonials, to the Secretary before April 30th.

WANGFORD UNION—Medical Officer to Bungay District. Salary, £90. Applications on or before April 26th.

WESTMINSTER HOSPITAL—House-Physician. Appointment for six months, with board and lodging. Applications not later than April 27th.

WESTON-SUPER-MARE HOSPITAL—House-Surgeon. Salary, £70 per annum, with board, lodging, etc. Applications and testimonials before May 1st.

WORCESTER COUNTY AND CITY LUNATIC ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with an increase of £10 per annum for the two succeeding years, board, residence, washing, and attendance. Applications, with testimonials, not later than April 24th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Dalton, N., M.R.C.S., Esq., appointed Resident Medical Officer to the Queen Charlotte Lying-in Hospital, *vice* T. L. Brown, M.R.C.S.Eng., resigned.

Dunsmure, James, M.D., appointed Examiner in Clinical Surgery in the University of Edinburgh, *vice* Thomas Keith, M.D., resigned.

Hames, George Henry, F.R.C.S.Eng., appointed House-Surgeon to the Western General Dispensary, *vice* S. J. Knott, resigned.

Knott, S. J., M.R.C.S., L.S.A., appointed Surgeon-Accoucheur to the Western General Dispensary.

Wood, C., M.R.C.S., appointed House-Surgeon to the Dover Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

Brown.—On the 19th instant, at The Willows, Tredegar, Monmouthshire, the wife of George Arthur Brown, of a son.

MARRIAGE.

Macgregor—Thornley.—On April 14th, at St. Thomas's Church, Radcliffe, near Manchester, by the Rev. Robert Fletcher, M.A., Peter Macgregor, L.R.C.P., L.R.C.S.Ed., of Rashcliffe, Huddersfield, to Alice Anne, second daughter of the late Nathan Thornley, Esq., of Radcliffe, near Manchester.

DEATHS.

Gourlay, Frederick, M.D., at Weston-super-Mare, aged 44, on April 20th.

Rhys.—On the 10th April, at Brynfedwan, Treherbert, Glamorganshire, Watkin Rhys, M.R.C.S.Eng., L.S.A., aged 51.

Thomson, Henry, M.R.C.S.Eng., at Rockville, Bangor, county Down, aged 55, on April 18th.

Dr. Woods of Southport, to whom the triennial prize was awarded by the Council of the Royal College of Surgeons at its last meeting, has decided on taking the John Hunter medal instead of fifty guineas in cash.

Public Health.—During last week, being the fifteenth week of this year, 3,908 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 24 deaths annually in every 1,000 persons living. The annual death-rate was 28 in Edinburgh, 24 in Glasgow, and 41 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Portsmouth 16, Leeds 17, Hull 20, Bristol 20, London 22, Sheffield 22, Bradford 22, Salford 23, Wolverhampton 23, Leicester 23, Birmingham 23, Sunderland 24, Brighton 24, Manchester 27, Oldham 28, Liverpool 28, Nottingham 29, Newcastle-upon-Tyne 29, Norwich 29, and again the highest rate 30 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.1 per 1,000 in the twenty towns, and ranged from 0.5 and 1.1 in Brighton and Leeds, to 5.5 and 14.6 in Norwich and Plymouth. In London, 1,519 deaths were registered, which were 186 below the average, and gave an annual death-rate of 21.6. The 1,519 deaths included 9 from small-pox, 22 from measles, 47 from scarlet fever, 8 from diphtheria, 111 from whooping-cough, 16 from different forms of fever, and 11 from diarrhœa—altogether, there were 224 zymotic deaths, which were 26 below the average, and were equal to an annual rate of 3.2 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 395 and 365 in the two preceding weeks, further declined to 348 last week, and were 58 below the corrected weekly average; 218 resulted from bronchitis, and 78 from pneumonia. Different forms of violence caused 48 deaths; 41 were the result of negligence or accident, including 15 from fractures and contusions, 4 from burns and scalds, 8 from drowning, one of a house painter from lead-colic, and 10 of infants under one year of age from suffocation. Seven cases of suicide were registered. At Greenwich, the mean temperature of the air was 46.4°, and 0.9° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 9.9 miles per hour, which was 2.2 below the average in the corresponding week of sixteen years. Rain fell on three days of the week, to the aggregate amount of 0.98 of an inch. The duration of registered bright sunshine in the week was equal to 26 per cent. of its possible duration.

Presentation for Bravery.—At Torcross, South Devon, Mr. F. H. Clarke, surgeon, was last week presented with a handsome silver tea-service, valued at £30, and with the bronze medal of the Royal Humane Society. The tea-service was the gift of the parishioners of Stokenham, in recognition of the gratuitous services rendered by Mr. Clarke as organist of the church, and the medal as a reward for his attempt to rescue a drowning man in Slapton Lea in January last. The Rev. J. C. Carwithen, vicar of Stokenham, presided, and made the presentation of the tea-service in the name of the parishioners; whilst Mr. A. F. Holdsworth presented the society's medal, remarking that Mr. Clarke, as a medical man, ran many risks in his profession; but in this instance he went beyond the ordinary risks, and, on a bitterly cold day, whilst himself suffering from bronchitis, made a gallant attempt to save a drowning fellow-creature. The church choir sang several glees, and an agreeable evening was spent.

Vaccination.—Mr. H. W. Coleman has received a Government grant of £20 12s. for efficient vaccination in the district of Armley-Bramley Union. This is the second grant which Mr. Coleman has obtained.

Good Effect of United Action.—The New York correspondent of the *Boston Medical and Surgical Journal* writes: "The Bill of Mr. Bergh to prevent vivisection has been reported adversely by the judiciary committee of the Assembly at Albany, and the report having been agreed to by the House the Bill is killed. This desirable result has no doubt been brought about in great part by the personal exertions of Professor John C. Dalton, and by the remonstrances which were presented to the legislature on behalf of the New York State Medical Society, the Medical Society of the County of New York, the New York Academy of Medicine, the New York Medical and Surgical Society, the New York Pathological Society, the Albany Academy of Medicine, the Buffalo Medical Association, the Rochester Medical Society, the Brooklyn Anatomical and Surgical Society, the Elmira Academy of Medicine, the College of Physicians and Surgeons, Bellevue Hospital Medical College, the Medical Department of the New York University, the Albany Medical College, the Medical Department of the University of Buffalo, the Long Island College Hospital, and the College of Medicine, Medical Department of Syracuse University."

Surgeon-General John Fullarton Beatson, M.D., C.I.E., and Deputy-Surgeon-General Frederick Freeman Allen, C.B., of the Bengal Medical Department, have been permitted to retire from the Service.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY..St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. T. Stretch Dowse, "Neurasthenia, or Nervous Exhaustion, and its Treatment"; Mr. D. H. Goodsall, "Case of Popliteal Aneurism cured by Esmarch's Bandage".

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Alfred Willett and Mr. W. J. Walsham, "Dissection of the Parts, and Remarks on the Defects in Development producing Congenital Malformation of the Spinal Column, Bony Thorax, and Left Scapular Arch"; Mr. Fredk. James Gant, "Compound Fracture of the Femur twenty years after excision of the knee-joint from disease, transversely one inch above the bony union".

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. Reeves, "Rectal Stricture, with special reference to Rectotomy and Twenty-five Colotomies"; Mr. Cripps Lawrence, "Rickets".—Epidemiological Society of London, 8 P.M. Surgeon-General C. A. Gordon, C.B., M.D., "On Certain Views regarding Fever in India".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

We cannot undertake to return Manuscripts not used.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

THE LATE SIR CHARLES BELL.

SIR,—Will some one of your numerous correspondents kindly answer, through your columns, the following questions?

The birth-place of Sir Charles Bell? Names of his father and mother: condition of life of his father; his age at time of death; cause of death? Did he leave any descendants? Are any now living, and where? Whom did he marry? Where and when did he die? Where is he buried? Where was he educated? When did he become a surgeon and lecturer at the Middlesex Hospital? When did he leave that hospital, and whither did he go? Does anybody remember his personal appearance and manner? Who purchased and now has his paintings sold some time since in London? Please give a list of his published works, communications to societies and journals.

The almost worship I have for the works and memory of Sir Charles Bell is the only motive I have for these inquiries.—I am, sir, yours most truly,

W. C. B. FIFIELD, M.R.C.S.Eng.

Harrison Square, Boston, Mass., U.S.A., March 12th, 1880.

⁂ Perhaps some of our readers who possess the information asked for by Dr. Fifield will kindly send it to him at his address in Boston.

M. B. M. ASSOC.—See this JOURNAL of December 17th, 1864, p. 675, as to a good speciality. "A man may know how to make a nail, and not know how to make a lock; but would it be possible for a doctor to understand the eyes, and be totally ignorant of the ears? A speciality is good, provided always there is a generality also."

A HINT WANTED.

SIR,—A lad, about twenty years of age, came to me lately complaining of fits of flushing all over the body, which came on every year, but especially in the spring season. The flushing is accompanied by stiffness in the muscles of the arms and legs; and as he is a clerk he cannot write during the attacks. There is also an intense itching all over the surface of the body, especially in the face, where it even amounts to severe insufferable pain. Drachm doses of bromide of potassium gave instant relief at first, but now seem to have lost their effect. Perhaps nitrite of amyl or nitro-glycerine might be of benefit. I may add that his relatives are agreed that the attacks are due to his plunging into a cold bath when excessively heated some years ago. My view of the case is, that it is one of "vaso-motor paralysis". Any information as to treatment will be gladly received.—I am, yours, etc.,

PRACTITIONER.

April 16th, 1880.

A CURIOUS KIND OF PESSARY.

SIR,—A short time ago, I was asked to see an old woman about seventy years of age, who was suffering from constipation. The history of the case was as follows. About fourteen years ago, she was greatly troubled with a "bearing-down pain" in the back and lower part of the body. An old woman advised her to wear an instrument, as she called it, shaped like a "butter-pat" (a piece of wood with a handle used for stamping pats of butter). Taking this person's advice, she went to a neighbouring carpenter, and got him to make her two of these "butter-pats". She says that she wore this novel kind of pessary in the vagina for twelve years, taking it out every now and then. At the end of that time—whether she had left it in longer than usual without removing it I do not know—she found that she could not get it out. She tried several times, but failed; she therefore left it, thinking that it could do no harm; and there it remained, causing her little, if any, inconvenience for more than two years, when she was suddenly seized with pain, and this constipation, which caused her to send for me. When I saw her, she was in a very frightened and excited state, with a rapid small pulse and dry tongue. She had not had an evacuation of the bowels for four days, and was in great pain. She had got a midwife to see her, who had removed a small portion of wood from the vagina, but without giving her any relief.

On making a vaginal examination, I found a very rough pointed piece of wood on the posterior wall, about an inch and a half from the vulva, firmly fixed by a fibrous band both above and below. *Per rectum*, I could feel a large piece of this "instrument" (if I may call it an instrument) completely obstructing the whole bowel, and very firmly impacted. On dilating the vagina with a speculum, I could not see anything, as the fibrous bands seemed completely grown over it. With a good deal of trouble, and after having had to use some force, I succeeded in removing it, using one hand in the vagina and two fingers of the other hand in the rectum. On its removal, a large amount of very offensive fæces came away, both by vagina and rectum.

The cause of the sudden obstruction of the bowel and the great pain was, I think, that she was suffering from bronchitis, and the "instrument" was forced into the rectum during an attack of coughing. Of course, the recto-vaginal septum had been destroyed by pressure long before. There remains a large recto-vaginal fistula, which, in such an old person, and one in such a feverish state, I thought better to leave without trying to bring it together, which would have been a very doubtful matter, as the whole of the posterior wall of the vagina is destroyed for more than an inch in length. There was not very much hæmorrhage, and the patient, notwithstanding her advanced age, has recovered very well.

The measurements of this instrument were as follows: Circumference, 7½ inches; length, 3 inches; breadth, 2 inches: thickness of wood, ⅜ inch; length of handle, 1¼ inches; circumference of stem, 2½ inches. The wood is very dark-coloured and very hard; on the upper surface there is a deposit of hard matter that cannot be got off.—I am, etc.,

W. E. LUSCOMBE, L.R.C.P., M.R.C.S.

North Collingham, Newark.

THE JUDD STREET DISPENSARY.—More than once during the present year, our attention has been directed to the fact, that the cards of this dispensary which are issued to patients still contain the name of a medical officer—Dr. Angus Porter—who died in January 1879. It is certainly not in accordance with the ordinary rules of propriety which guide the management of respectable medical institutions, to retain the name of a deceased practitioner on the official papers for so long a period.

THE CINCHONA CURE FOR DRUNKENNESS.

DR. CHARLES W. EARLE says, in the *Chicago Medical Journal and Examiner*, "I do not say that not a single person to whom this drug has been administered has stopped the use of liquors; but I do say that not one with whom I have come into contact has, and in many cases its use has rekindled an old desire which by resolution and education had been nearly conquered. I do not say that in every case following the administration of this nostrum injury to the patient has come; but I do say that in every case which has fallen under my observation this has been the result."

A QUESTION OF DIAGNOSIS AND TREATMENT.

SIR,—I shall feel much obliged if any member of the profession can help me in the diagnosis and treatment of the following case.

A young lady patient of mine has been rendered lame for some months past by a severe pain "shooting through all the joints of the instep" of her left foot whenever she attempts to bend it in walking or running. No symptom of any disease can be detected on examining the foot; no swelling; no pain on pressure or twisting the foot. The pain which causes the lameness is only felt on bending the toes upwards as in running. There is no pain at nights or when the foot is at rest. The lady seems in perfect health, and has been accustomed to lead a very active life; indeed, the pain seems to have been first caused by playing lawn-tennis or an asphalte court. Skating caused no pain. There is a history of her having suffered from the same pain when a child. Bandaging, strapping with belladonna plaster, blisters, and various liniments have been tried without effect.—I am, sir, yours faithfully,

F.R.C.S.I.

MR. E. R. MORGAN (Morriston).—We cannot find the name in the *Medical Register*.

W. F. asks to be informed what is the best means of removing a tattoo-mark on his arm.

HELP IN STREET-ACCIDENTS.

SIR,—From Mr. Steet's answer to objectors, he would appear to have rather missed my precise meaning. What I argued for was, that any arrangement made should be put upon such an uniform system that no exception could afterwards be taken to the mode by which the design is carried out, and such design should not be entrusted to a jumble of police, watermen, firemen, cabmen, members of St. John's Ambulance corps, and general public, who, however humane individually, would undoubtedly run great risks of being the reverse, owing to divided responsibility or no responsibility at all. Police authorities in America are very apt to wriggle out of plain duties when they see a way of doing so at the expense of other people; and it will not do to calculate on co-operation from those in authority here in tentative experiments and antiroutine notions, without first ascertaining that at least no objection will be raised on the part of the authorities. The occurrence of street-accidents means a want of an orderly regulation of the traffic; and it might so occur that it would be less trouble to alter the police system than attend to the wounded disabled through the police system of regulating traffic having grown obsolete.

Mr. Steet's meaning still seems obscure when he says: "It must be manifest that the best means, without the necessary skill to use them, would be futile." Only a few lines above, in answer to another correspondent's objections, he lays it down as as a rule, I fancy that if only the means for rendering assistance were provided, the method of action would be illustrated on the first occasion of their being required." Of course, this apparent contradiction is capable of many very different interpretations; hence the uncertainty of his meaning. Suppose, for example, the police were put in charge of the locked up depôts established all along busy streets with the concurrence of the authorities and the good will of the police themselves, what would have to be done when an accident occurs when the policeman in charge cannot be found, or is engaged elsewhere, etc.? Over and over again lately it would have been impossible to find a policeman or convey appliances where wanted owing to faction fights being indulged in in main streets and thoroughfares, without at least one hundred files of armed men to clear the road. Whatever the appliances supplied to the Metropolitan police, they are equally necessary for towns in the country.—I am, etc.,

F. P.

April 17th, 1880.

A. W. F.—It is certainly most improper that a medical man should offer any remark in depreciation of the value of the services or medicines supplied by a colleague, when the charges for the same are under the consideration of a public board.

MR. C. PUZEY (Liverpool).—We hope to be able to publish the paper before long.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. L. Purves, London; Mr. P. D. Hopgood, Gloucester; Rev. Jos. Goodman, Skibbereen; Dr. D. W. Knox, Glasgow; F.R.C.S.; Mr. J. M. Fox, Lymm; Dr. J. W. Moore, Dublin; Mr. R. Paramore, London; F.R.C.S.I.; Mr. G. Eastes, London; Dr. Cameron, Dublin; Mr. E. J. Hoare, London; Mr. R. W. Jenkins, Fawley; Mr. A. Jackson, Sheffield; Mr. F. W. Loundes, Liverpool; Dr. A. B. Brabazon, Bath; Dr. J. W. Langmore, London; Dr. F. H. Parsons, Hastings; Mr. R. Torrance, Newcastle-on-Tyne; Dr. Tripe, London; Mr. F. Jordan, Birmingham; F. P.; Dr. W. S. Paget, Great Crosby; Mr. Balmanno Squire, London; Mr. F. J. Gant, London; Dr. Joseph Rogers, London; Our Edinburgh Correspondent; Dr. Davey, Bristol; Mr. G. Fraser Henry, South Shields; Mr. T. G. Horder, Cardiff; Our Dublin Correspondent; Mr. W. F. Teevan, London; Mr. Clover, London; Dr. Youngerman, Wooler; Mr. C. Wright, Leeds; Mr. D. Bradley, Dudley; Dr. C. A. MacMunn, Wolverhampton; Mr. E. Nock, London; Messrs. Warman, Laxon, and Co., Coventry; Dr. Arrott, Dundee; Dr. Burney Yeo, London; Mr. R. T. Rhys, Treherbert; Dr. Fairlie Clarke, Southborough; Dr. Russell, Birmingham; Mr. W. E. Luscombe, North Collingham; Mr. E. Charrington, Edinburgh; Dr. E. B. Stevens, Lebanon, Ohio; Dr. C. E. Glascott, Manchester; Dr. Lush, Weymouth; Dr. C. Holman, Reigate; Mr. C. Puzey, Liverpool; Messrs. E. Chapman and Co., London; Dr. W. Rosser, Croydon; Mr. A. Kempe, Exeter; Messrs. C. R. Crossley and Co., London; Mr. C. Davidson, London; Dr. Gourley, West Hartlepool; Dr. Spencer Thomson, Torquay; Mr. Francis Vacher, Birkenhead; Mr. W. Froggatt, Sheffield; Mr. R. O. Jones, Bala; Mr. C. Wood, London; Mr. R. S. Fowler, Bath; Mr. T. M. Stone, London; etc.

THE LUMLEIAN LECTURES

ON

THE DIGESTIVE FERMENTS, AND THE PREPARATION AND USE OF ARTIFICIALLY DIGESTED FOOD.

Delivered before the Royal College of Physicians.

By WILLIAM ROBERTS, M.D., F.R.C.P., F.R.S.,
Physician to the Manchester Royal Infirmary; Professor of Clinical Medicine to the Owens College.

Lecture III.

The suggestion to administer to invalids artificially digested food appears at first sight a somewhat startling proposal. So great an interference with the order of nature would seem to go beyond the legitimate province of art. But when we reflect how largely art already interferes in the preparation of our food, the taking of this further step will appear less surprising. The practice of cooking is in reality as complete a departure from the ways of untutored nature as artificial digestion would be. Among the almost countless species of animals, not one of them, except man alone, cooks his food; insomuch that man has, not inaptly, been defined as the cooking animal.

Effects of Cooking.—The process of cooking fulfils far more important ends than that of improving the savour of food—far more important even than the mechanical disintegration which generally attends the process. It produces certain chemical changes in several of the most important alimentary principles, which render them incomparably more susceptible to the action of the digestive ferments than in the uncooked state. The discovery of the use of fire-heat in the preparation of his food must, indeed, have constituted one of the earliest and most important steps in the process by which man has emerged from the ranks of the dumb creation. The stores of proteid and farinaceous nutriment contained in the seeds of cereals and leguminous plants, and in the bulbs, tubers, roots, and succulent stems of certain vegetables are, in the raw state, nearly altogether beyond his powers of digestion. By the discovery of the art of cooking, these immeasurable stores were at one stroke laid open to him. It is, moreover, chiefly by the same art that he has been enabled to take his food at intervals, in separate meals; and has thereby been for ever relieved of the necessity which is imposed on all animals in the wild state of having to spend almost the entire of their waking hours either in seeking after their food, like the carnivora, or in consuming their food like the vegetable feeders. This immunity secured to him the untold advantage of possessing the leisure requisite for the cultivation of his higher faculties.

The practice of cooking is not equally necessary in regard to all articles of food. There are important differences in this respect, and it is interesting to note how correctly the experience of mankind has guided them in this matter. The articles of food which we still use in the uncooked state are comparatively few; and it is not difficult in each case to indicate the reason of the exemption. Fruits, which we consume largely in the raw state, owe their dietetic value chiefly to the sugar which they contain; but sugar is not altered by cooking. Salads may be regarded more as a relish for other food, and as having a *quasi* medicinal purpose, rather than as a substantial source of nutriment. Milk is consumed by us both cooked and uncooked, indifferently, and experiment justifies this indifference; for I found on trial that the digestion of milk by pancreatic extract was not appreciably hastened by previously boiling the milk.

Our practice in regard to the oyster is quite exceptional, and furnishes a striking example of the general correctness of the popular judgment on dietetic questions. The oyster is almost the only animal substance which we eat habitually, and by preference, in the raw or uncooked state; and it is interesting to know that there is a sound physiological reason at the bottom of this preference. The fawn-coloured mass which constitutes the dainty of the oyster is its liver, and this is little else than a heap of glycogen. Associated with the glycogen, but withheld from actual contact with it during life, is its appropriate digestive ferment—the hepatic diastase. The mere crushing of the dainty between the teeth brings these two bodies together, and the glycogen is at once digested without other help by its own diastase. The oyster in the uncooked state, or merely warmed, is, in fact, self-digestive. But the advantage of this provision is wholly lost by cooking; for the heat employed immediately destroys the associated ferment, and a cooked oyster has to be digested, like any other food, by the eater's own digestive powers.

With regard, however, to the staple articles of our food, the practice of cooking it beforehand is universal. In the case of farinaceous articles, cooking is actually indispensable. When men, under the stress of circumstances, have been compelled to subsist on the uncooked grain of the cereals, they have soon fallen into a state of inanition and disease. By the process of cooking, starch is not merely liberated from its protecting envelopes, but it suffers a chemical change, by which it is transformed into the gelatinous condition, and this enormously facilitates the attack of the diastatic ferments. A change of equal importance seems to be induced in the proteid matter of the grain. I found that the gluten of wheat was incomparably more digestible, by both artificial gastric juice and by pancreatic extract, in the cooked than in the uncooked state. In regard to flesh meat, the advantage of cooking consists chiefly in its effects on the connective tissue and the tendinous and aponeurotic structures associated with muscular fibre. These are not merely softened and disintegrated by cooking, but are chemically converted into the soluble and easily digested form of gelatine. I made some instructive observations on the effects of cooking on the contents of the egg. The change induced by cooking on egg-albumen is very striking. For the purpose of testing this point, I employed the solution of egg-albumen before spoken of, made by mixing white-of-egg with nine times its volume of water. This solution, when boiled in the water-bath, does not coagulate nor sensibly change its appearance; but its behaviour with the digestive ferments is completely altered. In the raw state, this solution is attacked very slowly by pepsin and acid, and pancreatic extract has almost no effect on it; but, after being cooked in the water-bath, the albumen is rapidly and entirely digested by artificial gastric juice, and a moiety of it is rapidly digested by pancreatic extract.

My object in making these remarks is to show that the changes impressed on food by cooking form an integral part of the work of digestion—a part which we of the human race get done for us by the agency of fire-heat, but a part which the lower animals are compelled to perform by the labour of their own digestive organs. It must also be borne in mind that the digestive process carried on in the alimentary canal is, strictly speaking, executed on a doubling of the exterior surface, and not in the true interior of the body. If we take all these considerations into account, it will appear, I think, not unnatural that we should try to help our invalids by administering their food in an already digested, or partially digested, condition. We should thereby only be adding one more to the numberless artificial contrivances with which our civilised life is surrounded.

Preparation of Artificially Digested Food.

Dr. Pavy* was, I believe, the first to carry into actual practice the idea of preparing an artificially digested food. At his suggestion, Messrs. Darby and Gosden introduced a preparation which consisted of meat reduced to a fluid state by artificial digestion. The formula for this preparation has not, so far as I know, been made public. It is still in the market, and is sent out and advertised by Savory and Moore under the title of "Darby's Peptonised Fluid Meat". A specimen of this preparation is on the table before me. It has the appearance of a light brown very thick treacle. It has a strong salt taste and an agreeable meaty flavour, without any bitterness. It is mostly soluble in water. The solution does not precipitate on boiling, nor with nitric acid, and it gives a strong reaction of peptone, with Fehling's solution, and with tannin.

I have also before me a specimen of artificially digested meat prepared by Mr. Benger. It is a greyish-looking extract, with a pleasant meaty flavour, and is quite devoid of bitterness. It dissolves mostly in water, and the solution gives the usual reactions of peptone in great intensity. Mr. Benger informs me that it is made by operating, at a temperature of about 140° Fahr., on finely triturated raw beef with pancreatic extract and a little carbonate of soda. The solution thus obtained is neutralised with hydrochloric acid, and then evaporated at 212° Fahr. to the consistency of a solid extract. Both of these preparations appear to me to be much superior in value to any of the meat extracts hitherto introduced.

But, however useful preparations of this class may prove to be, in a limited range of circumstances, it is pretty evident that, if artificially digested food is to be employed on the large scale, and among all classes, means must be found to bring the preparation of it within the range of culinary operations and the apparatus of the kitchen and sick-room.

The difficulty hitherto encountered in the production of an artificially digested or peptonised* food, suitable for invalids, is mainly owing to the use of the gastric method in its preparation. If you subject any native article of food—say milk, bread, egg, or meat—to artificial digestion with pepsin and hydrochloric acid, you destroy more or less completely the grateful odour and taste, and the inviting appearance, which made it desirable as food, and convert it into an unsavoury mess, from which the human palate turns away with disgust. The unsavouriness of artificially digested food is, however, not due to any ill taste or smell inherent in the products of digestion—which, when purified, are both odourless and free from any unpleasant flavour—but to a number of by-products of various kinds, which accumulate as digestion proceeds. One of these by-products is a substance with a pure bitter flavour, which seems to be a constant accompaniment of gastric digestion. It is also developed in some cases in the later stages of pancreatic digestion. I have not observed this bitter substance, except in the digestion of proteids. It is evidently a normal educt of the process, and its presence probably accounts, in most cases, for the bitter flavour of the eructations, of which dyspeptics complain, and which is generally attributed to the regurgitation of bile. It would be interesting to know more about this substance.

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* *A Treatise on Food and Dietetics.* Second edition, page 559

My own efforts to produce a palatable peptonised food have been chiefly directed to the pancreatic method. The pancreas excels the stomach as a digestive organ, in that it has power to digest the two great alimentary principles, starch and proteids; and an extract of the gland is possessed of similar endowments. This double power is a manifest advantage in dealing with vegetable aliments, which contain both starch and proteids.

Any extract of pancreas may be used for the preparation of artificially digested food; but the most suitable are those prepared with dilute spirit or chloroform-water. The extract sent out by Mr. Benger, under the name of "Liquor Pancreaticus", is an almost faultless pharmaceutical preparation. It is made by extracting perfectly fresh and finely chopped pancreas, with four times its weight of dilute spirit. By some ingenious devices, Mr. Benger has succeeded in overcoming the mechanical difficulties of the manufacture, and has produced an extract which possesses the diastatic and proteolytic properties of the pancreas in a highly concentrated degree. It is a nearly colourless solution, with very little taste or smell beyond that of the spirit used to preserve it. It is of this preparation that I must be understood to speak in what I have now to say on the production of artificially digested food by pancreatic extracts.

My attention was first turned to the artificial digestion of milk; and I soon found that it was possible, by means of pancreatic extract, to digest this important article of food with comparatively little disturbance of its taste and appearance. Milk contains all the elements of a perfect food, adjusted in their due proportion for the nutrition of the body. Two out of its three organic constituents—namely, the sugar and the fat—exist already in the most favourable condition for absorption, and require little, if any, further assistance from the digestive ferments. It is, therefore, obvious that, if we could change the casein of milk into peptone without materially altering the flavour and appearance of the milk, such a result would go far towards solving the problem of supplying an artificially digested food for the use of the sick.

Pancreatic Digestion of Milk.

When milk is subjected to the action of pancreatic extract, at a temperature of 100° Fahr. (38° C.), in an open glass vessel, a series of changes take place in it, which are highly interesting to watch. The first thing that arrests the observer's notice is that the tough wrinkled skin, which quickly forms on the surface of warm milk when exposed to the air, is either not produced at all, or is only produced in a very imperfect degree. In its stead, there forms a slight brittle and perfectly smooth pellicle of quite a different appearance. The next thing noticed is that the milk becomes more or less softly curdled. By and by, the curds begin to redissolve, and the milk gradually reassumes its originally diffluent condition. A portion of the curd is, however, very resistent, and remains undissolved for many hours. If the milk be diluted beforehand with one-third or one-fourth of its bulk of water, this curdling phase is altogether omitted, or is only observed as a slight and transient thickening. Next follows a very curious change of aspect. The milk loses its glossy white appearance, and gradually assumes a dull yellowish grey shade which is characteristic, and the degree of which enables the practised eye to judge with considerable precision how far the peptonising process has advanced. This change of aspect is, however, by no means conspicuous, and would scarcely be remarked in a cursory observation, except by comparison with unaltered milk. While these changes are proceeding, the milk gradually loses its proper flavour, and at length developes a pure bitter taste, which is to many palates not disagreeable. No really unpleasant flavour is produced, unless the process is allowed to go on to incipient decomposition.

The progressive transformation of the casein into peptone, of which these outward signs are the indications and accompaniments, may be followed by testing the milk from time to time with acetic acid. At first, the addition of the acid causes an abundant precipitation of curdy matter, but this reaction progressively diminishes in intensity until at length it ceases altogether. When this point is reached, the transformation may be regarded as complete. All the casein has been changed into peptone—even nitric acid no longer causes a precipitate. The time occupied in the transformation (supposing the temperature and the activity of the preparation to be constant) depends on the quantity of pancreatic extract added, and may be made to vary from a few minutes to several hours. In the ordinary operation of preparing peptonised milk for invalids, two or three teaspoonfuls of the liquor pancreaticus are added to one pint of milk, diluted with a fourth of its bulk of water. With these proportions, the process is usually completed in from two and a half to three hours.

Modified Casein or Metacasein.—The conversion of casein into peptone does not take place by a direct transformation of the one body into the other. You all know that milk does not curdle or coagulate in the least degree on being boiled, but when milk is subjected to the action of pancreatic extract (provided no alkali is added), it speedily loses this negative property and curdles abundantly on boiling. This coagulation on boiling is most intense a few minutes after the addition of the extract, and it very gradually diminishes in intensity as the action goes on, and ceases altogether at the same time that acetic acid ceases to cause a precipitate. It was moreover found that, if the milk were boiled at the period of the greatest intensity of this reaction, and thrown on a filter, the whole of the albuminoid matter of the milk was caught on the filter in the form of curds, and the filtrate showed not the slightest reaction of casein. These reactions revealed the interesting fact that, in the transformation of casein into peptone by pancreatic extract, the first step in the process is the conversion of casein into an intermediate body, and that it is this intermediate body which is subsequently gradually changed into peptone. This body may provisionally be called *metacasein*, signifying thereby that it is still casein, but in a modified condition. Metacasein is characterised by two reactions, which, taken together, serve to distinguish it from other proteid bodies; it is coagulated by boiling in neutral media, and it is precipitated in the cold by acetic acid. The conversion of casein into metacasein in pancreatic digestion takes place almost suddenly, as is shown by the following experiment. Five cubic *centimètres* of pancreatic extract were added to one hundred cubic *centimètres* of milk, diluted with one-fourth of its bulk of water, and maintained at blood-heat. The first slight, almost doubtful, evidence of coagulation on boiling was perceived in three minutes; in five minutes, coagulation on boiling was pronounced; and in nine minutes, it had reached its maximum. From this point, coagulation on boiling, and precipitation on the addition of acetic acid, diminished in intensity *pari passu* very gradually for a period of two hours, when both reactions finally ceased.

Taking these observations and reactions together, it is evident that the conversion of casein into metacasein constitutes a first and distinct step in the transformation of casein by trypsin, and that this step is antecedent to the further and slower changes by which metacasein is transmuted into peptone. It is impossible not to see in this a striking analogy with the sudden transformation of gelatinous starch into soluble starch under the action of diastase, as described in a previous lecture.

When milk is rendered slightly alkaline by the previous addition of a little bicarbonate of soda, no precipitation on boiling occurs during its digestion by pancreatic extract. But the metacasein is nevertheless produced, and its presence may be detected by carefully saturating the alkali, and then boiling. For although metacasein is precipitated on boiling when the solution is neutral, it is not precipitated when the solution is even slightly alkaline. This is the reason why, in preparing peptonised milk for the sick, it is desirable to add to it a small quantity of bicarbonate of soda.

The foregoing account of the behaviour of milk with pancreatic extract will greatly facilitate the comprehension of the practical rules which must be followed in preparing peptonised dishes for invalids. I confine myself at present to articles of which the basis is milk, or farinaceous gruel, or both together.

Peptonised Milk.—A pint of milk is diluted with a quarter of a pint of water, and heated to a temperature of about 140° F. (60° C.). Two or three teaspoonfuls of liquor pancreaticus, together with ten or twenty grains of bicarbonate of soda, are then mixed therewith. The mixture is then poured into a covered jug, and the jug is placed in a warm situation under a "cosey", in order to keep up the heat. At the end of an hour or an hour and a half the product is boiled for two or three minutes. It can then be used like ordinary milk. The object of diluting the milk is to prevent the curdling which would otherwise occur and greatly delay the peptonising process. The addition of bicarbonate of soda prevents coagulation during the final boiling, and also hastens the process. The purpose of the final boiling is to put a stop to the ferment action when this has reached the desired degree, and thereby to prevent certain ulterior changes which would render the product less palatable. The degree to which the peptonising change has advanced is best judged of by the development of the bitter flavour. The point aimed at is to carry the change so far that the bitter taste is distinctly perceived, but is not unpleasantly pronounced. As it is impossible to obtain pancreatic extract of absolutely constant strength, the directions as to the quantity to be added must be understood with a certain latitude. The extent of the peptonising action can be regulated either by increasing or diminishing the dose of the liquor pancreaticus, or by increasing or diminishing the time during which it is allowed to operate. By skimming the milk beforehand, and restoring the cream after the final boiling, the product is rendered more palatable and more milk-like in appearance.

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* I may be permitted to use the word "peptonised" as a convenient abbreviation or the phrase "artificially digested"

Peptonised Gruel.—Gruel may be prepared from any of the numerous farinaceous articles which are in common use—wheaten flour, oatmeal, arrowroot, sago, pearl barley, pea or lentil flour. The gruel should be very well boiled, and made thick and strong. It is then poured into a covered jug, and allowed to cool to a temperature of about 140° F. Liquor pancreaticus is then added in the proportion of a tablespoonful to the pint of gruel, and the jug is kept warm under a cosey, as before. At the end of a couple of hours, the product is boiled, and finally strained. The action of pancreatic extract on gruel is two-fold: the starch of the meal is converted into sugar, and the albuminoid matters are peptonised. The conversion of the starch causes the gruel, however thick it may have been at starting, to become quite thin and watery. The bitter flavour does not appear to be developed in the pancreatic digestion of vegetable proteids, and peptonised gruels are quite devoid of any unpleasant taste. It is difficult to say to what extent the proteids are peptonised in the process of digestion by pancreatic extract. The product, when filtered, gives an abundant reaction of peptone; but there is a considerable amount left of undissolved material. Most of this, no doubt, consists of insoluble vegetable tissue, but it also contains some unliberated amylaceous and albuminous matter. Peptonised gruel is not generally, by itself, an acceptable food for invalids, but in conjunction with peptonised milk (peptonised milk-gruel), or as a basis for peptonised soups, jellies, and blanc-manges it is likely to prove valuable.

Peptonised Milk-Gruel.—This is the preparation of which I have had the most experience in the treatment of the sick, and with which I have obtained the most satisfactory results. It may be regarded as an artificially digested bread-and-milk, and as forming by itself a complete and highly nutritious food for weak digestions. It is very readily made, and does not require the thermometer. First a good thick gruel is prepared from any of the farinaceous articles abovementioned. The gruel, while still boiling hot, is added to an equal quantity of cold milk. The mixture will have a temperature of about 125° F. (52° C.). To each pint (550 cubic *centimètres*) of this mixture, two or three teaspoonfuls of liquor pancreaticus and twenty grains of bicarbonate of soda are added. It is then kept warm in a covered jug under a "cosey", for a couple of hours, and then boiled for a few minutes, and strained. The bitterness of the digested milk is almost completely covered in the peptonised milk-gruel; and invalids take this compound, if not with relish, without the least objection.

Peptonised Soups, Jellies, and Blanc-manges.—I have sought to give variety to peptonised dishes by preparing soups, jellies, and blanc-manges containing peptonised aliments. In this endeavour I have been assisted by a member of my family, who has succeeded beyond my expectations. She has been able to place on my table soups, jellies, and blanc-manges, containing a large amount of digested starch and digested proteids, possessing excellent flavour, and which the most delicate palate could not accuse of having been tampered with. Soups were prepared in two ways. The first way was to add what cooks call "stock" to an equal quantity of peptonised gruel or peptonised milk-gruel. A second and better way was to use peptonised gruel, which is quite thin and watery, instead of simple water, for the purpose of extracting shins of beef and other materials employed for the preparation of soup. Jellies were prepared simply by adding the due quantity of gelatine or isinglass to hot peptonised gruel, and flavouring the mixture according to taste. Blanc-manges were made by treating peptonised milk in the same way, and then adding cream. In preparing all these dishes, it is absolutely necessary to complete the operation of peptonising the gruel or the milk, even to the final boiling, before adding the stiffening ingredient. For, if pancreatic extract be allowed to act on the gelatin, the gelatin itself undergoes a process of digestion, and its power of setting on cooling is utterly abolished.

Peptonised Beef-tea.—Half-a-pound of finely minced lean beef is mixed with a pint of water and twenty grains of bicarbonate of soda. This is simmered for an hour and a half. When it has cooled down to about 140° Fahr. (60° C.) a tablespoonful of the liquor pancreaticus is added. The mixture is then kept warm under a "cosey" for two hours, and occasionally shaken. At the end of this time, the liquid portions are decanted and boiled for five minutes. Beef-tea prepared in this way is rich in peptone. It contains about 4.5 per cent. of organic residue, of which more than three-fourths consist of peptone; so that its nutritive value in regard to nitrogenised materials is about equivalent to that of milk. When seasoned with salt, it is scarcely distinguishable in taste from ordinary beef-tea.

The extreme solubility of digested products, whether of starch or of proteids, detracts from their acceptability to the healthy. To them they appear thin and watery; they miss the sense of substance and solidity which is characteristic of their ordinary food. But to the weak invalid without appetite, this sense of substance or thickening is generally an objection, and they take with more ease an aliment which they can drink like water. The jellies and blanc-manges, on the other hand, give to invalids of more power that sense of resistance and solidity which is desired by those of stronger appetite.

[*To be concluded.*]

ABSTRACT REPORT OF LECTURES
ON THE
COMPARATIVE ANATOMY OF MAN.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, LL.D., F.R.S.,

Conservator of the Museum, and Hunterian Professor of Comparative Anatomy in the College.

Lecture V.—The Races of Africa.

Of the great primary divisions of the human species, none are more distinctly characterised than the Negroid races, if, under this term, we include all the dark frizzly-haired people who inhabit considerable portions of the equatorial regions of the whole of the so-called old world, from the west coast of Africa eastward to the middle of the Pacific. The Oceanic branches of the group are not at present under consideration, but only those which inhabit the continent of Africa. The physical features of the Ethiopian negroes have remained unchanged since the earliest historic period, as they are depicted in ancient Egyptian drawings much as we see them now; but geographical and geological considerations tend to indicate a much vaster antiquity for the race. The present northern limit of the Negro populations of Africa, extending from the River Senegal on the west, across the continent in a nearly due easterly direction, corresponds with the Ethiopian region of zoologists, characterised by a fauna altogether different from that of the more northern parts of the continent. The cause of this difference is supplied by the undoubtable fact that, at a comparatively recent geological epoch, the Sahara was covered with sea, and the portion of Africa lying to the south of it was isolated from the greater continental tract composed of Europe, North Africa, and Asia. The distribution of the races of man so closely coincides with that of the remainder of the fauna, that it is natural to suppose that it must arise from the same cause, and we may thus attribute to the long separation of the races north and south of Sahara, during the period in which the waters of the Atlantic flowed over it, their strongly opposed physical characteristics. Since the two races have come into contact by the drying up of their waters, much intermingling has taken place along the frontier-line, but, considering the immense period of this stage of their existence, it is remarkable how little the original geographical boundary has been altered.

The physical characters of the negro in his most typical form, as found in the equatorial regions of Africa, have attracted much attention from anatomical anthropologists. In discussing the probable range of differences between members of the human species, the African Negro has, on account of his structure being better known than that of any of the lower races, been always taken as the antithesis of the white man of Europe; and in numerous treatises on the subject, the differences between them have often been either exaggerated or softened down, according to the bias of the writer. The black colour of the skin of the Negro, which is due to an increased number of pigment-granules in the cells of the epidermis, and not to the presence of a black layer between the epidermis and the dermis, as was formerly imagined, is proverbial; but very few negroes, if any, are really black. The Joloffs of Senegambia are described as being "jet black", or even "blue black", but various shades of brown, or even yellow, are more common. The iris is dark-brown, and the conjunctiva yellowish; the hair is always black, except in the not unfrequent cases of albinism, and never attains a great length. Its peculiar character is its flattened elliptical section, as seen under the microscope, and tendency to curl in very close spiral coils, a character always associated, though in varying degrees, with flat hair, giving the general effect commonly called "woolly", or more properly "frizzly", are well known. The curling may be also partially due to the form of the hair-follicles, which, instead of being straight, as in Europeans, are curved in the Negro, thus giving a twist to the growing hair. The size and thickness of individual hairs vary considerably, but they all agree in possessing the lateral flattening. The divisions of the Negro races into two distinct groups—those in which the hair grows evenly scattered over the scalp, called *eriocomi*, and those in which it grows in distinct tufts with bare intervals between, *lophiocomi*—though often demonstrated to have been based upon fallacious observations, holds its ground with great tenacity, and is still adopted in most treatises on anthropology. The report of a commission of the Paris Anthropological Society on the growth of hair of a negro, in one of the hospitals of that city, published last year in the Bulletin of the Society, ought to set the question at rest. The beard of the Negro is short and scanty. The features scarcely need description, as they are well known to everyone. Their chief characteristics are the narrow but rather vertical forehead; small, but rather prominent, eyes; full cheek-bones, though not so full as in the Mongolian races, but intermediate between them and the European; flat broad nose; prognathous mouth, with very full and everted lips, often projecting beyond the level of the nose; large white teeth, and a small chin. In stature, there is considerable variation, some tribes, on the west coast especially, being tall and well built, equal or even above the average of Europeans; others, such as the Bushmen and others in the south, are much smaller; and there is also some evidence of the existence of a true race of pigmy Negroes inhabiting the interior, near the sources of the river Nile. Two thousand black soldiers of African descent in the United States of America, during the war, gave an average of 167.8 *centimètres*, or nearly 2.7 *centimètres* below the average of whites (170.5 *centimètres*). The differences in the proportions of the different parts of the body in different races have received much attention from anatomists, and the comparison between the Negro and the standard European is more completely elaborated than between any other races; but, owing to the small number of skeletons, on which alone perfect accuracy of measurement can be obtained, much still remains to be done. As regards the length of the clavicle, Broca and Pasteau find that this bone is slightly longer in the Negro than in the European, being 45.5 in the former, and 44.6 in the latter, that is, as compared with the length of the humerus; but the comparison is not a satisfactory one, the latter bone being, as will be shown, peculiarly short in the Negro. Compared with the femur, which is a better standard, as its proportionate size to the height of the individual is nearly the same in both races, the clavicle appears, as far as can be judged from the materials available for comparison, to be shorter than in the European, as was also shown last year to be the case with the Andaman Islanders. The differences in the form of the scapula have been fully discussed by Broca and Livon of Paris, who have shown that the index of the length compared to the breadth is much higher in the Negro than in the European. The general length of the limbs is in some respects striking and important. All observers agree that the arms of the Negro are longer in proportion to the height of the person than in the case of Europeans. This is illustrated by measurements taken in the American war, which show that, when standing upright, the mean distance between the tips of the fingers and the upper end of the patella was 7.4 *centimètres* in the Negro, and as much as 12.7 *centimètres* in the white. The legs are also longer in proportion to the height, though to a less extent. The arms, compared to the legs, are slightly shorter than in Europeans; this is caused by the shortness of the humerus, its length, as compared with the femur, being as 96 to 100 in the Negro, and 73 to 100 in the European. The radius is longer even as compared with the femur or with the height, and, *à fortiori*, as compared with the humerus. The humero-radial index is, therefore, one of the most important characteristic differences between the two races; in Europeans, it averages 74, that is, taking the humerus as 100, in the Negro, 80. The femoro-tibial index presents a similar but less striking difference, being, in the European, 82, in the Negro, 85. Some of these characters, as the humero-radial index, approximates the proportions of the Negro to those of the higher apes; but others, as the shortness of the humerus and the great length of the lower limbs as compared with the height, do not carry out the same proportions, and only present signs of divergence from the European standard, though not of inferiority.

The other black races agree generally with the typical African Negro in such proportions as he differs from the European, and hence these might be used as valuable distinctive characters in the classification of man; but difficulties arise when the Negro is compared, not only with the European, but with other races generally held to be distinct. Although very few of them have been measured in sufficient numbers to give reliable averages, the indications already show that, in many points, the proportions, though they may distinguish the Negro from the European, do not separate him from others which in many respects are most dissimilar. In the humero-radial index, for instance, the Peruvian and the Malay, judging from the measurements of the skeletons in the College Museum, agree with the Negro rather than with some other branches of the so-called Mongoloid races, as the Eskimo and the Samoyede. But this is a subject for further observation rather than hasty generalisations. Before, however, we can obtain sufficient data on which to base our facts, we must have a considerably greater number of skeletons than we at present possess.

ON LUPUS AND ITS TREATMENT.*

By JONATHAN HUTCHINSON, F.R.C.S.,

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It is not my intention to occupy much time with details as to the microscopic anatomy of the different forms of lupus. I shall take it for granted that it is well established that the lupus process is one of cell-growth attended by the ordinary phenomena of inflammation. The precise structure of the skin in which the growth begins I shall not seek to determine, but shall rather prefer to assume that it may be developed from indifferent cells, which may have their site either in close adjacency to the glands in the perivascular spaces or possibly in those of the lymphatics. In the determination of priority in this matter, there is still room for the labours of the histologist. The peculiarities of the process when once begun may be assigned with tolerable definiteness, and they are of great importance as bearing upon the selection of methods of treatment. It is an essential feature of all forms of lupus disease, that the cell-growth once originated shall be infective, and shall cause similar disease in the adjacent skin. Lupus is always serpiginous, and it becomes so in virtue of the law of contagion by continuity, or, to express the same fact in more anatomical language, because its cell-structures spread along the perivascular spaces. Whilst thus asserting this tendency to lateral growth as an invariable feature of all that we call *lupus*, it is important to immediately add that it never shows any power of spreading deeply. From beginning to end, it is a disease of skin or of mucous membrane, and only by accident are the deeper tissues ever involved. In this limitation to the structure, it differs definitely from the forms of new growth which we class as "malignant". Its alliance with common inflammation is shown by similarity in exciting cause; for it is often, indeed usually, induced by some slight local injury or irritating influence. Its peculiarities, which are very considerable, are evidently due to the state of cell-nutrition and tendency possessed by the patient, and not to anything special in the exciting causes. It becomes, therefore, of great importance to study carefully its predisposing causes, and upon this head I will submit for discussion the following assertions.

The evidence is overwhelming that lupus, when correctly diagnosed as such, is a malady wholly independent of syphilitic taint. It may be very closely simulated, both in acquired and in inherited syphilis; but in its ordinary forms it is certainly not affiliated to either. It is rather a type-form of disease of the skin which syphilis only imitates; or possibly a yet more correct mode of expressing the relationship would be to say, that it is a disease of the skin due to a constitutional state which may be intensified by syphilis. When lupus follows syphilis, the latter influence may be plausibly supposed to play the *rôle* of a detector, making manifest in activity processes of disease, the tendency to which but for it might have remained latent. In doing this, however, it always stamps the hybrid malady with its own mark. The cross sometimes favours one parent, and sometimes the other; and thus some forms of "syphilitic lupus" may be pronounced offhand to be syphilis, whilst others approach lupus so closely as to puzzle the most experienced observer.

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* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

The reasons for asserting that common lupus is in no relationship with syphilis are briefly the following. It is a disease common in young persons, in whom no possibility of acquired disease exists. It is common in single members of large families, in none of whom any indications of inherited taint are present. Its subjects, with the rarest possible exceptions, never show any traces of inherited taint —they have neither the physiognomy nor the teeth, nor are they liable to keratitis or to nodes. The known subjects of inherited syphilis, as recognised by their physiognomies, teeth, and other peculiarities, are not liable to lupus, nor does it happen to the brothers or sisters of such. When lupoid affections occur to those who are the subjects of inherited taint, they almost always display peculiarities which denote their parentage. Whilst lupus cannot be cured, nor even influenced for good by specific remedies, its syphilitic counterparts cannot be cured without them.

It is scarcely worth while to discuss the question as to whether lupus is syphilis in the third generation, since those who have suggested this hypothesis have never attempted to produce a single fragment of evidence. It may safely be asserted that no such evidence is obtainable, and that the improbability of the theory is infinitely great. I have seen the grandparents of lupus patients in a great many instances, and never in any single one have I recognised the subject of inherited taint. On the other hand, I have, in a certain number of cases, had the opportunity of examining the children who were the known subjects of inherited taint, and I have never amongst such seen a lupus patient. Further, if, as just shown, lupus do not occur in the second generation, what likelihood is there that it should display itself in the third? Whilst there is no reason to believe that syphilis, either inherited or acquired, has anything to do with common lupus, there is good reason for associating the latter with two or three other well recognised constitutional conditions. I refer especially to the state of health known as scrofula, to that which produces relapsing symmetrical skin-diseases of the psoriasis type, and that condition of feeble circulation which favours the occurrence of chilblains. Amongst these three, lupus seems to divide its allegiance, approaching more closely now to one and now to another. The division is, however, by no means equal, and the larger number of lupus cases partake more closely of the scrofulous character than of any other. Next to scrofula probably comes the chilblain tendency, and lastly that to psoriasis. But many other strumous maladies are closely related to congenital feebleness of circulation, and even chilblains themselves are, perhaps, in some sense strumous; and thus we may perhaps, for practical purposes, consider that lupus is scrofulous disease of the true skin, modified more or less in individual cases by other tendencies. From what is sometimes vaguely spoken of as scrofuloderma, it is to be distinguished by the circumstance that the latter almost always begins under the skin in the cellular tissue or lymphatic glands. In such, the skin ulcerates secondarily. There is no form of disease of the true skin beginning in it of a scrofulous nature to which the name lupus is not applicable. It is, I feel sure, impossible to assign any lines of demarcation between scrofulous disease of the skin and lupus, and the attempt to do so is probably a violation of pathological laws.

In order that our conceptions as regards lupus may be clear, it becomes of importance to assert that it is not a specific, not even a well specialised, disease. By this is meant that it is not a disease which always preserves unity of type, or which always acknowledges identity of parentage. It is one which we may describe, but which we cannot define with that kind of accuracy which would enable us with certainty to pronounce, in all cases, whether a given example of skin-disease were lupus or not. Just as insanity is sanity with modifications more or less marked, just as it is impossible always to define avarice and to distinguish it from prudence, so is lupus common inflammation of the skin with modifications, and just so is it impossible always to distinguish it from other recognised forms of skin-disease. The attempt to do so is, indeed, a mistake in clinical observation—an endeavour to make nature fit herself to moulds which are not of her making. These remarks, whilst they apply to the diagnosis of lupus from other maladies, become of still greater importance when we attempt to distinguish the varieties of lupus from each other. Usually this diagnosis of different forms is easy, but in some instances it is impossible, for they run into each other. Any one who has seen half a dozen examples of common lupus and of lupus erythematosus is able with ease to distinguish the one from the other, and both in turn from scrofula, syphilis, and psoriasis; but let him wait awhile and see more, and he will find before long that there are examples of mixed forms of disease which it is impossible to denote correctly without employing hybrid names or qualifying adjectives. The reason of this is, as already stated, that lupus is not in any of its forms specific; it is not produced by any one definite cause, but is a result of various modifications of vital endowment existing in its subject.

With these explanations, which appear essential in order that we may understand each other, and use the same words with the same meanings, I will now enumerate the varieties of lupus which it seems convenient to recognise in practice. Some of these different forms are clinically very distinct, others less so. It may be assumed, I think, that the old division, into *exedens* and *non-exedens*, has been abandoned. More than twenty years ago, I pointed out that these terms, as usually employed, simply distinguish lupus of the nose from lupus of flat surfaces. Whenever the disease attacks the nose, it destroys it, and then gets the name of *exedens;* whereas the same process on a flat surface rarely causes deep loss of tissue, and as seldom gets the epithet. In the days when rodent ulcer was not well discriminated from lupus, it also often did duty for lupus exedens. I shall, therefore, take no cognisance of this utterly arbitrary division, nor shall I further attempt to give any definite meaning to the term *hypertrophicus* as applied to lupus.

The first great natural division of lupus cases ought, I think, to be into those which observe the type of *lupus erythematosus* and those which keep to that of the common form. Between these there are such important clinical differences, that some even doubt whether it is wise to continue the term *lupus* for the erythematous form. I do not myself feel any hesitation on this point. The erythematous form is certainly lupus, although it has differences which must be carefully noted. There are, however, such numerous points in common, and so many mixed cases occur, that it would be most unwise to attempt their complete separation. The most important peculiar feature of *lupus erythematosus* is *its tendency to symmetrical development.* Common lupus is never symmetrical, except by accident; but the erythematous variety is almost always so. The latter begins usually on the nose, produces next two symmetrical, but often not continuous, patches on the cheeks, then attacks the two ears, and next the backs of the two hands. This law of distribution acknowledges but very few exceptions, and it implies, I think, a relationship on the one hand to psoriasis, and on the other to chilblains. Perhaps its alliance with the chilblain diathesis—that is, with congenital local peculiarities of circulation and cell-nutrition—is its most marked feature. But whatever may be the peculiarity which gives proclivity to lupus erythematosus, there can be no doubt that the process, when once begun, is one of lupus. It affects adjacent parts by contagion of continuity, and thus spreads serpiginously; it produces new islands of disease near to the parent one; it persists indefinitely; and when it disappears it leaves scars. As a rule, it attacks patients of about the same age and in similar states of health to those who are the subjects of common lupus; and equally with the latter it is free from any suspicion of being due to syphilis.

As varieties of lupus erythematosus, we may mention *lupus sebaceus*, in which there is frequently no erythema whatever; and *lupus erythematosus hæmorrhagicus*, in which the erythema element is intense and produces proneness to bleed. To these might perhaps be conveniently added another very rare one, in which patches which cannot be distinguished from nævus spread widely at their edges and ulcerate like lupus.

Of *lupus vulgaris* we may, for purposes of clinical convenience, recognise the following varieties.

I. *Single-patch Lupus*, in which the patient, through a long course of years, has lost the original patch. In these cases, there is rarely much tendency to ulceration, and the strumous diathesis may be supposed to be but slightly marked, and the patient in good health. Often the patch is in one cheek, but it may chance to be on any part of the body.

II. *Many-patch Lupus.*—In a large majority of cases, common lupus shows itself in more than one place. When smaller patches occur near to the parent one, they are probably due to infection from it; but when at distant parts of the body, they may not improbably be quite independent of it, and due to diathesis. For cases in which the multiplicity of patches is great, the patient being spotted over with them, I proposed some years ago the name *lupus psoriasis;* but I now admit that it is not closely appropriate, since the lupus patches are never arranged symmetrically, as are invariably those of psoriasis.

III. *Ulcerating Lupus.*—It is very difficult to apply the term ulcerating so as to distinguish by it any special variety of lupus, since ulceration, in greater or less degree, is present in a majority. There are cases, however, in which the tendencies to common inflammation are so great, and ulceration occurs so early, that the special features of lupus are almost lost in granulation-masses and pus-crust. In these cases, the strumous diathesis is usually strong. The part affected has also some share in developing the proneness to ulcerate: thus lupus on the feet almost always ulcerates early.

IV. The term *acne-lupus* may be given to the disease when it occurs in scattered spots, like those of acne or impetigo. It is well illustrated in the portraits which I exhibited in the annual museum some years ago. It has also, I believe, been carefully described by one whose recent loss to dermatology we all deeply lament.

V. It may perhaps seem strange to many to suggest the term *eczema-lupus*. The characters of eczema and lupus are generally wholly distinct. There is, however, a very rare form of lupus inflammation of the skin which looks exactly like eczema. The state of the surface is not to be distinguished from eczema, and the diagnosis can be based only on the history that the patch has existed for years, that it slowly spreads at its edge, is amenable to no treatment, and when cured leaves a thin scar. In respect to the extreme thinness of the lupus growth, this form resembles lupus erythematosus; but it is never, like it, symmetrical.

VI. *Lupus marginatus* is a name which I have ventured to give to a very rare and very peculiar form of lupus, in which the margin is extremely thin and delicate, and in which, with no visible ulceration, a very superficial scar rapidly forms in the centre. It is certainly in essential features a lupus; and it differs from lupus erythematosus in not being very vascular, and in having no tendency to symmetry. I have seen but two or three examples of it.

It would not be difficult to mention several other very exceptional forms of skin-disease in which the features of lupus are assumed, and which ought, I think, to be recognised as its congeners. It is to be understood, however, that for the purposes of ordinary practice it is sufficient to recognise the common and erythematous types and to keep in mind that tendency towards scrofula, towards chilblains, and towards psoriasis give peculiarities to individual cases.

It is necessary, in order to complete the subject, to say a word or two as to lupus of mucous membranes. Lupus of the gum is not uncommon, and from the gum it not unfrequently extends to the palate. It is very seldom seen in the pharynx, and I am not aware that it has been traced lower in the alimentary tube. Lupus of the conjunctiva constitutes a rare and very peculiar form of disease. In the rectum and vagina, lupus is probably very unfrequent, and its examples in these regions have not as yet been identified with sufficient accuracy to permit of much being said about them.

If I have been detailed almost to tediousness in particularising the causes of lupus and its alliances with other maladies, I had before me the desire to clear the ground for the establishment of definite principles of treatment. I have tried to prove that lupus is mainly a scrofulous malady; that it is influenced by the causes which induce chilblains; and that in some cases it has an alliance with psoriasis. I have asserted further that it has no connection with syphilis. From these data, the rules for treatment, or at any rate for constitutional treatment, are easily evolved. We must improve the patient's state of nutrition by tonics, good food, bracing air, cod-liver oil, and the judicious use of stimulants. To all these, arsenic—the specific for psoriasis—may usually with much advantage be added. We must further protect our patients from the influences which cause chilblains; send him to a warm climate in winter, or, failing that, make him keep the house as much as possible. We must abstain from enfeebling the health by iodides and mercury. But, since the lupus growth is self-infective, it is impossible, when once it has begun, to arrest its spread by attention to the general health. We may perhaps prevent ulceration, but that is often all. As far as the cure of the local process is concerned, it must be effected by local measures, and these measures must be of the nature of destructions. The new cell-growth must be destroyed, eradicated without delay and without flinching. Without doubt, the most important point for discussion in this meeting is as to the best means of destroying the vitality of the lupus growth. I have had considerable experience of these methods—the use of caustics, the actual cautery, and Volkmann's erasion method. All are very good, but I unhesitatingly prefer the last. If caustics are used, they must be used very freely. I have repeatedly seen a patch wholly cured by a single dressing with chloride of zinc or acid nitrate of mercury. As a rule, these remedies were used too timidly or without sufficient painstaking. They give more pain than the actual cautery, but their sores granulate better and heal more quickly. The actual cautery is comparatively painless, can be easily limited, and at the same time made to act deeply. It is very efficient, but its burns are sometimes slow to heal. The erasion treatment appears to give less pain, to be very efficient, and to leave a sore which heals rapidly and soundly. Its introduction will, I think, mark a new era in the treatment not only of lupus, but of rodent ulcer. It is so simple, so easy of employment, and has in it so little that is alarming either to surgeon or to patient, that it is likely in the future to be employed in the early stages, whilst there is good hope of the complete cure of the disease. Lupus erythematosus is often benefited by solutions of tar and of lead, and the free internal administration of arsenic.

I must here bring my paper to a close, and leave the subject in the hands of the meeting. Whilst sincerely regretting the incompleteness of my sketch, I can but hope that I have stated the leading points with sufficient clearness to elicit a profitable discussion.

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ON THE USE OF IODIDE OF STARCH IN THE TREATMENT OF LUPUS ERYTHEMATODES.*

By McCALL ANDERSON, M.D.,
Professor of Clinical Medicine in the University of Glasgow.

EVERYONE conversant with the treatment of lupus erythematodes must be well aware how obstinately it resists internal remedies. At all events, my own experience hitherto has been that no internal remedy is capable of itself, even in isolated cases, of removing the eruption, although I have known it to disappear spontaneously.

Any medicine, therefore, which, in a certain proportion of cases, is capable of ameliorating this condition, must be hailed with satisfaction; and that will be found to be the case with iodide of starch. I learned this fact in the following way. My friend Dr. Colligan of Paisley sent me a patient labouring under well-marked lupus erythematodes some years ago. We agreed to try from time to time various local applications, which certainly effected some improvement, but altogether failed to eradicate it. A considerable time after this, happening to meet Dr. Colligan in connection with another patient, he said to me: "By the by, do you remember the patient I sent to you with lupus erythematodes? I used all the applications you recommended, but they did not remove the eruption; so I thought I would try the internal administration of the iodide of starch which I had often seen employed for other diseases by Dr. Andrew Buchanan, when I was a student. Well, I gave her a teaspoonful of it three times a day, and in two or three weeks the eruption was gone." I expressed myself equally surprised and gratified, and promised to give it a trial. For a couple of years before this, I had been seeing from time to time a lady, the sister of a medical friend, who suffered from the same complaint in an aggravated form, not only on the face, but also on the head; and, although some impression was made upon the disease by means of local applications, the results of the treatment had been anything but satisfactory. I therefore wrote to the doctor, mentioning Dr. Colligan's experience, and suggesting a trial of it in his sister's case, which he did. Some time afterwards, the lady came to see me, and I must confess that I was astonished to find that in her case too a great amelioration had taken place in her state (although she could not be said to be completely cured), much greater than from the previous persistent use of most of the recognised remedies, and that without the simultaneous use of any external treatment whatever. Since that time, I have in many cases used the remedy in doses of from one to four teaspoonfuls in water or water-gruel three times a day, and while in some no result whatever has followed, in a fair proportion of them much benefit has accrued; so that I now regard it in the light of a valuable addition, though far from an infallible remedy, to our means of combating one of the most obstinate diseases of the skin.

For the introduction of the iodide of starch as a remedial agent we are indebted to Dr. Andrew Buchanan, whose papers upon the Physiological and Therapeutical Effects of Iodine (*London Medical Gazette*, vol. xviii, page 515, and vol. xix, pages 41 and 80) will well repay perusal. Owing to the irritant local action of other preparations of iodine, he was led to look out for some new medicinal preparation which might be less acrimonious in its local action, while its absorbability and alterant virtues were not diminished, and for this purpose the iodide of starch suggested itself to him; and there can be no doubt that by employing it much larger quantities of iodine can be introduced into the system, even to the extent of over seventy grains daily. The following is the formula for its preparation: ℞ Iodi gr. xxiv; amyli ℥j. Triturate the iodine with a little water, gradually adding the starch and continuing the trituration till the compound assumes an uniform blue colour, so deep as to approach to black. The iodide should be dried with a heat so gentle as to run no risk of driving off the iodine, and it ought to be kept in a well-stoppered bottle. On no account should spirit be used in its preparation instead of water, as sometimes recommended. The dose is a heaped-up teaspoonful in a draught of water or water-gruel thrice daily; but it may be safely increased, even up to an ounce in some cases, if necessary to make an impression on the disease. I have generally found, however, if it be going to do good in lupus erythematodes, that the first-named dose is sufficient. Those who are inclined to give it a trial, should take care of two things: first, that the cases they are dealing with are really undoubted ones of lupus erythematodes and not lupus vulgaris; and second, that the medicine is freshly prepared and in accordance with the directions above mentioned.

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* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

In conclusion, I may say that I have found the iodide of starch an excellent remedy in other diseases, and notably in old-standing cases of syphilis; but upon this I need not enlarge at the present time.

LUPUS: ITS NATURE AND PATHOLOGY.

By J. HERBERT STOWERS, M.D.*

In the whole range of Dermatology, there is not a disease the dreadful ravages of which are so familiar to us, or which deserves, on account of its nature and the deformity it occasions, added to the very great difficulty met with in its successful treatment, more careful study. Although from an early date evidence exists to show that lupus was recognised as a disease, yet we are aware that for a considerable period it was not unfrequently confounded with two other affections now long since proved to be separate and distinct, viz., cancer and syphilis. With our present knowledge of cancer, it is unnecessary to make further remark. Syphilis also, the outward manifestations of which are so well known, I will at once dismiss, merely pointing out how undesirable it is that the term "syphilitic lupus", which we still occasionally hear applied to that tubercular syphilide, which is not an uncommon form of syphilitic cutaneous disease, should be retained. As one of the later phenomena of constitutional syphilis, a condition presents itself which appears at first to have some characters common to lupus. However, as its course is always more or less definite, commencing from a definite starting-point, viz., the absorption of a specific virus into the system, distinct from that of lupus, unnecessary confusion can only result from the employment of a term which implies other than true syphilis.

I wish at this time to invite the attention of dermatologists to a few points in connection with the nature and pathology of lupus. Belonging to the class neoplasmata, lupus cannot be regarded as a simple hypertrophy. Notwithstanding the difficulty which occurs at all times in the endeavour to trace the accurate course of any disease dependent upon a constitutional origin, still the bulk of evidence proves unmistakably that lupus does not depend upon local causes. That local injury, *e.g.*, a blow, has some determining influence, under certain circumstances, in bringing about lupus, is beyond dispute, cases occasionally coming under notice in which the disease has appeared almost immediately after its receipt. I have notes of several cases in support of this in my possession. Lupus, then, is to be regarded as a local expression of a constitutional disorder expressed by the terms struma or scrofula; and by lupus is understood a local degeneration, strumous in its origin, essentially chronic in its character, and "attended with more or less hypertrophy, with absorption, and with ulceration". As one or other of these characters is most marked, we apply a special name, *e.g.*, lupus hypertrophicus, lupus exedens, etc.

Lupus exedens, or ulcerating lupus, although differing much from the non-ulcerating variety in appearance, is yet only a more advanced stage of the same morbid process, produced at first by the development of and the infiltration of the skin with a new cell-growth, which, being incapable of organisation, is removed by interstitial absorption or by ulceration. When arrested, the ulceration is eventually covered with a smooth, white, shiny cicatrix, frequently marked by elevated lines radiating irregularly from the centre. The new growth, constituting, besides the infiltration, the so-called tubercles of lupus, is composed of minute cells resembling lymph-corpuscles, rounded, nucleated, and originating, according to Virchow, from the connective-tissue corpuscles, the starting-point being the corium itself. The accounts of various microscopic observers, differ according as the specimens have been examined in different stages of development. Auspitz, Neumann, Virchow, Kaposi, and others, have arrived at almost similar conclusions. Friedländer, however, has expressed the opinion that the cells previously referred to are tubercular, and consequently, recognising little or no difference between them, concludes lupus to be a local tuberculosis. Concerning this point, I would especially ask the opinions of observers present.

With regard to the frequency with which lupus is met in hospital practice, Dr. White, of the Harvard University, Boston, has published some interesting statistics. He showed than in 10,000 consecutive cases of general skin-diseases under notice in America, 62 cases of lupus occurred, equal to .6 per cent.; in Glasgow, 1.98 per cent. in the same number; in Austria, 3 per cent.; and in 3,000 consecutive cases of skin-diseases occurring in Dublin, lupus did not once appear. During the last four years, I find that the number of cases of lupus, including all varieties, attended in the out-patient department of St. Bartholomew's Hospital, London, has amounted to 58 in 2,296 skin-patients, or about 2.5 per cent. Of these 58, there were males 22, females 36.

The following tables give the ages of patients when disease first appeared, etc., and its site in those cases of which I have taken special notice in the Hospital Skin Register, Mr. Morrant Baker, who has charge of the department, having kindly allowed me to make use of them. The sex and age at commencement were as follows.

Lupus (non-exedens) or non-ulcerating.—Females, 13: 1 at 6 months, in cheek and hand; 1 at 4 years, in neck; at 7 years, in cheek; 1 at 10 years, in cheek; 1 at 10 years, in cheek and nose; 1 at 11 years, in cheek; 1 at 12 years, in cheek; 1 at 14 years, in cheek, nose, and knee; 1 at 22 years, in nose and eyelid; 1 at 31 years, in cheek; 1 at 34 years, in cheek; 1 at 42 years, in cheek and nose; 1 at 46 years, in cheek. *Males*, 7: 1 at 1 year, in forearm; 1 at 4 years, in forearm and cheek; 1 at 8 years, in thigh and prepuce; 1 at 12½ years, in cheek and nose; 1 at 13 years, in dorsum of foot; 1 at 20½ years, in nose; 1 at 31 years, in dorsum of hand.

Lupus erythematosus.—Females, 3: 1 at 10 years, in cheek and nose; 1 at 12 years, in cheek and nose; 1 at 24 years, in face and scalp. *Males*, 2 (notes incomplete).

Lupus (exedens) or ulcerating.—Females, 6: 1 at 8 years, in nose; 1 at 12 years, in nose, fingers, and foot; 1 at 12 years, in nose and cheek; 2 at 15 years, both in nose and cheek; 1 at 17 years, in upper and lower lips and cheek. *Males*, 3: 2 at 14 years, in nose; 1 at 17 years, in nose.

It will be observed that lupus occurs more commonly in females, 36 being the number, as compared with 22 males. Mr. Hutchinson, in some published statistics, has stated that he met with 46 females affected in a total of 74 lupus patients. In the 58 cases I have narrated, only two instances were met with in which two members of one family exhibited lupus at the same period.

Again, Mr. Hutchinson has pointed out that phthisis is not infrequently observed in the families of those suffering from lupus. Owing to the obvious difficulty in obtaining reliable family histories from hospital patients, I have been able to discover but few instances of the kind in which phthisis has been proved to have occurred. I am anxious, however, to obtain the experience of members present on this particular.

Lupus is most common in persons whose ages are between fifteen and thirty years. In 74 cases, Mr. Hutchinson has stated sixteen years to be the average age.

Its selective seat is the face. According to Devergie, this was the seat in 41 out of 44 cases. The nose was affected in 16 cases; the nose and other parts of the face together in 26 cases, and the lips 4 times.

It will be noted that the face or neck was affected in each of the 13 female patients presenting simple or non-ulcerating lupus, and in 3 out of 7 males; in each of the 6 females with ulcerating lupus, as well as the 3 males; and also that the face was the seat of the disease in the three females having lupus erythematosus. Besides the above, lupus was observed once on the forearm, three times on the hand (dorsum), twice on the dorsum of the foot, and once on the thigh and prepuce.

Lupus erythematosus has been regarded by many as differing only in degree from the other two forms of lupus; viz., the ulcerating and non-ulcerating. There is, however, a distinct variety of lupus erythematosus, more often met with in Germany than elsewhere, which could be explained only by pathological changes peculiar to itself, and which Hebra has designated by the term "seborrhœa congestiva". Hebra, taking his standpoint from the appearance of the distended and plugged ducts of the sebaceous follicles, connects this disease with these glands. Neumann, in 1863, describes the change as consisting of alteration of the form and relative size of the papillæ, cell-infiltration of the corium, and alterations in the sebaceous glands, being due to growth of the connective tissue around their walls and degeneration of their secreting cells.

Geddings has pointed out the enlargement of the blood-vessels, and their distension with old corpuscles; and, as the result of his investigations, makes the inference that lupus erythematosus is a special form of skin-inflammation, which begins at the sebaceous follicles.

Dr. Thin published in the *Medico-Chirurgical Transactions* for 1875 the results of his own observations in a well-marked case. He mentions that the capillaries of the papillæ were enormously distended with red blood-corpuscles. In some papillæ, this distension was so great that a capillary loop nearly filled a papilla of medium width. In different parts of the corium, similarly distended and filled capillaries were seen. The veins also were distended and filled with blood. The arteries were empty. The abundant networks of capillaries surrounding the sweat-glands were also greatly distended and filled with blood-corpuscles. The rete Malpighii, fibrillary tissue of the corium, and sweat-glands were perfectly healthy. The disease was firmly established in a part of the skin where there were no sebaceous glands, and in which the sweat-glands still presented a normal appearance. But, although none of the changes that had been described by the observers previously mentioned as occurring in the sebaceous and sweat-glands and fibrillary tissue were present, there was a morbid condition of the capillary blood-vessels, which, if it had been persistent, was certain, in the course of time, to have produced all of them. An atrophied condition of the capillary layer of the cutis—what Cazenave has described as thinning of the skin—must be the inevitable consequence of a blood-stasis by which the circulation is virtually destroyed. Dr. Thin concludes that as yet we know, in this disease, no changes antecedent to the congestion of the capillaries, and can associate with it no special constituent organs of the skin. It is suggested, therefore, that the affections of the sebaceous and sweat-glands should be considered, not as being necessarily the causes of the congestion, but as following it. Dr. Thin's observations cannot fail to have attracted the best attention of all dermatologists.

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* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

ON THE TREATMENT OF LUPUS BY LINEAR SCARIFICATION.*

By BALMANNO SQUIRE, M.B.Lond.,
Surgeon to the British Hospital for Diseases of the Skin.

THE treatment of lupus by scarification is not new. Scarification, in the form of so-called "multiple *punctiform* scarification", has been employed for many years in the treatment of lupus, and with considerable success in many countries. The first observer who reduced it to a demonstrable success was the now venerable Dr. Dubini of Milan; and it subsequently derived a considerable impetus from the warm advocacy of Dr. Volkmann of Halle, in Prussia.

Multiple *linear* scarification was first proposed by myself, now a few years since, as an improvement on the Dubini-Volkmann method. Its effect is similar, only that it is more thorough, and that the results obtainable by means of it are more prompt, and at the same time it provides more effectually against relapses. But the principal claim that the operation may possess on the attention of the profession as a serviceable resource in this, one of the gravest of the diseases of the skin, rests on the strong support which it has recently won for itself. Dr. Walter Smith of Dublin, Mr. Malcolm Morris of London, and Dr. Vidal of the Hôpital St. Louis in Paris, have tested it, and have spoken of it with approval in the writings which they have published.

Like punctiform scarification, it effects, by section of the capillaries, a prompt decrease of the hyperæmia of a lupus-patch, and coincidently, by the traumatic inflammation it excites, it causes the disappearance of the new formation special to lupus. The careful microscopical researches of Dr. Vidal have shown that the lupus-cells, under this process of treatment, undergo conversion into fibrous tissue. By observation of preparations of sections of the lupus-patches, obtained at different times during treatment by scarification, he has ascertained that the lupus-cells gradually alter their configuration and assume the shape of fibres of connective tissue.

This observation is of some practical importance, as serving to explain an advantage which both Dr. Vidal and I have frequently remarked as special to this plan of treatment; namely, that no loss of substance results after the cure of the disease by this method. Now, this is a matter of prime moment in a disease which is especially apt to invade the face, but more particularly when it affects the nose—a feature often attacked by lupus.

Under any other method of treating lupus with which I am acquainted, the nose, in the condition in which it commonly comes under observation, is in great part necessarily lost, even when treatment happily achieves the complete cure of the disease; but, when the treatment is by linear scarification, the nose may often be actually *rebuilt;* so that the organ, already in part virtually destroyed, may at length be regained in its original form. In other words, the lupus-tissue, which has come to replace the substance of the true skin, instead of undergoing actual destruction—as, for example, it does under treatment by cauterisation—or, again, instead of undergoing molecular ulceration by the application of semicaustics, such as the red iodide of mercury, advocated by Dr. Hardy of Paris,—becomes actually the material out of which repairs are constructed. The practitioner, no longer glad to be content with arresting the lupus in its present state of progress, finds himself able to cause the disease to retrace its steps, and to restore out of its own means that fibrous tissue which it has slowly, and yet apparently surely, destroyed. It is to the microscopical researches of Dr. Vidal that I am indebted for the *rationale* of the result. By means of linear scarification, I have succeeded in reconstructing a nose which externally as well as internally—that is to say, both as regards skin and mucous membrane—was converted into fungous granulations, consisting wholly of rotten lupus-deposit, and supported by cartilage which a little later must surely slough away; and so I have seen a nose, which apparently could only end in a withered stump, regain its original form with scarcely any alteration of its original condition.

Dr. Vidal has recorded a case in which he treated a portion of a lupus-patch by means of erasion—namely, in the centre, and by linear scarification over the rest of the patch. After the cure of the case, a depressed scar existed only over the part treated by erasion. A model of the case is preserved in the museum of the Hôpital St. Louis. I have recently seen it, and think it illustrates very fairly the difference of the two kinds of treatment.

There are various details in conducting the operation, into which there will not now be time to enter.

The operation is painless, if the skin be first frozen by the ether-spray. It may be rendered expeditious by a multiple linear scarifier which I have devised, and which has been constructed for me by Messrs. Weiss of London. It is in every way less irksome to the patient than any other means of local treatment; that is to say, than any other means (of efficacy) of which I am aware. I do not speak of internal remedies, since I have found them to fail.

It remains to compare the effect of linear with that of punctiform scarification. The latter consists of stabbing the affected skin with a fine needle, or with the point of a narrow lancet. This method fails in precision. It is impossible to space the punctures equidistantly; and, in practice, the skin presents always, after the operation, clusters of punctures more or less crowded on one another, with intervals of but scarcely punctured skin; whereas in linear scarification, especially if it be performed with a suitably adjusted multiple scarifier, the incisions are *equally* spaced, so that even at the first operation the effect produced is uniform; whereas by repetition of the operation, veering the direction of the incisions at each repetition, the complete disappearance of the disease may be speedily arrived at.

I have only to add that the little cuts heal completely within a week, so as to permit a repetition of the operation; and that eventually the cuts leave no perceptible trace of their existence. In fact, they disappear *absolutely* after a moderate interval. A satisfactory amelioration of the disease results within a few days after the first performance of the operation, which needs to be repeated, as to some cases, only a very few times in order to ensure a complete and often a lasting cure.

ON A RARE NODOSE CONDITION OF THE HAIR.*

By WALTER G. SMITH, M.D.Dub., F.K.Q.C.P.I.,
Physician and Pathologist to the Adelaide Hospital, Dublin.

CONSIDERABLE discussion has taken place within the last year upon the nomenclature and nature of certain textural changes in the hair, and some light has been shed on a subject that has hitherto lain in obscurity. I refer especially to two papers of interest: one on the condition known as trichorexis nodosa (or trichoclasia) appeared in the *Dublin Journal of Medical Science*, February 1879, from the pen of Dr. W. Whitla of Belfast; and an excellent summary of what is known as to atrophic and nutritive changes in hair was contributed by Dr. T. Colcott Fox to the *Lancet*, December 7th, 1878.

On this occasion, I propose to exhibit and describe specimens of a remarkable affection of the hair which has lately come under my notice, and which appears to me to differ in several respects from any hitherto described.

CASE.—Mary M., a dressmaker, aged 19, of fair complexion, with dark hair, applied at the Dispensary for Diseases of the Skin, Adelaide Hospital, in June 1879, on account of thinning and loss of her hair. When about three years of age, she had "ringworm", but, with that exception, neither she nor either of her brothers (aged 8 and 14 respectively) ever suffered from any disease of the skin. Some years ago, she had "lumps" in her neck, but was never affected with a sore throat or sore mouth, and presented no sign or trace of syphilis; The nails were healthy, and there was no swelling of the lymphatic glands in the neck or elsewhere. She was subject to "styes" on the eyelids, but her sight was excellent. The catamenia set in between fifteen and sixteen years of age, *after* the hair had begun to fall, and she had menstruated regularly ever since. Up to the age of fifteen, she always possessed "good long hair", reaching at least down to her shoulders; but about that time, and without any apparent cause, she began to shed the hair. The head at the same time became scurfy, but at no period was there any discharge or moist exudation. The scalp was now free from scaling; still she had occasionally been annoyed with scurfiness, and her hair had remained thin and short. At times, the skin was very itchy, and became tender, *e.g.*, brushing the hair caused pain. Shortly after the hair commenced to fall, she passed through a sharp attack of scarlatina from which she made a good recovery, and has since enjoyed undisturbed good health. The thinning of the hair was worse than before the fever—the first and only illness of the kind she ever had.

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* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

Present State.—Over the whole scalp the hair was uniformly thinned, although nowhere was there complete baldness, and the general appearance was not unlike that met with in some cases of secondary syphilis. The longest hairs measured about five inches; they could be readily extracted without pain, and their free extremities appeared sharply broken off. Many of the hair-follicles projected so as to form small pale or pink elevations, most numerous about the nape of the neck. Excepting this, there was nothing on the surface of the skin worth noting, and the skin of the face and forehead was perfectly smooth and normal. The hair was very dry, of an uniform dark colour, and felt crisp to the touch.

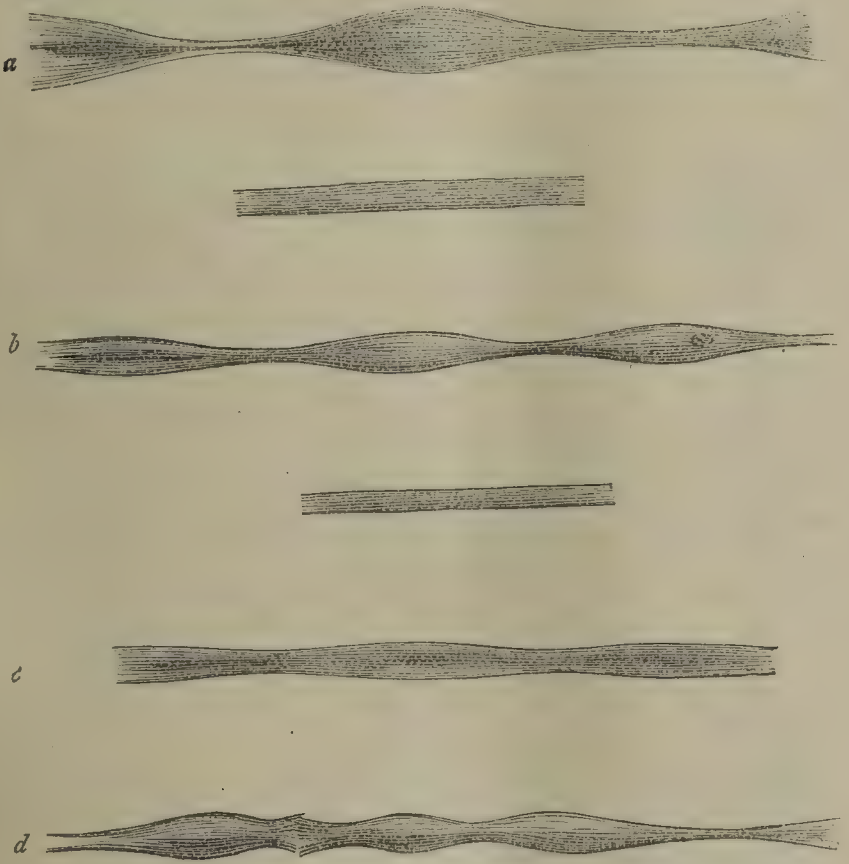


Fig. 1.—Nodose Hair.

A most singular appearance presented itself upon close inspection of the head. Many of the hairs were bent abruptly at a right angle, and the lengths of the hairs were very unequal; but it was the shorter hairs in especial, all or nearly all of which exhibited an appearance I had never before seen. This consisted in a regular beading or succession of swellings along the shaft of the hair, frequently commencing immediately above the root. The nodes were fusiform, dark throughout, or pale in the lower segment and black in the upper; and whenever, as often happened, the hair was broken, the extremity was acutely pointed, *i.e.*, the fracture always occurred at an internode. On an average, one node went to each *millimètre* of length of hair. Thus, for a few fragments—

a.	6 *millimètres* long,	exhibited	6 nodes.
b.	9 ,,	,,	11 ,,
c.	12 ,,	,,	12 ,,
d.	38 ,,	,,	35 ,,

Each node would seem to represent about two days' growth. Scattered over the head were also many short club-shaped stumps, representing single nodes implanted in the skin, and the root-ends likewise were pointed. On some of the longer hairs, small bits were split off longitudinally about their middle.

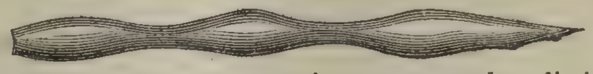
Attention was next directed to the hair in other situations. The eyebrows were thin, but no beaded hairs could be detected, either among them or among the eyelashes. The axillary hair was scanty, but appeared normal, and on the pubes one hair was found with three well marked fusiform swellings similar to those observed on the head.* A stimulating lotion was prescribed, and she was directed to have the head shaven. Three days subsequently, the head was examined. The skin was slightly pink, especially on the nape of the neck. All the hair stumps appeared quite black. Some of them were straight, and some bent sharply close to the follicle, but the great majority presented the black fusiform swellings either half emerging from the skin or commencing about a line above its level, and resembled miniature spears imbedded in the skin. The mouths of the hair-follicles were obstructed by epithelial accumulation. The microscopical characters of the affected hairs are remarkable, and are well shown in the accompanying drawings.†

The following account was furnished to me by Mr. B. Wills Richardson, who kindly made a careful examination of the hairs. Scarcely a trace of scale-imbrication was seen on the nodes, but it was tolerably well marked in the concavity of the narrow parts between the nodes. Brown pigment was deposited outside the axis in streaks, and chiefly in the nodes; and thus each hair, to the naked eye, appeared as if checked alternately brown and white. In many of the specimens, dense deposits of pigment occupied part of the axis of the nodes, but were not observed in the narrow internodes. There was no trace of cells in the axis of the nodes, and the axial deposit of pigment was wanting in some of the nodose specimens. The average diameter of the nodes was one two-hundredth of an inch; of the constrictions, one five-hundredth of an inch. To this I may add, that some of the hairs which, macroscopically, appeared of uniform diameter, were seen under the microscope to present slight fusiform swellings, and every gradation existed between an almost imperceptible enlargement of the shaft and a large spindle-shaped bulb.‡ The great majority of the hairs presented an unbroken contour, but a few of them exhibited longitudinal splitting and sometimes transverse fracture of the cortex, and an irregular brush-like appearance at a bend in the shaft. The extremities of some of the hairs terminated in a tuft of fibres, but I was unable to see any evidence of bursting of the nodes like that described by Kaposi in connection with trichorexis, or any besom-like stumps representing the lower half of a node.

That the condition just described is a rare one there can be no doubt. I have not been able to find a record of a precisely similar affection in any of the books at my command, nor could any of the dermatologists to whom I applied for information recall from their own experience a parallel case, with one exception.

Dr. Robert Liveing wrote to me that he had one exactly similar case under his care, about six or seven years ago. He also sent me notes of his case, and kindly gave me permission to publish it in connection with my own. Dr. Liveing's patient was a girl about twelve or thirteen years of age, and her friends stated that her hair had never grown in a satisfactory way. Little attention was paid to the matter while she was very young, and consequently it was impossible to determine whether the affection was congenital or not. The scalp was covered with scattered hairs, short and of a dark colour, and some of them though thin were crisp in texture; many of them appeared more or less twisted. The general appearance was that of partial baldness of a peculiar kind, none of the hairs attaining anything like their natural length or texture. Under the microscope, the appearance of the hair was as if formed of a number of spindle-shaped swellings, disposed on many of the hairs with great regularity, as represented in the diagram (fig. 2). The hairs were more opaque than normal, and presented a dark contour. The opacity was somewhat diminished by treatment with liquor potassæ. This case was considered by Dr. Liveing to be one of "*nodose malformation*" of the hairs of the scalp, and, if not congenital, at any rate to have begun in early life.

FIG. 2.



In attempting to assign to its proper category the condition of hair described in the two preceding cases, it will be convenient in the first place to point out what it is not.

1. No sign of a fungus could be detected, nor any appearance at all like fungoid elements; and all who have examined the nodose forma-

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* Dr. T. Colcott Fox informs me that he has observed trichorexis nodosa on the pubic region.

† I am indebted to Mr. E. Gordon Hill for all the drawings.

‡ Mr. Erasmus Wilson (*Diseases of the Skin*, sixth edit., p. 25) states that "the short hairs of the body not unfrequently exhibit an appearance which may be termed varicose .

tion agree that it is non-parasitic in nature, and therefore not to be identified with the condition figured by Dr. Cheadle and Mr. Malcolm Morris (*Lancet*, February 8th, 1879), and provisionally termed tinea nodosa.

2. It has nothing in common with the *piedra* of Columbia (Desenne, *Comptes Rendus*, Juillet 1, 1878), or the "chignon fungus" of Beigel and Tilbury Fox [*]

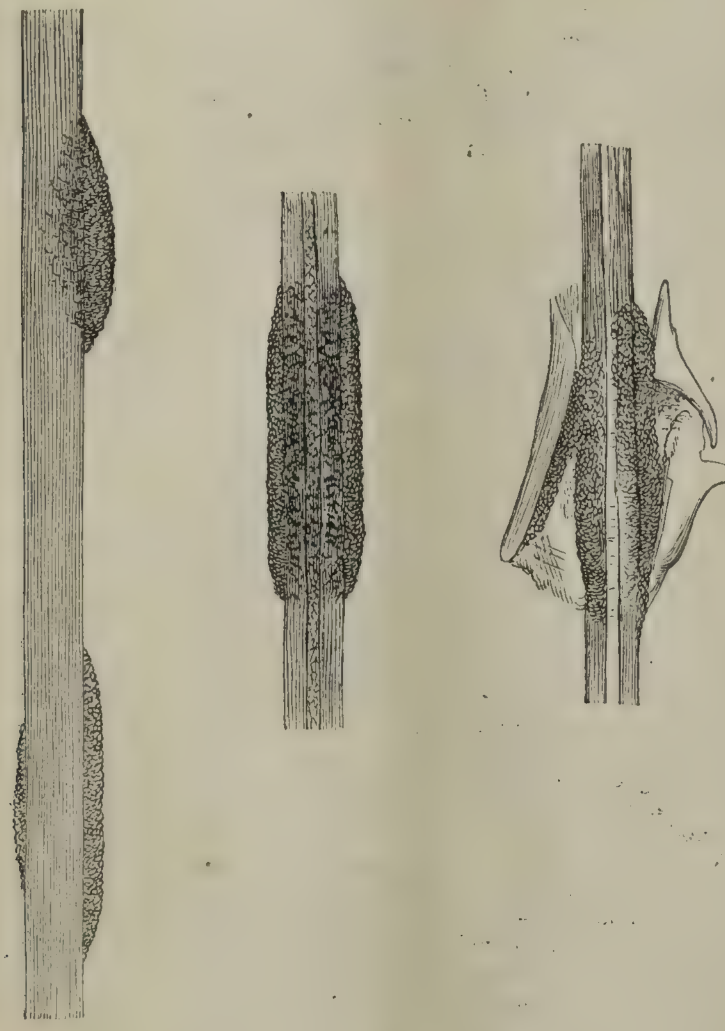

Fig. 3.—Chignon Fungus.

3. It differs from the trichosyphilis of Wilson (*Journal of Cutaneous Medicine*, October 1869; *Lectures on Dermatology*, 1878, p. 192) (*a*) in the absence of history or any signs of syphilis or other cachexia; (*b*) in histological characters; (*c*) in affecting the hair of the head.

4. By trichorexis nodosa (Kaposi), I understand that singular alteration in the hair described many years ago by Mr. E. Wilson and Dr. H. Beigel,[†] in which there are partial fractures of the cortex and fraying out of the cells at intervals along the shaft. Kaposi's account of it (Hebra, vol. iii, p. 244, New Sydenham Society's translation, 1874) is not complete, but it is well and exhaustively described by Dr. Whitla (*loc. cit.*), who proves its almost universal occurrence in the hair of the face, and is represented in fig. 4, from specimens kindly sent to me by Dr. T. Colcott Fox.

Now a mere name is of little consequence in itself, but it is of some importance not to conceal under one designation really distinct conditions. The term trichorexis nodosa has unfortunately many synonyms[‡], and seems to have been used by writers with considerable latitude of meaning.[§]

I shall now briefly indicate the particulars in which the nodose hairs appear to me to differ from trichorexis nodosa.

1. There is little tendency to partial fracture, fraying of the cuticle, or splitting of the cortex.

2. The altered hairs occurred in multitudes on the scalp. Trichorexis is very rarely found on the hairs of the head (Devergie, one case), and I owe to Dr. T. C. Fox an interesting specimen of the affection from the scalp. Should a case of nodose hair be observed in an adult male, it will be worth noticing whether the hair of the face is affected or not.

3. When traction is made on the hair, the breakage takes place at a constriction, never through a node. The fracture is usually clean and sharp.

4. The nodes are opaque, and constitute the darkest parts of the hair. In trichorexis, the so-called nodes are usually white.

5. There is a great disproportion between the diameters of the swollen and constricted portions. The average width of the nodes was two and a half times that of the narrow internodes. In trichorexis, the diameter of the shaft is not increased to any notable extent, and any enlargement that is to be seen is due to the loosening and separation of the fibres.

6. The nodes are very numerous, and succeed each other in regular order, like beads on a necklace.

7. Trichorexis nodosa is very common; the nodose malformation is rare.

As to the cause of this singular condition, one can scarcely say more than that it represents a curious freak of perverted nutrition, there being, so to speak, a regular succession of periods of growth and of atrophy; or a periodic alternation of activity and sluggishness. The origin of "nodose malformation" is evidently intrafollicular, for (*a*) in many cases a node could be seen half protruding from a follicle, and (*b*) the symmetry of the nodosities points to a regularly recurring cause, which could take effect only at the seat of formation of the hair. In trichorexis nodosa, the alteration of the hair-shaft is produced outside the follicle. The history of my case is opposed to the supposition that the malformation was congenital, or even that it arose, as in Dr. Liveing's case, at an early period of life, for the nodose abnormality, if at all developed, would have led to fracture and thinning of the hair, and so have probably attracted notice in the case of a girl.

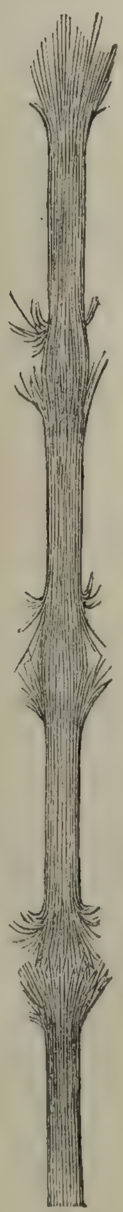

Fig. 4.—Trichorexis Nodosa. The internodes are represented too short.

By a curious coincidence, after this paper had been written, I met with another case of nodose malformation of the hair, almost identical in appearance with that of Mary M.

Thomas W., aged 7, had been in occasional attendance at the Skin Dispensary for a troublesome chronic dry eczema of the scalp, causing some thinning of the hair. He was a healthy-looking child, of fair complexion. At his visit on Thursday, July 31st, the scalp was scurfy, and uniformly covered with short hairs (his head had been shaved some weeks previously). One of the gentlemen present, who had become familiar with the characters of "nodose hair", called my attention to the appearance of the hairs on the boy's head. Some of them were removed and examined with a lens, when it was at once apparent that we had under observation a similar case to that of Mary M. The hairs presented the characteristic moniliform aspect, as if a number of dark spindle-shaped beads were strung on a thread. Under the microscope, the same alternate swelling and constriction of the medullary substance was perceived; and, in short, the characters of the hairs, as will be seen from the mounted specimens and from the drawing, Fig. 1 *d.*, are essentially the same as those already described. The pigment is scanty, or almost wanting in some specimens, but still the nodes are the darkest portions. In several specimens, irregular, transverse, and longitudinal cracks in the cortex are visible, and some of the broken extremities show a brush-like tuft of fibres. The great majority of the shorter hairs were nodulated, this peculiarity being most marked in the region above the ears. No trace of nodosity was discernible by a lens in the eyebrows or eyelashes.

This case makes the third recorded instance of nodose malformation of the hair; and the question is naturally suggested, whether this condition may not prove to be less uncommon than might be inferred from the silence of writers on cutaneous affections.

MEDICAL MAGISTRATE.—Dr. Gourley, F.R.C.S., of West Hartlepool, has been appointed a justice of the peace for the county of Durham by the Lord-Lieutenant, the Marquis of Londonderry.

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[*] I am indebted to Dr. T. Colcott Fox for specimens of hair infested with the "chignon fungus" (Fig. 3), which Dr. Tilbury Fox held to be identical with *piedra*.

[†] Figured on page 108 of Beigel's work on *The Human Hair* (Renshaw, 1869); and by Dr. Wilks in the *Lancet*, September 7th, 1878.

[‡] Erasmus Wilson named the condition fragilitas crinium (1849), trichoclasia (1870), and clastothrix (1877); Beigel described it under the title "swelling and bursting of the hair" (1855), and Devergie as trichoptilosis (1871).

[§] Etymologically, the term "trichorexis nodosa" would be peculiarly appropriate to the condition described in the cases above, for the hairs are brittle (ῥῆξις), and regularly nodose.

ON THE ALLEGED DANGERS OF INTRA-UTERINE INJECTIONS OF PERCHLORIDE OF IRON IN CASES OF *POST PARTUM* HÆMORRHAGE.*

By FREDERICK POLLARD, M.D.Lond.,
Senior Assistant-Physician to the Liverpool Infirmary for Children; formerly Medical Registrar to St. Thomas's Hospital.

[*Concluded from page 621 of last number.*]

I HAVE now mentioned every case where death has followed the injection of solutions of perchloride of iron into the uterus for primary *post partum* hæmorrhage, and which has been published, or even casually alluded to, in the medical journals or at the obstetrical societies of Great Britain and Ireland in the course of the last ten or twelve years during which this method of treatment has been extensively practised. They may not be all the cases which have occurred, but at all events they afford a sufficient basis for an examination of the questions which I commenced this paper by propounding. I shall therefore proceed to analyse and classify them.

To facilitate reference, I will first tabulate them in the order in which I have reported them, mentioning the author's name, and the way in which they proved fatal.

1.	Dr. Norris	Exhaustion of labour.	Placenta prævia.
2.	"	" "	Convulsions.
3.	Dr. Playfair	Recurrent hæmorrhage.	
4.	Dr. Beck	Puerperal fever.	
5.	"	" "	
6.	"	" "	
7.	Dr. Routh	" "	
8.	Dr. Hewitt	" "	
9.	Dr. Phillips	"Unconnected with the injection."	No particulars.
10.	"	Exhaustion of labour.	Placenta prævia.
11.	Dr. Murray	" "	Injection used too late.
12.	"	" "	" "
13.	"	" "	" "
14.	Dr. Bantock	Pain and shock.	
15.	Dr. Atthill	Puerperal fever.	
16.	Dr. Giles	Peritonitis, pneumonia, etc.	
17.	Dr. Holman	Exhaustion.	Fibroids.
18.	Dr. Madden	Metritis, etc.	
19.	Dr. McClintock	Continuance of hæmorrhage.	
20.	Dr. Ringland	Metritis, etc.	
21.	Dr. Connel	Recurrent hæmorrhage.	
22.	Dr. Simpson	Exhaustion.	Injection used too late.
23.	Mr. Stilwell	Collapse.	No details given.
24.	Mr. Morgan	Recurrent hæmorrhage.	
25.	Mr. Boddy	Shock.	Sudden death.
26.	Dr. Atthill	Exhaustion (case of transfusion).	
27.	Dr. Herman	Recurrent hæmorrhage.	
28.	Dr. Hayes	Continuance of hæmorrhage	
29.	"	Exhaustion of labour.	
30.	Dr. Routh	Recurrent hæmorrhage.	
31.	Rotunda Hospital	Mania.	
32.	" "	Exhaustion.	*Ante partum* hæmorrhage.
33.	" "	Exhaustion.	Convulsions; thrombosis.
34.	Dr. Kidd	Unsuccessful.	No details given.
35.	Dr. Herman	Embolism (?).	Sudden death.

These cases may be easily arranged into several groups. Firstly, there are eight in which the operation was unsuccessful, the hæmorrhage either continuing or recurring. In each of the two in which it continued (19 and 28), the author explains that the operation was not properly performed. In one instance (34), the author simply says the injection failed, and gives no details. In two cases (21 and 30), the patient was already so prostrate that a very slight recurrence of hæmorrhage was sufficient to extinguish life. While in three cases (3, 24, and 27), the perchloride was applied twice or more, but failed to permanently arrest the hæmorrhage. In a case of this kind, I believe the best chance would be afforded, not by repeating the injection, but by swabbing the interior of the uterus with the undiluted strong solution of the perchloride.

Secondly, there are eleven cases (1, 2, 10, 11, 12, 13, 17, 22, 26, 29, 32) in which the reporters state that the perchloride arrested the hæmorrhage, but that the patient was too far gone to rally, and died from exhaustion of the labour and the hæmorrhage, in spite of the injection. In several of them, the reporters express their regret that the operation was deferred until too late. In this group, we may probably include Case 9, about which the late Dr. Phillips merely stated that death was quite unconnected with the injection.

In one case (31), mania set in on the fifth day, and proved fatal on the ninth.

There is one case (23) which it is impossible to classify, owing to the absence of details. It is simply stated that the patient died of collapse after labour and the injection of perchloride. Seeing that the patient was forty-three years old, that it was her first child, and that she had severe *post partum* hæmorrhage, it is scarcely to be wondered at that she did not survive; but what the immediate cause of death was, or whether the iron had anything to do with it, it is impossible to say.*

There now remain fourteen cases in which there may appear to be some *primâ facie* grounds for connecting the fatal result with the use of the iron. They fall into three groups.

In one case (14), the only one of its kind, the operation was followed by severe pain, and death followed seven or eight hours afterwards. In this instance, the injection apparently caused the pain; and the pain, occurring in a patient already exhausted by severe hæmorrhage, was enough to turn the scale against her. In what way the injection produced the pain, whether by a little of the fluid passing along the Fallopian tubes into the peritoneum or not, is uncertain.

In three cases (25, 33, and 35), sudden collapse and death occurred at the time of the operation. The first of these (Mr. Boddy's) has already been sufficiently commented on, and can hardly be held to weigh against this method of treatment when carried out with proper precautions.

In the third also, the reporter (Dr. Herman) himself suggests that the cause of the fatal result was want of proper room for the return of the injected fluid.

As regards the Rotunda Hospital case (33), it is unnecessary to add anything to what Dr. Atthill has remarked, viz., that the injection was postponed too long, until, in fact, the patient was at the point of death. The fact mentioned by the reporter, that after death "there was general thrombosis throughout the entire venous system", can scarcely have been due to the iron, since it could not have been produced in the moment or two which appear to have elapsed between the injection and death. It seems more reasonable to suppose that it was a *post mortem* occurrence.

Lastly, we have ten cases, including the three described by Dr. Beck, in which symptoms of metritis, peritonitis, pyæmia, or septicæmia appeared some days after labour, and terminated fatally. It is a most important question whether these cases can be fairly attributed to the use of the iron injection.

Now, in the first place I would remark that these ten cases of puerperal fever (using the term in a comprehensive sense) are the only ones of the kind out of hundreds of reported instances in which the perchloride has been used, all of which were cases of severe *post partum* hæmorrhage. But *post partum* hæmorrhage is generally allowed to be a powerful predisponent of septicæmia. Therefore, it seems to me that the wonder is, not that ten cases of fatal septicæmia occurred out of these hundreds of cases, but that *only* ten occurred.

Let us look at the matter a little more closely, and ask ourselves in what way the perchloride can be imagined to give rise to these untoward symptoms. Is it by some of the fluid passing through the Fallopian tubes into the peritoneum? In that case, severe pain and fatal shock would probably be the result, or, if not, acute peritonitis would quickly supervene; whereas, in all these cases of septicæmia, we are told that the patient was doing well for three or four days, or even for a week, before unfavourable symptoms set in. Is it by causing coagulation of blood in the uterine sinuses? This, if it spread to the iliac veins, might give rise to phlegmasia dolens, which has occasionally followed the injection, but which does not appear to have been a prominent symptom in the cases of septicæmia which we are considering. Is it by decomposition of clots in the uterine sinuses giving rise to blood-poisoning? We know that clots in veins are not, as a rule, liable to cause septicæmia. Then why should clots which have been produced by the action of so powerful a disinfectant as the perchloride of iron be especially liable to do so? On the contrary, Dr. Connel has shown by experiments that coagula produced by the action of the iron salt are peculiarly aseptic, and resist putrefactive change for an extraordinarily long time (*Edinburgh Medical Journal*, vol. xx, p. 852).

There is one danger, no doubt, viz., that hard coagula within the womb may decompose and set up fever; but this is readily prevented by irrigating the uterus with disinfecting fluids. In illustration of this point, I may refer to a very instructive case related by Dr. Playfair. The patient's life was saved in two successive labours by the use of the perchloride. In the second instance, feverish symptoms appeared on the third day. The uterus was freely and frequently washed out with Condy's fluid; offensive clots came away at intervals for three days, after which the fever subsided and the patient did well (*Obstetrical Journal*, vol. i, p. 92). Dr. Braxton Hicks also refers to a similar case (*Ibid.*, p. 45).

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* Read before the Liverpool Medical Institution, March 1880.

* I have to-day (April 28th) received a letter from Dr. W. Clement Daniel of Epsom, in which he kindly gives me full particulars of Mr. Stilwell's case. Dr. Daniel himself attended the labour, but Mr. Stilwell was called in to assist, and subsequently read a paper on the case. The labour was tedious, and at the end of twenty-four hours the long forceps was applied. Hæmorrhage came on a short time after delivery, and the patient soon became collapsed. The uterus having been emptied of clots, solution of the perchloride was injected, which only partially arrested the bleeding. The injection was used three times, but each time it failed to permanently stop the hæmorrhage, of which the patient died two hours after delivery. She had been in a poor state of health for some time before the confinement, and death appeared to be caused solely by exhaustion. Dr. Daniel adds: "I have used the injection fifteen times in the last twelve years, and with this exception always effectually."

Finally, it can hardly be maintained that the perchloride causes inflammation of the substance of the uterus, which spreads through to the peritoneum. Such a supposition is negatived by the fact that the patients have almost invariably done very well for three or four days, or longer. Moreover, Dr. Atthill, in describing the *post mortem* appearances in one of his cases, where death followed a few hours after the injection, says that "in no place was there the slightest discoloration of the uterine walls subjacent to the mucous membrane, nor any trace of iron in the uterine veins" (*Dublin Journal of Medical Science*, vol. lxiii, p. 584).

It is difficult to see how the perchloride should cause puerperal fever if not in one of these four ways; and I think I have shown that there is no good reason for believing that it would or does do so, unless it be in the way suggested by Drs. Braxton Hicks and Playfair—viz., by decomposition of clots within the uterus; and this is, of course, an occurrence that can be readily prevented.

As regards the other cases in which septicæmia has supervened, it has come on at about the same time and with the same symptoms as puerperal fever commonly does; and I can see no good ground for believing that the injection of iron has had anything to do with its production.

To revert, then, to the questions with which this paper opened: What are the dangers of this operation, and how are they to be avoided?

I have endeavoured to show that puerperal fever is not one of the dangers to be apprehended from the use of the perchloride. But there are two accidents which apparently may be caused by the injection. One is the forcing of some of the fluid along the Fallopian tubes to the peritoneal cavity, causing severe pain and fatal shock, which probably (though not certainly) occurred in one reported case (Dr. Bantock's). The other is the entrance of the ferruginous solution into the uterine veins, causing phlegmasia dolens, or even giving rise to cardiac or pulmonary embolism and sudden death. This accident may have been the cause of death in three of the cases I have described; but there is no doubt that it can with almost complete certainty be avoided; firstly, by being most careful to keep open the cervix with the fingers, so as to allow the free egress of the fluid injected; secondly, by injecting very slowly and gently, allowing the solution to trickle down the sides of the uterus, and by avoiding all unnecessary force. To attain this end, it is desirable to employ a delivery-tube, which, instead of having one large terminal aperture, has a number of small lateral ones, so as to send a coarse spray rather than a full stream against the interior of the uterus; and attention to these precautions will probably reduce the risks of the operation to a minimum.

But even if these dangers were greater than they are, we should not, in my opinion, be justified in giving up the operation altogether. It has undoubtedly saved many lives which were fast ebbing away, when nothing else would stay the perilous flux. If we are to discard every operation which is itself sometimes fatal, what would become of ovariotomy, lithotomy, or amputation of the breast? A woman flooding to death is in far more immediate peril than are those for whom the operations just named are performed. Then why should she be denied a remedy, which has saved many women's lives, all other means having failed, because it may not be absolutely free from danger? For my own part, I believe that every practitioner ought to carry this, or some equally efficient styptic (if such there be), to every case of midwifery to which he is summoned. This conviction has been forced upon me by the perusal of some of those terrible cases where life has rapidly ebbed away before there was time to fetch any assistance, or any remedies beyond what the attendant had with him. Take such a case as this. Dr. Brisbane reports that he had used the perchloride in several cases with excellent effect; but, not having had a case of hæmorrhage for some time, he had given up carrying it with him as a matter of routine. He was called to a case in the night. Terrific hæmorrhage followed. He did all he could to arrest it, and sent for some perchloride, but before it could be fetched the patient was dead, within half an hour of the birth of the child. Dr. Brisbane says, with reason, that, if he had had the perchloride with him, it is almost certain that the patient's life would have been saved (*Lancet*, 1877, vol. ii, p. 277). Here is another case. Mr. T. E. Williams says: "Two years ago, I was just in time to save a young woman with the perchloride—a primipara—at whose birth her mother had flooded to death. When I was in London last spring, she was again taken in labour. The gentleman in charge of my practice was prejudiced against the use of perchloride of iron. Every routine remedy was used, but in four hours after the birth of the child the mother was a corpse" (*Obstetrical Journal*, vol. i, p. 595).

Dr. Lombe Atthill narrates a case to the same effect. He says: "I have lost at least one patient of *post partum* hæmorrhage, whose bedside I never left from the termination of the first stage of labour till death ensued.........In her case, I exhausted all the ordinary methods employed for the arrest of hæmorrhage, but my patient died before my eyes.........I regret to say, I did not inject the perchloride of iron" (*Dublin Journal of Medical Science*, vol. lvii, p. 347). He goes on to explain that it was not long after Dr. Barnes had brought forward this method of treatment, and that he (Dr. Atthill) was afraid of it. This timidity he blames for the loss of his patient.

My own experience of the operation, though not extensive, has been altogether favourable. I have used it in cases where injections both of hot water and of vinegar have failed, and where to all appearance the patients would inevitably have died without the iron.

In conclusion, then, I believe that there are some cases of *post partum* hæmorrhage of so intractable a character that the injection of a solution of the perchloride of iron into the uterus affords the only chance of saving the patient's life; and for this reason I consider that, of all the numerous benefits which my respected teacher Dr. Barnes has conferred upon obstetric science and practice, not the least important is the introduction of the method of treatment whose alleged dangers I have in this paper endeavoured to estimate.

THERAPEUTIC MEMORANDA.

COMBINATIONS OF GLYCERINE AND BORAX.

WITH reference to Mr. Fred. Long's note in the JOURNAL for April 10th, respecting the joint action of borax, glycerine, and the sodic carbonates, I recollect having my attention drawn to a letter in one of the medical journals in the summer of 1873 from a practitioner, who detailed the untoward results of combining sodic carbonate with the glycerine of borax, and who asked for an explanation of the explosive action. No explanation was forthcoming at the time, but anyone who chooses to repeat the few experiments which I was induced to undertake, will find the following results.

1. If pure neutral glycerine be added to pure borax or to a solution of this salt in water, the mixture becomes distinctly acid to test-paper; and the presence of free boric acid is now revealed by appropriate tests (*e.g.*, *teste* the glycerine of borax *B. P.*).

2. When the carbonate or bicarbonate of soda is added to such a mixture as the one last mentioned, a distinct effervescence takes place, the free boric acid ousting the carbon dioxide from the sodic carbonate, and combining with the base to form borax again, while the carbonic acid gas escapes in effervescence.

It is remarkable that, while glycerine—or rather glyceric acid—at once displaces boric acid from its sodium compound, its energy of combination with the metal is less even than that of the weak carbonic acid; for, as Mr. Long correctly states, no action occurs when glycerine only is added to the sodium carbonates. The behaviour of the glycerines and their compounds presents several points of interest not yet thoroughly worked out; and in practice it is at least worth while to remember, first, that the so-called glycerine of borax is not a simple mixture of the two bodies named, but contains a glycerate of sodium and free boric acid; second, the consequences which may naturally be looked for if a weak carbonate be brought into chemical contact with such a mixture containing a more powerful free acid.

CHAS. EDWD. SHELLY, B.A., M.B. (Cantab.), Hertford.

PANCREATIC GLYCERINE.

BY way of postscript to my paper in a recent number, I wish to modify two of my statements. At the time I wrote, I did not know that there was a glycerine of pancreatine in the market; but Mr. Benger has since sent me a sample—which is, I find, satisfactorily active, although made some time ago—of a "pancreatic glycerine", manufactured by the firm of Mottershead at Dr. Roberts's suggestion, and shown amongst the Materia Medica exhibits at the Association meeting at Manchester in 1876. Why it has been superseded in Dr. Roberts's estimation by the "liquor pancreaticus" I do not know, save that adults dislike its sweet taste. I intend to give it a trial in children's diseases.

Mr. Benger further says I described his *liquor pancreaticus* as "bitterish" in taste: if so, this was a *lapsus calami*, purely inadvertent. I did not write with Mr. Benger's two liquors—peptic and pancreatic—before me, and I meant to say that the "liquor *pepticus*" sample sent to me had a slight bitterish taste. That has, not the pancreatic liquor; but possibly what I have left of it has not kept very well.

In conclusion, I would add that further inquiry shows that the use of pancreatine and pepsine for pre-peptonisation of foods, can scarcely be called original, either on the part of Dr. Roberts or of myself. I have learnt that my idea was one unconsciously assimilated or borrowed from Dr. Horace Dobell's work on *Diet and Regimen*, at page 144 of which (fourth edition, published in 1870) a formula for milk and pancreatine is to be found. In the sixth edition (1875), is another recipe for a "special nutritive", consisting of pancreatine, hot milk, arrowroot, egg, etc. This and other formulæ will be found repeated in Dr. Dobell's work on *Loss of Weight* (1878). Lastly, in 1867, Messrs. Savory and Moore made a "pancreatic cocoa"—a pre-peptonised aliment for invalids. The only originality, therefore, in the administration of warm milk with pancreatic liquor consists in the suggested addition of soda bicarbonate: this addition is the point at issue, and is, as I contend, a mistake.

F. Arnold Lees, L.R.C.P.Lond.

OBSTETRIC MEMORANDA.

NOTES OF A CASE OF SUDDEN DEATH FROM ACCIDENTAL HÆMORRHAGE.

Ann Maria C——, aged 29, was expecting her fourth confinement in two or three weeks. On Friday evening, April 16th, she was hanging her bedroom window-blind (about half-past eight o'clock), to do which she had opened the window a little way to stand upon the window-frame. Whilst reaching up, her feet slipped, and she fell with one leg outside and the other inside the bedroom, and then into the room. She immediately began to flood. Her husband came in shortly afterwards, and at once fetched a neighbour, and then ran to my house. I was out; as also was my assistant. He came to us, and we both immediately went to the case; my assistant arriving about two minutes before me, having run all the way. When I arrived, I found the floor covered with blood, evidently diluted with the liquor amnii; the patient quite pulseless, and in an advanced state of collapse. My assistant administered stimulants, whilst I plugged the vagina, after digital examination and finding the os firmly closed. Having done this (which stopped all bleeding), we carefully removed the patient to a thick hearthrug (being careful to keep the horizontal position), and covered her up with blankets, still persevering with stimulants. She quickly sank, however, and died about 9.40, fifteen or twenty minutes after my arrival, and little more than an hour after the accident. I then carefully listened over the abdomen, but could hear nothing of the fœtal heart, and consequently concluded that the child was dead. I went direct to the police-office and gave the case into the hands of the officer in charge, who made full inquiries of everyone present (eight or nine women, who had had large families), and reported to the coroner, who gave an order for burial. Being perfectly satisfied with the conduct of the whole case, he did not consider an inquest necessary. Unfortunately, there was no necropsy. Had there been, I have no doubt the placenta would have been found detached, which would account for all the symptoms described; also for the previous death of the child.

W. J. Smith, L.R.C.S., L.R.C.P.Ed., L.S.A., Rotherham.

SURGICAL MEMORANDA.

PLUGGING THE POSTERIOR NARES.

The mode of plugging the posterior nares which I have employed for the last ten years seems to me to be so much simpler and more readily performed than that of Dr. J. M. Spear, recorded in the Journal of the 10th instant, that I am induced to bring it under notice. I attach a piece of strong ligature silk to a small pledget of lint, which I push along the floor of the nose by means of a female catheter or other blunt instrument; then, compressing the opposite nostril, I direct the patient to make a strong inspiration, by which the pledget is drawn into the pharynx and as quickly hawked into the mouth, after which I proceed in the usual manner. I have frequently had occasion to resort to this method, and with invariable success.

Charles Davidson, F.R.C.S.Ed., L.K.Q.C.P.I.,
29, Cassland Road, Hackney.

Bequests.—The late Mr. Thomas Wigley of Timberhurst, Lancashire, has bequeathed sums of £10,000 each to the Owens College, the Manchester General Hospital for Sick Children, the Royal Albert Asylum, Lancaster, and the Bury Dispensary.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

THREE CASES OF PLEURITIC EFFUSION TREATED WITH JABORANDI.

(Under the care of Joseph W. Hunt, M.D.Lond., Physician to the Hospital.)

In the first and the second of the following cases, jaborandi was not prescribed till more usual remedies had failed to get rid of the fluid remaining in the pleura after aspiration, and there could be no doubt that absorption was materially hastened by its use. In the third case, the treatment consisted in the administration of jaborandi from the first, and therefore the results cannot be so conclusive. From its well known action on the skin, and from the beneficial results obtained by the use of less powerful diaphoretics, there is every reason to give this drug a fair trial. Its mode of action is obvious. Diminishing the watery contents of the blood-vessels, it causes an absorption of fluids from the tissues and the cavities of the body, and in fact it is more than probable that the vessels in such cases take up more than is secreted through the skin. A proof of this is given by the enumeration of the red corpuscles of the blood by means of Dr. Gowers's hæmacytometer. For, if the diaphoresis simply caused a transudation from the blood-vessels, and no more, it follows that the number of corpuscles in a given quantity of blood would be increased, or, if a quantity of fluid were absorbed equal to that secreted through the skin, then the corpuscular richness of the blood would remain much as before; while if, as proves to be the case, more fluid is absorbed than escapes as sweat, the number of corpuscles in the given quantity of blood would be proportionately diminished. A patient suffering from some simple disease was examined, and his blood found to contain slightly above the average normal amount of red corpuscles, or 104 per cent. Thereupon, a dose of jaborandi (ʒi of the liquid extract) was administered, producing a considerable amount of diaphoresis. At the end of an hour, the corpuscular richness of the blood had sunk to 94 per cent. The dose was then repeated, and at the end of the second hour the corpuscles numbered about 90 per cent. At this time, both the salivation and the diaphoresis were very profuse. The dose was again repeated, and at the end of the third hour the percentage of corpuscles had still further sunk to about 85 per cent. In other words, three drachms of the liquid extract of jaborandi, given in divided doses, reduced the corpuscular richness of a given quantity of blood nearly 20 per cent.

Case i.—H. A., aged 30, labourer, was admitted August 20th, 1878, with his right pleura filled with fluid. The back was dull from top to bottom, vocal fremitus was absent, and the circumference one inch greater than that of the left side. Both heart and liver were much displaced. There was dyspnœa, much increased by exertion. Temperature 101.2°; pulse 82; respiration 36. The commencing rigor dated about three weeks before admission. He was aspirated at once, and seventy-four ounces of serum drawn off with marked relief to the dyspnœa. After the aspiration, the physical signs showed the presence of fluid extending nearly to the angle of the scapula. The following was the treatment pursued. On August 20th, he had an ounce of perchloride of iron mixture three times a-day. On the 23rd, iodine was ordered to be applied to the side every other morning. On August 25th, he was ordered the following draught three times daily. ℞ Potassii iodidi gr. v; potassæ acetatis gr. xxx; decocti scoparii ℥iss. On August 29th, the last mixture was repeated every four hours. No marked change taking place under this treatment in the physical signs, on September 5th, a fortnight after aspiration, he was ordered a drachm of extract of jaborandi three times a-day; and three days afterwards, it was administered every four hours; and on September 12th, the dose increased to a drachm and a half. Soon after this treatment was commenced, the fluid began to diminish, and by September 13th the improvement was most manifest. When he was discharged, cured, September 28th, there was still some dulness at the base; but an aspirator-needle being passed in afterwards, when he was an out-patient, proved it to be due to merely thickened pleura.

Case ii.—T. T., aged 32, puddler, was admitted March 1st, 1879. Though complaining of pain in his chest for eight or nine weeks, he had continued his work till eight days before admission. There were absolute dulness and absent fremitus as high as the angle of the scapula, and both fremitus and percussion were impaired over the rest of the back. There were copious night sweats. Expectoration was mucous and abundant. Temperature 102° in morning and 103° at night; pulse 88; respiration 36. A saline diaphoretic mixture was ordered and continued till March 9th, without producing any improvement, so that at this date he was aspirated, with the fear that pus would be drawn off. This was not the case, and thirty ounces of serum were removed. After the aspiration, the following was his condition. Percussion was modified below the middle interscapular region, and very poor below the angle of the scapula, but absolute dulness did not commence till as low as the tenth rib. Breath-sounds were audible throughout, but very weak below the angle of the scapula. Vocal fremitus was excessive above the middle of the interscapular region, but deficient below. He was ordered the following three times a-day. ℞ Potassii iodidi gr. x; tincturæ digitalis ♏x; decocti scoparii ℥j. As there was no improvement in the physical signs, he was ordered, on March 26th, a drachm of extract of jaborandi every three hours. On March 31st, the following note was made. "Sweats profusely for about twenty minutes after taking the jaborandi, and this continues for about an hour. A little salivation. No suprapubic pain. Urine not altered appreciably in amount. Physical signs much improved, dulness commencing at upper border of eleventh rib, and vocal fremitus marked to very base. Breath sounds weak, but audible to about tenth interspace." On April 3rd, there being no abnormal physical signs beyond what a thickened pleura could account for, the jaborandi was stopped, and perchloride of iron substituted. He was discharged April 15th, cured.

CASE III.—B. J., aged 24, was admitted February 27th. He was first seen as an out-patient, and the effusion, then slight in amount, diagnosed ten days before admission. On admission, there was dulness below the angle of the scapula, with absent vocal fremitus and very weak breath-sounds. On March 1st, he was ordered half a drachm of extract of jaborandi every six hours; on March 2nd, the same dose was given every four hours; on March 4th, every two hours; and on March 6th, a double dose was given every two hours. Under this treatment, the patient improved considerably. On March 10th, friction was heard at the base posteriorly, and on March 14th, the following note was made. "Dulness commences at tenth space; vocal fremitus felt all over the back, and well marked". On March 12th, he was ordered an ounce of tincture of perchloride of iron three times a day, and iodine was applied to the side, and the jaborandi discontinued. He was discharged, cured, on April 1st.

These three patients bore the administration of the jaborandi well, and one was found to increase in weight while sweating profusely under its influence. With the exception of the profuse diaphoresis and the salivation, there were no inconveniences attending its administration. No suprapubic pain was noted in either case. No results were obtained till profuse diaphoresis was excited.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.

COMPOUND AND COMMINUTED FRACTURE OF HUMERUS.

(Under the care of Mr. ROBINSON.)

FOR the notes of this case, we are indebted to Mr. WHITE, House-Surgeon.

Compound and Comminuted Fracture of Humerus: Extensive Destruction of Skin and Muscle: Death of Bone: Removal of an inch and a half of the Humerus: Apposition of the Sawn Ends: Complete Recovery.—William H., aged 24, a labourer in a dye-works, whilst at work on May 5th, 1877, had his right sleeve caught by a shaft, and his arm dragged swiftly round. He was immediately brought to the infirmary. There was a torn wound in the front of the right arm, immediately below the middle line. The lower fractured end of the broken bone projected through the wound. The bone was comminuted. One small piece was removed; another and larger piece was felt at the back of the wound, but was too firmly adherent to the soft parts to be safely taken out at the time. The skin and soft parts, both in front and behind, as low down as the elbow, were bruised and injured by the friction and heat caused by the nature of the accident. Extension brought the fractured ends into better position. A constant stream of cold water was directed upon the part to keep down the tumefaction. On the second day, the swelling and inflammatory condition were sufficiently serious to suggest the advisability of amputation at the shoulder-joint; but the continued perseverance in the cooling influence of the stream of cold water reduced the temperature and removed the urgent symptoms. The skin and soft parts sloughed away, their removal being hastened by solid chloride of zinc and the knife. The extensive raw surfaces, before and behind, interfered considerably with the fixing of the limb. The two fractured ends were found to be dead, and it was decided to remove them with the saw, and to bring the two new living ends together, and retain them in apposition by silver wire. The upper and lower portions were cut off, and a large comminuted piece was then separated and removed. Holes were bored for the silver wire, the two ends were brought together, and the wire tightened and twisted. In consequence of the extensive raw surface interfering with the fixing of the limb in splints, the man had to be kept in bed. Carbolic oil dressings were used. Union took place, and the wire was removed. A small shell of bone came off at the lower end, either on account of injury to the periosteum by the saw, or from too small a portion being removed. Just before the man was about to be discharged, he fell on the slippery flags, and broke the arm at the place of union. The fracture was compound. Union again took place without any untoward symptom, and the patient was dismissed in February 1878.

In May 1879, notwithstanding the extensive destruction of the belly of the biceps muscle, extension and reflexion were nearly equal to those of the left arm. The destruction of bone might be owing to the fact that the nutritious artery entered the bone immediately above, if not in, the fractured portion, thereby depriving the parts below of nourishment. The case illustrates the great recuperative power of bony tissue so long as the nervous and vascular supplies to the limb are intact, and the valuable influence of a stream of cold water in preventing destructive inflammation.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 27TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

REMARKABLE MALFORMATION OF THE CHEST, SPINAL COLUMN, AND LEFT SCAPULA. BY ALFRED WILLETT, F.R.C.S., AND W. J. WALSHAM, F.R.C.S.

IN this paper, the authors give an account of the dissection of the parts removed after death from the body of a woman, the subject of congenital malformation of the spinal column, bony thorax, and left scapular arch; and made some remarks on the probable nature of the defects in development producing the deformities. The following particulars were given of the woman from whom the specimen of deformed thorax was taken. The curvature of the spine had existed since birth. She was a woman of average height, and, until uncovered, did not present any noticeable deformity. She had given birth to a healthy child. Her mother had a curvature of the spine. During physical examination of the chest, an immobility of the scapula had attracted attention, and on this account she was referred to Mr. Willett. The immobility of the scapula was found to be due to its union, through the medium of a broad bridge of bone, with the lower cervical vertebræ. Extremely wide intercostal spaces were noticed, the impulse of the heart's apex being widely diffused and abnormally distinct, as if transmitted through attenuated structures. She was the subject of mitral disease, and died of cardiac dropsy in her thirty-first year. Casts of the deformity taken during life were presented for inspection. The portion of the spinal column preserved deviated from the natural condition in the following particulars. 1. Not only had it lost the posterior convexity, but it had, if anything, a slight anterior curve; 2. There was a sharp lateral curve with the convexity to the left in the upper dorsal region, corresponding to the absence of the right half of the third dorsal vertebra; 3. There was a longer and slighter compensatory curve in the lower dorsal region; 4. Four and a half of the dorsal vertebræ were missing. The distortion of the thorax corresponded generally to the altered line of the spine. There were five ribs missing on the right, and four on the left, side of the chest. The intercostal spaces were abnormally wide. The sternum lay obliquely across the middle line, pointing in its long axis forwards, and from right to left; its upper end was only three-quarters of an inch from the spine, its lower end three inches, instead of two and nine inches respectively. The cavity of the thorax was diminished in all its diameters, especially in the antero-posterior in the middle line; whilst this measurement was markedly less on the right side than on the left. The abnormal shape of the thorax in transverse section was well seen in the diagrams made by the aid of Dr. Gee's cyrtometer. The left clavicle deviated notably from the normal; its general direction from the sternum was upwards, forwards, and outwards. It had also a single posterior curve throughout its entire length. The left scapula presented a most remarkable deformity. There was a broad bridge of bone, extending from the middle third of the posterior border of this bone backwards and upwards to the lamina and spinous process of the sixth cervical vertebra. The transverse axis of the scapula was elongated, whilst the vertical was shortened; and the bone appeared rotated forwards, so that the glenoid cavity looked nearly directly forwards, whilst the plane of it was nearly an inch in front of the left sterno-clavicular articulation. The upper border and spine, instead of being directed nearly horizontally outwards from the base, sloped downwards and forwards as well as outwards. Next followed a detailed description of the malformations of the various bones, and an account of the dissection of the soft parts connected with them. In commenting on the probable nature of the defects in development producing the deformities, the authors remarked that the absence of the right half of what appeared to be the third dorsal vertebra was the cause of the curvature of the spine. The absence of half a vertebra had generally been ascribed to defects in the process of ossification. The authors thought the absence to be due to changes occurring at an earlier period of development, probably at the time of the primary segmentation of the mesoblastic elements into the proto-vertebræ. They brought forward several arguments in support of this theory, and referred to many specimens in the Museum of the Royal College of Surgeons, St. Bartholomew's and Guy's Hospitals, presenting similar deformities, which, they thought, lent support to their view. The bridge-like portion of bone connecting the spine with the scapula was the chief feature of interest in the specimen. The authors suggested several theories to account for its presence. They classified them under three heads, according as they were based upon one or other of the following hypotheses. 1. The bone was formed in connection with the vertebræ, and afterwards became ankylosed to the scapula. 2. It was originally a scapular element, and secondarily became fused with the spine. 3. It was formed independently both of the spine and of the scapula. On the first hypothesis, the bone might be: 1. an outgrowth of the spinous process or of its epiphysis; or, 2. an over-development of one of the lateral backward projecting processes, called hyperapophyses, developed near the extremity of the spinous process. On the second hypothesis, it might be, 3. an overgrowth of the epiphysis at the posterior border of the scapula; in other words, a suprascapular bone. The scapular arch consequently presented an example of a reversion to a lower type, viz., that of the skate or the frog tribe. On the third hypothesis, it might be, 4. an ossification of one of the intermuscular planes of connective tissue stretching between the spine and the scapula; or, 5. a rudimentary scapula, explainable on the theory that the embryo was originally cleft; and that, by atrophy and by fusion with the other half, one half had disappeared, with the exception of the scapula, which remained as the bridge of bone. The authors at some length discussed the arguments for and against these various theories; that which supposed the bone to be suprascapular they considered the most probable.

Mr. GRESSWELL believed that the bone superadded to the scapula was a suprascapular element. The idea that it was a part of suppressed fœtus was interesting; but if it were so, we might expect that it would not be the only portion.

COMPOUND FRACTURE OF THE FEMUR, TWENTY YEARS AFTER EXCISION OF THE KNEE-JOINT, FOR DISEASE, THE LINE OF FRACTURE BEING TRANSVERSELY ONE INCH ABOVE THE BONY UNION.

BY FREDERICK J. GANT, F.R.C.S.

In considering excision of the knee-joint, for disease, as an operation having in view the preservation of an useful limb, Mr. Gant said that success could only be attained by complete synostosis or bony union of the femur and tibia; and, as a similar result might be produced by osseous ankylosis, from the natural cure of the disease, this was the true ground for comparison in estimating the result of excision. The comparative merits of bony union and ossific ankylosis must have regard to the functional utility of the limb, for the twofold purpose of support and progression; taking into account also the relative duration of the processes of cure, and the risk to life. On the other hand, the practical importance was urged, of entirely dissociating joint-excision from amputation of a limb, as alternative procedures; and the conditions were specified under which either operation became justifiable in the career of joint-disease, having reference principally to the constitutional health of the patient, requisite to undergo the different periods of recovery after operation. The chief features of the case related were as follows. A woman, aged 33, admitted into the Royal Free Hospital on September 12th 1859, had chronic synovitis of the right knee-joint, arising from injury. The duration of the disease was six years; ulceration of the articular cartilages had ensued, with caries of the adjoining portions of bone, and malposition of the leg backwards towards the buttock, thus rendering the limb functionally useless. The constitutional condition, however, was not that of advanced hectic, but one of nervous exhaustion. Excision of the joint resulted in firm osseous union, in the unusually short period of two months. A thoroughly useful limb continued for twenty years, during which period the woman often walked several miles in a day, without any artificial help. She then fell downstairs, and broke the femur one inch above the union, the integument being torn open to the extent of some inches across. From the shock of this severe compound fracture, and the collapse due to rather copious hæmorrhage, although without injury to the popliteal artery, the patient never rallied. Section showed complete synostosis of the femur and tibia; the bones were fused together, the line of junction being imperceptible. It resisted the extreme violence, aided by the leverage of the leg, which broke the femur across just above the union. Whether ankylosis would have withstood the same amount of force might be doubted.

Mr. HOLMES said that excision of the knee-joint was originally advocated by Sir William Fergusson and the surgeons of his time as a substitute for amputation. But Mr. Gant appeared to consider it applicable only to cases where natural cure was possible. If this were the correct view, the operation would become still more restricted than it was. He believed that it had been at first over-estimated, and that it had now fallen into undeserved desuetude, being less frequently performed than it was ten or fifteen years ago. He had performed excision as a substitute for amputation in many cases with good success.—Mr. GANT had at first regarded excision of the knee as a substitute for amputation; but he had for some years changed his view, and now regarded it as an alternative for leaving the limb to itself, so long as the patient retained strength enough to undergo excision, if this should become necessary. Later on, when amputation was the only course, excision was out of the question.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 7TH, 1880.

Sir JOSEPH FAYRER, K.C.S.I., M.D., F.R.S., President, in the Chair.

Statistical Indications of a Relationship between Scarlatina, Puerperal Fever, Erysipelas, and certain other Diseases.—Dr. G. B. LONGSTAFF read a paper on this subject, in which he described an application of the graphic method to the statistics of the causes of deaths in England and Wales published in the annual reports of the Registrar-General. He stated that by representing the death-rates as curves, and comparing together the annual fluctuations of these curves, he had been led to divide the causes of death in this country into four groups: 1. The diarrhœal group, being directly related to the heat of the summer; 2. The bronchitic group, having a similar relation to the cold of winter; 3. The scarlatinal group; 4. A provisional group, comprising all the other causes of death not at present known to be much influenced by meteorological conditions. A large diagram was exhibited, showing the death-rates from pyæmia, puerperal fever, erysipelas, scarlatina, laryngitis, croup, diphtheria, cynanche maligna, quinsy, and "rheumatism with disease of heart or pericardium", all graphically represented by variously coloured curves. All these curves exhibited more or less marked indications of four periods of epidemic fatality, separated by periods of comparative quiescence; but some of the elevations were more marked in one curve, some in another. The curves of puerperal fever and erysipelas appeared to be almost identical, and those of croup and diphtheria were also very closely allied. The diagram showed the varied headings under which deaths from diphtheria were returned in the country at the commencement of the great epidemic of 1858-9. The curve of rheumatic fever was also closely related to that of erysipelas—a point reserved for further investigation. Dr. C. Minor, in the United States, had called attention (in 1874) to the close connection between erysipelas and puerperal fever; and Dr. Longstaff's examination of the fatality of these diseases in the eleven registration districts of England and Wales, for the last twenty-five years, furnished a strong confirmation of his results. In order to approach this subject from another point of view, a diagram was shown (copied by permission from a paper, by Messrs. Buchan and Mitchell, in the *Scottish Meteorological Journal*), in which were given the mean weekly deaths in London from the same diseases for thirty years. The results gained by a comparison of the curves in this diagram, on the whole, confirmed the results obtained by the reader of the paper, and indicated in the diagram first referred to. Laryngitis and (to a less degree) scarlatina were exceptions. But, again, puerperal fever and erysipelas closely resembled one another, as did diphtheria and croup. The amount of rain in each year, as well as the number of rainy days, seemed to be closely related to all the diseases under consideration—but in an inverse manner. The relative dryness or wetness of different seasons of the year showed no very apparent connection with the fatality from diseases of the scarlatinal group; but a year, on the whole wet, almost invariably corresponded with low mortality from several or all of the members of the group; whereas, in very dry years, epidemics of these diseases occurred—the notable fact being that the same rule did not apply to small-pox, measles, whooping-cough, or typhoid fever. The explanation would appear to be that rain acted as a purifier of the air, washing the poison out of it, though it was not apparent why it only removed certain poisons. In the opinion of the reader of the paper, the facts brought forward suggested that the poisons of puerperal fever and erysipelas, as also those of diphtheria and croup, were identical; and that the multiplication of species, in the classification of disease, should be avoided as far as possible.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

Wednesday, March 10th, 1880.

John Wood, F.R.C.S., F.R.S., President of the Branch, in the Chair.

The Treatment of Fractured Vertebræ.—Mr. E. Noble Smith read a paper on this subject. From observing many cases of fractured vertebræ and studying the records of others, he had been induced to propose a more active mode of treatment than that usually adopted. When the injury was sufficiently severe to rupture the cord, no surgical skill could effect a cure; but, when the cord was not badly injured, and the patient lived for weeks or months, he questioned whether it was right to leave the patient to an almost certain death, or at least to a life of continued paralysis, by adopting merely a treatment of expectancy. Having quoted several recorded cases, he stated that the opinion he had formed with regard to these cases was that, if the body of the injured vertebra should be broken in its entirety, so that, after reduction, a continuance of extension would have to be kept up, then any attempt at reduction would fail to do good; but if, as most usually happened, the fracture were confined to the articular processes and the anterior portion of the vertebræ, then, by extending and straightening the spine, the fracture might be reduced, and, by maintaining the spine in a straight position by means of a spinal support well moulded to the back, a better chance of recovery would be afforded to the patient than by the ordinary treatment.—The President said that, in these cases, a water-bed had generally to be used to prevent bed-sores, and the treatment by splints would interfere with this. It was for the same class of cases he had proposed treatment by double extension by weights attached to both legs, while the patient was placed on an inclined plane. This relieved pain, and did not give rise to bed-sores. He would deprecate any sudden pull after an accident, which would be dangerous, but gentle and steady extension would straighten out the spine. On two things he would lay special stress: there should be no rough usage, and no hard splints or plaster-of-Paris bandage should be applied.

Causes of occasional High Temperature after Aseptic Ovariotomy.—Mr. Knowsley Thornton read this paper. He thought the term aseptic preferable to antiseptic, the latter indicating the means used, the former the actual result of properly using them. He believed that Listerism faithfully carried out in every detail enabled the surgeon to perform operations aseptically—always provided that he had aseptic cases on which to operate. Comparing the results obtained in his own practice of ovariotomy before and after the adoption of Lister's method, he found that his increased success, since he began to use Listerism, was out of all proportion both to his previous improvement and to that of the leading ovariotomists here and in America who did not use it. An analysis of the temperature-charts of all his cases done before, and of fifty done since, the adoption of Listerism, was then given; and among the occasional causes of high temperature were shown to be reaction, nervous temperament, metrostaxis from irritation of ovarian nerves, and nerve-tension from too tight ligature of the pedicle. The more serious causes were congestion of the kidneys, deranged circulation from removal of a large tumour with little hæmorrhage, local peritonitis, sweat rash, and failure in perfect aseptic operation.—Mr. Nelson Hardy said the paper was an important contribution to the discussion on antiseptic surgery. He demurred to the introduction of the term aseptic. If, in addition to "antiseptic surgery" and "Listerism", "aseptic surgery" were added, confusion would result. Looking upon the antiseptic system as destined to become the surgery of the future, and remembering that it was now being studied by scientific surgeons in all parts of the world, he thought it more convenient to adhere to the present title.

MANCHESTER MEDICAL SOCIETY.

April 7th, 1880.

David Little, M.D., President, in the Chair.

Clonic Spasm of the Left Sterno-Mastoid.—Dr. Wahltuch showed a boy aged 11, who when four years old had whooping-cough and an accidental fall; subsequently, for three years, epileptic fits; and for two years suffered from frequent twitchings of the head to the left. Since his fall, he suffered from pain in the left parietal region and general dulness. Since January, he had been under treatment with bromide of potassium. The twitchings were becoming less frequent; but the headache persisted.

Case of Suspected Brain-Tumour of Syphilitic Nature.—Dr. Wahltuch showed a boy aged 8, suffering for two years from staggering gait, double deafness and double optic neuritis, with atrophy of the optic nerves. Under treatment from April to July 1879 with perchloride of mercury and iodide of potassium, he gradually improved and ceased attendance, but returned for further treatment in March 1880, owing to increased deafness, whilst the ophthalmic symptoms and gait considerably improved.

Congenital Paralysis.—Dr. Ross showed the case of a girl aged 17, who suffered from congenital paralysis of all the muscles of the upper extremities. The flexors of the feet on the legs were also paralysed in both the lower extremities. There was complete loss of both faradic and galvanic contractility in all the paralysed muscles. The girl presented no mental deficiency; she went to school, and had acquired the power of writing very quickly and plainly, while holding the pen between the toes of the left foot or in the mouth. The paralysis in this case did not correspond with that which occurred in unilateral atrophy of the central convolutions of the brain, but was much more like infantile paralysis, although the mother was positive that the four extremities were paralysed at birth.

Misplaced Testicle.—Mr. Cullingworth showed a child ten weeks old, in whom the left testicle had escaped behind the scrotum into the perinæum, where it formed a small prominence. There was no lack of symmetry in the outward appearance of the two sides of the scrotum, and the right testicle had descended into its normal position. The left testicle was found immediately after the child's birth in the position it now occupied; viz., midway between the scrotum and anus, on the left side of the raphé. It was of equal size with its fellow, and perfectly movable. The child was in good health, and in all other respects appeared particularly well formed.

Tuberculous Testicle.—Mr. Jones showed a specimen of tuberculous testicle taken from a child fifteen months old, who also suffered from disease of the cervical vertebra. Four weeks prior to removal, a swelling was observed in the left scrotum. This tumour grew rapidly, and became elastic to the touch, causing thinning of the skin. The cord was only slightly enlarged. On removal, the body of the testicle was found to be extensively diseased. The epididymis, however, was free from disease; there was no nodulation; and the scrotal veins were enlarged. Mr. Jones remarked on the rarity of the disease in young children.

Accident with a Wire Pessary.—Dr. Thorburn related the particulars of a case where a metallic ring-pessary, with wire stem and outward support, had been used in a case of prolapsus uteri. The cervix, passing through the pessary, had become strangulated and swollen to the size of a small orange. Great difficulty had been experienced in reaching and cutting through the strangulating metallic band. Dr. Thorburn, although he never used this particular form of pessary himself, would not have feared the results which actually ensued, and considered the case valuable as a warning.

Dilated Heart.—Dr. Ashby showed the heart of a girl aged 12, in which all the cavities were dilated: a result apparently secondary to retarded development of the aorta. The child had never had rheumatism or chorea, and had suffered from short breath and weakness for four years. The heart weighed twenty-two ounces. The aortic valves were healthy, and the opening would just admit the end of the index finger. The aorta and large vessels corresponded in size with that of a boy aged 3. The left ventricle was dilated and hypertrophied; the mitral valves had a few recent beads on their edges; and the mitral orifice was sufficiently wide to readily admit three fingers. The right side of the heart was also dilated, and the tricuspids had evidently been incompetent during life. During life, there was a loud systolic apex-*bruit*, well heard behind; also heard at the base, but was not so well marked in this situation as at the apex. There was also an adherent pericardium. Apparently, in this case, the aorta had been retarded in its development. The left ventricle had become dilated and hypertrophied, in consequence of the obstruction in the arteries, and had made every effort to supply the wants of the body till dilatation had reached its limits. The girl was not much undersized; the development and growth of her tissues had apparently not been much interfered with, in spite of the narrow aorta and branches. Possibly the adherent pericardium had assisted in producing the dilatation. The pulmonary artery was about the normal size.

Villous Tumour of the Bladder.—Mr. Hardie showed a specimen. The patient was a man about fifty years of age. For more than three years he had suffered from nearly daily hæmaturia, and at length became almost perfectly blanched. This was almost the only symptom of the malady, and the diagnosis was correctly arrived at by the exclusion of other affections. Mr. Hardie contemplated removal of the growth by suprapubic cystotomy—the lips of the incision to be held apart, and a strong light reflected into the interior of the bladder; but the patient declined interference. The growth was situated on the trigone, and was of the size of a hen's egg, being formed of elongated villous processes, like a piece of tufted seaweed.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, MARCH 20TH, 1880.

EDWARD H. BENNETT, M.D., President, in the Chair.

Enteric Fever: Hyperpyrexia, with Cerebral Symptoms.—Dr. J. W. MOORE presented a portion of the ileum from the body of a girl, aged 20, who died on the seventeenth or eighteenth day of an attack of typhoid fever, accompanied by serious cerebral symptoms, and by remarkable hyperpyrexia in the death-agony. The *tache cérébrale* (cerebral macula) was well marked; there were insomnia, subsultus affecting the face and neck as well as the forearms, low muttering delirium, unequal dilatation of the pupils, and coma vigil. Profuse diaphoresis occurred during the last few days of life. Twenty-four hours before death, the temperature rose to 106.4° in the axilla, but was reduced to 104° by means of a cold bath (temperature 70° to 60° Fahr.) and the wet pack. Five minutes before death, the axillary temperature rose to 109.8° Fahr. The brain and its meninges were hyperæmic. A cloudy deposit of lymph lay on the arachnoid membrane in places, and there were some soft stringy clots in the descending cornua of the lateral ventricles. The lower part of the ileum was intensely hyperæmic. Peyer's patches were swollen, and sloughs were beginning to form in those situated near the ileo-cæcal valve. The solitary and the mesenteric glands were enlarged, as was also the spleen.

Cholera Morbus, or Scarlatina Maligna (?)—Dr. C. J. NIXON showed several of the viscera from the body of a boy, aged fourteen years, who died after a short illness, ushered in by weakness, vomiting, and diarrhœa; followed by moderate pyrexia and collapse—the thermometer recorded 101° even during collapse. A remarkable fœtid overpowering odour came from the body. Thirst was very pronounced. There were no cramps. He died in about two days after the first symptoms. Rigor mortis was extreme. Parts of the body were deeply cyanosed, being of a slaty blue colour. There was no effusion into the pericardium; in the pleuræ and peritoneum were traces of a pasty exudation. The lower lobe of the right lung was hepatised. The mucous membrane of the œsophagus was roughened and almost eroded. Through the entire intestinal tract, the solitary glands were enlarged *(psorentérie)*, and Peyer's patches also were very prominent. There was perisplenitis, and the spleen itself was large and soft—in a state of putrilage. The liver was fatty in places, presenting a marbled appearance on the surface. Dr. Nixon observed that the pathological changes noticed resembled remarkably those described by Lebert as found in cholera morbus.—A discussion ensued, in which Dr. J. W. MOORE expressed his opinion that the case was one of scarlatina maligna, while Dr. FINNY regarded it as one of typhoid fever.

SATURDAY, APRIL 10TH, 1880.

EDWARD H. BENNETT, M.D., President, in the Chair.

Luxation of Femur on the Os Pubis.—Mr. WILLIAM STOKES showed a specimen of dislocation of the head of the left femur forwards on the pubes. The patient, a man aged 27, while asleep, fell off the front shaft of a cart in motion, and was in consequence severely injured. The index and middle fingers of the left hand were completely smashed. The left lower limb was everted and enormously abducted. Extensive ecchymosis had occurred; but notwithstanding a prominence in front of the pubes could be detected. Shortening to the amount of about an inch was present. The great trochanter was considerably depressed, a deep hollow marking its usual situation. Delirium, vomiting, sleeplessness, rapid pulse and respiration, with moderately high temperature, now set in, proving the precursors of pneumonia. Reduction was effected by flexing the leg upon the thigh, thus lifting up the head of the femur, then abducting and rotating outwards. The patient unfortunately died suddenly immediately afterwards. There was a hæmorrhagic infarction in the left lung, which was in an early stage of pneumonia. The left femoral vein showed commencing phlebitis. There was a comminuted fracture of the horizontal portion of the ramus of the os pubis; this lesion had been probably caused by the wheel of the cart passing over the pelvis at the time of the accident. The dislocation was that described by Mr. Cadge as luxation under the crural arch upwards and forwards.—In discussing the case from a medical point of view, Dr. HAYDEN said that, bearing in mind the occurrence of phlebitis and of embolic pneumonia, he considered the cause of the sudden death to have been most likely pulmonary embolism.

REVIEWS AND NOTICES.

OCULAR THERAPEUTICS. By L. DE WECKER, Professor of Clinical Ophthalmology, Paris. Translated and edited by LITTON FORBES, M.A., M.D., F.R.G.S., late Clinical Assistant Royal London Ophthalmic Hospital. London: Smith, Elder, and Co. 1879.

THIS volume consists of forty-eight lectures delivered by Professor DE WECKER at his clinique in the Rue du Cherche-Midi, and has been thought by Dr. LITTON FORBES to be worthy of translation into English, as he believes that there is at present in England "ample room for a work like the present". In this we quite agree with him.

Although not equal as a manual to such a book as that of the late lamented Soelberg Wells, nor so comprehensive and exhaustive as that of Mackenzie, it contains that which claims for it a position superior in some ways to either. It surpasses the former in being the results of careful and extensive personal observation, and the latter, inasmuch as the author has been able to avail himself of the great advances in physiology made since Mackenzie's death as a guide to his conclusions on diagnosis and treatment.

The eleven lectures on Diseases of the Eyelids and Conjunctiva contain a concise summary of a subject which presents difficulties to the experienced practitioner as well as to the student.

The details of his method of treatment of an enlarged palpebral aperture may be interesting. They are as follows.

"I gently introduce the index finger of my left hand into the conjunctival sac, and with it and the thumb grasp the internal commissure, inclosing thus within two fingers the external third of the upper and lower lid. This manœuvre is executed with the double object of steadying the parts to be operated on, and more especially of restraining hæmorrhage by compression. With the aid of very fine curved scissors, I next detach the skin from the row of cilia to the inner edge, sparing as much as possible the orifices of the Meibomian glands, and carefully freshening the commissural fold. Two fine silver sutures, which pass through the whole border of the lid, bring the freshened parts accurately together, and a pressure-bandage ensures union."

In the treatment of Purulent Ophthalmia, Dr. de Wecker prefers a solution of nitrate of silver of a strength of two per cent. to the application of the nitrate itself, either pure or mitigated, on account of the less likelihood of producing an eschar sufficiently strong to give rise to excoriations and corneal complications. He believes that the action of the caustic is directly efficacious by the irritation of the vascular walls, and indirectly by the contraction which follows any considerable discharge of serum, such as accompanies the shedding of an eschar. Should, however, the cornea show any tendency to excoriate, eserine is his sheet-anchor, as atropine has been that of all ophthalmologists hitherto. Eserine contracts the vessels, opposes an obstacle to diapedesis, and, by diminishing the excretion of serum into the interior of the globe, lessens intraocular pressure.

The differences between a granulation and a follicle are well laid down. The granulation is oval rather than round, being "not higher than broad"; has an opal tint, with more or less pink, according to the degrees of injection, and never exhibits the semitransparent or grey yellow tint peculiar to the follicle. Granulations grow as a rule upon the tarsi, especially the upper, and not in the *culs-de-sac.*

Croupal and Diphtheritic Ophthalmia receive the attention they deserve; and Dr. de Wecker's practical remarks on Ophthalmia Neonatorum will be useful to all practitioners.

His treatment of Iritis and its complications, of Choroiditis and Glaucoma is not the least satisfactory part of the work. He disagrees with Donders as to the essential cause of glaucoma, considering it to be a deficiency of excretion rather than a neurosis causing an excess of secretion, and considers his views supported by the cure of corneal ulcers, with subsequent staphylomata and glaucomatous symptoms.

The affections of the Lacrymal Appendices—a notoriously difficult subject—are well described, and his treatment thereof worthy of consideration, as, though not always in accordance with the practice of other surgeons, he advocates milder and more gentle manipulation of those delicate organs than we see frequently practised.

The concluding lecture, on Refraction and Accommodation, is too meagre to be of much service; but although disposing of an important subject in a somewhat summary fashion, it is clear and generally correct.

The style of the work, for which Dr. Masselon, the *chef de clinique* at the Rue du Cherche-Midi, is partly responsible, is somewhat laboured, a fault arising doubtless from the fact that it is French written by a German. The English translator has done his best to overcome these difficulties, and, by a judicious use of the pruning-knife, has, without detriment to the valuable matter of the work, shortened it by about two hundred pages. He has added a short appendix on the metrical system in ophthalmology, which will, we believe, be found useful. It has evidently been to him a labour of love; and he has given to English readers a well written and carefully got up edition of Dr. de Wecker's work, which, we consider, will take its place among the standard works on the subject, and will be acceptable to the specialist, general practitioner, and student.

GOODEVE'S HINTS FOR THE MANAGEMENT AND MEDICAL TREATMENT OF CHILDREN IN INDIA. Seventh edition, entirely rewritten in accordance with the most recent medical experience, by E. A. BIRCH, M.D., Surgeon-Major Bengal Establishment. Calcutta: Thacker, Spink, and Co. 1879.

A BOOK that professes for its object "to instruct as to the rearing of children in India, and to enable the parent to meet the emergencies incidental to child-life in that country, and that it is in no way intended to supplant professional advice", is one that appeals to the medical critic in a manner different from the more purely professional work that usually falls under his notice. The information that such a volume should contain ought undoubtedly to be of the very best, and, as far as possible, expressed in terms of certainty, that it may be of any practical use. We have no hesitation in saying that this new edition of Dr. Goodeve's *Hints* fully complies with these requirements. But the conviction, nevertheless, is forced upon us as we turn over the excellently printed matter, occupying four hundred pages, that the word "hints" only modestly describes a veritable *magnum opus;* and, at the same time, the question arises as to whether the value of the work would not have been materially enhanced by a considerable suppression of matter that is too brief to be of service to the doctor, and yet all too much for the layman. The book appeals to the public, and disclaims all intention of replacing professional advice; and no doubt there are very many things which may with advantage to themselves be taught that public. But we much question whether a brief *résumé* of almost all the ills to which infantile flesh is heir, extending, as it does, over more than two hundred pages, can be of any practical use. It seems to us to be a very grave subject for inquiry as to the desirability of this growing system of instructing the non-professional part of the community in making a diagnosis upon a selection of typical symptoms. We have always been led to consider that the formation of a judgment on a case required the exercise of mental faculties of no slight order, backed up by long acquaintance with the appearances and phenomena of disease, to say nothing of an intimate acquaintance with healthy structure and functions. Yet here we find directions for recognising such diseases as croup, diphtheria, the various kinds of diarrhœa and convulsions, infantile paralysis, etc.; and, further than that, of treating them. It would seem, forsooth, that medicine had reached the desirable condition of an exact science, the surface-skimmings of which could be served up for the laity to apply to themselves. The tendency of the public mind is to take all that is printed in a book on medicine as fact—hence the success of quack literature; the ever present doubts are unappreciated, even if they be expressed; for any book that failed to be dogmatic would be of no use; its uncertainty, and hence impracticability, would deter at once. If a person of average intelligence can apply, with even small success, leaving out of account any harm that may be done, the subject-matter of half of this book, and the great part of many others now appealing for public favour, it seems to us that the necessity for expensively educated doctors is much diminished.

In expressing ourselves thus, we have no desire to press unduly on the work before us; if the information be desirable, it will be supplied; and the pages which have given rise to these remarks are probably as good of their kind as they can be. Ostensibly intended for children in India, the work contains little that is not equally applicable to the young of this country; and the sections on management of the infant diet, feeding, and general hygiene, leave nothing to be desired either in the matter itself or in the excellently practical way in which it is put. There is nothing that has not been said before, but none the less can it well bear being said over again.

GLOUCESTER.—The mortality statistics of this district are not in any way remarkable. The general death-rate was 19.6 per 1,000, and the health of the city seems generally to have been satisfactory, especially there was a gratifying immunity from zymotic diseases of the more serious sort. There was, however, a large increase in deaths from diseases of the respiratory organs, due no doubt to climatic conditions. The most important matter needing the attention of the local sanitary authorities is the need for an increased supply of water to the city—a need which is beginning to get extremely urgent. A table of inquests and their results is a useful feature of the report.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMMERSION MICROTOME.

SIR,—I see that, in the JOURNAL of January 10th, there is described an immersion microtome, by Dr. Seiler. About two and a half years ago, I made and have since used an immersion microtome, arranged on a different principle, which has the advantage of not requiring to be so large as one on Dr. Seiler's plan, and of needing no special cutting arrangement to be used with it, but permitting the use of any razor or knife such as is used with the ordinary microtome. The construction of this instrument I shall, with your permission, shortly explain. A copper tray is made, nine inches long by four and a half inches broad, surrounded on the two long sides and one end by a vertical wall. The wall at the left hand end is one inch and a half high; the two side walls are of the same height where they join it, but slope down to nothing as they reach the right hand end, which has no wall. The shape of the tray is thus something like a shovel, or banker's money scoop. An ordinary screw microtome is inserted through the floor of the tray, so that the centre of the wall may be about two and a half inches from the right hand end of the tray, and may project very slightly (say one-eighth of an inch) above its floor. In using the instrument, after the tissue has been imbedded in the usual way, the apparatus is removed from the horizontal position and clamped to a board or shelf, fixed at such an inclination that the right hand edge of the tray becomes level with the upper margin of the left hand end wall, the upper margins of the side walls which previously sloped are now horizontal, and the floor of the tray sloping. The tray is then filled to near the brim with spirit, water, or other fluid, which forms a shallow layer over the stage of the microtome, and the cutting is proceeded with in the ordinary way, the slight inclination causing no inconvenience. The dimensions given are those of the instrument I made; but they may be altered in any way to suit the size of microtome or knife, provided the principle is maintained. It is very easy to adapt a tray of this kind to a Rutherford's freezing microtome, as has been done by a friend of mine. A small tap in the deep end of the tray is useful for withdrawing the spirit when the cutting is done.—I am, yours truly,

J. CUNNINGHAM RUSSELL, M.D.Edin.

BURROUGHS' BEEF AND IRON WINE.

UNDER this name, Messrs. Burroughs and Co. of Snow Hill have prepared a compound of the Vinum Ferri Citratis of the *British Pharmacopœia* with beef-juice. It is a pleasant tonic and mild stimulant, and will be found useful in cases where the use of a blood-tonic is indicated. The ordinary dose for an adult is a tablespoonful, which should be taken in a little water between meals; children, also, may take it in smaller doses according to age.

FRY'S MALTED CHOCOLATE PASTE.

THE value of extract of malt as a nutritive and restorative agent has been generally recognised by the medical profession. It contains muscle- and fat-producing materials, and assists the solution and digestion of farinaceous foods. Messrs. Fry and Sons have succeeded in combining the extract of malt made by Messrs. Allen and Hanburys with their chocolate, and thus forming a most nutritious and at the same time exceedingly palatable compound.

ALLEN AND HANBURYS' PURE EXTRACT OF MALT.

MESSRS. ALLEN AND HANBURYS deserve the thanks of the profession for having produced an extract containing all the nutritious and active essences of malt while rejecting the alcoholic compounds. The extract is obtained by a process of evaporation *in vacuo*, and owes its special properties to the large quantity of unaltered diastase which it contains. Either as a vehicle or as a substitute for cod-liver oil, it will be found useful.

AT a meeting of the Board of Guardians of the Rathdown Union, co. Wicklow, held lately, it was unanimously agreed that Dr. Whistler, late Medical Officer of Bray Dispensary District, should receive £87 16s. *per annum* as a retiring allowance. This amount was the maximum superannuation the law permits; but the Board expressed regret at not being able to give more.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 1ST, 1880.

PROVIDENT DISPENSARIES.

WE shall be excused for reverting to the subject of provident dispensaries on account of its special importance to the majority of medical men. A discreet and statesmanlike handling of it may be of incalculable benefit to the general practitioner, whilst an indiscreet and hasty action may do him grievous injury. This injury may be brought about by providing medical advice at a nominal cost to those who are well able to pay for it at its proper value.

We have to bear in mind that a great change must take place in the arrangements for the medical treatment of the pauper class: a change for the better is looming in the not far distant future, which will have an important bearing. The action of the Local Government Board must be to make workhouse-infirmaries hospitals in which the poor shall be treated for the purpose of cure, rather than homes for the incurable. It follows from this that individuals who, on account of illness, are reduced to poverty, and who, in consequence, have to apply to the destitution authority for assistance, will be offered admission to the workhouse infirmary instead of the out-door relief which is now frequently afforded to them, and which is associated with the attendance of the parish doctor. Under this arrangement, they will have good nursing, pure air, and proper medicine; the best course will be taken for effecting an early cure, and there will be a better chance of preventing them from becoming permanent paupers.

We feel that there is an intimate association between the intelligent development of workhouse infirmaries and the successful working of provident dispensaries. They will not occupy the same ground, they will not be rivals even; but they will work to the same end—the repression of some of the causes which lead to permanent pauperism among our poorer classes. The object of both will be to provide medical aid to those requiring it, at the first onset of acute illness. In those cases (which are very numerous) in which something more than medical aid is required, some discrimination will be necessary as to whether the patient shall be advised to become an in-patient of one of our large hospitals, or, on account of family destitution, shall apply to the destitution authority for admission to the workhouse infirmary. In many instances, the latter course will be found the most expedient; and yet it is one to which the promoters of provident dispensaries will naturally be adverse, because it is contrary to the spirit of thrift and independence which they are anxious to promote among the people, and which ought, in their view, to be the guiding star of the British workman. We are far from deprecating their view of the question; indeed, we think it is the right principle to inculcate; and yet there are very many cases in which it will be impossible to apply it without producing as much mischief on the one side as the feeling of dependence upon State aid is likely to do on the other. It appears to us that both must be developed. The workhouse infirmary will be the place in which those who, from accident or other causes, are necessarily taken care of by the destitution authority; whilst the more thrifty and far-sighted will have medical aid at home, or be transferred into the general hospitals, into which, as a rule, paupers are not admissible, and in which it is not now even unusual for the in-patients to contribute something towards their own maintenance. The cottage hospitals, which have latterly been greatly increased, are inculcating this lesson. The Croydon General Hospital, for instance, expects five shillings per week to be contributed by each patient whilst he remains an inmate, and sixpence per week by each out-patient. Notwithstanding these payments, the patients are extremely numerous and the officers well worked.

The difficulty is, however, where to draw the line. The directors of the Metropolitan "Provident Medical Institution" must be prepared to meet this difficulty at the onset. We would suggest that all those who are to be admitted to its benefits should sign an application for admission, which should state that their means are not sufficient to enable them to pay the charges which they might have to incur in illness; whilst the form of application should contain a conspicuous note to the effect that individuals in a comfortable pecuniary position are not eligible to become members of a provident dispensary. Some such check as this will be necessary, so that the institution may have the cordial support of the medical profession. If the check can be properly applied, the institution will be the means of adding to the respectability of the profession, by superseding those men who lower their professional status for the sake of a few pence, and will put a stop to the degrading practices of some of our licensed members; whilst there will then be no reason for the vast amount of bad debts which general practitioners among the poor are obliged to make, because they are too noble-minded to refuse to attend upon all who ask for their services, although they know full well from experience that not more than one in three will ever try to pay them. Love of their profession, the desire to do as much good as possible, and to avoid the appearance of sordid motives, are innate principles with most of us. Practitioners of this class will be protected by a judicious development of the provident dispensary system, whilst the man whose practice tends to bring discredit on his profession will have less scope for his trade. We commend the subject, therefore, to the notice of our readers, and shall be glad of practical suggestions as to the best means for providing a satisfactory check to fraud.

THE VALUE OF EXPERIMENTS ON ANIMALS IN THE PROGRESS OF MEDICINE.

III.

Among the most important discoveries, which are due to vivisection and experiments made on animals, is our knowledge of the causes of epidemic and contagious diseases and of the effects of poisons. Sometimes the only way of following up and studying the nature of the contagious poisons and the process of infection, is by inoculating the poison into animals. The changes of generation of the intestinal worms had to be carefully studied before any definite mode of treatment could be settled upon, and this could only be attained by feeding animals with such worms and their larvæ, and watching their development. By experiments on animals, it has also been proved that the splenic fever is due to a bacterium—the *Bacillus Anthracis.*

Another good example illustrating the necessity of experiments on animals is the case of snake-poison. About 20,000 deaths from snake-bites occur annually in India. It is almost impossible to find an antidote to these poisons, except by having animals bitten by snakes, and immediately experimented on to find what is likely to cure them. It seems useless to expect any result from experiments on the persons bitten by snakes, as they are either dying and past all hope of cure, or dead, when found. A Government reward was some years ago offered for the discovery of an efficient antidote for snake-bites in India; a person applied for this reward, and was referred to St. Bartholomew's Hospital, in order that it might be ascertained whether he had really found an antidote. He was so convinced of the efficacy of his antidote, that he professed himself ready to be poisoned with some cobra poison. The authorities persuaded him to wait, and they inoculated with the cobra poison several pigeons, some of which had previously received the antidote. All these quickly died; and those that had had the antidote given to them died a little sooner than those which had not

Among the most striking results of experiments on animals must be classed the discoveries made by the Edinburgh Committee of the British Medical Association some years ago, regarding the antagonism of medicines (or poisons). They found in the course of their investigations that chloral was an antidote to strychnia; and they repeated and confirmed the experiments of Dr. T. R. Fraser, which demonstrated the antagonism between atropia and the Calabar bean. The knowledge especially of the antagonism of chloral to strychnia has been several times applied in practice, with the result of rescuing not only men, but animals, from death by strychnia poisoning. It has also been proved that physostigmin counteracts the effect of atropin; and that muscarin, the poisonous principle of the toadstool, possesses the same property. In the same way, several antidotes to belladonna have been obtained; and it has been found that the effects of the poisonous toadstool, which has caused many deaths, can be counteracted by belladonna.

Experiments on animals are of great importance in medico-legal investigations, when there is any ground for suspecting poisoning. An example of this was mentioned by Dr. A. S. Taylor in his evidence before the Royal Commission on Experiments on Animals. A woman was charged with poisoning her stepchild. She had applied to her head an ointment of white precipitate mixed with arsenic, to cure ringworm. The child died from the effects of the poison, and it was asserted that the woman had deliberately caused her death. This view seemed to be borne out by the fact that, although she said she had applied the poison to the head, it was discovered in the stomach. Experiments were accordingly performed on rabbits and dogs, and it was found that, when arsenic was injected into the blood or through a wound, if the animal lived a few hours, it was in part eliminated by the stomach; the latter becoming an eliminating medium. It was evident that the child had not died of arsenic given by the mouth, though it had died from the effects of the poison. The results of the experiments had the effect of preventing a verdict of wilful murder from being returned against the woman.

Many more examples of the aid which the performance of experiments on animals has afforded in increasing our knowledge of the means of treating disease and injury, might be adduced; but we must stop here. Indeed, to give all the instances would be equivalent to writing the whole history of the science of physiology, and a great part of that of medicine.

A study of the instances which we have laid before our readers will show that the relation between the fact discovered by experiment, and its application to the practice of medicine, is far from being direct and immediate in all cases; that is to say, the benefit to medicine has often been not a primary, but a secondary, result of the experiment which was performed to ascertain or establish some fact for the sake of the knowledge of the fact itself. Thus, the primary object of John Hunter's experiment on the effect of ligature of an artery in the growth of the deer's antlers was the observation of a certain physiological fact; its secondary—and grander—result was the introduction into surgical practice of the operation for aneurism, which bears his name. Sometimes, again, the insight into the laws of the animal economy, derived from experiment, operates gradually and unconspicuously, though not less surely, in promoting medical science and improving practice. In illustration of this, we may refer to the discovery of the inhibitory action of the pneumogastric nerve by Weber in 1846, and to that of the vasomotor nerves, and their influence as regulators of the distribution of the blood and of the heat of the body. These discoveries, the result entirely of experiment, have been among the most important in modern physiology. Yet, to point out that any direct result accrued to medicine from them would be a difficult task; that is to say, one cannot say that a medical man follows a certain line of practice, because of the above-mentioned discoveries, in the same way as he abstains from dividing the portio dura in tic douloureux because Bell found that it was not a sensory nerve. These discoveries of the inhibitory and vasomotor nerves have, however, had no small influence. They have, as it were, leavened the whole mass of medical practice; they have aided our comprehension of the phenomena of disease; and have tended, in no small degree, to make the medicine of 1880 better and more efficacious than it was before these discoveries were made. In would, indeed, be an exception to the general rule in science, if the practical application always followed directly or immediately on the discovery. Chloroform and chloral were known as the results of chemical investigation long before their uses in medicine were imagined; and who would have even guessed at the brilliant results which have followed from Galvani's observations on the muscles of a frog's leg?

In other cases, again, the aid afforded by experiments is more direct. As examples of this, we would refer to such instances as Jones's experiments on ligature of arteries and Spencer Wells's observations on the management of the abdominal wound in ovariotomy. Again, a great deal of our knowledge of the action of our most potent drugs has been obtained through experiment on animals; and, at the cost no doubt of some suffering and destruction of life to a few animals operated on, we have become enabled to use, with a degree of precision and safety which could not have been otherwise attained by any justifiable means, powerful medicines for the alleviation of human suffering and the restoration of health. Our supply of medicines has been increased, and we know more about them. Again, our knowledge of the antagonism of toxic agents, by which already a large number of lives have been saved, rests altogether on experiments on animals.

We must now view the subject from another point. Many of the most important results, and most conducive to the relief of human suffering and the prolongation of human life, have been obtained at the cost of inflicting pain on animals. Formerly, this infliction of pain was unavoidable. Now, however, the use of anæsthetics enables the physiologist to pursue his investigations in the majority of cases without the feeling that he is acting in opposition to the dictates of humanity towards the lower animals; and not only this, but it renders the result of the experiment more reliable. It is a recognised principle among British physiologists, that no experiment involving pain to an animal is to be performed without rendering the animal incapable of feeling the pain—unless in the exceptional cases where the main object of the experiment would be frustrated by anæsthesia. The principle is so generally acknowledged, that our text-books on practical physiology often omit any instructions as to rendering animals anæsthetic, it being assumed that this will be done as a matter of course. The recognition of this principle by the physiologists of this country—and, we doubt not, by many of those in other countries—is independent of all extrinsic legislation.

Here we will conclude our remarks, simply observing that the examples which we have adduced show that the aid which the performance of experiments on animals has afforded to the progress of scientific medicine has been most valuable, and indeed indispensable; and that —while it is an established principle that the infliction of pain on the animals is to be avoided whenever this is possible—any suffering that has been inflicted on the animals on which the experiments have been performed has been far outweighed by the benefits to life and health, not only of man, but also of animals themselves, which have been obtained.

BABY-FARMING IN THE NORTH.

It is greatly to be hoped that the new Government, which is popularly credited with the intention of legislating on the many pressing social questions that have been left untouched during the last Parliament, will see its way to amending the Infant Life Protection Act in the direction which has been repeatedly urged in these columns, viz., by providing for the registration and inspection of every house where any child is taken in to nurse by those who are not related to it. Mr. Lushington, on behalf of the late Home Secretary, admitted, a few weeks ago, to a deputation of the Parliamentary Bills Committee of the Association, the shortcomings of the present Act; and, if any facts were needed in corroboration of the great weight of evidence as to these shortcomings, they would be found in the last annual report of Dr. R. Bruce Low, medical officer of health for part of the Helmsley rural sanitary district in Yorkshire. In Dr. Low's district, the number of illegitimate births in 1879 was in the proportion of ten to every hundred births in the district. This very high rate, far higher than the average of the country, is higher even than the illegitimate birth-rate of the North Riding of Yorkshire itself, which, until three years ago, had the unenviable position of being the fourth worst county in all England. In drawing attention to these figures regarding the prevalence of immorality in the district, Dr. Low gives a graphic but terrible picture of the manner in which the health and lives of these bastard children are attended to. He says: "In rural parts, the unfortunate mothers of the children hand them over to utter strangers, who live probably at some distance from the place where the births took place. In this way, the infants fade out of the recollection of those who knew the mothers. The child is a burden in many cases to its mother, and there is often no affection for it. The consequence is, that no care is taken of the child's health. If it be taken ill, the proper treatment is not sought; there is even a hope that the little victim of circumstances will go 'home'. In my own experience, I have met with gross negligence in the nursing of this class of children. In two cases certified by the coroner, both children were illegitimate, born in the workhouse; both children left that place in perfect health, both the mothers were of evil repute, both children died without proper medical treatment. An inquest was held in both cases. In one, a *post mortem* examination revealed a perforation of the pleura by the bursting of a phthisical cavity. The head was dirty, and covered with sores. A large burn was found on the temple, caused by the child having 'fallen against the fender', as the unnatural 'caretaker' asserted; she also stated that she gave the infant milk 'when she could get it', but that it had 'plenty of bread and water'. This child was allowed to become so ill, that it died within three days after a medical man was called in. The woman was censured for her treatment, but otherwise no notice was taken of this inhuman conduct. In the other case, no medical man was called in at all, the child dying within a week after the failure to affiliate the child to its reputed father. No medical evidence was called, and no medical examination of the body was made. Both of these children were wilfully neglected, but it was nobody's business to interfere."

Dr. Low gives, also, the following particulars of the case of another illegitimate child, who is a cripple for life through the cruel conduct of its so-called nurse. "A servant-girl handed over her child to a married woman, for a consideration, to be nursed and properly cared for. Three months afterwards, she visited the child, and found one of its thigh-bones bent at right angles. I saw the child, and found that the thigh-bone had been fractured, and that, having received no support or care, the broken ends of the bone had been drawn into the deformity that existed. The 'baby-farmer' denied all knowledge of the injury, and vehemently insisted that she saw the injury for the first time at the mother's visit. It would require some violence to fracture a thigh-bone; and supposing, for the sake of argument, that it had been done through no carelessness on the part of the nurse, the child must have given evidence of great suffering by its cries and tears. There is no doubt that the child had been treated roughly, and afterwards allowed to cry itself hoarse, no notice whatever being taken of its agony. When we remember that this child would have been taken up many times a day to be fed, to be changed, to be washed, and to be hushed, we can form a somewhat distinct idea of the amount of suffering which the poor child must have undergone at each change of position. If one-tenth part of the zeal which has been expended to protect frogs and rabbits from the scientific experimenter had been expended in obtaining some protection to infant life, we should not so often read in our newspapers the harrowing accounts of wholesale baby-farming and infanticide that so often meet our eyes."

Nothing that we could say could heighten the force of these telling arguments in favour of the extension of the Infant Life Protection Act. The amendment of this Act cannot much longer be delayed. The late Home Secretary was impressed with the necessity of making the Act more easily worked, and of extending its powers. With this object in view, he addressed a letter to the Metropolitan Board of Works, requesting to be furnished with their views on the subject. The Special Purposes and Sanitary Committee of the Board have drafted a reply containing suggestions for the amendment of the Act. They consider the Act should be extended to all children put out to nurse who were under five years of age, and that the parents' liability should not altogether cease with regard to a child when it was put out to nurse. At present, the Act did not apply where only one child was put out to nurse, nor where children were over two years of age. Institutions and day-nurseries were also exempt. Thus thousands of cases which ought to come under the inspection and superintendence of the Board evaded the Act. The deputation from the Infant Life Protection Society that had an interview with the late Home Secretary a short time since urged on him the amendment of the Act on two points especially, viz.: the including of all children put out to nurse under the provisions of the Act, and the assigning the duty of inspection to the medical officers of health throughout the country, as they are in a better position to acquire information respecting cases of baby-farming than any other class of officers. It is to be hoped that the new Home Secretary, Sir Wm. Harcourt, will take up this piece of domestic legislation as one of the first of his new duties.

CHRONIC MORPHINISM.

In the last published number of *Brain*, Dr. Obersteiner of Vienna gives a description of the effects of the habitual use of morphia, as seen in Austria, which, valuable in itself, has an especial interest in connection with discussions as to the abuse of narcotics which have taken place in this country lately.

Chronic morphinism is, it seems, a vice which appertains peculiarly to the medical profession in Austria. Quite an incredible number of Dr. Obersteiner's colleagues have fallen victims to it; and he hints, not obscurely, that in his view there is poetical justice in the fact that this depraved and fatal taste should work most havoc amongst the class of men who, by carelessly prescribing the drug and instructing in the use of the hypodermic syringe, have been mainly instrumental in disseminating it.

A variety of circumstances and conditions lead up to the establishment of the morphia-craving. Most frequently, some painful ailment, such as toothache, periostitis, or sciatica, is the starting-point of the habit; but often some nervous symptom—insomnia, for example—or vomiting is its parent. The remedy first taken to allay pain, procure sleep, or tranquillise the system, is soon loved for its own sake, and becomes indispensable to common comfort. Then, again, mental troubles often determine the earliest resort to morphia. It is taken to soothe anxiety or to dull grief, which it is potent to do; for certain forms of melancholia, even of high intensity, are entirely dissipated by it; and then, when an attempt is made to discontinue it, the discovery is made that it has planted a worse grief than that which it eradicated. One curious instance of the modes of origin of the morphia-craving is narrated. It is that of a young physician who was incredulous as to the rapturous ease which a cancer-patient alleged he had derived from morphia, and who took one dose himself as an experiment. That dose sealed his fate. It was like the taste of blood to the sleuth-hound, and at once awakened a ravenous appetite which he could never afterwards overcome.

The quantity of the drug taken by chronic morphinists varies within wide limits. Dr. Obersteiner has known as little as 3 *milligrammes* (= approximately the twentieth of a grain) daily suffice, without any increase, to maintain tranquillity in a lady who, whenever she was reduced to less than this little, became restless and sleepless. On the other hand, he has known as much as 3.5 *grammes* (= approximately 54 grains) taken daily and continuously for long periods. More than this quantity cannot, however, be taken by anyone with impunity. The rule seems to be that, in most cases, more and more must be taken to keep up the full influence of the drug, but that a point is ultimately reached beyond which it is impossible to go. The morphinist generally finds out this point for himself, and acute poisoning by morphia is an exceedingly rare occurrence amongst those who are perpetually experiencing its chronic toxic effects.

The symptoms of morphinism are apparently pretty much in Austria what they are in England, and are so well known that it is unnecessary to give any detailed account of them. Most prominent amongst them are disinclination to exertion, loss of appetite, hyperæsthesia, frequent yawning and sneezing, a peculiar ashy greyness of complexion, impotence, and general emaciation. On the psychical side are to be noted loss of memory, suicidal tendencies, and a moral deterioration comparable to what is seen in chronic alcoholism. Falsehood, which is first had recourse to in order to conceal or palliate the evil habit indulged in, soon pervades the whole mind, and the morphinist becomes the prolific father of lies upon all subjects, and even when truth would serve as well.

The morphia-hunger, which comes on when fasting from the drug is enforced, is sometimes accompanied by explosive symptoms, such as mania, dangerous impulses (often involving the fast-compelling doctor), hallucinations of the senses, copious perspirations, and collapse. These follow alike its sudden and its gradual withdrawal, and, in the latter case, generally present themselves towards the end of the weaning period, when complete abstinence has been nearly reached. Where no explosive symptoms signalise the morphia-hunger, it is expressed in restlessness, sleeplessness, diarrhœa, and great debility, while the feelings that are associated with it are as distressing as those which depend on starvation and thirst. To relieve these feelings, wine in tolerably large amounts, the bromide of potassium, and warm baths, are recommended. Packing in wet sheets is also said to be of service, and the subcutaneous injection of small quantities of any liquid free from morphia seems to have a delusively calmative effect on the enfeebled mind.

The prognosis in chronic morphinism is not, according to Dr. Obersteiner, so favourable as has been sometimes maintained. It is best when the habit has been of brief duration, and originated in some transient cause, and where the patient is of a vigorous constitution of body; it is worst when the habit has been long practised, when it sprang out of some incurable condition or often recurring pain, and when the patient is of the nervous temperament. Morphinism is peculiarly a neurotic vice, and it is neurotic subjects that fall into states of alarming excitement or weakness, when reformation is attempted. With them, re-administration of morphia is sometimes needful after its use had been broken off, to prevent serious consequences, amongst which are complete disintegration of the mind and abject despondency, ending in suicide. In all cases of morphinism, relapses are to be apprehended, and these sometimes take place when profuse gratitude is being expressed to the physician for his assistance in effecting a cure. Where relapses have happened, it is perhaps better to be content with a diminution in the amount taken than to insist on total abstinence.

Morphinism may be of medico-legal interest. The moral imbecility which accompanies it may bring the individual abandoned to it into collision with the law, though this is less likely to occur than in alcoholism, for the morphinist is more of a recluse than the beer-toper or spirit-drinker. The habit has not yet been admitted as a ground of irresponsibility; but, not long ago, a young man in Vienna advanced it as a plea on his own behalf. He was taken in the act of picking the pockets of two ladies simultaneously in a crowd; and his excuse was that, through taking morphia, his cerebral blood-vessels were congested and his ideas perverted. He offered to take a *gramme* (= 15 grains) of morphia at one dose, in order to prove that he was a morphinist, thus shadowing forth a new branch of experimental judicature. But, in course of observation by the police-surgeon, it became clear that he could not simulate the phenomena of morphia-hunger, and he was not, therefore, submitted to the hazardous test which he proposed, but was dealt with as a common thief.

A series of experiments which he performed on animals did not yield Dr. Obersteiner any very characteristic results. After injecting a number of rabbits with hydrochlorate of morphia daily, in gradually increasing doses, he observed that a habituation to it took place in rabbits as in man; and that, after its continuous use for long periods, there occurred in these animals weakness and loss of muscular tone, most marked in the hinder extremities, and also trophic affections of the skin. A sort of *alopecia areata* was set up; the hair began to fall out, particularly on the neck, so that the skin was denuded in patches. No permanent contraction of the pupils was noticed; the vessels of the ears were, shortly after the injection, contracted, but later became dilated. Except slightly increased reflex excitability, no effect of the sudden cessation of the use of morphia was observed in rabbits. During its administration, many of these animals died suddenly in convulsions, their brains being found swollen and œdematous.

An interesting paper on morphinism has also been published in No. 6 of the *Berliner Klinische Wochenschrift* for the present year, by Dr. E. Levinstein, Director of the Asylum at Schöneberg near Berlin; who, as is well known, has devoted much attention to the subject. Besides the various nervous changes and local affections (in the form of albuminuria) to which morphinists are liable, he describes a fever attending morphinism, which presents three varieties. The first, which has been described as morphia-intermittent, resembles ordinary malarial intermittent in being characterised by rigors, heat, and sweating, and generally considerable swelling of the spleen; the type is sometimes tertian, usually quotidian, sometimes irregular; and violent delirium may occur during the febrile paroxysms. In the second form, there are rigors every evening, followed by a sensation of heat with moderate rise of temperature, and thirst. The third form presents typhoid phenomena; viz., headache, buzzing in the ears, vertigo, slight fever, with a temperature of 38.3° Cent. (101° Fahr.), and paresis of accommodation; the patients are confined to bed for two or three weeks.

In the treatment, Dr. Levinstein has preferred the sudden withdrawal of the morphia. In order, however, to obviate the danger of collapse which attends this proceeding in some specially severe cases, he has adopted a modified plan, which consists in giving, twenty-four hours after the last large dose of morphia has been used, a considerably smaller quantity, varying from one-thirtieth to one-tenth of the former dose, and repeating it on the next two or three days; after which, injection has rarely been found necessary.

Dr. Levinstein has had under treatment for morphinism 82 men and 28 women. Of these, 32 were medical men, 8 medical men's wives, 7 persons connected with professional work or residing in medical practitioners' houses, 8 apothecaries, and one apothecary's wife. Of the 110 patients, 4 were also drunkards. Of the 82 men, 61 had relapses, and 10 out of the 28 women; of the 32 medical men, 28 returned to the habit, and so did all the apothecaries.

There were four deaths among the medical morphinists. Three died with the ordinary symptoms of morphia poisoning; and the fourth perished, after the treatment by withdrawal had been commenced, from secretly taking a large dose of morphia which he had previously borne well.

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Sir John Lubbock and Dr. Alfred Carpenter will be candidates for the representation of the University of London.

Mr. Lowe is to be elevated to the House of Lords under the title of Lord Sherbrook.

Small-pox, last week, caused 60, and typhoid fever 50, deaths in Paris; and fevers 156 deaths in St. Petersburg.

A combined meeting of the North Western, Northern Counties, and Yorkshire Associations of Medical Officers of Health will be held in Leeds, on Friday, May 7th.

A hospital has just been established in Sheffield for diseases of the skin. It is called the Sheffield Public Hospital for Diseases of the Skin.

Two fines of £15 each, with costs in addition, were on Tuesday inflicted by the magistrates at Marylebone Police Court on the owners of horses afflicted with glanders and farcy.

Professor Humphry, M.D., F.R.S., will deliver Sir Robert Rede's lecture in the Senate House of the University of Cambridge, on Wednesday, May 26th, at 2.30 P.M. The subject of the lecture will be "Man—prehistoric, present, future".

Princess Pauline of Würtemburg is to be married to Dr. Willim of Breslau. It will be remembered that a Princess of Holstein-Sonderburg, sister to Prince Christian of Schleswig-Holstein, is the wife of Professor Esmarch of Kiel.

The President and Council of the Medical Society of London have issued cards for a *conversazione* to be held at the Society's Rooms, 11, Chandos Street, on Monday, May 3rd, at 8.30 P.M.; when the annual oration will be delivered by Dr. Broadbent. The subject will be "The Pulse and some of its modifications".

The Council of the Society of Arts, in consequence of the numerous cases of reputed poisoning by arsenical wall-papers and other articles in general use, have appointed a committee to inquire into the practicability of preventing the employment of arsenic in any processes by which it is allowed to remain in finished goods, and to obtain evidence as to the effect a total prohibition of the use of such processes, or the prohibition of the sale of articles produced thereby, would have upon various trades. This is a practical step towards the solution of a question involving large trade interests.

The Select Committee to whom the Medical Act (1858) Amendment (No. 3) Bill, the Medical Act (1858) Amendment (No. 2) Bill, the Medical Act (1858) Amendment Bill, and the Medical Appointments Qualifications Bills were referred, have reported that, in consequence of the dissolution of Parliament, it was not possible to complete the evidence. They therefore report the Bills to the House without amendment, together with the minutes of evidence taken, and an appendix. The Select Committee appointed to inquire into the Contagious Diseases Acts also reports that the sudden dissolution of Parliament prevented the Committee from concluding their inquiries. They therefore simply present the evidence taken last session, and recommend the formation of another Committee in the new Parliament.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At the comitia meeting, April 29th, the following were elected Fellows of the College: John Topham, M.D. London; Cornelius Benjamin Fox, M.D. Edinburgh (Chelmsford); Thomas Claye Shaw, M.D. London (Banstead Asylum); John Roberts Thomson, M.D. Edinburgh (Bournemouth); Charles Kelly, M.D. London (Worthing); Robert King, M.B. Cambridge; Edward Harriman Dickinson, M.D. Edinburgh (Liverpool); Horatio Bryan Donkin, M.B. Oxford; Thos. Barlow, M.D. London; Frederick H. H. A. Mahomed, M.D. Brussels; James F. Goodhart, M.D. Aberdeen.

THE REPRESENTATION OF THE UNIVERSITY OF LONDON.

The expected vacancy in the parliamentary representation of the University of London, in consequence of the elevation of the Right Hon. R. Lowe, the present member, to the peerage, is exciting much attention, with regard to the expediency of electing a member of the medical profession as a representative; and a discussion on the subject is being carried on in the columns of the *Times*. Admitting the professional merits and high qualifications of the Master of the Rolls, who is popularly designated as the candidate, we cannot but think that the vacancy, when it occurs, would be most fitly filled by a medical man. As Dr. Alfred Carpenter has ably stated in a latter to the *Times* of last Thursday, an addition to the present small number of medical men in Parliament would be of great service. He rightly says that there are important matters connected with medical reform which have been for years before the Houses of Parliament, which are still unsettled, and upon which the opinion of the rank and file of the profession has yet scarcely been heard. There are also points connected with the education of the people, and more especially with the extension of university teaching, which the medical profession as a whole require, upon which it is only right that the voice of the profession should be heard; there are points which are connected with sanitary work which would be more fully understood by the House if the practical working of the Sanitary Acts could be explained from medical points of view. There are also points connected with county government which must come before the present House of Commons, and which are matters medical. The question, whom to elect, next arises. Of this, a solution is offered by a correspondent, whose letter is printed in another page, and who suggests Dr. Alfred Carpenter himself as the most fitting man. That Dr. Carpenter possesses very high qualifications for the seat, there can be no doubt. He is a graduate of the University; and he is not only intimately acquainted with the daily work of the practitioner of medicine, but is an authority of no mean repute on sanitary matters. His election would tend materially to strengthen the hands of the medical profession in Parliament.

MR. JOHN SIMON, C.B.

We are sure that many Fellows of the Royal College of Surgeons will share the regret we feel in making the announcement that this distinguished member of the Council of that institution has placed his resignation in the hands of the President. All will feel how difficult it will be to replace one with so much administrative ability, and so deservedly well known and respected by all members of our profession. In the College, he has done good suit and service, which his colleagues recognised by unanimously electing him to the highest office in the College, that of President. There are now four vacancies in the Council to be filled up in July next, caused by the death of Mr. Hancock, and the resignation of Messrs. Busk, Curling, and now Simon, all of whom have been Presidents and are Fellows of the Royal Society.

THE EPSOM COLLEGE CASE.

In the Queen's Bench Division of the High Court of Justice, on Monday last, before the Lord Chief Justice and Justices Field and Manisty, Sir Hardinge Giffard (late Solicitor-General) moved for a rule *nisi* calling upon the defendants, Dr. West and Mr. O'Brien Jones, to show cause why a new trial should not be had, on the grounds of misdirection and that the verdict was against the evidence. The Judges were unanimously of opinion that there was no ground for a new trial, and that, therefore, the verdict ought not to be disturbed. It is reported that the plaintiff intends to appeal to a higher court.

ROYAL MEDICAL BENEVOLENT COLLEGE.

The annual dinner of this institution took place at the Langham Hotel on Wednesday last, April 28th. Sir William Jenner, Bart., K.C.B., occupied the chair; and there was a large attendance. Donations to the amount of upwards of £1,200 were announced during the evening. The musical arrangements were under the direction of Dr. Lyttleton Winslow, who was ably aided by Dr. Armand Semple, Dr. A. Cooper Key, and Mr. W. G. Hammond.

MEDICAL OFFICER OF HEALTH FOR THE PORT OF LONDON.

The Sanitary Committee have selected five candidates to be submitted to the Court of Common Council, with whom the final decision lies. Twenty-three candidates presented themselves, and an examination of their several merits resulted in the choice of the following five gentlemen: Dr. Benjamin Browning of Rotherhithe; Dr. William Collingridge of Forest Hill; Dr. Frederick William Humphreys of Trinity Square, E.C.; Dr. John F. J. Sykes of Fitzroy Square; and Dr. George Turner of Portsmouth. The election will probably take place at the Court of Common Council to be held on Thursday, May 13th.

SEEING BY TELEGRAPH.

We read in the *Times* of a novel and startling addition to telegraphic possibilities, viz., "seeing by telegraph". By means of a lens, an image of the object is thrown upon a receiving plate. This is built up of a series of thermopile elements grooved anteriorly to an even surface, and connected by their posterior ends with a series of wires which transmit the electric currents generated by the reception of the image to a similar series of elements in a second plate at a distance. In this second plate, the electric currents create changes exactly corresponding to those produced by the image on the receiving plate. The close analogy between this apparatus and the rods and cones of the retina and the fibres of the optic nerve is obvious.

THE ROYAL ACADEMY.

ON the whole, the general aspect of the walls of the Academy does not differ much from that of last year or the year before that. Nearly the same exhibitors continue to produce nearly the same style of work as heretofore. It may be that, the wish being father to the thought, we can perceive an attempt on the part of some artists to develop the art, which is the highest art, of painting from the figure. The President of the Academy sets our younger and more rising artists a most suggestive example in this respect. The portrait by Millais of Mr. Luther Holden, the President of the Royal College of Surgeons, is, perhaps, one of the most striking pictures in the Academy. The artist has evidently been pleased with his subject, and the result is a perfect success. There is also a portrait of Dr. W. B. Carpenter by Mr. Collier. It has been presented to the University of London by the members of the Senate and graduates of the University. Mr. Seymour Haden and Mr. Propert exhibit, as usual, some excellent etchings.

CASES OF BABY-FARMING.

AN inquest has just been concluded at Chelsea before Dr. Diplock, the Coroner, where the mother and the nurse of a child have been committed for manslaughter. This case shows the necessity of including under the Infant Life Protection Act all those infants who are placed out by their mothers, during the day only, with nurses, to be fed and cared for. The child, being naturally delicate and fretful, was so ill-used, starved, and neglected by the nurse by day and the mother by night, that both its arms were broken, it had great sores on its thighs, and was wasted to a skeleton.—A case of baby-farming was last week brought by Inspector Bailey before the magistrate at Marlborough Street, in which a Frenchwoman had four infants in her care without having her house registered. She escaped to Paris, and the children were returned to their parents.—At Liverpool, a case has also been investigated by the magistrates, and the woman fined forty shillings, with costs, for having infants in her care without being registered. Attention was first attracted to this baby-farmer by the deaths of several children occurring in her house.

DEATH OF DR. C. H. H. SAYRE.

WE regret to learn that Dr. Charles H. H. Sayre, the son of Dr. Lewis A. Sayre, has succumbed to the injuries he received in the accident we reported last week, notwithstanding that every means that could be suggested by skill and affection were employed in the treatment of the case. This intelligence will, we are sure, be received with much regret and sympathy by the large number of friends whom Dr. Lewis A. Sayre has made for himself during his visits to this country.

"THE CHURCHMAN" ON HOSPITALS.

THE *Churchman* for April contains the first of a series of articles on "Hospitals", written by Mr. J. H. Buxton. The paper before us is rather an eulogy of the existing state of things than a consideration of those points in which alterations have been proposed. Those who are most intimately acquainted with the subject will hardly endorse Mr. Buxton's opinion of the system of admission by governors' letters. "It is found", he says, "that this plan practically works well, and that the patients could hardly be better chosen from the ranks of those who are poor, and in need of superior medical advice." As a matter of fact, we believe the "ticket system" has proved so unsatisfactory that it is gradually falling into disuse. Even in the out-patient rooms, Mr. Buxton finds little or no need of alteration; though most persons who have given attention to the subject are agreed in thinking that in this department of our medical charities there is great scope for reform. In the next number of the magazine, Mr. Buxton promises to deal with the question of payment by patients, hospital finance, and the importance of unity of action. This will give him an opportunity of expressing his opinion upon pay-hospitals and other kindred subjects, which have lately attracted the attention of the profession.

THE GOVERNMENT SUPERINTENDENT OF NURSES IN SOUTH AFRICA.

A REPORT from Natal, dated March 23rd, announces the safe return of Mrs. Deeble, Superintendent-General of Nurses under the War Department, together with several of the nursing sisters sent out from Netley, at Pietermaritzburg, on March 21st, after a protracted journey from the Transvaal, where they had been attending to the sick and wounded of the Sekukuni campaign. Mrs. Deeble had been suffering from a severe attack of fever contracted while nursing the military patients at Middleburg, where much typho-malarial fever had prevailed, but was slowly convalescing. After a short rest at Pietermaritzburg, Mrs. Deeble and the nurses under her charge were to embark by the mail steamer for Southampton, to resume their duties in the military hospitals at Woolwich and Netley. It is hoped that the sea voyage will remove the ill effects of the arduous work which has devolved on these ladies, often under very trying circumstances, during the recent campaigns in South Africa.

DELAYS IN TELEGRAPHIC MESSAGES.

DR. HOLMAN of Reigate writes to the *Times* to complain of the singular anomalies and inconveniences of the present system of transmission of telegraphic messages. He states, from his own experience within a very few weeks, that a lady, resident five miles from Reigate, sent a message at 7.55 P.M., asking her medical attendant to come to her in her confinement. The message went to London, and reached Reigate next morning between 8 and 9 o'clock. A message was given in at Kensington between 8 and 9 o'clock on Saturday evening, and double fee charged to insure speedy delivery. This message was received at 8.20 on Sunday morning. Another message was given in at 11.15 A.M. in Brighton, and received by Dr. Holman at 8.15 the next morning. The serious consequences in the case of sick persons likely to result from these enormous delays can scarcely be exaggerated. In addition to the delay of prompt attention frequently necessary, the fret and worry of waiting for the medical man are likely to have the most injurious effect on the patient, not to speak of the concomitant anxiety of the friends. It is to be hoped that the incoming Postmaster-General will direct his attention to this important detail of his office.

SMALL-POX IN LONDON.

THE deaths from small-pox in London, which had been 13 and 9 in the two preceding weeks, rose to 15 last week, and exceeded the number in any week since May last; 9 were recorded in the Metropolitan Asylum Hospitals at Homerton and Deptford, and 6 in private dwelling-houses. Eight of the deceased small-pox patients had resided in the North group of registration districts. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had slowly increased from 167 to 178 in the three preceding weeks, further rose to 187 on Saturday last; 48 new cases of small-pox were admitted to these hospitals during last week, against 42 and 44 in the two previous weeks. The Highgate Small-pox Hospital contained 26 patients on Saturday last. Small-pox caused 8 deaths in Dublin, but not one in any of the nineteen large English provincial towns.

MORTALITY IN BERAR.

THE *Bombay Gazette* is glad to announce that its repeated notice of the great mortality in Berar during the years 1878 and 1879 (from 8,000 to 15,000 deaths monthly) has at last attracted the attention of the British Resident. Sanitary rules have been framed and have received the sanction of the Government of India. The total deaths in Berar for December 1879 are 5,252 in the six districts, of which 3,370 deaths were from fever.

NERVE-GRAFTING.

AT the recent Surgical Congress in Berlin, Herr Gluck reported the results of some observations which he had made on the transplantation of nerves. His experiments had been performed on twelve common fowls, from the sciatic nerves of which he had removed portions three or four *centimètres* (0.12 to 0.16 inch) long, and substituted for them portions of the sciatic nerves of rabbits. At the end of eleven days, the conducting power of the nerves was found to be restored; irritation of the sciatic nerve above the transplanted portion (the nerve being carefully isolated) producing muscular contraction. The restoration of the conducting power occurred even when the position of the peripheral and central ends of the transplanted nerve were reversed, the latter being fastened by suture to the central end of the divided nerve in the fowl, and *vice versâ*. In order that the result may be successful, union of the ends of the nerves by the first intention is indispensable. This, according both to the present and the former researches of Herr Gluck (described in Virchow's *Archiv*, Band 72), is a true regeneration, consisting in the development of ganglionic cells (neuroblasts) which, at the end of three days, have united the axis-cylinders of the central and peripheral portions, while the change of the rows of nerve-cells into young nerve-fibres sets in between the sixth and the eleventh day. Herr Gluck expressed the hope that his researches might prove to be of considerable practical value. He was able to show animals which, after the nerve-grafting, walked as well as others on which suture of nerves had been practised long before; while, on the other hand, fowls, from whose sciatic nerves large portions had been simply removed, still remained lame at the end of eight weeks.

BROTHERLY KINDNESS.

THE subjoined letter appeared in the *Mexborough and Swinton Times* of April 23rd. Its unusual—if not unique—character entitles it to a wider circulation than it can obtain in the columns of a local newspaper.

> "*Painfully Sudden Death at Parkgate.*—Sir,—Towards the close of last week, an accident of a peculiarly painful and fatal character happened in this neighbourhood; and tending, as it does, to illustrate in a very forcible and unhappy manner the uncertainty of human life, it has created a profound impression and widespread commiseration, which must be my excuse for trespassing on your space. The circumstances of the case are reported to be briefly as follows. A woman, wife of Henry Cook, carter, residing at Ashwood Road, Parkgate, was daily expecting her sixth confinement, and, while in the act of putting up a window-blind, she missed her footing and fell. In consequence, she immediately began to flood; and, upon medical assistance being procured after a time, in the person of Mr. Smith and his unqualified assistant, she was at once pronounced to be past all help, and, beyond cold affusion being tried, and sawdust ordered to mop up the blood off the floor, the general report is that the unfortunate woman was allowed to bleed to death undelivered—two hours from the occurrence of the accident, and at least one hour, it is said, after the medical man was in attendance. Now, the object of my letter is not to discuss a medical subject in public print, nor to impute blame to any one, but simply to ascertain whether the above commonly reported statements be correct; and, if so, to elicit the reasons, if any, which militated against the adoption of the only feasible plan of treatment which was at all likely to prove successful in urgent and critical cases, such as that of Mrs. Cook, viz.: prompt artificial delivery, which, as I understand, was not even attempted.—I am, yours truly, WM. BOURKE, M.B.Edin. Univ., Honours, M.R.C.S.E.—Parkgate, April 21st, 1880."

We do not remember that we have ever seen a letter more unworthy of the medical profession than this letter of Mr. W. Bourke. Our readers are well aware how great is the tendency of the ignorant to cast unmerited obloquy on the reputation of a country practitioner who has had the misfortune to lose a patient in childbed. In such circumstances, every right-minded medical man will defend his unfortunate brother, or will, at least, abstain from giving his sanction to the imputations cast on his professional skill. Here, however, Mr. Bourke takes a new line of action with regard to the death of a woman under the care of a fellow-practitioner in Rotherham; and aids, as far as he can, in giving publicity to a "general report" that the woman was "allowed to bleed to death undelivered". He says that his object is "not to discuss a medical subject in public print, nor to impute blame to any one"; but to ascertain whether the report is true, and why recourse was not had to artificial delivery. How these apparently contradictory statements of Mr. Bourke are to be reconciled we cannot see; for his question can only be satisfactorily answered by "discussing a medical subject in public print"; and as regards his not imputing blame—is there any more illiberal way of imputing blame, or one more likely to produce an injurious effect on the public mind, than that which Mr. Bourke has followed? For there can be no doubt that his professional position—as denoted by the titles appended to his name—must give weight to his utterances. We hope that it may never again be our painful duty to read such a letter. At page 659 we publish Mr. Smith's clear and simple history of the case. There can be but little doubt that the placenta was detached, and that the hæmorrhage was unavoidable: and we do not believe that more could have been done in the case than was done by Mr. Smith.

ATROPIA AS AN ANTIDOTE TO STRYCHNIA.

DR. GEORGE ROBERTS reports, in the *Philadelphia Medical Times*, two cases of poisoning by strychnia, in which the symptoms were removed by sulphate of atropia. The first case was that of Mrs. S., aged 70, who was poisoned by eating cocoa-nut candy, with which sulphate of strychnia had been mixed. On Dr. Roberts's arrival, he found her under the full influence of the poison: the slightest noise or jar produced violent jerking of the muscles, accompanied by starts. He dissolved two or three grains of sulphate of atropia in half a tumbler of water, and gave two drachms every fifteen minutes, with prompt relief to the symptoms. Three days afterwards, the son of the former patient, a man aged 40, was poisoned by drinking some whiskey in which a considerable quantity of sulphate of strychnia had been dissolved. As soon as the symptoms were observed, some of the solution of atropia which had been prepared for his mother was given to him, and he soon recovered. Dr. Roberts gave ten drops of the whiskey to his cat, developing symptoms of strychnia-poisoning in five minutes; these were readily relieved by giving atropia in powder by the mouth.

SCOTLAND.

CHAIR OF MATERIA MEDICA IN GLASGOW UNIVERSITY.

THE Queen has been pleased to appoint Dr. Matthew Charteris, Professor of Practice of Medicine in Anderson's College, to be Professor of Materia Medica and Therapeutics in the University of Glasgow, in room of Dr. John B. Cowan, resigned. Dr. Charteris's appointment has given very general satisfaction, his powers as a teacher and lecturer rendering him a most suitable occupant of the chair. By his removal to the University, the chair of Medicine in Anderson's College is rendered vacant, and already there are several candidates in the field.

ROYAL SCOTTISH SOCIETY OF ARTS.

AT a meeting of the Royal Scottish Society of Arts, held on Monday, in Edinburgh, Dr. Neil Carmichael of Glasgow read a paper descriptive of his experimental investigation into the principles of house-drainage, with especial reference to traps and water-closets. As to the question whether fœtid organic particles or vapours escaped from sewage-pipes into houses in dangerous amount, Dr. Carmichael showed how completely such particles were retained in water, by stating that air, taken from just above the surface of the Clyde when it was much polluted, was as pure as air taken from other parts of the city. The experiments led him to the conclusion that a water-trap acts quite effectively, if certain points in its construction and arrangement be attended to, the most important being the ease with which it can be inspected and cleaned. With reference to the best form of water-closet suited for a house, he gave certain recommendations, but condemned strongly the much used pan water-closet. In this latter opinion, he was joined by most of the members who afterwards discussed the points of the paper, while Mr. Sang, C.E., submitted that the system of water-closets was entirely wrong on principle.

UNIVERSITY OF EDINBURGH.

THE summer session begins on Monday, May 3rd. On the same day, the examinations in clinical medicine, and, on the following, the examinations in clinical surgery, commence. It is announced that Lord Lytton has consented to be nominated for election as Lord Rector by the Conservative students of the University; the Liberal candidate will (as formerly announced) be Sir William Vernon Harcourt. At the graduation ceremonial, held in the Assembly Hall on Wednesday, April 21st, the honorary degree of LL.D. was conferred on John Hutton Balfour, M.A., M.D., etc., Emeritus Professor of Botany in Edinburgh University, and Regius Keeper of the Botanical Gardens there. The degree of M.D. was conferred on Edwin Law, M.B., his thesis for graduation being on "Five Cases of Antiseptic Osteotomy for Deformity of the Lower Limbs". The degree of Bachelor of Science was conferred on R. R. Harvey Whitwell, M.B., and on Mr. J. F. Sykes, both in the department of Public Health.

ROYAL INFIRMARY, EDINBURGH.

ON Monday, at the weekly meeting of the managers of the Royal Infirmary, Edinburgh, a deputation of five gentlemen from the teachers and pupils of the various schools in Edinburgh was introduced, and handed over to the managers the money that had been collected by pupils and teachers in the Edinburgh schools to aid in furnishing wards in the new buildings. The amount presented was £557 13s. 1d. It was stated that all had entered heartily into the scheme, and that the sum would have been larger but that many had contributed by other channels before the School subscription plan was started.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending April 17th, it appears that the death-rate in the eight principal towns was 24.9 per thousand of estimated population. This rate is exactly the same as that for the corresponding week of last year, but is 1.0 above that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 11.8 per thousand—and the highest in Leith—viz., 31.1, and in Perth 31.2, per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 5.4 per housand, being an increase of 0.6 on the rate for the previous week. Of the 46 deaths from whooping-cough, 30 occurred in Glasgow; and of a like number from measles, 11 occurred in Glasgow, 19 in Edinburgh, and 13 in Dundee. Acute diseases of the chest caused 140 deaths—a slight decrease in the number for last week. The mean temperature was 44.1, being 0.3 lower than that of the week immediately preceding.

DEATH FROM HYDROPHOBIA.

LAST week, another death occurred in the Royal Infirmary of Glasgow from hydrophobia. The patient was a young man aged 20, who was bitten about three months ago by a rabid dog. On the following day, the wound was cauterised by a medical man, and apparently it healed up satisfactorily. About a fortnight ago, however, the patient complained of being unwell, and had rather a strange feeling in his arm. Other symptoms soon declared themselves, which pointed to the disease being hydrophobia, and he was at once taken to the Glasgow Royal Infirmary, where he died on Friday, April 23rd. The patient belonged to the Vale of Leven, and this is the second death from hydrophobia which has occurred there during the past four months.

TYPHOID FEVER AND POLLUTED WATER.

UPWARDS of four hundred of the inhabitants of Perth have been suffering from attacks of low fever and diarrhœa, manifestly arising from the pollution of the water-supply. It appears that, while the water-pipes were under repair, a plug came out, and for a short time the water of the river Tay, contaminated with sewage and other city refuse, was allowed to flow into the town pipes. Although the influx lasted only a few minutes, it is calculated that as much as fifty thousand gallons of the public supply were impregnated with noxious particles. A searching investigation is ordered by the Water Commissioners, and samples of the water will be submitted to analysis.

IRELAND.

THE NEW ROYAL UNIVERSITY OF IRELAND.

THE Chancellor and Senate of this University were appointed under the Sign Manual of Her Majesty on April 19th. This body is empowered to frame the general constitution and working organisation of the University; and is to submit to Parliament, within a year from this date, a scheme for the new institution. Meantime, the Queen's University in Ireland continues in existence with its usual powers until the Royal University is in a position to confer degrees, when, by the University Education Act of last session, the Queen's University becomes superseded. The Chancellor of the Royal University is His Grace the Duke of Abercorn, late Lord Lieutenant of Ireland. The Senate consists of thirty-six members, of whom eighteen are Protestants of all denominations, and eighteen Catholics. There are eight medical members of the Senate, five of whom are Fellows of the King and Queen's College of Physicians in Ireland, viz., Sir Robert Kane; Dr. Banks, Physician in Ordinary to the Queen in Ireland; Dr. Lyons, M.P.; Dr. Cruise; and Dr. Hayden. The other three medical members are Professor Macalister of the University of Dublin; Professor Redfern of Queen's College, Belfast; and Dr. Wm. McKeown, also of Belfast. The Royal College of Surgeons in Ireland naturally feels much chagrin at being ignored in the constitution of the New University; no Licentiate or Fellow of the College practising surgery being appointed on its Senate, although the issuing of surgical qualifications is one of its contemplated functions. The Council of the College called the attention of the Irish Government to this omission to provide for its due representation; but, at the time of its doing so, the senators had been already selected. We subjoin the full list of the members of the Senate: The Most Rev. R. Chenevix Trench, D.D., Archbishop of Dublin; The Most Rev. Archbishop Edward MacCabe, D.D.; The Right Hon. John Thomas Ball, Lord Chancellor of Ireland; The Earl of Granard, K.P.; Earl of Kenmare, K.P.; Earl of Rosse; Most Rev. Lord Plunket; Right Rev. Bishop Woodlock, D.D.; Right Hon. Lord O'Hagan; Right Hon. Lord Emly; Right Hon. the Lord Chief Justice Morris; Right Hon. Mr. Justice Barry; Sir Robert Kane, Knt.; Very Rev. H. F. Neville, D.D.; Very Rev. James B. Kavanagh, D.D.; Rev. J. L. Porter, D.D.; W. K. Sullivan, Ph.D.; Thomas William Moffett, LL.D.; Rev. Robinson Scott, D.D.; Rev. Gerald Molloy, D.D.; George J. Allman, LL.D.; John T. Banks, M.D., Physician in Ordinary to the Queen in Ireland; F. R. Cruise, M.D.; Thomas Hayden, F.K.Q.C.P.; R. D. Lyons, F.K.Q.C.P.; A. Macalister, M.D.; W. A. M'Keown, M.D.; Peter Redfern, M.D.; Rev. W. F. Stevenson; Edmund Dease, Esq.; Arthur Kavanagh, Esq.; James Greer, Esq.; Christopher T. Redington, Esq.; Robert Scott, Esq.; Edward D. J. Wilson, Esq.; John Young, Esq.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual election of examiners in this College will be held on Tuesday next. Fellows of the College alone are eligible to hold office. Eight examiners are to be elected to examine candidates for the Fellowship and Letters Testimonial; three to examine candidates for the diploma in midwifery and three to examine students as to their proficiency in general education.

CORK MATERNITY HOSPITAL.

FROM the annual report of this charitable institution for the past year, we learn that 422 cases were attended to, being an increase of 150 as compared with the previous year. Since the maternity was opened at the close of 1872, 2,441 poor persons have been relieved at their own homes, the deaths amounting to sixteen, or a mortality of two-thirds per cent., a result most satisfactory. The income for 1879 was £160 12s. 2d., each patient having been attended to and provided with a nurse at a cost of about seven shillings, and, when necessary, a physician and the requisite medicines. The students' fees, amounting to £46 12s. 2d., were very generously handed over to the funds of the institution by the medical staff—Dr. H. Macnaughton Jones, Dr. J. P. Golding, and Dr. T. Gelston Atkins, who, in this as well as in past years, have invariably acted in this liberal manner. Within the last few years, several nurses have been trained, making a total of nearly thirty educated in the institution since its establishment; a result which, if nothing more were done by the Maternity, would render it deserving of all the support it can possibly obtain.

ALDEHYD IN WHISKEY.

At a meeting of the Society of Medical Officers of Health, Dublin, held on the 15th April, Dr. C. A. Cameron, the President, read a paper of great length on the quality of the whiskey on sale in the smaller towns and rural districts of Ireland. The chief result of his examination of whiskey, collected by the constabulary at racecourses, fairs, *shebeens* (wayside public-houses of a low class), all over Ireland, was that aldehyd occurred in a large proportion of them, and in some of them in considerable quantities. Amyl-alcohol was present in many samples, especially in those which apparently were mixed with *poteen* (illicit whiskey). In a specimen of poteen, as much as 0.23 per cent. of amyl-alcohol (the chief constituent of so-called fusel-oil) was found. A family who had used this poteen largely were made very ill, the father and mother being apparently rendered permanently insane by its use. The symptoms of these unfortunate persons were given partly on Dr. Cameron's observations, but chiefly from those of their ordinary medical attendant Dr. J. K. Burton. Dr. Cameron considered that the toxic qualities of some kinds of new whiskey are due to the aldehyd in it, which is a result of bad management in the fermentation of the worts. Aldehyd is intermediate between alcohol and acetic acid. It rapidly absorbs oxygen, and has a very low boiling point—71.6° Fahr. It therefore disappears from whiskey when the latter is stored for a couple of years. Dr. Cameron considers aldehyd to be poisonous in very small proportion; and again suggests, as he did in 1874 before the Committee of the House of Commons on food-adulteration, that whiskey should not be allowed out of the bonded warehouses until it is two years old.

THE ROYAL IRISH CONSTABULARY.

His Grace the Lord Lieutenant has been pleased to appoint Mr. Samuel T. Gordon Surgeon to this Force, *vice* Mr. Eugene Le Clerc, who has held the office twenty-four years, resigned. Mr. Gordon, although a comparatively junior member of the profession, has enjoyed a large amount of experience, and shown himself well qualified for the important appointment he has been gazetted to. He acted as House-Surgeon to the Richmond Hospital for nearly two years; and subsequently served as a Civil Surgeon in the Turko-Servian and in the late African campaigns.

AMBULANCE CLASSES.

Dr. Charles B. Ball has commenced a course of lectures, in connection with the St. John Ambulance Association, at the Coffee Palace, Townsend Street, Dublin. In his introductory address, Dr. Ball pointed out the objects of the Association, and the importance of the information it was the means of affording, and showed how a slight knowledge would often enable persons to alleviate suffering, and sometimes to save life.

THE CRIPPLES' HOME, BRAY.

Her Grace the Duchess of Marlborough, who has always shown considerable interest in this institution, paid it a farewell visit last Monday, when a ward for delicate or dying cases requiring special care and quiet was opened. The ward has been called the "Marlborough Ward", in memory of the illustrious visitor.

The German Hospital.—The thirty-fifth anniversary of the German Hospital was celebrated at Willis's Rooms on Wednesday evening, H.R.H. the Duke of Connaught presiding. Contributions to the amount of £3642 were announced, including £100 from the Queen, £200 from the Emperor of Germany, £50 from the Emperor of Austria, and £25 from the Duke of Connaught.

A TURKISH CRIMINAL LUNACY INQUIRY.

A correspondent in Constantinople has sent us the following details of the progress and result of the case of Veli Mehmed, accused of the murder of Colonel Kummeran.

On Sunday, February 29th, Colonel Kummeran went out for a ride on horseback, accompanied by M. Onou, the Russian Chargé d'Affaires. They encountered, on the outskirts of Pera, on the road to Ferikieny, three persons on foot, carrying on an animated conversation. These were Bosnians; one of them was Veli Mehmed, who, as soon as M. Onou and Colonel Kummeran came up to him, fired his pistol at Colonel Kummeran, and wounded him in the left thigh, the bullet passing through the fleshy parts, from the front to the back, outside the femur, and without injuring the bone or any nerves or blood-vessels. The report of the pistol-shot startled the horses, and made them dart forwards, and as soon as Colonel Kummeran had passed Veli Mehmed, he received from him another pistol-shot from behind, the bullet entering the back and outer part of the same thigh, taking a circuitous course forward and inward, without hitting bone, nerves, or blood-vessels, but finally passing into the genital organs, where it lodged at the extremity of the penis.

The noise of the discharge of firearms attracted the attention of the police-stations in the neighbourhood, and the three Bosnians were at once pursued, and two of them caught; but Veli Mehmed contrived to get the start of his pursuers, and gave them a long chase. He ran over the hills towards the valley of the Sweet Waters (Kiahat-Khaneh); there a scuffle ensued between him and Ismaïl Aga, the police-officer who was pursuing him. He shot the policeman's horse; got into a boat and rowed himself across the stream; but, just as he landed on the opposite bank, Ismaïl came up to him in another boat, and caught him. A severe struggle now again took place between the two men, in which both were bruised and wounded; but, with the assistance of other persons who came to the rescue, Veli Mehmed was finally secured and conveyed to a police-station.

Colonel Kummeran died on the following Wednesday, March 3rd, from nervous shock caused by the injuries he had received.

When Veli Mehmed was examined at the police-station, it was found that he belonged to the Sultan's bodyguard; the case was, therefore, referred to His Majesty, who, after much hesitation and delay, ordered him at last to be tried by a military tribunal, composed of Field-Marshal Ali Sahib Pasha, Grand Master of the Ordnance Department; Vice-Admiral Hobart Pasha; General of Division Hussein Husni Pasha; Brigadier-General Vitalis Pasha; Brigadier-General Muzévir Pasha; Brigadier-General Abeddin Pasha; Captain Mustafà Bey of the Artillery; Captain Zihni Bey of the Staff; and Ahmed Efendy, reporter of the Court. Veli Mehmed, at his first interrogatory, unhesitatingly admitted the crime imputed to him, and declared that he had made up his mind to kill the first *ghiaour* of a Christian he met that day; and this, to avenge the loss of several relatives that had been killed during the late war. Subsequently, however, he qualified his murderous attack upon Colonel Kummeran, by declaring that he had never intended to kill anybody; but that, the Colonel's horse having jostled up against him when they met on the road, this irritated him, and he fired his pistol in a momentary fit of excitement, without knowing what he was doing, and unfortunately hit the Colonel. Later on, however, he assumed another plea in his defence—absence of mind, and pretended to have no knowledge of what had occurred to Colonel Kummeran. I hear that he has now modified this plea, and asserts that he was then in low spirits, and intended to commit suicide; but Colonel Kummeran and M. Onou coming up just at that moment, drew his attention to them, and caused him to fire at them instead of firing at himself. Dr. Mongeri, the only specialist in Constantinople on psychological matters, has carefully examined Veli Mehmed, and has observed that, when he questioned him on matters referring to his origin, country, relatives, occupations, or other commonplace items, he received from him clear and intelligible replies; but when he questioned him on the subject of the assault upon Kummeran, Veli Mehmed assumed an idiotic mood, and gave nonsensical answers. If the conversation were brought back to the ordinary occurrences of life, Veli Mehmed's intellect brightened up again, and he became as conscious as any sane person. Imbecility cannot affect one of the manifestations of the mind without affecting them all; and the inference to be drawn in this case is, that Veli Mehmed is feigning insanity.

The first medical examination held on Veli Mehmed, by order of His Majesty, was made by Dr. Mongeri, Chief Medical Officer of the Lunatic Asylum at Scutari; Abdi Efendy, Professor of Botany, and Ibrahim Bey, Professor of Mineralogy, at the Medical College; and Ismail Efendy, the Professor of Clinical Medicine. This inquiry having been considered unsatisfactory, a further examination was called for, to which no fewer than forty medical practitioners were invited to attend; but, as the medical officers attached to the Austrian, British, French, German, Greek, Italian, and Spanish Embassies declined to assist, this medical Areopagus was reduced to thirty-three members. These met together on Thursday, April 1st, and decided that Veli Mehmed should be put into the lunatic asylum, and there watched and examined by a committee of five members of this body.

Here stops the case for the present; and it would be indiscreet to suggest any conclusion, as yet, with regard to its final issue. The affair, however, has excited considerable interest, not only on account of the political complications it might eventually evoke, but also on account of the shameful insecurity to life and property which has hitherto characterised the reign of Abdul Hamid the Second, and of which this is a remarkable instance amongst many others. A manifest tendency to screen this murderer has been shown by the Government officials, and every effort will, no doubt, be made to save his life.

When, at the commencement of the reign of the present Sultan, Hassan the Circassian murdered Hussein Avni and Rashid Pashas, he was at once condemned to death and publicly hanged. No question was raised whether he committed his murderous assault with intent to kill, or in a fit of insanity. Why, therefore, not follow the same precedent in the present instance of Veli Mehmed? The motive is clear to those who have lived some time in Turkey, although it may appear puzzling to the European mind. "Veli Mehmed has not been put to death, and his life will be spared if it can possibly be saved, because the law of the Koran forbids the putting a Mohammedan to death for the murder of a Christian"; and because, besides, as Veli Mehmed belongs to His Majesty's bodyguard, his firing upon a Christian may be looked upon as a mere indiscretion that barely merits a reprimand.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH.

A MEETING of the Executive Council of this Branch will be held at the Bridge House Hotel, London Bridge, on Tuesday, May 4th, at 3.15 P.M.

CHARLES PARSONS, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, April 24th, 1880.

MIDLAND BRANCH.

A MEETING of this Branch will be held at the New Bath Hotel, Matlock, on Wednesday, May 5th, at three o'clock, "to consider the resolutions of the Metropolitan Counties Branch upon medical education".

Dinner at five o'clock. Tickets 5s. 6d., exclusive of wine.

Members intending to dine are requested to communicate with

F. W. WRIGHT, *Honorary Secretary.*

4, Full Street, Derby, April 1880.

NORTH OF IRELAND BRANCH.

THE annual meeting of this Branch will be held in the Belfast Royal Hospital, on Thursday, the 20th May, at 4 P.M. The members will afterwards dine together.

Members wishing to read any papers, or intending to be present at the dinner, will please communicate with

JOHN MOORE, M.D., *Honorary Secretary.*

2, Carlisle Terrace, Belfast, April 26th, 1880.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE fifth ordinary meeting of the session was held at the Grand Pump-Room Hotel, Bath, on Thursday evening, April 15th. In the unavoidable absence of the President, Dr. BEDDOE, the chair was taken by Mr. MASON. There were present twenty-seven members and one visitor.

New Members.—R. S. Stone, M.D., was duly elected a member of the Branch.

Medical Education.—A long discussion ensued as to the course that should be adopted with regard to the resolutions passed by the Metropolitan Counties Branch respecting medical education, which eventually led to a resolution being passed that the matter be left in the hands of the Metropolitan Counties Branch, and that this Branch will be pleased to support any action thereupon taken by the Committee of Council of the Association.

Exhibition.—Dr. Spender exhibited specimens of Mr. Gamgee's surgical specialities.

Papers.—The following papers were read.

1. Dr. Markham Skerritt read a paper on the Influence of Posture on Cardiac Murmurs; which led to an interesting discussion, in which Dr. Goodridge, Dr. Field, and Dr. Brabazon joined.

2. Mr. R. S. Fowler gave the history of a case of Retracted Testicle which suppurated and gave rise to a Fæcal Fistula which eventually closed. Drs. Spender, Skerritt, and Goodridge, and Messrs. Green, Hanham, and Waugh made observations.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at Abernant House, Aberdare, on Thursday, April 22nd; J. TALFOURD JONES, Esq., M.B., in the chair. About forty members were present. A telegram from the President, Dr. TAYLOR, was read, regretting his inability to attend.

The late Honorary Secretary.—The draft of an address to the late senior Honorary Secretary, Dr. A. Davies, was read and approved of, and ordered to be sent to Messrs. Waterlow and Sons to be engrossed on vellum.

New Members.—Mr. J. G. Horder (Cardiff) and Mr. W. W. Leigh (Llanfabon) were elected members of the Branch.

Papers, etc.—The following were read:

1. Mr. D. J. Williams (Llanelly): On a New Method of Removing Port-wine Marks without the use of the Knife. The aim of his treatment was to induce stasis in the dilated capillaries, plastic effusion, and consequent contraction, sufficient to induce obliteration of the mark without producing a scar. A mixture of carbolic acid and glycerine, in the proportion of three to one, was painted over the mark with a bristle brush, the destroyed epidermis was rubbed off with the end of the wooden handle, and the painting repeated. A cornified scale soon covered the mark, and separated in about eight days; after which, the process was repeated three or four times. This method had been successful in three cases which Mr. Williams had under his care.

2. Mr. R. H. Leigh (Aberdare) showed a case of Obscure Skin-Disease on the Face, which had considerably improved under the Local Treatment of Iodoform.

3. Mr. Jabez Thomas (Swansea): Immediate Cure of Hernia by a New Method suggested by Mr. Spanton.

4. Mr. Jabez Thomas: Removal of a Foreign Body from the Knee-Joint.

Medical Education.—The Resolutions of the Metropolitan Counties Branch on Medical Education were discussed.

Resolution 1 was approved of.

Resolution 2 was approved of down to the word "medicines", erasing the words "or of having dispensed for six months at a public dispensary".

Resolution 3 was approved of after a discussion and a division, being carried by a majority of four.

Resolutions 4 and 5 were approved of.

Representatives in the General Council.—The following gentlemen were elected representatives on the General Council 1880-81: J. Talfourd Jones, M.B., Evan Jones, J. H. Wathen, P. R. Cresswell, Jabez Thomas, T. J. Dyke, J. Probert, H. N. Davies.

Benevolent Fund.—The question of establishing an Association Benevolent Fund was postponed to the next meeting, owing to the unavoidable absence of Mr. George A. Brown.

NORTH WALES BRANCH: INTERMEDIATE MEETING.

THE intermediate meeting was held at the Royal Ship Hotel, Dolgelley, on April 23rd, under the presidency of HUGH REES, Esq., Carnarvon.

Discussion.—A debate upon the Zymotic Influence in Disease was opened by Mr. E. Jones of Dolgelley. The two views of septic ferments, as being either living contagia or chemical bodies, found their advocates.

Communications.—1. Dr. W. Williams (Liverpool) read a paper on the Treatment of Rheumatic Fever with Salicylate of Soda; and exhibited a chart of mean temperatures in fifteen cases, showing the remission of "fever" temperatures by the fifth day of treatment.

2. Dr. Williams also exhibited his Respirator for the Constant Inhalation of Carbolic Acid in Cases of Chronic Phthisis.

3. Dr. Eyton Jones (Wrexham) detailed the successful treatment of cases of Nævus with the Ethylate of Soda.

4. Dr. S. Griffith (Portmadoc) exhibited a portable Midwifery Case designed by himself.

5. Mr. Lloyd-Roberts, the Honorary Secretary, exhibited Mr. Sampson Gamgee's Absorbent and Antiseptic Pads and Bandages for Surgical and Obstetric Uses.

New Members.—Four new members were elected to the Branch and Association.

Dinner.—In the evening, twenty-one members (and guests) sat down to dinner.

SPECIAL CORRESPONDENCE.

PISA.

[FROM AN OCCASIONAL CORRESPONDENT.]

Revival of Scientific Teaching in Italy.—The Italian Universities.—University of Pisa.—Clinical Instruction.

THE old University of Pisa, where Cesalpinus, in the sixteenth century (1569), first demonstrated the course of the blood through the aorta, has of late years recovered a slight measure of its former importance. For more than a century and a half, it languished under Austrian rule, and suffered both in revenues and in the number of the students frequenting it. Since the consolidation of Italy under one government, and the great vindication of political liberty which the last twenty years have witnessed, there has been a thorough awaking of half-dormant faculties. The country generally has become more alive to the value of liberal studies, and more inclined to support them with generosity and zeal. This has been shown, among other ways, in the welcome that has been extended to foreign teachers, and the inducements that have been held out to such men to settle in the country. The appointment of Professor Schiff and the late Professor Boll as teachers of physiology in the Universities respectively of Florence and Rome, was a good instance of this new spirit of enlightened liberalism. The truth is—and well-educated Italians feel it acutely enough—the country is scarcely as yet in a position to supply the highest teaching in many branches of science. Notably is this the case in biology and comparative physiology. Until within the last half-generation or so, there was a comparative dearth of all the appliances necessary for such teaching; there were no laboratories, no systematic lectures, no professors, and no money. The most earnest minds in every walk of life were occupied, almost to the exclusion of every other thought, with politics and the emancipation of their country. That great idea was pursued by professors and students, by aged men and by mere lads, with an intensity and earnestness to which England could probably never afford any parallel. Once, however, the great struggle over and the battle won, the national energies quickly assumed their normal directions. The discoveries which had been made in England, France, and Germany, in the domains of biology, histology, and comparative anatomy and physiology, during the last thirty years, were not without their influence on the more thoughtful minds of Italy. An earnest and successful attempt was made, and is still being continued, to transplant to a not uncongenial soil the learning, and, what is far more important, the methods of exactitude and patient research, which characterise at the present time the scientific work of England, France, and Germany.

In Italy, there exist peculiar facilities for the establishment of scientific schools of medicine. From Padua to Salerno, the country is dotted over with ancient seats of learning, many of them dating back six or seven hundred years. These have for centuries been real universities in every sense of the word; they have ministered to all classes of students, and have taught every branch of learning. Their fame used often to spread beyond their own narrow borders, and attract, from generation to generation, the most earnest and able students from the north and west of Europe. The halcyon days when Vesalius and Galileo taught at Padua, when Cesalpinus demonstrated at Pisa, when Servetus and Riolanus and Fabricius ab Aquapendente were names that drew students from every land, have probably passed away not again to return. The tide of scientific, as of commercial enterprise, has set in other directions, and it will not be easy to change its current. Still much may be done to improve the actual condition of things. It is in this direction that the friends of scientific research and higher education in Italy have been of late busily working. They have commenced by adapting as far as possible to the changed circumstances of the age the means and the appliances they found ready to their hands, altering or modifying them as required. Thus, in many of the old universities, the system of instruction has been completely revolutionised. This is the case especially at Rome and Naples, and in a less degree at Padua, Bologna, Sienna, and Pisa. In Pisa, a great deal has been done in the way of providing improved facilities for laboratory and clinical teaching. A sum of over fifty thousand pounds has been spent on buildings alone. This, for Italy, large amount has been provided exclusively by Government, and, in such a poor and heavily taxed country, speaks volumes for the liberality and enlightenment of those in office.

The University of Pisa as at present constituted consists of four Faculties; viz., Law, Medicine, Philosophy, and Theology. These are each carried on by their respective professors, who receive their salaries directly from the Government. The Medical Faculty is the largest and best endowed.

The number of students at present attending the University may be set down at four hundred, of whom this year about one hundred and twenty are medical. The course of study extends over six years, exclusive of the preliminary training which has to be undergone before the candidate can commence his purely professional studies. The division of them is much the same as in England. The student is compelled to spend his first two years in acquiring a knowledge of anatomy, physiology, and cognate subjects. The next four are spent in clinical studies at any university he chooses to select. The last two, however, must be spent at one of the larger ones, such as Rome or Florence, where "complete courses" are given. By this is meant instruction in all branches of medicine, such as insanity, ophthalmology, skin-diseases, etc., for which the smaller schools, such as Sienna, Padua, Salerno, or Pisa, do not afford sufficient clinical material. In the liberty of choice thus granted to students, the universities of Italy resemble those of Germany. There are many advantages in the system, and some few disadvantages. The earnest student is free to get his learning where and how he will; he can select his teachers; and eloquent and able teachers can in turn collect a large number of students around them, and extend their own names and fame beyond the limits of the university in which they teach. On the other hand, the idle and vicious are enabled, by frequent changes of abode, to practically escape all surveillance and discipline, and to enjoy an amount of licence quite incompatible with English notions and traditions. One important point as regards the examinations deserves notice. They are all conducted by government officials appointed for the purpose, so that in the multiplicity of schools there is no real danger of a lowering of the standard of medical education by unworthy competition. In this respect, they are on a par with the Queen's University in Ireland, in which questions for examination were framed in Dublin and distributed to the various colleges throughout the country.

As already remarked, a large sum of money has within the last few years been spent in providing the Medical School of Pisa with the latest and best appliances for research and instruction. The new class-rooms are models of their kind; well lighted, well ventilated, scrupulously clean, and fitted with all modern conveniences. The lecture-theatres are fitted with arrangements for shutting out daylight when required, and with a mechanism by which the lecturer can at will circulate one or more microscopes or pathological specimens among his audience without fear of breakage or loss. The dissecting-rooms are paved with encaustic tiles, and are ventilated by a very ingenious arrangement. The gas jets around the walls are fed exclusively by air, which passes through the tables on which the subjects for dissection lie, and thus the foulest air is necessarily consumed as soon as generated. Each table has its own water-supply, and the room generally is provided with plenty of microscopes, diagrams, and books of reference. The pathological museum is very well furnished, especially in preparations illustrating diseases of the bones. The teratological collection is exceptionally rich, both in human and in zoological abnormalities; while the materials for the study of comparative anatomy are far superior to those which exist in any of the large London schools.

Clinical instruction is given in the *Nosocomio*, or general hospital, founded in the sixteenth century. This contains about three hundred beds, and is supplied from the whole province of which Pisa is the official centre. A large number of severe surgical cases are annually received, and all the major operations are performed at comparatively frequent intervals. The large and busy seaport of Leghorn, which is only an hour's distance by rail, also sends a large contingent of accidents and acute diseases, so that there is no dearth of clinical material as regards general medicine and surgery. This, however, is scarcely the case as regards any special class of disease, the opportunities of studying which do not exist in sufficient quantity. The Hospital, in its general arrangement, is perhaps scarcely on a level with the medical school. The wards, when I visited it, were decidedly too full, the floor had a sodden look, the walls were damp, and the windows opened immediately over many of the patients' beds. The ventilation appeared defective, and the atmosphere was laden with a most unpleasant and unnecessarily strong odour of carbolic acid. The nursing is done by paid attendants, who are directly under the control of the medical officers. The daily visit is made about 8 A.M. At that hour, students attend the clinical lectures and witness any operations which may require to be performed. The medical wards contain, as a rule, a large number of chronic cases.

Pisa has the reputation, which is not undeserved by it, of possessing a very mild and genial climate, and this fact attracts in considerable numbers consumptive invalids from Lombardy, Venice, and the southern districts of Tuscany. Malaria in one form or another is frequently met with, being, indeed, endemic in the low marshy lands between Leghorn and Civita Vecchia. There is a remarkable immunity, both in the hospital wards and in the town generally, from diseases of a zymotic type; and the same may be said of enthetic diseases. On the whole, the medical wards, so far as material for instruction goes, are not equal to the surgical, though in both the teaching is very thorough and scientific. Professor Landi, well known throughout Northern Italy as an ovariotomist, is senior surgeon and lecturer on surgery. To him and his assistant Dr. Layfield, I am indebted for much kindness and courtesy during my stay at their venerable university.

CORRESPONDENCE.

REPRESENTATION OF THE UNIVERSITY OF LONDON.

Sir,—The credence given to the rumour that removes Mr. Lowe to the Upper House has caused several of your daily contemporaries to discuss the merits of various "good men and true", for the then vacant representation of the University of London. No exception can be taken, on the score of eminence and scientific position, to the names of those so spoken of: especially is this the case as regards Sir John Lubbock, to be represented by whom any university or other constituency might well be proud. Not any, though, of the papers have mentioned the name of one, who, being himself a distinguished medical graduate of the London University, would, in my opinion, be a good Liberal member to represent the University *as such*, as well as to represent the general body of our profession, whether surgeons, physicians, or general practitioners; and also that section of the non-medical graduates of the London University, who are interested as keenly as ourselves, that sound views of public medicine and hygiene should have an able advocate in the House of Commons.

I refer to Dr. Alfred Carpenter of Croydon, the valued President of the Committee of Council of our Association—a position which would enable him to speak with authority on any question in which the interests or feelings of the general body of our profession were concerned. His life-long work and interest in, and his intimate acquaintance with, all sanitary matters; his known advocacy of any action conducing to the hygiene of any part of London (as, for instance, his present efforts to secure the site of Horsemonger Lane Gaol, for the purpose of converting it into another "lung" for London); his organising and administrative ability; and, above all, his perfect competence as a public speaker to arouse the attention and influence the judgment of those he addresses—all point to Dr. Alfred Carpenter as sure to be a fit and able representative of the London University, as well as of the interests of our profession and those of the general public. The small medical element in the present House of Commons stands sadly in need of such additional strength as the return of Dr. Alfred Carpenter would give to it. If the views that I have expressed are shared by those of your readers who are graduates of the University of London, I shall be glad to receive their names, and their expression of willingness to form a provisional committee for the purpose of promoting the object I have indicated.—I am, sir, yours faithfully,

Horace Jeaffreson.

The Red House, Wandsworth, S.W., April 25th, 1880.

Sir,—By the proposed elevation of Mr. Lowe to the Upper House, a vacancy will probably take place in the representation of the London University. Already several gentlemen have been suggested as candidates for the seat. I believe I am correct in asserting that by far the largest number of graduates are members of the medical profession, which at the present time is, and always has been, miserably represented in the legislature. Surely medical men ought not to allow this opportunity to pass, and permit some additional lawyer or ambitious layman to obtain the seat. Is it not possible to find some one among our ranks who, if elected, would do honour to the University and at the same time fairly represent us in the House? Some names occur to me; but, not being a graduate of the University, I refrain from mentioning them. I do trust, however, that the hint I throw out will not be lost, but, forthwith acted on.—I am, sir, yours obediently,

33, Soho Square, April 27th, 1880. Joseph Rogers, M.D.

THE EPSOM COLLEGE CASE.

Sir,—As you have commented at some length, in your issue of to-day, on the recent case of Howell *v.* West and Jones, you will perhaps allow me to point out one or two inaccuracies which have crept into your report.

Having carefully studied the evidence, I am bound to say that my own views of the case as a whole do not agree with those which you have expressed; but I propose to deal with facts only, and not with opinions, except as expressed in the testimony laid before the court at the trial.

With regard to the agreement made between Mr. Howell and Dr. West, there can, as one of your daily contemporaries has said, be no doubt that Mr. Howell left Dr. West with the conviction that he had made an agreement for his son to remain, under all probable circumstances, under Dr. and Mrs. West's immediate care; and, as the facts stand, Dr. West must, had Kyrle Howell been shortly afterwards attacked with scarlet fever, have kept him in his own house, since there was then no infirmary to which he could have been removed. Dr. West did not deny that Mr. Howell's version of their first conversation was correct verbally; but he appears to have made a mental reservation with regard to infectious diseases, either then or afterwards.

It may easily be said that the room in Dr. West's house to which the patient was removed was too small for successful treatment; but few men are without experience of cases successfully carried through under much more unfavourable circumstances. I have myself treated on one occasion two, and on another three, patients together in rooms quite as small, and all recovered.

With regard to the facts connected with the removal of the patient, there is no contention, so far as I can see, that he sustained any injury in the mere passage to the infirmary; but the state of the room was bitterly complained of. The room was eighteen feet by eighteen, with four large windows and two doors; and, five hours after the fire had been lighted in it, the temperature was not above 55°, at the most. This was at the commencement of February; and what must, therefore, have been the temperature of the room at the time the boy was removed to it? You comment at considerable length upon the differences of opinion with regard to the external temperature best suited to the treatment of scarlet fever; but, whatever opinion may be held on this point, I cannot think it right to remove a patient from a temperature of 65° to one of 45° (for the ward can hardly have been higher when the boy was removed to it). It is generally agreed that the first stress of scarlatina falls on the skin and throat; and, if the action of the skin be suddenly checked, the elimination of the poison is interfered with thereby, and the whole stress of the disease thrown on the internal organs. The question of cold baths is beside the mark, for they would hardly be applied at a lower temperature than one of 60° to 70°, and then for a very short time.

Will you allow me to refer to one other fact? The patient had been vomiting for two days, and had sore-throat, for which Mr. Jones saw him. Why was not his temperature taken with such a combination of symptoms? If this had been done, the disease would probably have been recognised much earlier. That this was not done, and that the condition of the ward was not examined previous to the removal, are facts which I feel sure all will regret.—I remain, sir, your obedient servant,

London, S.W., April 24th. Audi Alteram Partem.

MISS LONSDALE AND GUY'S HOSPITAL.

Sir,—The surgeons, dressers, and students at Guy's doubtless think Miss Lonsdale's calumnies beneath their notice; but some one ought to contradict such utterly false statements. I am one of a class whom, Miss Lonsdale avers, surgeons and students dislike—lady nurses; I would rather say, a gentlewoman trained in nursing. My experience, while in charge of wards (as honorary sister during the holidays of the regular sisters) at Guy's two years ago, is exactly the reverse of what she describes. I never heard an unseemly word from any of the medical staff, dressers, or students; and, as to a "want of delicacy", in certain cases I have known them frequently dispense with the services of nurse and sister, getting fellow-students to help rather than ask our aid, if it could be avoided. The tenderness and patience of some of the medical students was beyond all praise. Far from objecting to me as a lady-nurse, they were very thankful for my services; and the senior students took much trouble to explain matters to me, and much valuable information did I gain from them. When I was no longer in charge of wards, I was more than once requested to nurse special cases (requiring more than ordinary care) by the house-surgeon or house-physician, with the consent of the matron. *Good nursing* is keenly appreciated at Guy's, be the nurse gentle or simple. A sham is quickly detected. A nurse's first duty, like a soldier's, is *obedience*. The higher her grade, the more careful should she be to set a good example to her subordinates of obedience to her commanding officer—the doctor.

I cannot answer Miss Lonsdale's long article without trespassing too far on your valuable space. It was utterly unfair throughout; describing the "old type" of nurse, and suggesting that such was the type of Guy's nurses. One insinuation, however, I cannot pass over: the relations between the students and sisters—the "familiarity that breeds contempt".

Let Miss Lonsdale see the 1st of October at Guy's: the "old boys'" visits to "sister". One understands then the beneficial influence a good loving liberal minded woman may exercise over young gentlemen, many of them far from home ties; how her hearty sympathy and kindly advice may save them from many a misadventure. Their own mothers are scarcely prouder of their successes, or more grieved over their failures. Such was the old type of Guy's sisters. Can any one dare assert the "new type" is an improvement? My picture is not overdrawn. The one sister of whom I am specially thinking has, after fourteen years' faithful service, been dismissed, *because her collar was not regulation size*—a grave offence under the new *régime*. But Guy's men, past and present, will not soon forget such a sister, beloved alike by her surgeons, her "boys", and her nurses.—I am, sir, yours obediently,

OLD TYPE.

MILITARY AND NAVAL MEDICAL SERVICES.

NAVAL MEDICAL SERVICE.—The following appointments have been made:—Surgeons—W. Patrick, to the *Britannia;* T. Browne, to the *Royal Adelaide.*

INDIAN ARMY MEDICAL SERVICE.—The Queen has approved of the following admissions to her Majesty's Indian Medical Service to be Surgeons.—*Bengal:* G. W. P. Dennys, J. W. U. Macnamara, H. O. Stuart, J. Sykes, J. F. Tuohy, M.D., C. A. Daubeny.—*Madrds*: J. C. Marsden, J. L. Poynder, J. Hoey, A. G. Collington.—*Bombay:* A. R. Campbell, M.D., A. C. Thompson, F. Burness, G. J. Ward, F. C. Reeves. The Queen has approved of the retirement from the service of the following officers of her Majesty's Indian Military Forces: Surgeon-General G. Smith, M.D., Madras Army; Deputy Surgeons-General J. R. Theobalds, Madras Army, W. J. Van-Someren, M.D., Madras Army, D. Wyllie, M.D., Bombay Army. The undermentioned officers have been granted a step of honorary rank on retirement.—To be Surgeon-General: Deputy Surgeon-General D. Wyllie, M.D., Bombay Army; to be Deputy Surgeon-General: Surgeon-Major H. T. Shaw, Madras Army.

ARMY MEDICAL DEPARTMENT.—Surgeon Major W. Hensman is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon J. A. Campbell is appointed to be Surgeon Major. The undermentioned Surgeons are promoted to be Surgeons-Major: T. Lewis, M.B., G. E. Dobson, M.B., J. Fraser, M.D., J. Walker, M.B., E. V. MacSwiney, M.D., J. S. Conyers, M.D., J. H. Ussher, M.B., J. Leader, W. C. Gasteen, M.B., R. Anderson, W. Geoghegan, M.B., A. H. L'Estrange, M. Knox, R. M. Craig, J. R. Railly, A. L. Brown, A. A. Macrobin, M.B., F. Waghorn, M.D., C. B. Jennings, H. H. Burford, T. W. Jackson, M.B., D. Thornton, J. Latchford, M.B., P. T. Frazer, W. J. Campbell, W. F. Samuels, F. A. L'Estrange, O. S. Eagar, D. Parke.

THE NAVAL MEDICAL SERVICE.

SIR,—The letter of a "Naval Surgeon" in your paper of the 24th calls for some comment, and it is to be regretted he does not state over how many years his experience spreads. I will venture to criticise by paragraphs.

1. "Enforced idleness." In the navy our duties are as much preventive as curative. That this is acknowledged by the executive I can vouch. When First Lord of the Admiralty, the Duke of Somerset told me, "Your first duty is to endeavour to the utmost to prevent sickness; but when any serious affection arises, send it to the hospital." This rule was peculiarly applicable to the circumstances under his consideration at the time; but who, to prevent "enforced idleness", would keep serious cases on board ship whenever a hospital or good sick quarters are near? When a junior officer, I felt myself in much the same position with my chief as when a house surgeon, and have always endeavoured as a chief to place my juniors in that position. The senior medical officer reports to the captain, and the junior to the second in command. There is nothing mean or humble in this duty. Whether the journal is chiefly filled with records that can never be of scientific or other value depends on the writer. There are, I am sure, many journals in office that redound to the credit of the writers and have been considered with other claims for promotion.

2. I cannot concur with any statement in this paragraph. Such has not been my experience.

3. In my service on the Mediterranean station, I believe all ports have been visited; also a trip to Constantinople; others to Jerusalem from Jaffa, to Damascus from Beyrout, to Ephesus from Smyrna, to Rome from Naples, Florence from Leghorn, Milan and the lakes from Genoa, Etna from Catania. On other stations I have had similar opportunities. If the "Naval Surgeon" have not entered into society, it must be his own fault, for I have always found the *entrée* into society much easier in the colonies and in foreign ports than in our home ports.

4. I have passed most of the years of my life in naval messes, and have the pleasure of saying that some of my warmest friends first met me there. Hatred I have never known to arise. Quarrels will spring up; but, as a rule, I have found that these were settled in the mess, though sometimes there has been an appeal to the quarter-deck.

5. Such arrangements as are mentioned in this paragraph would be a disgrace to any ship, and it is a pity the "Naval Surgeon" did not give the name of the ship. I have never before heard of the comfort of the sick or the convenience of the surgeon in carrying out his duties being so utterly disregarded.

6. I once had a messmate in an adjoining cabin who wished to cultivate the hobby of learning the flute. The cultivation of the hobby was not acceptable to his messmates, and I have not heard of his becoming a performer of note.

7. A surgeon on entering the Navy, as in purchasing a practice or joining in a partnership, should weigh well his adaptability for the service and learn all its discomforts; also, whether he can invest his professional knowledge in a better market, and whether the discomforts of the despised ship and cabin are less when called up at night than those which he would undergo as a country or town general practitioner on every such call. I have no knowledge of a medical officer willingly disgracing himself to obtain dismissal from the service.

8. I deny that my instruments, which are in accord with the regulations, are either inefficient, clumsy, or obsolete. With them I have performed major and minor operations successfully. It is optional what additional instruments one thinks necessary and purchases. It would be satisfactory to know whether it is the medicine-chests or the contents, or both, that are "absurdities". Men of long naval experience have reported on, suggested changes in, and approved of the contents and the chests.

The great grievances of the long letter appear in the last and unnumbered paragraph, "keeping a journal of another man's doings and reporting the sick list", with the unsupported assertion that "the Naval Medical Service is a scandal to the profession and a laughing-stock".

To such a discontented young officer I would say, take your unappreciated talents to another market. Perhaps he will accept the advice of one who has had much experience. There are many grievances, and changes for the better are hoped for as the result of the recommendations of the committee that has just concluded its inquiries; but they are not of so frivolous a nature as those I have criticised; and my criticism is based on an experience of upwards of thirty years.—I am, sir, yours obediently,

MENTOR.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BEDFORD URBAN AND RURAL DISTRICTS.—There is but little needing comment in the mortality statistics for 1879 of either of these districts. The death-rate for the borough was 17.4, and that of the rural district 18.6. Zymotic diseases were not prevalent in either district. The diphtheria outbreak, which created such havoc in 1878, continued during part of 1879, and carried off 13 victims in the two districts. None of the other diseases were prevalent, but 6 deaths from enteric fever occurred in various rural villages. The infant mortality of both districts was low, and sanitary work appears to be sustained in each.

HARTISMERE RURAL DISTRICT.—Dr. Barnes has regretfully to chronicle a large increase in the mortality of this district during his first completed year of office; but it cannot be said that his action, in presence of the numerous epidemics which ravaged the district, was tardy or inefficient. No fewer than 178 cases of scarlatina in fourteen villages had to be dealt with, the disease having seemingly been imported into the district by a woman from London. In connection with this prevalence, Dr. Barnes deplores the absence of a hospital, and of power for the sanitary authority to require that all inmates of infected houses shall be excluded from school, and, in case of necessity, to close the school entirely. Typhoid fever attacked 15 persons, the disease being, in a large proportion of the cases, ascribed to polluted water. An outbreak of diphtheria occurred, to which Dr. Barnes was disposed to attribute a filth origin. It attacked 29 persons, and was largely spread by school congregation. The general death-rate of the district was 21.1 per 1,000, against an average of 17.7 for the nine previous years. Seven cases of suicide are reported, which, for a rural district, is exceptionally large.

HOLSWORTHY RURAL DISTRICT.—Mr. Linnington Ash makes a long and unusually interesting report on this district for 1879, and his tables are useful and complete. Many arrears of sanitary work will need to be overcome before the district can be regarded as a healthy one; for Mr. Ash reports that bad water-supply, drainage, privy-accommodation of cottages, are "generally prevalent" throughout the district. Doubtless these insanitary conditions account in a great measure for the very high death-rate of the district—21.2 per 1,000. Of the total of two hundred deaths, twenty occurred from zymotic diseases; viz., nine from diphtheria or diphtheritic croup, three from diarrhœa, and one from each of the others except small-pox. Pulmonary diseases caused nearly one-third of the total deaths, tubercular diseases (including phthisis) nearly a sixth, and bronchitis another sixth. Sixty of the deaths were those of children under five years: an unduly high proportion for a rural and sparsely peopled district like Holsworthy. The account of an epidemic of diphtheria, which killed nine persons and was chiefly spread by attendance at the village schools, is interesting and instructive.

OBITUARY.

ALFRED LEGGATT, F.R.C.S., L.S.A.

THE sudden death of Mr. Alfred Leggatt has deprived a large circle of medical men and patients of a long-trusted and most valued friend. He commenced his medical career in the early part of 1832, as an articled pupil of the late Mr. Watson in Berners Street (for many years Secretary to the Court of Examiners at Apothecaries' Hall). About 1833 or 1834, he obtained at University College Dr. Lindley's Silver Medal for Botany, and in 1835 Dr. Edward Turner's Gold Medal for Chemistry. In 1836, he was appointed House-Surgeon to the Middlesex Hospital; and, having held that appointment for a year, he became a Member of the Royal College of Surgeons and Licentiate of the Apothecaries' Company. In 1838, he commenced the practice of his profession in Ebury Street, where he remained till 1850, whence he removed to William Street, Lowndes Square. He died there suddenly on March 15th, 1880, most deeply and widely regretted by a very large number of patients and friends. He ever evinced consummate tact in the sick-room, and a great accuracy in his diagnosis of disease. The high christian tone of his mind, which animated him through life, commanded the great respect of his fellow-men, however they might differ from him. Earnest large-hearted sympathies for the sorrow and distress of others were always conspicuous in his thoughts and actions, whilst he was characterised by a deep sense of humility and unselfishness.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 26th April.

Messrs. John R. S. Robertson, William B. Benjafield, George A. Atkinson, James G. Houseman, B. Langley Mills, and James D. Dunlop, Students of the Edinburgh School; Frederick A. Saunders and William A. Martin, of the Liverpool School; Thos. H. Williams and Charles S. Young, of the Glasgow School; Anthony A. Ward and William H. Wilcock, of the Leeds School; William E. Bradley, of the Manchester School; Frank J. Allen, B.A.Cantab., of the Cambridge School; Charles H. Evans, of the Newcastle School; Geo. T. Myles, of the Bristol School; Henry L. Jones, B.A.Cantab., of St. Bartholomew's Hospital; and C. Newton Cornish, of King's College.

Six candidates were rejected.

The following gentlemen passed on the 27th April.

Messrs. Edward B. C. Walker, Herbert H. Ashdown, Ernest E. Maddox, John L. Gibson and Samuel Macken, of the Edinburgh School; John H. Naylor, William J. Waddington, and George F. S. Arthy, of the Leeds School; John Rodley, William H. Winder, and Herbert E. Edlin, of the Manchester School; William W. Banham and George R. Beardmore, of the Sheffield School; Daniel Riordan, of the Galway School: and Charles S. Blair, of the Newcastle School.

Nine candidates were rejected.

The following gentlemen passed on the 28th April.

Messrs. John F. Bullar, John Hoole, Matthew C. Sykes, and Robert W. Jalland, of St. Bartholomew's Hospital; George T. Lee and Ernest F. Grose, of University College Hospital; Frederick T. Frampton and John H. Spitzly of St. Mary's Hospital; Hugh Heald, of the Liverpool School; Alfred De Winton, of Guy's Hospital; Thomas Taylor, of the Middlesex Hospital; A. de Courcy Scanlan, of the Westminster Hospital; and John Oxford, of St. Thomas's Hospital.

Eleven candidates were rejected.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on the 22nd April.

Barratt, Herbert J., Bedford, St. Bartholomew's Hospital.
Benson, Alfred, Settle, Yorkshire, St. Mary's Hospital.
Bovill, Henry H., James Street, S.W., Guy's Hospital.
Davis, William G., Philadelphia, St. Bartholomew's Hospital.
Frampton, Tom H. T., Gloster Terrace, Hyde Park, St. Mary's Hospital.
Hackridge, Thomas G., Westbourne Park, McGill University.
Jones, William C., Llyswen, Breconshire, Middlesex Hospital.
Parkes, Louis C., Weybridge, University College.
Perkins, George C. S., Exeter, Guy's Hospital.
Permewan, Arthur E., Redruth, University College.
Reid, Norman M., Croydon, St. George's Hospital.
Rowlands, Hugh P., Bryngwyn, Towyn, Guy's Hospital.
Sloggett, Arthur T., Cambridge Gardens, King's College.
Vise, Christopher, Holbeach, University College.
Wheeler, Albert, Southsea, Middlesex Hospital.
Whiting, John, Beccles, St. Bartholomew's Hospital.

Nine candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 22nd, 1880.

Breach, James Henry, Yattenden, Newbury, Berks.
Gibbs, Alfred Napier Godby, Clifton, Bristol.
Morris, Edgar Freeman, St. Owen's Street, Hereford.
Pitman, William Weston, Acacia House, Highgate.
Spackman, Henry Robert, Pennfields, Wolverhampton.
Thomson, Thomas, Approach Road, Victoria Park.

The following gentlemen also on the same day passed their primary professional examination.

Cole, George Milner, St. Bartholomew's Hospital.
Sumner, Joseph Henry Surtees, London Hospital.

At the Preliminary Examination in Arts, held at the Hall on Friday and Saturday, the 23rd and 24th of April, 1880, one hundred and thirty-seven candidates presented themselves, of whom the following passed, and received certificates of proficiency in general education—viz., in the First Class, in order of merit:

1. T. H. Fisher; 2. Mary Emily Dowson; 3. W. Lansdale; 4. E. H. O. Little and Arthur William Jones; 6. Edward Felix, H. J. Hawthorn, and J. Martyn.

In the Second Class, in alphabetical order:

F. W. Abbott, B. Badcock, J. S. Batchelor, G. H. Bate, G. P. Bott, N. J. N. Bray, Samuel J. Brooks, F. St. John Bullen, C. Burland, H. L. Cade, J. W. Cafferata, J. S. Caskey, H. W. Chambers, J. C. Christie, W. A. Clarke, John Crisp, F. Evered, E. C. Featherstone, W. I. Fern, Octavius S. Fisher, H. Fox, C. B. Francis, R. Freeman, G. F. C. Gardiner, J. Girvin, T. W. Gibbard, C. B. Gilson, W. H. Godfrey, W. H. Hall, F. W. Hamp, C. J. Heath, T. S. Heaton, A. B. Holberton, W. J. Hosford, W. W. Howard, H. L. Hudson, W. A. Jacobson, T. G. Lavie, J. L. Lewis, G. C. Macdonald, A. A. Macfarlane, J. G. Mackay, F. W. Metcalfe, Anne Emily Mills, W. A. Mushet, F. Nuttall, R. Pinhorn, R. H. F. Routh, Agnes Russell, D. S. Saunders, F. A. Saw, Albert W. Smith, Cecil Smith, J. Baker Smith, Robert E. Smith, Sophia Emilia Smith, C. F. White, J. R. Williams, W. R. Wolfe Edwin P. Wright, Sydney C. E. Wright, and R. B. Wyeth.

UNIVERSITY OF DURHAM.—The following candidates were successful at the First Examination for the Degree of Bachelor of Medicine, held at the College of Medicine, Newcastle-upon-Tyne, April 19th, 20th, 22nd, and 23rd:

John Hopper Barker; James Brett, M.R.C.S., L.S.A.; Frederick Collins Coley, L.R.C.P., M.R.C.S.; George Clarendon Hamilton; Henry Boynton Lee; Frederick Charles Mears; William Pope Mears, M.R.C.S., L.S.A.; Alfred Robinson; Robert Henry Rowell; William John Shephard; Willis Harvey Smith, M.R.C.S.; Armar William Wheatley.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

*BIRKENHEAD BOROUGH HOSPITAL—Junior House-Surgeon—Salary, £60 per annum, with board, lodging, etc. Applications, with testimonials, before May 11th.

CASTLE BLAYNEY UNION—Medical Officer for Ballybay Dispensary District. Salary, £120 per annum, with £15 as Medical Officer of Health, registration and Vaccination Fees. Election on 7th May.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Manchester—House-Surgeon. Salary, £80 per annum, with board and residence. Applications, with testimonials, to the Secretary, on or before May 3rd.

*CUMBERLAND INFIRMARY, Carlisle—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications, with testimonials, to the Secretary on or before May 11th.

*DEACONESSES' INSTITUTION AND TRAINING HOSPITAL, Tottenham—House-Surgeon. Salary, £150 per annum. Applications, with testimonials, not later than May 7th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications, with testimonials, on or before May 8th.

LIVERPOOL INFIRMARY FOR CHILDREN—Assistant House-Surgeon. Remuneration, £50 per annum.

NOTTING HILL PROVIDENT DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished apartments, firing, lighting, and attendance. Applications, with testimonials, to the honorary secretary on or before May 25th.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace Road—Attending Medical Officer. Applications to the Secretary on or before May 1st.

SUSSEX COUNTY HOSPITAL—Dispenser. Salary, £75 per annum, rising at the discretion of the Committee to £100 per annum. Applications, with testimonials, to the Secretary, on or before May 5th.

UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications, with testimonials, not later than May 18th.

WESTON-SUPER-MARE HOSPITAL—House-Surgeon. Salary, £70 per annum, with board, lodging, etc. Applications and testimonials before May 1st.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*BERRY, William, M.R.C.S.Eng., appointed Honorary Medical Officer to the Royal Albert Infirmary, Wigan, *vice* W. Hart, L.R.C.P.Ed., resigned.

BOSTOCK, A. S., M.R.C.S.Eng., appointed Honorary Medical Officer to the West Sussex, East Hants, and Chichester Infirmary.

BUCKELL, E. H., M.R.C.S.Eng., appointed Honorary Medical Officer to the West Sussex, East Hants, and Chichester Infirmary and Dispensary.

*CHURTON, Thomas, M.D., appointed Honorary Physician to the Leeds General Infirmary.

CLARKE, J. St. Thomas, M.B., appointed Honorary Surgeon to the Leicester Infirmary.

*CURTIS, James G., F.R.C.S.I., appointed Surgeon to the Cork South Infirmary and County Hospital.

DE WOLFE, G. H. H., M.D., appointed Honorary Physician to the Sheffield Public Hospital for Diseases of the Skin.

*FITZSIMON, C. C., M.D., appointed Assistant House-Surgeon to St. Bartholomew's Hospital, Chatham, *vice* W. T. Jackman, M.R.C.S., resigned.

*Fullerton, R., M.B., appointed Assistant Medical Officer of the Bristol Lunatic Asylum, Stapleton, *vice* F. W. Thurnam, M.B., resigned.

*Hardwicke, H. J., M.D., appointed Honorary Physician to the Sheffield Public Hospital for Diseases of the Skin.

Hazard, J., M.R.C.S., appointed Honorary Surgeon to the Sheffield Public Hospital for Diseases of the Skin.

Hebb, Richard G., M.D., appointed Pathologist and Curator of the Museum to the Westminster Hospital, *vice* J. K. Fowler, M.B.

Hex, Henry, L.R.C.P.Ed., appointed Assistant-Surgeon to the City Provident Dispensary and Surgical Appliances Association, *vice* R. R. W. Webb, L.R.C.P.I.

*Holderness, William Brown, appointed Surgeon to the Royal Infirmary, Windsor, *vice* Fairbank, deceased.

Oliver, James, M.B., appointed Resident Physician to the Queen's Hospital, Birmingham.

*Pearce, George, M.D., appointed Honorary Surgeon to the Leicester Infirmary.

*Pollard, William, F.R.C.S., appointed Honorary Consulting Surgeon to the Torbay Hospital, Torquay.

Skaife, F., L.R.C.P.Ed., appointed Honorary Medical Officer to the West Sussex, East Hants, and Chichester Infirmary and Dispensary.

Smyth, Sydney, M.R.C.S.Eng., appointed House-Surgeon to the Westminster Hospital, *vice* G. H. Butler, M.R.C.S.Eng., resigned.

Strang, W. J., M.A., M.B., appointed Resident Medical Officer to the Newcastle-on-Tyne Dispensary, *vice* J. M. Monteith, M.B., resigned.

Swale, Harold, M.R.C.S.Eng., appointed Resident Medical Officer to the French Hospital and Dispensary, *vice* G. D. Maddick, M.R.C.S.Eng., resigned.

Tanner, W. K., M.D., F.R.C.S.I., appointed Consulting-Surgeon to the Cork South Infirmary and County Hospital.

POOR-LAW MEDICAL APPOINTMENTS.

Davies, John W., L.R.C.P.I., appointed Medical Officer of the Clun District of the Clun Union.

Deacon, William O., L.R.C.P.Ed., appointed Assistant Medical Officer to the Crumpsall Workhouse, and Resident Medical Officer at the Workhouse Receiving and Casual Wards, *vice* George Henry Jackson, L.R.C.P., deceased.

Lithgow, T. G., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator to the No. 6 District (comprising Farnborough and Cove) of the Hartley Wintney Union, Hampshire.

McAllister, William, M.B., appointed Assistant Resident Medical Officer to the Smithson Asylum and Poorhouse, Greenock, *vice* James Herron, M.B., resigned.

Thew, E. P., M.B., appointed Medical Officer to the Lesbury District of the Alnwick Union, *vice* A. J. Main, M.D., resigned.

Wilson, David, M.B., appointed Medical Officer to the Crossland Moor Union District of the Huddersfield Union, *vice* Peter MacGregor, L.R.C.P.Ed., resigned.

Womersley, Joshua King, M.R.C.S.Eng., appointed Medical Officer to the Bungay District of the Wangford Union, *vice* Edward Burman Adams, M.R.C.S.Eng., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

DEATHS.

Barrington, William B., LL.D., late Surgeon to H. M. Indian Army, at Bexley Heath, aged 78, on April 24th.

Gourlay.—At his residence, 1, Victoria Buildings, Weston-super-Mare, Frederick Gourlay, M.D., in his forty-fifth year.—Friends will kindly accept this intimation.

Fergusson, W. E. L., M.D., at 43, Claremont Square, on April 25th.

Kidgell, Stephen W., M.S.A., of Pangbourne, at Bath, aged 70, on April 24th.

Moylan, W. J., L.K.Q.C.P., Surgeon Army Medical Department, on board H.M.S. *Euphrates*, *en route* to India, aged 51, on March 20th.

Public Health.—During last week, being the sixteenth week of this year, 3,669 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 22 deaths annually in every 1,000 persons living. The annual death-rate was 24 in Edinburgh, 25 in Glasgow, and 36 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Portsmouth 14, Leicester 14, Brighton 19, Leeds 20, Bristol 20, London 20, Newcastle-upon-Tyne 20, Birmingham 21, Wolverhampton 21, Bradford 22, Oldham 23, Hull 23, Manchester 24, Liverpool 24, Sheffield 25, Norwich 25, Sunderland 25, Salford 28, Nottingham 29, and again the highest rate 32 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.2 per 1,000 in the twenty towns, and ranged from 1.5 and 1.6 in Brighton and Leeds, to 6.3 and 13.9 in Nottingham and Plymouth. In London, 1,417 deaths were registered, which were 261 below the average, and gave an annual death-rate of 20.2 per 1,000, a lower rate than has prevailed in any week since the beginning of the year. The 1,417 deaths included 15 from small-pox, 30 from measles, 46 from scarlet fever, 10 from diphtheria, 83 from whooping-cough, 15 from different forms of fever, and 8 from diarrhœa—altogether, 207 zymotic deaths, which were 47 below the average, and were equal to an annual rate of 2.9 per 1,000. The deaths referred to diseases of the respiratory organs declined to 295 last week, and were 84 below the average; 176 resulted from bronchitis, and 90 from pneumonia. The annual death-rate from lung-disease, exclusive of phthisis, was equal to 4.2 per 1,000, against 6.2 from the same diseases in Liverpool. Different forms of violence caused 46 deaths; 41 were the result of negligence or accident, including 23 from fractures and contusions, 5 from burns and scalds, 2 from drowning, and 8 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 51.9°, and 3.7° above the average. The general direction of the wind was south-westerly, and the horizontal movement of the air averaged 14.5 miles per hour, which was 2.5 above the average in the corresponding week of sixteen years. Rain fell on two days of the week, to the aggregate amount of 0.30 of an inch. The duration of registered bright sunshine in the week was equal to 44 per cent. of its possible duration.

Royal Hospital for Incurables.—The anniversary festival of this institution was held at Willis's Rooms, on Friday, April 23rd; Mr. J. D. Allcroft, Treasurer, in the chair. There are at present 186 inmates and 426 pensioners. The Board are carrying out a scheme for a new wing to provide one hundred additional beds, the first stone of which was laid by the Prince of Wales in July last year, when donations were announced amounting to £9662. In proposing the toast of the evening, the chairman traced the history of the institution, which has been established for a quarter of a century. The new wing in course of construction was estimated to cost £20,000, about half of which sum had already been contributed; and the chairman appealed to the friends of the institution to subscribe the remaining moiety before the opening of the new wing. The internal management of the hospital costs a little over £10,000 a year, and the pensions £8,000. The contributions announced in the course of the evening amounted to £4,316.

Address and Presentation to Dr. James Clarke.—The students attending the Belfast Royal Hospital have presented Dr. Clarke, lately Senior House-Surgeon to that institution, with a dressing-case and illuminated address on the occasion of his departure for India. The address referred to his collegiate course as a most brilliant and distinguished one; while as House-Surgeon he had endeared himself to them all, the assiduity and skill with which he had performed his duties, and the large-heartedness and brotherly feeling which had ever marked his intercourse caused them to cherish his memory most deeply.

American Medical Graduates.—According to the *New York Medical Record*, the number of graduates from medical colleges this spring, as ascertained up to April 3rd, is as follows: Medical College of University of New York, 200; Bellevue Hospital Medical College, 142; College of Physicians and Surgeons of New York, 117; Jefferson Medical College, 196; Medical College of University of Pennsylvania, 104; Women's Medical College of Philadelphia, 14; Louisville Medical College, 56; Medical College of University of Louisville, 95; Louisville Hospital Medical School, 33; Rush Medical College, 144; Cincinnati College of Medicine and Surgery, 28; Miami Medical College, 46; Medical College of Ohio, 119; Medical College of University of Buffalo, 56; Detroit Medical College, 27; Iowa State Medical College, 22: Yale Medical College, 2; Medical College of Virginia, 20; Baltimore College of Physicians and Surgeons, 110; National Medical College, 12; Georgetown Medical College, 10.—Total, 1553. This list, however, is by no means complete for the year. At the annual commencement at the New York College of Physicians and Surgeons, the President, Dr. Alonzo Clark, said that in 1878 there were 2708 graduates from the fifty-nine medical colleges in the United States; and he calculated that, at the present rate of increase, the number of physicians in the country, now 57,000, would in a few years rise to 86,650.

Injury of the Stomach by the Stomach-Pump.—Dr. F. Hänisch reports the following case in the *Deutsches Archiv für Klinische Medicin*, Band 23. A patient was being treated by means of the stomach-pump for chronic gastric catarrh. One day, the water injected into the stomach was observed to have a slight admixture of blood; and, on removing the elastic tube, a piece of tissue about the size of a pin's head was found in the opening. Ten days later, the water removed in washing out the stomach was coloured with blood. After the removal of the tube, the patient discharged by vomiting a small quantity of fluid containing a shred of tissue nearly an inch and a half long, and varying from one-fifth to three-fourths of an inch in width, and about one-twelfth of an inch in thickness. On microscopic examination, it was found to be a hypertrophied and very hyperæmic glandular layer from the pyloric region; there was no muscular tissue. The patient was treated as for a recent ulcer of the stomach; and no further symptoms arising from the injury were observed.

Medical Magistrate.—Henry Whitaker, M.D., has been appointed to the Commission of the Peace for the borough of Belfast.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY ..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30: Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30: Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Annual Oration, by Dr. W. H. Broadbent, "The Pulse and some of its indications".—Odontological Society of Great Britain. Mr. Arthur Underwood, "Nerve-stretching in Neuralgia". Casual communications from Mr. G. H. Harding, Mr. E. M. Todd, and Mr. Moon.

TUESDAY.—Pathological Society of London, 8.30 P.M. Mr. Harrison Cripps, 1. Imperforate Anus; 2. Volvulus in an Infant; 3. Complete Necrosis of Lower Jaw, with Cancrum Oris. Mr. R. W. Parker, 1. Diffuse Sarcoma of Liver in an Infant aged three weeks; 2. Ossifying Chondro-Sarcoma of the Left Femur with secondary growth; 3. Congenital Talipes Varus and Talipes Calcaneum. Mr. W. Adams, 1. Tendo Achillis divided in a Case of Pseudo-hypertrophic Muscular Paralysis; 2. Sequel of a Case of Syphilitic Gummata. Mr. Eve, Kidneys showing the Cystic Degeneration of Adults. Dr. Samuel West, 1. Two specimens of Complete Excavation of one Lung; 2. Acute Fatty Atrophy of the Liver. Dr. H. Orlebar, Aneurism of Aortic Arch rupturing into Trachea. Dr. Barlow, Congenital Syphilitic Ulceration of the Tongue.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens: Dr. Godson, Encephalocele. Papers: Dr. Braxton Hicks, "On recording the Fœtal Movements by means of a Gastrograph"; also "Case of Extra-uterine Fœtation: Sudden Urgent Symptoms: Abdominal Section"; Dr. Charles H. Carter, "Two Cases of Extra-uterine Fœtation, with results".—Epidemiological Society of London, 8 P.M. Surgeon-General Dr. John Murray, "On Removal in Epidemic Cholera"; Dr. Lawrence Hamilton, "On the Report of the German Medical Commission on the Outbreak of Plague in the Province of Astrakan in 1879". Council meeting at 7 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

AN IMPORTANT POINT.

JUSTITIA.—The following case was lately submitted by a medical man to the editor of the legal column of the *Manchester Courier*. As it relates to a question which not unfrequently arises in practice, the opinion which he expresses upon it may be an useful guide to many.

A medical man writes: "I am a physician. I was called by a boy (sent by the manager of a station refreshment-rooms to fetch a doctor) to attend one of the barmaids in an epileptic attack. After visiting the patient, and on leaving, I was requested by the manager to see her again the same evening, which I did. On the following morning, another barmaid was sent to request me to see the above patient again, to certify whether she was fit to be removed to her home. This third visit I paid. On sending my claim against the manager for the firm for attendance, it was refused and I was directed to obtain payment from the patient herself, of whom I knew nothing. Will you kindly say if I can, and how, recover from the manager (the firm), or am I only entitled to recover from the patient?"

The editor of the *Manchester Courier* replies: "'Justitia' is a physician, and was sent for by a manager to attend a young person employed by a firm, the patient being suddenly taken ill while under the manager's care and control. The question has now arisen, Who is to pay the doctor's fees? We think the firm should pay. They would not have been liable if the patient herself, or anyone on her behalf, had sent for our correspondent, and nothing further had occurred. But the manager sent for the doctor in the first instance, and on his first visit asked him to call again and see the patient, and we think he was quite justified in doing so, and that what he did was within the scope of his general authority as manager, so as to make his employers responsible. The remedy is by action in the county court, and we advise our correspondent to instruct a solicitor to conduct the action."

In this opinion we entirely concur. It is in harmony with the general rule of the profession, namely, that the person who sends for the medical man is responsible for his payment.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the pass examinations for the diploma of membership of the Royal College of Surgeons of England, held last week, the following were the questions on Surgery submitted to the candidates, seventy-three in number, who were required to answer four out of the six questions. 1. Describe the parts concerned in the operation for the relief of a strangulated Hernia in the Inguinal Canal. Give the steps of the operation. 2. Describe the relations of the lower third of the Brachial Artery. Give the steps of the operation for tying it at the bend of the Elbow. How is the collateral circulation carried on? 3. What are the local signs and constitutional symptoms of Suppuration beneath resisting structures? Where is such Suppuration likely to occur? Give the treatment. 4. Describe the structure of the different forms of Nævus, and their appropriate treatment. 5. How would you diagnose the nature of a Tumour in the anterior triangle of the Neck? 6. Describe in detail the process of union of a simple fracture of Bone.

Those candidates who had not passed any examination in Medicine were required to answer the following questions on that subject. 1. What are the chief causes of Ascites? What are its symptoms, and how would you recognise its presence? Point out the distinctions between it and ovarian and hydatid cysts and distended bladder. How would you treat it? 2. Give the morbid anatomy, symptoms, and treatment of Acute Pneumonia. 3. What are the properties, uses, and doses of the following drugs: Tinctura Opii; Pulvis Opii; Liquor Morphiæ Hydrochloratis; Morphiæ Hydrochloras; Tinctura Cannabis Indicæ; Extractum Cannabis Indicæ; Tinctura Colchici Seminum; Extr. Colchici; Liq. Hydrargyri Perchloridi; Tinctura Ferri Perchloridi; Tinctura Ergotæ; Tinctura Scillæ; Oxymel Scillæ; Potassæ Chloras; Santoninum; and Elaterium.

DOCTORS' CONVEYANCES.

SIR,—With reference to "Serendib's" inquiry, Mr. Blackburn informs me that the probable cost of his steam-car will be about £100. How "Economy" could work his tricycle up the steep gradients that "Serendib" mentions, I cannot understand. Bicycles, and (*à fortiori*) tricycles, are useless where the hills are steep, where the roads are repaired with loose gravel, where there is any thickness of wet mud or of snow, or when the wind is high. Where the surface of the roads consists of sharp flints, the use of 'cycles is out of the question, as the tyres are rapidly cut to shreds. With a horse for very windy or wet days, in summer and autumn, I find I can work my practice comfortably on a bicycle; but the days on which I can use it during the winter and spring are few.

If the steam-car prove a practical success, no doubt the Highways Act would quickly be altered; and then we should at length be free from the discomforts caused by horses and grooms.—Yours faithfully, IXION.

April 22nd, 1880.

MIDWIFERY ENGAGEMENTS.

SIR,—Will any person kindly inform me what is the professional law in the following case?

A lady speaks to a medical man to attend her in her confinement. Soon after this, the doctor spoken to leaves the neighbourhood, and disposes of the goodwill, etc., of his practice to another. Can the purchaser of the practice either compel the lady to employ him or demand his fee?—I am, etc., L.R.C.P.ED.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. **Francis Fowke**, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

The Effect of Hydrofluoric Acid.

Sir,—A Professor of Chemistry at one of our universities, in lecturing on fluorine during the past winter session, stated that a wound caused by hydrofluoric acid was incurable. His exact words were: "When on phosphorus, gentlemen, I told you that wounds caused by that substance were difficult to heal; I now tell you that a wound caused by hydrofluoric acid *never* heals" (or, is incurable). As a medical friend has expressed some doubt as to the accuracy of the above dictum, I shall feel obliged if you or any of your readers can refer me to a case or cases in point.—I am, dear sir, yours faithfully, An Aberdeen Student.

April 26th, 1880.

A Result of Antiseptic Treatment.

Sir,—On two separate occasions, it has been my misfortune to be obliged to have a tumour removed from the same spot. On the first, the operation was very skilfully performed by a clever surgeon, without antiseptic precautions; but it was followed nevertheless by considerable swelling, a great deal of pain, and a discharge which lasted several weeks. On the second, it was removed under antiseptic precautions, with the result that there was no swelling, no pain, and no discharge. And on the latter occasion, the wound was considerably longer, broader, and deeper. Comment is needless.—Your obedient servant,

A Member of the British Medical Association.

Sterno-mastoid Tumour or Induration.

Sir,—In last week's Journal, Dr. Johnston relates a case which followed on a fall. The case is interesting in itself; but I am quite unable to accept it as one of what is usually called "sterno-mastoid tumour or induration". It differed, as Dr. Johnston himself pointed out, in all the characteristic points. If speculation be admissible, I should incline to regard the abscess either as the result of a rupture of a few fibres of the sterno-mastoid muscle, or of suppuration in a small blood-extravasation produced by the fall.

In the interval of time which elapsed between sending in my paper and its appearance, one other *post mortem* examination of these tumours has been made. Dr. Goodhart has examined one, drawings of which may be found in the last edition of Bryant's *Manual of Surgery*. My own further experience has amply borne out the remarks I made upwards of eighteen months ago, when my first communication was written.—I am, etc., Robert W. Parker.

London, April 26th, 1880.

A Fellow by Exam.—The annual election of Fellows into the Council of the College will take place on the first Thursday in July. At the festival, the same day, Sir James Paget will preside.

Post Partum Hæmorrhage.

Sir,—Allow me to say that many of these cases may be prevented from coming to a climax by the simple use of my uterine truss, the description of which was originally communicated to the *Medical Times and Gazette* in February 1853; since which time I have used it constantly, and never had a fatal case. The principle of action is elastic pressure, and it is so useful and portable that it has been a matter of surprise to me that it has not been more universally adopted, especially by country practitioners. I exhibited it at the meeting of the Association at Plymouth, besides submitting it, among others, to Sir C. Locock, Drs. Ramsbotham, Oldham, Arthur Farre, Braxton Hicks, and last, but not least, Dr. Barnes. I have had letters from practitioners in India, Cornwall, and various parts of the country, asking where it could be procured, as their patients declined to be confined without its use. As a rule, patients like it, and ask for it, finding it so comfortable. It has been made by Weiss, Krohne and Sesemann, Millikin, and others. When I showed it to the late Mr. Millikin, he said, "Ah, sir, if I had only known of this, it would have saved the life of my wife".—I am, sir, yours obediently,

D. De Berdt Hovell.

Five Houses, Clapton, Middlesex, April 22nd, 1880.

The late Dr. Fairbank.—In our obituary notice of Dr. Fairbank of Windsor, in the Journal of March 6th, it should have been stated that he was in partnership with Dr. Ellison, who held conjointly with him the appointment of Surgeon to Her Majesty's Household at Windsor.

Guinea-worm.

Sir,—I have just read your leading article on Guinea-worm. You make no reference to the method of extraction of the worm by incision and traction, or of the Southern Mahratta method of incision and suction or suction without incision. The adoption, according to circumstances, of these methods of immediate and complete removal reduces to a minimum, in the first instance, and avoids wholly, in the second, the great bugbear of the winding process, viz., the all but extreme certainty that the wound end will drop or be rubbed off. In the case of natives, this liability is occasionally not incurred; but the European in India, who has a more sensitive skin and passes less restful nights, is seldom long able to protect the wound-up worm from rupture and its consequences.—I am, yours faithfully,

Forbes Dick, M.D., Surgeon-Major in charge Military Female Hospital.

Abbey Gate House, Colchester, March 28th, 1880.

Help in Street-Accidents.

Sir,—In the last two clauses of my letter in your Journal of April 17th, I wished to make my proposal as explicit as possible, and thought I had succeeded; but your correspondent F. P. appears not to have apprehended what I endeavoured to convey. May I then, at the risk of repetition, again shortly state that a great means of rendering assistance to persons injured, from whatever cause, would be the establishment of depôts containing a stretcher and some other ready appliances at "fixed points", where police-constables are to be found for sixteen hours, and at a few for twenty-four hours, daily, under the control of the officer on duty. The officers in the force, from the nature of their duties as well as the knowledge they have gained through the efforts of the St. John's Ambulance Association, which has qualified a large number of the men to render "first aid to the injured"; their discipline, and the fact that their assistance is commonly sought in cases of accident, would, I submit, be the best custodiers of the lockers or depôts. I understand that quite six hundred members of the City and Metropolitan police force have received their certificates of competency to render "first aid", and that the instruction of additional classes is still in progress.—I am, etc., G. Carrick Steet.

April 26th, 1880.

Notice to Advertisers. — Advertisements for insertion in the **British Medical Journal** should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. **Fowke**, not later than *Thursday*, Twelve o'clock.

Pennyroyal acting as an Ecbolic.

Sir,—Among a certain class of knowing old women, pennyroyal is credited with considerable efficacy as an emmenagogue. It is administered in very small doses, and practically is powerless for good, and does no harm. It is, however, brought into requisition for less legitimate purposes. I have frequently heard of its criminal use, but have never known success attend its administration. Therefore the record of the following case may be interesting.

Mrs. M., consulted me about two months ago for the sympathetic vomiting of pregnancy, which yielded to the ordinary remedies. I told her of her interesting condition. Soon afterwards, a virtuous old lady persuaded her that she was not pregnant at all; that her liver was diseased, and menstruation stopped in consequence; and recommended her to take ten drops of oil of pennyroyal morning and evening. This she did on April 8th. During the night, she felt sickly and "saturated with the medicine". Next day, pain and hæmorrhage set in; and, in spite of rest, astringents, and slight opiates, she aborted that evening. The fœtus was about three months. Mrs. M. is now perfectly well, and entertains no doubt that the pennyroyal caused her to abort. About nine or ten years ago, she aborted as the result of a severe shock. She has given birth to several healthy children since, and there is nothing else to account for her present abortion except the oleum pulegii.—I am, etc., M. Collins, M.D.

Scarborough, April 23rd, 1880.

A Visitor to the Examinations.—As a rule, there are only four tables at both primary and pass examinations for the membership of the College of Surgeons, but at the pass examination to which you refer there was an additional table, owing to the number of candidates, and at which the President and Mr. Clark, the senior member, examined; it was represented by table E. At table A, were Mr. Savory of St. Bartholomew's and Mr. Forster of Guy's; at B, Mr. Holmes of St. George's and Mr. Hulke of the Middlesex; at C, Dr. Humphry of Cambridge and Mr. Wood of King's College; and at D, Mr. Birkett of Guy's and Mr. Marshall of University College.

Nominis Umbra.

Sir,—I would call your attention to a "dispensary"—the Westminster Dispensary—situated at 46, Marsham Street, Westminster, upon the door-plate of which, and upon the outside lamp, are printed the name of "Dr. Percy Leslie", who, I might mention, had not resided in the neighbourhood for some few years previously to his decease, which happened in 1878. Your allusion to the "Judd Street Dispensary" in the last number of the British Medical Journal has suggested my writing you upon this subject.—I am, sir, yours obediently,

1, Prince's Street, S.W., April 27th, 1880. J. Ffrench Blake, M.B.M.A.

The Cinchona Cure for Drink-Craving.

Sir,—In your number of the 14th of last February, you did me the kindness to insert a few lines concerning the above question. If you could find space for this note, you would greatly oblige. In the note to which I refer, I stated that I was waiting till I had collected one dozen good cases before publishing my experience. By good cases, I mean cases of habitual drunkards of long standing. I have had many cases of occasional tasters and of the craving newly acquired, whom I have rescued; but these minor ones do not stand for much. But as I have received several letters on the subject, and as Messrs. MacFarlane, chemists, Edinburgh, not only have received orders for the drug as they manufacture it, but also have been questioned as to my special mode of treatment, I shall, with your permission, say now all I have to as to treatment, and leave the cases for some future time.

I begin by giving one teaspoonful every three hours (night and day) for three or four days; then diminish the dose to thirty minims, give this for four or five days; and then fifteen minims for another four or five days. Three weeks is about the duration of the treatment, sometimes more, rarely less, and requires in all about one pound and a half of the tincture. The giving of the large doses at first has for its object the inducing of cinchonism; and the duration and quality of the treatment are to be judged by the rapidity with which this state is induced. The difficulty, if it can be called one, exists in the symptomatic treatment. Unpleasant complications sometimes arise, for which the medical attendant must be on his guard and prepared to meet. I have had cases in which violent delirium was brought about by the first dose, and was only subdued by large and frequent doses of chloral; diarrhœa often presents itself, for which an astringent is deemed necessary; also pain in stomach and nausea, for which a small hypodermic injection of sulphate of morphia is necessary. The treatment must be persevered with in spite of every obstacle until the cure is effected. It is only when the brain-substance has experienced destruction that the treatment results in failure. I might add that I have deemed it necessary to give teaspoonful doses at the latter part of the treatment.

From what I have said, it will be observed that my method does not differ in the least from that recommended by Dr. D'Unger, the American, who introduced the drug to the profession for the treatment of the drink-craving. The only merit due to me is that I was the first in this country to use the cinchona rubra for the cases specified, and that it is in my power to recommend a genuine article.—I am, sir, yours obediently, E. H. F.

Edinburgh, April 27th, 1880.

Clinical Examination at the Royal College of Surgeons.

At the pass examinations for the diploma of membership of the Royal College of Surgeons, the clinical cases on which the candidates were examined were selected from St. Bartholomew's, Guy's, University College, King's College, Middlesex, and Ophthalmic Hospitals, and consisted of Exostosis of the lower end of the Femur; Encysted Tumours of the Scalp; Ununited Fracture of the Humerus; Disease of the Cervical Vertebræ with Strumous Abscess in the same subject; Epithelioma of the Cheek; Subcutaneous Osteotomy of the Femur; Rodent Ulcer of the Face; Periosteal Enlargement of the Ulna, with Strumous Glands in the Neck, in the same subject; Strabismus, with Disease of the Hip-Joint of old standing; Opacity of both Corneæ, with Conjunctivitis; Disease of the Skull-Cap from a Fall; Specific Sores on the Penis, with Ulcers in the Throat; Chronic Hip-Disease; Syphilitic Disease of the Tongue; Ptosis of the Upper Lid from Paralysis of the Third Nerve; Strumous Disease of the Left Knee, Excision of the Right; Disease of the Tibia and Fibula; Exostosis of Tibia; Iliac Abscess; Encysted Tumours on the Scalp; Omental Rupture; Bursa with thick sac; etc.

Sir,—To what expense would the friends of a person of weak intellect be put, to obtain a certificate from the Commissioners in Lunacy necessary to place him or her under the care of a medical man as resident patient?—Yours, Lex.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MIDWIFERY IN SIAM.

SOME very interesting and curious notes on obstetric practice in Siam have been published by Dr. Samuel R. House in the American *Archives of Medicine* for 1879. The chief practitioners, he says, are elderly women. Male practitioners are summoned only in exceptional cases. Utterly ignorant as these are of anatomy and of the nature of the process of parturition, and holding that all delays and obstructions are caused by demoniacal interference, much of their practice consists in incantations and exorcisms and in rude methods to hasten expulsion. A favourite way is to press with great force on the abdomen and its contents—shampooing vigorously with thumbs and fists. They even stand with bare feet upon the poor woman's body, crowding the heel upon the front or sides of the distended uterus. The writer has seen a large psoas abscess produced by the violence used on such an occasion. If the patient be feverish and restless, the midwife fills her mouth with perfumed water over which a charm has been muttered, and spirts it dexterously in a fine and not unrefreshing spray, over the all but naked body of the sufferer—bidding at the same time the evil spirit to begone. In cases of tedious labour, a large brass bowl is procured, a long wax taper is lighted and fastened in the bottom of it by a few drops of the melted wax, silver coins to the amount of ninety cents (which are to revert to the midwife as fee) are stuck on the sides of the candle, and the bowl is filled up with uncooked rice, on which some coarse salt, dried peppers, etc., are thrown, and over this, with hands laid palm to palm and bowed head, an incantation is addressed to the invisible powers which have control over the malicious demons that are hindering the birth of the child.

For any bad symptoms that may arise, medicines are administered in accordance with their theory of pathology and therapeutics, that all disturbances of the system are produced by undue preponderance of one of the four elements—fire, wind, earth or water.

When the delivery is accomplished, one rushes out for salt, another for warm water and an earthen basin to wash the child, a third with frantic haste brings for the mother's comfort an earthen tray full of firebrands, snatched up from the kitchen-fire, which soon fill the room with a blinding smoke. Meanwhile, from a piece of split bamboo a rude knife is fashioned, and with this the umbilical cord is cut or rather sawed through, for with nothing metallic may the cord be severed. Since they never tie the cord, this is not bad practice, as by it liability to bleeding is prevented. An old earthen jar receives the placenta, which, with two or three handfuls of coarse salt thrown upon it, is buried in the garden, averting thus evil that would otherwise befall mother and child. The child is washed and laid on a soft pillow, around which, to protect from drafts and mosquitoes, a close curtain is extemporised by using the three-yard piece of printed muslin that constitutes a Siamese dress. From the first day, babes in Siam are fed with honey and rice water, and have the soft pulp of bananas crammed into their little mouths.

It is inground into the native female mind in Siam, that the most direful consequences to both mother and child will ensue, unless for thirty days after the birth of her first child (a period diminished five days at each subsequent birth) she exposes her naked abdomen and back to the heat of a blazing fire, not two feet distant from her, kept up incessantly day and night. From this curious custom none dare to exempt themselves. No superstition has greater hold upon them or more terrifies them with fear of coming evil if they fail to comply with it. Their medical science also bolsters up the custom, by teaching that after the birth of the child there is always a diminution of the fire-element in the system, tending to produce stagnation, a flabby state of the uterus, bad humours in the blood, a bad quality of the milk and other unknown and terrible dangers to parent and offspring, from which this free external application of heat alone can deliver them. They think, too, the due quality and proper duration of the lochial discharge depend on this exposure to the fire. It is vain to tell them of the mothers in other countries who receive no detriment from their dispensing with such an usage. The manner of conducting this slow self-torture is as follows. A fire-place is brought in, or extemporised on the floor of the lying-in chamber by having a flat box or a simple rectangular framework of planks or trunks of banana trees, three feet by four, filled in with earth to the depth of six inches. On this the fire is built with sticks of wood nearly or quite as large as one's wrist. By the side of this oblong frame and in contact with it, raised to the level of the fire, a piece of board six or seven feet in length is placed, and on a coarse mat spread upon this, or on the bare plank itself, the unfortunate woman lies, with bare back and limbs, quite nude indeed, save a narrow strip of cloth about her hips, with nothing else to screen her from a fire hot enough to roast a duck. There, acting as her own turnspit, she exposes front and back to this excessive heat. The husband or nurse is ever hard by, to stir up and replenish the fire by night and by day. If it blaze up too fiercely, there is at hand a basin containing water, and a small mop with which to sprinkle it on the flames and keep them in check. For the escape of the smoke no provision is made. Hot water alone is allowed to quench the patient's thirst.

His late Majesty, Maha Mongkut, admitted the superiority of obstetric practice, and would gladly have abolished this absurd and injurious custom of his people. When he succeeded to the throne in 1851, and children began to be born to him, he made some attempts in this direction. Upon the birth of the first of the eighty-one children begotten by him during his seventeen years' reign, Dr. House was summoned, in consultation with an older medical missionary, to the royal palace. Dr. Bradley had been sent for in the morning, and found the lady, who had given birth to a princess five days before, doing the usual penance of lying before a hot fire on a hard board, with the window shutters of the apartment all closed, suffering from fever greatly aggravated by the heat and smoke. Representing the urgency of the case to his Majesty, he obtained prompt and full permission to treat the patient as he thought proper. The fire was at once of course removed, the window-shutters thrown open, the patient transferred to a comfortable mattress and cool water freely used with some simple medicinal treatment. Thus relieved, the lady did well; and the success of the treatment was gratefully acknowledged by the king, in an English letter accompanied with a purse of silver. There is, however, Dr. House says, no reason to suppose that this lady in her subsequent confinements dispensed with the broiling process. The queen herself, who, the ensuing year gave birth to a prince, lay by the fire from choice, though suffering at the time with a grave disease which eventually caused her death.

It must be added, says Dr. House, there is one compensation to offset the mischievous consequences of this practice. It makes the women of the land escape the evils (prolapsus, etc.), that often result in other countries from resuming household duties too soon after the birth of a child. The Siamese mother is guaranteed by this custom for one month at least, the fullest liberty to rest by her own fireside, undisturbed.

INTRA-UTERINE MEDICATION AS PRACTISED BY WILLIAM HARVEY.

SIR,—Now that the injection of perchloride of iron into the womb is under consideration in the JOURNAL, it may be of interest to print the following extract from Harvey's *Anatomical Exercitations*, published in 1653.

"The wife of a Doctor of Divinity, who was of a good habit of body enough, but being barren, did consult me; and being very desirous of children, she had tried many medicines and physitians, but all to no purpose; she had her termes at the usual times; but sometimes (especially when she had rode on horse-back) some corrupt and purulent substance did issue from her, which presently after would stop again. Some conceived it to be the whites; others suspected it to be some deep ulcer, being persuaded thereunto, chiefly, because her flux was not constant, and by little and little, but by certain intervalls, and much at a time. Whereupon, by the help of a *speculum matricis*, they did survey all the sheath of the uterus, and did apply several medicines, but all in vain. At last I, being called, did open the inward orifice of the womb, and presently there did issue forth to the *quantity* of *two spoonfulls*, of corrupt *matter*, sprinkled with bloody streaks. Which when I perceived, I told them that there lay an ulcer lurking in the cavity of her womb; and by injecting proper medicaments, I restored her to her former health. But being intent upon the cure, and seeing the ordinary remedies did little availe, I applied more forcible ones, because I suspected that the ulcer was inveterate (and perhaps with flesh growing upon it) wherefore to my former injections I added a little *Roman vitriol*, by whose acrimony the uterus being stimulated, did grow so hard, that it did seem as hard to the touch as a stone, and occasioned several hysterical symptomes, which physitians commonly conceive to proceed from the suffocation of the matrix, and foul vapours being thus sent upwards. This inconvenience continued awhile; till the uterus being assuaged by milder applications, and such as abate pains, did relax its orifice again, and did exclude the *sharp liquour* which I had injected, together with a putrid matter, whereby the patient was in a short time restored."—Yours sincerely, CLIPSON WRAY, M.D., M.R.C.S.

Spilsby, Lincolnshire, April 26th, 1880.

HERNIAL PROTRUSION OF THE LUNG.

SIR,—Can any member suggest a convenient and effectual form of truss for the following case? A young lady, aged 11, is the subject of a hernial protrusion of the left lung between the fifth and sixth ribs. The tumour is larger than half an orange, but is perfectly returnable within the chest. It first made its appearance eight years ago, after a severe attack of whooping-cough.—Yours faithfully, A MEMBER.

RECURRENT HERPES, WITH LIGHTNING PAINS: NO ATAXIA.

SIR,—An article appeared some time ago with the above heading in one of the periodicals. Would one of your readers kindly let me know the periodical, and the number in which it appeared?—I am, etc., HERPES.

ENGLISH MINERAL WATERS.

WE referred the letter of our correspondent, "An Irish Member of the Association", to a highly competent authority, who happened to be absent at the time. He tells us he cannot say that there is any tolerable book on the mineral waters of Great Britain especially as to their use in disease. Dr. John Macpherson's little book, *Our Baths and Wells*, published by Macmillan and Co., may, however, be found useful. It gives a popular *résumé* of the subject, and classifies the waters somewhat better than former books. It is nearly a hundred years since anything on English waters generally has been written—that is, of any importance.

DR. DOBELL'S SEDIMENT-COLLECTOR.

SIR,—In your last week's issue, we notice a description of a sediment-collector designed by Dr. Dobell. We think it right to mention, in justice to Dr. Arthur Allbutt of Leeds, that on March 11th he instructed us to prepare for him an apparatus for the same purpose, and very similar in principle to that described by Dr. Dobell. Had it not been for an unfortunate delay on the part of the manufacturer, Dr. Allbutt's apparatus would have been before the profession some weeks ago.—We are, yours obediently, JAMES WOOLLEY, SONS, AND CO.

69, Market Street, Manchester, April 28th, 1880.

⁂ We received a specimen of Dr. Dobell's sediment-collector in the latter part of February or the beginning of March.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Batty Tuke, Edinburgh; Mr. G. Eastes, London; Mr. F. H. Edmonds, British Guiana; Mr. A. H. Benson, Dublin; Dr. Kennedy, Dublin; Dr. M. Collins, Scarborough; Dr. W. Newman, Stamford; Mr. E. H. Evans, Sheffield; Dr. J. J. Welply, Bandon; Mr. G. Thompson, Stapleton; Dr. J. R. Wolfe, Glasgow; Dr. Hurley, Withern; Dr. J. G. Curtis, Cork; Mr. A. T. Bostock, Chichester; Mr. Thomas Highton, Derby; Mr. De Berdt Hovell, Clapton; Dr. J. Rogers, London; A Member of the British Medical Association; Audi alteram partem; Mentor; Lex; Dr. Farquhar, Pudsey; Mr. R. W. Parker, London; Mr. John J. Pickles, Leeds; Dr. F. M. Pierce, Manchester; Dr. J. Spender, Bath; Dr. A. Macan, Dublin; Mr. A. E. Finch, London; E. F. G.; An Aberdeen Student; Volunteer Surgeon; Dr. H. Jeaffreson, Wandsworth; Mr. F. J. Bell, London; Dr. P. M. Braidwood, Liverpool; Mr. W. J. Smith, Rotherham; Mr. W. Berry, Wigan; Dr. A. Sheen, Cardiff; Mr. R. P. Goodworth, Winterton; Dr. Granville Bantock, London; Mr. T. G. Lithgow, Farnborough; Mr. J. T. Windle, Preston; Mr. J. W. Evans, Carmarthen; Mr. C. E. Richmond, Warrington; Dr. Newman, Stamford; Mr. C. Burgoyne Pasley, Trinidad; Dr. H. Ashby, Manchester; Dr. J. W. Moore, Dublin; Mr. D. E. Flinn, Brownhills; Mr. John W. Davies, Clun; Mr. J. Fisher Smith, London; Mr. E. H. Hardwicke, Solihull; Mr. J. Ffrench Blake, London; E. H. F.; Dr. A. Rabagliati, Bradford; Mr. F. Vacher, Birkenhead; Our Dublin Correspondent; Dr. S. Hague, London; G. F.; Our Glasgow Correspondent; Mr. S. M. Bradley, Manchester; Viator; Dr. H. Donkin, London; Mr. J. Mackenzie Booth, Aberdeen; Mr. R. Maples, London; Dr. J. Moore, Belfast; Mr. J. H. Craigie, London; Dr. Godson, London; Dr. W. Stirling Anderson, Derby; Mr. A. P. Watkins, Worcester; Our Edinburgh Correspondent; Dr. G. Pearce, Leicester; Mr. H. Arple, Hounslow; Dr. Louis Henry, Melbourne; Dr. F. Pollard, Liverpool; Mr. Ellerton, Lindley; Dr. C. Parsons, Dover; Messrs. James Woolley, Sons, and Co., Manchester; Mr. J. B. Curgenven, London; Mr. Priestley Smith, Birmingham; etc.

THE LUMLEIAN LECTURES
ON
THE DIGESTIVE FERMENTS, AND THE PREPARATION AND USE OF ARTIFICIALLY DIGESTED FOOD.

Delivered before the Royal College of Physicians.

By WILLIAM ROBERTS, M.D., F.R.C.P., F.R.S.,
Physician to the Manchester Royal Infirmary; Professor of Clinical Medicine to the Owens College.

Lecture III.[*]

Nutritive Value of Peptonised Food.

At the outset of this inquiry we are met with the question, Is it certain that the ultimate products of digestion are of equal nutritive value to the mixed transitional products which are produced in succession, and probably absorbed as the food is gradually transformed in the alimentary canal?—in other words, are maltose and peptones alone as valuable to the economy as a mixture of these substances with the several dextrines and hemipeptones which are presented to the absorbent surfaces in the course of natural digestion?

With regard to the products of starch-digestion, no direct experiments have been made on the nutritive value of maltose, and we can do little more than conjecture that the intermediate dextrines have an usefulness of their own. That they are absorbed seems proved (as might have been expected from their known diffusibility), for they have been detected in the blood, and especially in the blood of the portal vein.

With regard to peptones, we have more information. It was naturally assumed by the earlier observers, who identified peptone as the chief ultimate product of digestion, that this was the form under which proteids were taken up by the absorbents and introduced into the blood for the nutrition of the tissues. But, ten years ago, doubts were cast on this conclusion. It was alleged by Brücke and Voit that the nutrition of the tissues was maintained, not by peptone, which was unfitted for this purpose, but by soluble albumen, which was absorbed in the undigested state from the primæ viæ; and that the office of peptone was a subordinate one, resembling that of gelatin, and consisted in aiding to preserve the tissue-albumen from too rapid destruction. Direct observations on the nutritive value of peptones have, however, shown this paradoxical view to be untenable. As the point is one of importance, I will endeavour to lay before you the proofs which have been already adduced of the food value of peptones, and I will supplement these by some observations by myself.

P. Plosz (Pfluger's *Archiv für die ges. Physiologie*, 1874, p. 323) was the first to put this question to the test of direct experiment. He fed a puppy dog weighing 1,302 *grammes* with an artificial compound made of fat and sugar, in imitation of milk, but in which the casein was replaced by artificially digested fibrin. In the course of eighteen days of this diet, the dog grew and increased 501 *grammes* in weight.

R. Maly (*Ibid.*, p. 585) performed a similar experiment on a pigeon. He first fed the pigeon for several days on a regulated quantity of wheat, until he had ascertained the quantity requisite to keep the bird in a state of nutritive equilibrium, in which it neither gained nor lost weight. He then made an artificial corn from starch, fat, gum, salts, and water, but in which the gluten was replaced by fibrin-peptone, and fed the pigeon on the same quantity of this artificial corn as he had before given of the natural corn. Under this novel diet, the bird, after a short apprenticeship, not only maintained its weight, but actually put on flesh. This experiment seemed to show that peptone was even superior to natural gluten as a nutriment.

It was, however, objected to these experiments that they did not rigorously prove that peptone could build up the tissues, inasmuch as the increase of weight might have been due to an excessive accumulation of fat or of water, and that there might have been not an increase, but a decrease of the structural elements which contained nitrogen.

To meet these objections, Plosz and Györgyai (Pflüger's *Archiv*, Band x, 1875, p. 536) instituted a third set of experiments on a dog weighing 2,753 *grammes*. He was first brought down by a diet of simple water to a weight of 2,531 *grammes*. He was then fed on a mixture composed of sugar, starch, and fat, and containing, in addition, five per cent. of purified peptone. Of this mixture, about 400 *grammes* were daily administered to the animal for a period of six days. In these six days, the dog took in with his food 14.45 *grammes* of nitrogen; but the total of the nitrogen excreted by the urine and fæces only amounted to 13.46 *grammes*, so that nearly one *gram* of nitrogen had been retained in the body of the animal, which had increased in weight 259 *grammes*. This experiment went to prove that peptone served to repair the wear and tear of the nitrogenised structural elements, and even contributed something to the increase of weight.

Adamkiewicz (*Natur und Nahrwerth des Peptons*, Berlin, 1877), by a still more rigorous method, in a laborious series of experiments on a dog which was fed on a diet wherein the only possible source of nitrogen was peptone prepared from blood-fibrin, arrived at the conclusion that peptone supplied nitrogen to the solid tissues, and that it possessed a nutritive value equal to albumen, or even slightly superior; and that, therefore, it could not be looked on as a by-product of digestion, but as the chief resultant of the transformation of proteids in the alimentary canal.

The experiments above cited seem sufficient to settle definitely the question raised by Brücke and Voit, and to establish the nutritive value of peptone as a source of nitrogen to the tissues. It seemed, however, desirable to obtain direct proof of the nutritive value of peptonised milk, as compared with the natural article. My observations led me to the conclusion that it was far easier to get a supply of peptonised aliment suitable for invalids by the artificial digestion of milk by pancreatic extract, than by any other method; but, in so important a matter as the feeding of invalids, inference and conjecture seemed hardly a sufficient basis for actual practice.

The questions I proposed to myself were: 1. Is artificially digested or peptonised milk alone sufficient to sustain nutrition? and 2. Is it as efficient in this respect as natural milk? For the purpose of answering these questions, I procured four kittens, of the same brood, eight weeks old. Kittens at this age thrive perfectly on an exclusively milk diet. Two of the kittens were fed on natural milk, and the two others on milk previously digested by pancreatic extract. The digestion of the milk in the latter case was carried out to full completion—that is to say, until the milk became greyish and bitter, and no longer gave any precipitate with acetic acid, nor even with nitric acid. The animals were permitted to have as much of their respective foods as they could consume. The experiment was continued for a period of twenty days. The quantity consumed by each pair was as nearly as possible the same. All four continued in perfect health, and took their nutriment greedily. I was surprised to find that the pair fed on peptonised milk showed no repugnance to the bitter taste of their food, but appeared to relish it quite as well as their companions did their natural milk. The following table exhibits the gain in weight at the end of twenty days by each of the four kittens. The weights are given in *grammes*, and in round numbers.

Diet.	Initial Weight.	Weight at the end of 20 days.	Increase of Weight.	Increase of Weight per Cent.
Natural milk	No. 1—338	514	176	52
	,, 2—558	838	280	50
Fully peptonised milk	,, 3—403	626	223	55
	,, 4—374	562	188	50

The table shows that the percentage increase of weight was very nearly alike in all four animals. No difference could be perceived in the sleekness of their coats, nor in the vivacity of their gambols. The experiment proves that peptonising the milk in no degree spoils its nutritive value. It also shows, as might have been expected, that in healthy animals, with abundance of digestive power, there is no advantage to be gained from the administration of food in a predigested state. The quantity of food which is taken and absorbed appears to be regulated not so much by the quantity which can be digested as by the quantity which can be assimilated. This experiment had an interesting sequel. After Nos. 3 and 4 had been fed on *fully* peptonised milk for a period of twenty days, they were fed for a period of ten days on *partially* peptonised milk. By using a less quantity of the pancreatic extract in proportion to the milk, and by allowing the process of artificial digestion to go on for not more than half the time allowed in the previous experiment, only a partial conversion of the casein was effected. As nearly as I could judge by the precipitate caused with acetic acid, the casein was digested to about the extent of one-half. In these circumstances, I certainly expected that Nos. 3 and 4 would gain weight as before, and would continue to thrive as well as

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[*] Concluded from page 649 of last number.

Nos. 1 and 2. It might have been anticipated that, in these new conditions, the proper digestive powers of Nos. 3 and 4 would come into play and complete with ease the unfinished work of the artificial process; but events did not pass exactly as I anticipated. The annexed table shows the actual results. The weights, as before, are given in *grammes*.

Diet.	Initial Weight.	Weight on 3rd Day.	Weight on 5th Day.	Weight on 7th Day.	Weight on 10th Day.
Natural milk	No. 15—514	551—gain 37	570—gain 19	593—gain 23	618—gain 25
	,, 2—838	900— ,, 62	936— ,, 36	993— ,, 57	1063— ,, 70
Half-peptonised milk	,, 3—626	693— ,, 67	687—loss 6	681—loss 6	693— ,, 12
	,, 4—562	645— ,, 83	638— ,, 7	648—gain 10	683— ,, 35

No interval was allowed to elapse between the two sets of experiments, so that the initial weights in the second set were the same as the terminal weights in the first set. The abrupt alteration in the diet of Nos. 3 and 4 produced a marked disturbance in their nutrition; but there was no declension in their general wellbeing, and they continued to take their modified diet with the same avidity as before. In the first three days, Nos. 3 and 4 showed an unusual increase of weight—an increase quite out of proportion to that of their companions. Then came a check; in the next four days, they not only showed no gain, but showed even a slight loss of weight. In the last three days, they began to gain weight again, and were evidently recovering from the temporary check caused by their change of diet. The explanation of this series of events which has presented itself to my mind is the following; but I by no means wish to lay stress on its accuracy. It seemed as if the enforced rest imposed on the digestive organs for a period of twenty days, during the use of fully predigested food, had temporarily diminished their natural vigour, just in the same way as the disuse of a limb diminishes for a time the strength of its muscles. During this first period, immediately following the change of diet, the unemployed digestive powers were suddenly called upon to resume their wonted activity; but, owing to their enfeeblement from disuse, they were unable to respond to the call with due promptness, and undigested materials accumulated in the intestine. This accumulation accounted for the unusual increase in weight during the first period. During the next period, the digestive embarrassment made itself felt, and gave a check to the processes of growth and nutrition, and the animals ceased to grow and gain weight. During the last period, the temporary enfeeblement of the digestive organs was passing away, in proportion as renewed exercise was restoring them to their original vigour, and growth and increase of weight again commenced.

Whether this explanation be trustworthy or not, the lesson indicated by it is probably a true one; namely, that, except in extreme cases, when the digestive power is wholly lost or in complete abeyance, it is more advantageous to use a food which has been subjected to partial artificial digestion than a food in which the process has been carried out to completion. If the patient possess any digestive power at all, it is better that that power should be kept in exercise, than that it should be permitted to deteriorate still further from total disuse. This is in agreement with the rule we apply in other cases of enfeebled function, according to which we endeavour to combine partial rest with moderate exercise.

Clinical Experience of Peptonised Food.—The extreme difficulty of arriving at reliable conclusions in regard to the effect of therapeutical agents is well known to every sober-minded inquirer. The difficulty is not less, but probably greater, in judging of the effects of dietetic means. I have now had a considerable experience, extending over a period of two years, of the use by invalids of peptonised milk and peptonised milk-gruel; and it would be an easy task for me to recite a string of cases in which improvement and recovery followed the use of these articles of diet. But evidence of this sort would be wholly delusive unless checked by such an analysis of the circumstances of each case as would enable me to isolate the influence of the dietetic means. In the immense majority of cases, such an analysis would be obviously impossible; the conditions to be taken into account would be too numerous, and their relative influence too difficult to determine. In a question of this kind, one is obliged in a large degree to fall back on general impressions, and on deductions based on physiological considerations. Nevertheless, there are certain cases—most of them cases of incurable disease—in which the conditions are sufficiently simple to permit direct trustworthy conclusions to be drawn.

I found that peptonised milk-gruel was generally preferred, as being more agreeable to the palate, to simple peptonised milk; and by far the larger number of my observations were made with the former preparation. I was also soon satisfied that, with most rare exceptions, peptonised milk-gruel was perfectly acceptable to the invalid's stomach; and that a diet composed exclusively of this article could be used for many consecutive weeks without the slightest sign of failure of nutrition.

The cases in which the use of peptonised aliment appeared to produce the most striking benefits were those in which complete anorexia prevailed, and those in which the stomach was intolerant of food and immediately rejected every form of nutriment. A brief review of the results obtained in cases of this kind will, I think, prove instructive.

Uræmic Vomiting.—In advanced Bright's disease, incessant vomiting is sometimes a distressing and intractable symptom. In some cases of this class, I have seen the vomiting at once and permanently allayed by the use of peptonised milk-gruel. The downward course of the disease may not have been a moment checked; but the relief to the dying patient was great.

Gastric Catarrh.—That form of gastric catarrh which is the Nemesis of alcoholic excess often yields immediately to the use of peptonised food. In the later periods of cirrhosis, there frequently prevails severe intolerance of every kind of food—the stomach rejecting even beef-tea and diluted milk in the smallest quantities. The relief afforded by the use of peptonised milk-gruel in some of these cases is most striking; the vomiting ceases almost from the first, and the intolerable sense of distension diminishes.

Crises of Cardiac Disease.—Persons suffering from cardiac dilatation and valvular incompetency usually encounter one or more crises which are susceptible of relief, before finally succumbing to their disorder. These crises are marked by a general venous stagnation, with severe congestion of the lungs, liver, and kidneys, and rapidly rising dropsy. Associated with these symptoms, there is generally almost complete inability to take food, and sleeplessness. In this condition, I have seen marked relief follow the use of peptonised aliment. I have long observed, as I doubt not have many of you, that the condition here described is often alleviated in the most striking manner by the use of exclusively liquid nourishment—such as milk or milk-gruel, given in small portions subcontinuously, or sippingly, as it were, throughout the waking hours; the patient being never permitted to take a distinct meal, nor a particle of solid food. As my practice has been to direct, in cases of this class, the administration of the peptonised aliment in this sipping fashion, the gratifying results noted have been partly due to the mode of administration; but I have been convinced by more than one example, when the same liquid nourishment in the natural and in the predigested condition has been used in succession, that there was a distinct superiority in the predigested article.

Pernicious Anæmia.—In the earlier periods of this singular disorder, I am inclined to hope that predigested aliment may prove a valuable resource. In cases where the ailment, although fully declared, was still of comparatively recent origin, I have in the last eighteen months seen the disorder checked under the use of peptonised milk-gruel. In one case, owing to the irritability of the stomach, the milk-gruel was at first administered *per rectum* with pancreatic extract, but was afterwards tolerated by the stomach. In three of these cases, the amelioration went on to complete restoration. In cases of longer standing, I have failed by the same means to obtain the slightest improvement.

Gastric Ulcer.—The use of an exclusively liquid nourishment, given subcontinuously in the manner before indicated, is a well-known and most efficacious mode of treatment in these cases; but, since adopting the plan of giving peptonised milk-gruel, I think I have perceived that the results were distinctly better than before, especially in cases associated with epigastric pain. The almost absolute rest procured by this food for the ailing organ appeared to be an additional advantage. I may be permitted to mention one case. The patient had suffered from copious and repeated hæmatemesis, and from severe epigastric pain. The irritability of the stomach was such that the simplest nourishment, given in the smallest quantities, was immediately rejected. Peptonised milk-gruel was, however, tolerated at once; vomiting only occurred two or three times during the first two days of the treatment, and then ceased, as did likewise the epigastric pain. This patient used no other food for a period of six weeks, and took daily from two to three quarts, with steady recovery of flesh and strength.

Pyloric and Intestinal Obstruction.—Peptonised aliment would appear to be especially suitable for use in these cases; but, so far, I have been somewhat disappointed in the results. The vomiting has generally been effectually controlled; but I have not been able to convince myself, in cases of pyloric stricture, that the fatal event was delayed even a single day. When the obstruction has been temporary, and due to a removable cause, the results have been, of course, more satisfactory.

I should be glad to see a further trial made of peptonised, or partially peptonised, milk in the gastric and intestinal catarrh of infants. In one severe case of this class, a favourable result was immediately obtained; in another case, there was greater tolerance of food, and more comfort after it, than with the use of simply diluted milk. It would be interesting, also, to have experience of the use of peptonised aliment in typhoid fever and in old age. The greater variety which can now be given to this form of food by the preparation of peptonised soups, jellies, and blanc-manges, will obviate the monotony sometimes complained of under the continuous use of peptonised milk-gruel.

THE USE OF PANCREATIC EXTRACT AS AN ADDITION TO FOOD SHORTLY BEFORE IT IS EATEN.

The administration of pancreatic extract with or immediately after a meal can, I think, have only a limited utility. On entering the stomach, the pancreatic ferments encounter the acid of the gastric juice; and, when this rises above a certain point, the activity of the ferments is destroyed. Still a not inconsiderable interval of time must elapse before this point is reached; and during this interval the pancreatic ferments can accomplish a certain amount of work. I have repeatedly administered pancreatic extract in this way; but I am unable to say positively that I have seen benefit from this mode of administration. There is, however, a modification of this plan, which I have lately put in practice, that promises better results. It is to add the extract to the food fifteen or twenty minutes before it is eaten. Certain dishes commonly used by invalids—farinaceous gruels, milk, bread-and-milk, milk flavoured with tea or coffee or cocoa, and soups strengthened with farinaceous matters or with milk—are suitable for this mode of treatment. A teaspoonful or two of the liquor pancreaticus should be stirred up with the warm food as soon as it comes to table. And such is the activity of the preparation that, even as the invalid is engaged in eating—if he eat leisurely, as an invalid should do—a change comes over the contents of the cup or basin; the gruel becomes thinner; the milk alters a shade in colour, or perhaps curdles softly; and the pieces of bread soften. The transformation thus begun goes on for a time in the stomach; and one may believe that, before the gastric acid puts a stop to the process, the work of digestion is already far advanced.

This mode of administering pancreatic preparations is simple and convenient. No addition of alkali is required, and of course no final boiling. The only precaution to be observed is that the temperature of the food, when the extract is added, should not exceed 150° F. (65° C.). This point is very easily ascertained; for no liquid can be tolerated in the mouth, even when taken in sips, which has a temperature above 140° F. (60° C.). If, therefore, the food is sufficiently cool to be borne in the mouth, the extract may be added to it without any risk of injuring the activity of the ferments.

Pancreatic Extract as an Addition to Nutritive Enemata.—Pancreatic extract is peculiarly adapted for administration with nutritive enemata. The enema may be prepared in the usual way with milk-gruel and beef-tea; and a dessert-spoonful of liquor pancreaticus should be added to it just before administration. In the warm temperature of the bowel, the ferments find a favourable medium for their action on the nutritive materials with which they are mixed; and there is no acid secretion to interfere with the completion of the digestive process.

I have now had some experience in this method of alimentation, and have been satisfied with its success. In one case, a patient suffering from postpharyngeal abscess which entirely occluded the œsophagus, was nourished exclusively for a period of three weeks (until the abscess broke) on enemata or milk-gruel mixed with pancreatic extract.

OCCLUSION OF THE LARYNX: INTERNAL LARYNGOTOMY.—Professor K. Störk relates, in the *Wiener Medizinische Wochenschrift* (No. 46, 1879), the case of a boy aged 7, who three years previously had diphtheria, for which tracheotomy had been performed, and he had since worn an unfenestrated cannula. Some time after the operation, he was brought to Dr. Störk in consequence of having become dumb. Laryngoscopic examination showed a normal condition of the parts as far as the interior of the larynx; beyond the vocal cords, a *cul-de-sac* was noticed. The vocal cords moved, but without sound; there was a remarkable absence of secretion. Dr. Störk diagnosed complete adhesion of the cricoid cartilage. On examination with a small tracheal speculum, a wall of mucous membrane was found to have been formed between the larynx and trachea, arching over the latter like a dome. Dr. Störk consequently resolved to perform internal laryngotomy. For this purpose, he used a knife one-fifth of an inch long, set at a right angle to the hand, with which he carefully divided the adherent parts from below upwards and from behind forwards; this having been done, a specially constructed dilating apparatus was applied. There was little hæmorrhage during the operation; and the only difficulty arose from the narcosis. After the operation, the laryngeal opening having been dilated and the tracheal opening closed, the patient was able to speak.

THE CROONIAN LECTURES

ON

SOME POINTS IN THE PATHOLOGY AND TREATMENT OF TYPHOID FEVER.

Delivered before the Royal College of Physicians of London.

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LECTURE III.[*]

WE may divide the symptoms of typhoid fever into two classes: first, those due to the general febrile state; secondly, those depending on the local lesions. With regard to the former, we may distinguish those cases where the treatment has been applied from the first, and the fever prevented, as it were, from getting the upper hand, and those where it has not been resorted to till all the symptoms of the typhoid state have been allowed to become fully developed. In order to show the effect which we not unfrequently obtain, even in the latter class, I will briefly narrate a case which has recently been under my care.

Arthur C., aged 22, was admitted into the Middlesex Hospital on the afternoon of November 17th, the twenty-first day of his illness. On October 26th, he had been attacked by rigors, followed by the usual symptoms of fever; and on the 29th, he took to his bed. On the following day, diarrhœa appeared. On November 2nd, he became delirious, and had so continued more or less till his admission. The case then seems to have been a very severe one from the first. The onset was sudden; the patient took to his bed on the fourth day, and became delirious on the eighth.

On admission, he was very prostrate, and in a state of stupor, from which, however, he could be roused by loud speaking. Pulse 144; temperature 104.6°. My clinical assistant ordered him to be sponged with cold water; and at 6 P.M., the temperature being still 104°, gave him twenty grains of salicylate of soda. The temperature fell to 102.2°; but at midnight was again 104°. He now administered thirty grains of quinine; this caused vomiting, which continued during the night. (I may say I never give these remedies, under such circumstances, where there is much stupor; far better results are obtained by bathing, with less risk of causing unpleasant symptoms.)

When I saw him at ten the next morning, he was in a state of profound stupor, from which he could not be roused; his face was livid and dusky, pupils dilated, muscles tremulous; pulse so small and irregular that it could not be accurately counted, but was about 160; respirations 36; temperature 103°. There were fine crepitant *râles* audible all over the chest, extending to the apices.

I ordered him a pint of champagne and eight ounces of brandy daily, and a mixture of hydrocyanic acid and soda to check the vomiting (which it did not do), and directed him at once to be put into a bath at 65°. He remained in it for fifteen minutes, and when taken out was shivering violently. This I regarded as a favourable sign, as it indicated that the nervous system retained its powers of reaction. At mid-day, he was still shivering; and though still in a state of stupor, his general appearance had improved. At 2.15, the temperature having risen to 104°, the bath was repeated at 70° for ten minutes, and again at 4 P.M.; but this last had so little effect that another was given an hour later. At 7 P.M., a fifth bath was given; and at 11 P.M., a sixth. This frequent repetition was necessitated by the rapid rise of temperature and the recurrence of the alarming coma. During the day, he vomited everything he took. Feeding by the mouth had to be desisted from, and an enema of beef-tea, brandy, and opium, was administered every three hours.

At 3 A.M. on the 19th, a seventh bath was given; and at 6 A.M., an eighth. When I saw him in the afternoon, his condition was manifestly improved; the stupor had passed off; he put out his tongue when told, and tried to speak; the vomiting had ceased. Pulse was now 132, of better quality; temperature 101.6°. From this time, a slow but steady improvement manifested itself, but the temperature continued to rise a few hours after each bath, and they had to be repeated at gradually increasing intervals. Thus, during the first twenty-four hours, eight baths were given; during the second twenty-four hours, also eight; during the third, six; during the fourth, four; and they had to be occasionally given up to November 30th.

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[*] Continued from page 613 of JOURNAL for April 24th.

His recovery was much retarded by the state of his lungs, which were very slow in clearing up. Not only was there universal capillary bronchitis, but also, no doubt, lobular pneumonia, for, when the stupor passed off, he began to cough and to bring up characteristic rusty sputa; but, from his great prostration, it was impossible to examine the bases of the lungs with any accuracy.

I may say that, in this case, the urine was highly albuminous; but, as the temperature fell, the albumen gradually decreased, and had quite disappeared before the baths were finally left off.

In the autumn of last year, I had the satisfaction of successfully treating in this manner a member of our own profession. Here the symptoms were also of extreme gravity—delirium, stupor, universal muscular twitchings, not only of the extremities, but also of the face, inability to protrude the tongue, accumulation of mucus in the bronchial tubes, an irregular pulse of 140, and albuminuria.

This gentleman's father, himself a physician of large experience in the treatment of fever, when the cold baths were proposed, said he had a horror of them; but the effect of the first bath was completely to convert him, and he afterwards encouraged me to persevere when, from the patient's extreme prostration, my own resolution had begun to fail. In this case, the temperature was never very high, only once reaching 104° in the axilla.

Such, then, are the effects which we sometimes obtain from the baths when they are resorted to in the later stages of the disease; but such results must necessarily be exceptional. We ought, therefore, rather to aim at preventing patients from falling into this condition, than trust to the very doubtful chance of rescuing them from it. Now, all observers who have tried this mode of treatment agree that, when it is applied from the first, and the temperature steadily kept down by any of the modes I have mentioned, these so-called typhoid symptoms—the febrile oppression, the delirium, the stupor, the subsultus, the fuligo, the dry brown tongue—do not occur at all, or at any rate in a much slighter degree.

We have now to consider the effect of the persistent reduction of temperature on the local lesions, and especially the intestinal sloughing and ulceration to which the fatal event is so often due, usually from hæmorrhage or perforation, sometimes more indirectly from inducing a state of marasmus.

With regard to perforation, we must distinguish between the two main forms of this complication. In the first place, we have the early perforations which take place during the detachment of the slough, and which usually occur during the third week, sometimes as early even as the twelfth or fourteenth day. These are due to the typhoid infiltration extending into and through the muscular coat, so that, when mortification takes place, the peritoneal covering, whose nutrition depends on the integrity of the subjacent tissues, itself dies and becomes detached. In examining the intestines of patients who have died at this period of the disease, I have frequently observed small patches of the peritoneum, corresponding to the infiltrations, to be slightly opaque and yellow; and sometimes, in washing the intestine with a stream of water, these opaque patches of peritoneum will separate, exposing the subjacent infiltrated tissue. The perforations which thus occur from separation of the primary slough are often of very large size, so that one may sometimes even put the tip of the finger through them.

The later perforations, which are liable to occur at any time after the separation of the sloughs up to the establishment of complete convalescence, are due to the typhoid ulcers not granulating, but becoming atonic and gradually extending. These later perforations are generally very minute.

Now, whether the ulcers granulate and heal, or pass into the atonic state, depends chiefly on the general condition of the patient; and the less his system has been shattered and his tissues degenerated by the febrile process, the less likely is this complication to occur. Hence, any mode of treatment which lessens the injurious effects of the fever cannot fail also to diminish the frequency of these later perforations.

With regard to the early perforations, which are due to the depth to which the typhoid infiltration has gone, the effect of reducing the temperature is less obvious; and if the process is to be influenced at all, it is evident that the treatment must be applied from the very commencement of the disease, and, when this is done, Dr. Brand alleges that these complications never take place, and he has now treated in private practice 211 cases in succession without a single death or the occurrence of these accidents; but after the first few days, whatever good effects the bathing may have on the fever, the control of the typhoid process on the bowel is lost, and the infiltration and sloughing will run their course unchecked.

Arterial hæmorrhage may, like perforation, be divided into two classes—the early and the late; and their pathology and causation exactly correspond.

On the whole, the effects of the antipyretic treatment appear to me to be most favourable where the general febrile symptoms predominate over the local intestinal symptoms, and least favourable where the latter predominate over the former; but, according to the experience of Dr. Brand, provided the treatment be begun at the very outset of the attack, an equally favourable effect is produced on both.

Granting, then, the general efficacy of the antipyretic treatment, we have next to consider whether it be adapted to all cases, and ought to be indiscriminately applied. To this, I think, we must answer that under no circumstances ought we to allow the temperature to maintain itself continuously above 102°. But the means employed to reduce it must vary with the condition of each case.

The most efficacious and most generally applicable of these methods—the cold baths—may be inadmissible. Sometimes the patient cannot bear them; they may cause a dangerous depression, or even syncope. As a rule, persons advanced in life and of impaired constitution are less able to support the baths; but these are the cases in which it is especially important to prevent the injurious effects of the temperature. If necessary, then, we must have recourse to the graduated bath, to cold packing, cold sponging, cold compresses, together with quinine and digitalis. The cold bath may likewise cause other unpleasant symptoms, as cramps and neuralgic pains. I have recently had under my care, in the Middlesex Hospital, one of the nurses, in whom the early symptoms were extremely severe. The temperature on the third day exceeded 105° in the axilla, and it was with great difficulty controlled. She had twelve cold baths; but the last two caused very severe neuralgic pains, principally in the sciatic nerves; so that they had to be discontinued, and we were compelled to resort to the graduated bath, sponging, packing, and quinine in thirty-grain doses; and by these means, after the obstinacy of the temperature had been broken, as it were, by the repeated cold baths, we succeeded in keeping it under.

Another question of great importance is whether pneumonia, bronchitis, and congestion of the lungs are induced or rendered more severe by bathing. I think that to this question we may give a negative answer. In typhoid fever, the former are probably due to the action of the poison, and the hypostatic congestion to the failure of the heart; and they are usually manifestly benefited by reducing the temperature. With regard to pneumonia, it is now the common practice in Germany to treat the idiopathic form of the disease in the same manner, and with excellent results.

Cold baths are generally regarded as contraindicated in those cases where the patient is the subject of venous congestion from chronic bronchitis, emphysema, or cardiac disease. Dr. Glénard gives an interesting case of a man aged 53, one of the male nurses in the hospital at Lyons, who had been employed in bathing the typhoid cases, and was himself attacked. This man suffered from chronic bronchitis and emphysema, but was so convinced of the advantages of the bathing treatment that he insisted on its being applied to himself; and he took sixteen baths, but the later ones produced such alarming suffocative attacks that they had to be discontinued. He ultimately made a good recovery.

The occurrence of profuse intestinal hæmorrhage and of peritonitis is an absolute contraindication to bathing, which indeed has been accused of rendering the former complication more frequent by inducing congestion of the intestinal mucous membrane and increasing the blood-pressure in the arteries. Whether it really produces these effects is, however, very doubtful. Dr. Glénard performed the experiment of exposing and opening the intestines of rabbits, and then immersing the animals in cold baths, taking care that the water did not come into contact with the intestine; and the effect was to blanch the mucous membrane. I need hardly say that we are constantly in the habit of treating internal hæmorrhages on the principle that the external application of cold causes a reflex contraction of the vessels of the subjacent viscera. In hæmorrhage from the lungs, we apply an ice-bag to the chest; in hæmorrhage from the stomach, to the epigastrium; in hæmorrhage from bladder or uterus, to the hypogastric region; and no doubt with good results. In all probability, where the general surface is cooled, as by a cold bath, the blood tends to accumulate in the muscular layers of the body, rather than in the external organs. Statistics also show that bathing does not increase the frequency of hæmorrhage. The reason why hæmorrhage renders bathing inadmissible is the necessity of keeping the patient perfectly at rest, lest by any movements we should displace coagula or increase the rapidity of the circulation. In these cases, then, we must arrest the peristaltic movements of the intestine by opium, apply iced compresses to the abdomen, administer styptics, as ergotine and digitalis, which latter also has the advantage of lowering the temperature. If, in spite of the hæmorrhage, the temperature again rise, we can give quinine and sponge the patient with cold water. In peritonitis, rest is still more imperative, and we must have recourse to the same remedies, with the exception of the styptics. Very commonly, however, both hæmorrhage and peritonitis themselves induce great depression of the temperature.

[*To be concluded.*]

ABSTRACT REPORT OF LECTURES ON THE COMPARATIVE ANATOMY OF MAN.

Delivered at the Royal College of Surgeons of England.

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Conservator of the Museum, and Hunterian Professor of Comparative Anatomy in the College.

Lecture VI.—The Races of Africa (*continued*).

Various statements have been made by travellers regarding the size and shape of the hands and feet of the Negro; but none of them are sufficiently accurate to be of much use to the anthropologist. The relative length of the toes is a characteristic which might mark a difference between Europeans and Negroes. The great toe is usually the longest toe in the foot of an European, and the others recede progressively; whereas in the Negro the second toe is, as far as the material at our disposal shows, generally slightly the longest. This is an approach to the form of foot in the higher apes, as in them the second toe is decidedly longer than the great toe. The foot, therefore, in which the great toe is longer than the other, is of a higher type. It would be well, however, if we could get some further information on this point, as we are not in a position to state with accuracy the relative lengths of the toes in the Negro races.

The difference between the pelvis of the African Negro and that of the European has been pointed out by Vrolik and others. It consists mainly in the increase of the antero-posterior diameter, as compared with the transverse, expressed by the pelvic index or ratio between these diameters, the latter being taken as 100. In the European male, the average index is 80; in Negroes, according to various observers, from 90 to 100. As in the proportions of the limbs, many of the Mongoloid races conform, in the character of the pelvis, rather with the Negro than with the European.

In the cranial characters, the distinctions between the Negro and white races are strongly marked. The skull of the Negro is thicker and heavier generally than that of the European; and the average capacity of the cerebral cavity is undoubtedly smaller in the former, even in individuals of approximately the same height. It is, however, considerably higher than in the Australians. The difference between the average capacity of English and Negro crania in the College museum is 123 cubic *centimètres;* between the latter and the Australians, 90 cubic *centimètres.* Of fifteen male English skulls (mostly of the lowest and least intellectual grade of society) in the College museum, the cranial capacity is 1,511 cubic *centimètres;* of thirty-two male Australians, it is 1,298 cubic *centimètres;* and of twenty-six Negroes, it is 1,388 cubic *centimètres.* Broca's totally independent measurements of skulls at Paris give a difference in the former case (Parisians being substituted for English) of 128 cubic *centimètres,* and in the latter of 83 cubic *centimètres;* so that the results are substantially identical. The general form of the cranium is expressed by the cephalic or latitudinal index, or relation of the breadth to the length, the latter taken as 100. The average index of forty-two Negroes of various tribes in the College museum is 73.6. Of these, more than half are between 70 and 75, or dolichocephalic; less than half are above 75, or mesatocephalic; but very few are either below 70 or above 80. The average index of eighty-five Negroes from the West Coast of Africa, measured by Broca, is 73.4; and of fifty-three from East Africa, measured by Lederle, 73.9. These remarkable agreements with our own measurements show that between 73 and 74 may be fairly taken as a general average of the cephalic index of the African Negro; and that he belongs, therefore, to the moderately dolichocephalic races. The height, measured from the basion to the bregma, is almost identical with the breadth of the average of the forty-two College specimens, giving 73.5. The Negro skull, in these proportions, differs greatly from that of the Fiji islanders described in the first lecture. The skull is rounded on the top, and not sloping off laterally like the roof of a house, as in the Australians. The sutures are simple, but more complex than in the Australians, and the temporal fossæ are deep. The differences in the position of the foramen magnum, in the angle formed by its plane with the horizontal of the skull, and in the various facial angles which have been pointed out as characterising the Negro skull as compared with that of the European, can only be explained by means of diagrams. The facial characters are generally eminently characteristic. The forehead, though narrow, is not retreating. The glabella and supraorbital ridges are sometimes well developed; but more usually this region is smooth and flat. The orbits have a moderate index—85.5 (Broca), or 86.3, according to measurements of the College collection. The nose is distinctively platyrhine, the average index being 55 or 56. The nasal bones are small and flat; their external surfaces directed forwards, the two meeting in front at a very open angle, instead of a narrow one as in Europeans. The lower margin of the nasal aperture is usually rounded off, instead of sharp and strongly defined. Equally characteristic is the prognathism, which is very rarely absent. The measurement from the basion to the middle of the alveolar border is greater than that from the basion to the naso-frontal suture (the cranio-facial axis); whereas in Europeans the reverse is the case.

The teeth are regular, well developed, and generally free from caries. The third molars, or wisdom-teeth, appear to be always in their places before the closure of the basilar suture, whereas among civilised races they are often much later in coming into place. The size of the teeth varies in different races; but hitherto no accurate measurements have been made to express this difference. The length of the molar series in a straight line between the anterior edge of the first premolar and the posterior edge of the third molar may be conveniently used to indicate the size of the teeth, and called *d*. This may be compared with the length of the cranio-facial axis or basi-nasal length B N. and a dental index formed from $\frac{d \times 100}{\mathrm{B\,N}}$. This will give, at all events, a fair approximation to the relative size of the teeth, compared with the skull, as the length B N is one of the least liable to variation of any in the cranium. Unfortunately for this investigation, in a large proportion of the crania in museums, the teeth are wholly or partially lost, and a larger number of specimens must be measured than are at present available. The following indices (which must be regarded as provisional) are, however, of considerable interest. In the first place, it must be observed that the teeth of women, though smaller absolutely than those of men, are relatively larger to the cranio-facial axis. For instance, in Europeans, the dental index of males is 40.5; of females, 42.0. In Australians, the disproportion is greater still, being 45.7 for the males and 48.4 for the females examined. In the following table, males only will be included: Europeans, 40.5; ancient Egyptians, 40.8; Hindoos, 41.2; American Indians, 42.5; Chinese, 43.8; African Negroes, 43.9; Andamanese, 44.2; Fijians, 45.4; Australians, 45.7. It will thus be seen that, in the size of the molar teeth, the Negroes hold an intermediate position between Europeans and Australians, but approaching nearer the latter. The actual average length of the molar series in European males is 40.8 *millimètres;* in Africans, 45.4 *millimètres;* in Australians, 46.7. The anthropoid apes give a higher index than that of any of the races of man.

ALCOHOL IN FEVER.*

By H. MACNAUGHTON JONES, M.D.,
Professor in the Queen's University, Ireland, and Physician to the Fever Hospital, Cork.

I intend these few remarks to be essentially practical, giving rather the results of my individual bedside experience than broaching any original views or theories with regard to this important question. Independently of private cases, I have treated in the Cork Fever Hospital, from January 1873 to June 30th, 1879, 899 cases of fever, meaning by fever, typhus, typhoid, and simple continued fever. I commence at this date, for it was in this year that I first determined to watch carefully the effects of digitalis in fever, and learned to abandon the too generous use of alcohol; nay more, to administer it only in a certain percentage of cases, in which the indications for its employment are clear, and when the responsibilities of withholding stimulants would be infinitely greater than that of administering them. I have since been most careful in ordering brandy or wine of any kind in fever. My views of the value of alcohol I shall, having read these tables, briefly summarise.

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

In the year 1875, I published, in the *Dublin Monthly Journal of Medical Science*, a table of 310 cases of fever; of these, 220 got no stimulants, 58 had claret alone, 33 had brandy. Of this number, 110 were typhus patients, of whom 26 had stimulants. The mortality in the typhus cases was 8 per cent.; in all other cases, 3½ per cent. The brandy in all the fatal cases was commenced from the first to the fifth day. In that period, I had two deaths from typhoid fever; both patients had stimulants from an early date in the attack. I have divided the patients treated since the publication of this table under two heads; Table A: Total patients treated, with percentage of deaths; Table B: Total patients treated since January 1877. I had not an accurate record of the patients who had stimulants from February 1875 to January 1877, as the hospital wine-book was unfortunately mislaid. But the average number of patients who received stimulants was about the same as from January 1873 to February 1875, during which time 30 per cent. of all the cases had stimulants at some period of the fever. From January 1877 to June 30th, 1879, 36.17 per cent. have had stimulants. In *typhus* fever, stimulants were given during the first period to 23.6 per cent. of the cases, and during the latter, to 41.37 per cent. In *typhoid* fever, of 107 cases, 22 had brandy and wine, 27 claret alone.

Total percentage of typhoid patients taking brandy at some period of the fever	20.56
Total percentage of ditto taking claret at some period of the fever ..	25.23
Deaths of the former	36.36 per cent.
Deaths of the latter	7.40 ,,

Of 117 cases of simple continued fever, 5.12 per cent. were given brandy, and 5.12 per cent. claret. There were no deaths. In all these cases, temperature-charts of the disease have been kept. Sphygmographic tracings of several were taken during the illness.

TABLE A.—*Patients Treated since February 1875.*

Total number treated	589
Total number of deaths	47
Total number of typhus patients treated	239
Total number of typhus deaths	35
Total number of typhoid treated	147
Total number of typhoid deaths	12
Total number of simple fever treated	203
Total percentage of deaths (deducting nine, registered hopeless on admission)	6.45
Percentage of typhus deaths (deducting nine hopeless)	10.86
Percentage of typhoid deaths	8.16

Of the typhus patients who died, 9 were hopeless on admission, 7 were ill more than ten days, 1 was complicated with encephalitis, 1 was subject to epileptic fits, 1 was a confirmed drunkard, having taken according to his friends statement, "nothing but whiskey for ten days previous to admission."

Of the typhoid patients who died, 3 were ill more than ten days on admission, one was complicated with pneumonia, and one was a drunkard previously.

TABLE B.—*Patients Treated since January 1877.*

Total number treated		340
Total number of deaths		25
Total number of typhus treated		116
Total number of typhus deaths		14
Total number of typhoid treated		107
Total number of typhoid deaths		11
Total number of simple fever treated		117
Total percentage of deaths		6.17
Percentage of typhus deaths		8.62
Percentage of typhoid deaths		10.28
Total number who got brandy		58
Typhus	30; of whom 11 died	
Typhoid	22 ,, 8 ,,	
Simple fever	6 ,, 0 ,,	
Total number who got claret (no brandy)		65
Typhus	18; of whom 0 died	
Typhoid	27 ,, 2 ,,	
Simple fever	6 ,, 0 ,,	
Total number treated without any stimulant		217

Of those typhus patients who died, 4 were registered as hopeless on admission, and 3 were ill over ten days.

Of the typhoid patients who died, 2 were ill over ten days, 1 was a drunkard previously, and 1 was complicated with pneumonia.

TABLE C.

Total patients treated since January 1873	899
Total typhus fever patients since January 1873	349

Of these, records of 226 show that 74 had stimulants of any kind, either during the fever or convalescence (several in this latter period). In typhus fever, 32.74 took stimulants, with a mortality of 7.16 per cent.

I may now sum up my conviction from bedside experience of the value of alcohol in fever. It is a most valuable therapeutic agent in both typhus and typhoid fever. A large percentage of cases not alone do not require it, but its administration is apt to lead to complications. It is impossible to lay down rules as to the stage of the fever in which it may be indicated, as this indication depends rather on the type of the fever than on its stage. But the time to watch for its administration in ordinary cases is from the eighth to the twelfth day. Early administration of alcohol in fever is injudicious. I have little faith in the early employment of stimulants preventing an adynamic condition, and I have rarely seen them have a good effect in the early stages of the fever of habitual drinkers. I am inclined to think that it is a dangerous fallacy to regard them as essential in such cases. Of the two, I have more often seen hard drinkers recover without stimulants than with them. Alcohol, in my experience, has little effect on the temperature of fever.

I generally take as my tests the age of the patients, the condition of the heart, the pulse, tongue, and head symptoms. Young patients, as a rule, do well without stimulants. A feeble, irregularly acting heart, with weakened first sound; a compressible and rapid pulse, a tongue keeping fairly moist, the absence of violent head symptoms, encourage me in their continuance and use. I believe that we possess in alcohol a supporting food, in those typhoid states where assimilation is difficult, and I have many times seen lives saved in fever, sustained for days by brandy and milk alone, where everything else had been rejected.

The practices I conceive most to be deplored in the administration of alcohol, are (1) the indiscriminate employment in the earlier stages of fever; (2) the rash continuance and the increase of the quantity used, when the symptoms clearly show that it is acting injuriously.

I cite one case of typhoid fever, to illustrate the value of stimulants, judiciously administered at the proper time, with their effects carefully watched.

The patient, a girl, had been ill three weeks before admission. The following was the train of symptoms. Temperature range, with marked exacerbations, first week, 102° to 105°; second week, 100° to 105°. On admission, there were crepitation over both lungs, rusty sputa, rapid respiration, constant stools; severe epistaxis. She was deaf and delirious. She passed a large hæmorrhagic stool a few hours after admission, and passed in twenty-four hours four such stools; for days she had involuntary ones. A note was taken twice during the first week of her being "cold and listless; pulse hæmorrhagic". All through, the tongue kept moist and fairly clean. The motions were very frequent for some days. She had occasional attacks of hectic, followed by profuse diaphoresis and cold sweats. This girl was one of the worst cases of typhoid fever, if not the worst, I have ever seen recover. Her treatment during the period of hæmorrhage was almost entirely non-stimulant, consisting of milk, beef-essence (in small doses), fowl-broth; and as medicines, digitalis, ipecacuanha, and Dover's powder; quinine, opium, sulphuric acid lemonade, gallic acid; acetate of lead and opium enemata; the usual local applications to the abdomen, and tepid spongings every fourth hour to the trunk. On the seventh day after admission, the note entered was, "pulse duplex, dicrotous, feeble". She was given brandy and milk every fourth hour, and an ounce of claret every second hour. She was put on a mixture of muriated tincture of iron, tincture and infusion of digitalis, spirit of chloroform every third hour. This was changed subsequently for quinine and digitalis. She refused all stimulants on November 18th, and from this to January 4th, she took none. She had milk diet mainly. After stimulants were first given, the note entered was, "looks better; pulse improved; stronger".

HOW ARE WE TO DEAL, BY ISOLATION OR OTHERWISE, WITH CONVALESCENTS FROM ACUTE INFECTIVE DISEASES, SO AS TO LIMIT THE SPREAD OF THESE COMPLAINTS?*

By ARTHUR RANSOME, M.D., M.A., Manchester.

IN selecting this subject for special discussion, the committee, who have had the arrangement of this meeting of the Association, have probably desired to call attention to the present unsatisfactory position of the question, rather than to elicit any very novel remarks concerning it.

Our information respecting the limits of contagiousness of different diseases is, of a truth, of the most meagre description; and our practice in reference to this subject is based upon limited personal observation, or upon tradition handed down from seniors to juniors in the profession. And yet the practical importance of the subject is very great, and if it were to be measured by the number of times that medical men have to answer questions relating to it, the need for its settlement would soon be shown to be very urgent.

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* Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

Men engaged in general practice have frequently to accept weighty responsibility in regard to the return of children to school, the period at which servants may re-enter their masters' families, or the length of time that patients should remain in hospital.

Since the passing of the Public Health Act of 1875, also, legal questions may arise under clauses 126 to 129; and hospitals for the reception of infectious diseases are now, under the same Act, rapidly springing up in all parts of the kingdom.

Yet, at the present time, strange as it may appear, there exists no body of evidence, sifted and verified by competent observers, to which reference may be made in cases of doubt. A few men are perhaps honest enough to confess that they have no scientific basis for their opinions; and, although I applaud this attitude of mind as justified under present circumstances, I submit that such a confession is not likely to raise the public estimate of the value of medical science. Others, again, do their best to fix a limit, and generally, for safety's sake, make the interval long enough to cover the region of doubt. Hence not unfrequently ensue loss of time, loss of money, and, I may add, loss of temper or of confidence on the part of patients.

But there is another and more serious result of this individuality of opinion, of this want of some authorised doctrine on these points that are so frequently brought before us. Very frequently a serious difference of opinion ensues between two sets of medical advisers, the family attendant often differing widely from the school or hospital physician in his estimate of the needful interval of isolation. Even without a sufficient foundation of facts, if the medical world were agreed as to the limit of safety, there would perhaps not be much harm done, beyond the probable waste of time involved in getting to the safe side of precautionary restrictions; but, unfortunately, even this refuge is withheld from us, and a medical man, after giving his own opinion on the subject, is not unfrequently told that his neighbour, Dr. so-and-so, has fixed a less onerous burden of quarantine, and thus confidence is destroyed, and vexatious disputes are carried on without any court of appeal at which to settle them.

It is true that some few attempts have been made to place these matters upon a better footing than that of mere individual opinion, but little as yet has been accomplished in this direction.

Seven years ago, the Lancashire and Cheshire Branch of this Association, at my own request, appointed a committee on the Duration of Infection, and its attention was also directed to the subjects of the Period of Incubation, and the Commencement of Infectiousness. In 1873, also, Dr. W. Squire read a paper before the Royal Medical and Chirurgical Society on "Periods of Infection in Epidemic Disease"; but it would not be possible to found canons of practice upon the data therein contained. The results of the inquiry by the Association Committee were given by Dr. Haddon of Manchester, the honorary secretary, in June 1875, and again in the form of a paper read before the Manchester Meeting in 1877.

From these sources, however, it is evident that, though much very interesting and important information has been collected respecting the periods at which such diseases as whooping-cough and measles, small-pox and scarlet fever, first become infectious, and also some very clear and definite evidence regarding the periods of incubation of many diseases of this class, still very little has been learnt on the subject of the possible or probable duration of infection. We are thus thrown back upon our own experience in the matter; and in offering my own views upon the question propounded by the Association, it must be understood that they are simply opinions gathered during a long and busy practice, and that they could not be allowed to weigh for an instant against opposing facts brought forward upon sufficient evidence. The acute infective diseases, then, of which we might hope or care to limit the spread by isolation or otherwise, are, measles, whooping-cough, typhoid and typhus fevers, cholera, diphtheria, small-pox, and scarlet fever.

Measles and Whooping-Cough.—In the first place, I consider it hopeless to attempt, by quarantine or isolation of any kind, to arrest the spread of measles and whooping-cough. In my own experience, these complaints are most frequently caught in their early stages, often before the occurrence of their characteristic symptoms; in whooping-cough before the whoop, and in measles before the rash appears. It appears to me undesirable, therefore, to set in motion the onerous regulations of the Public Health Act in respect to these diseases, or to send any cases into hospital for the purpose of isolation. In the event of a serious fatal epidemic of these complaints, it would be far better to try to save life by issuing instructions as to their home nursing, or even by sending trained nurses into the districts especially needing such instruction.

It is well known that very few deaths from these diseases take place in the families of the upper and middle classes of the community; yet, in England and Wales, they kill nearly as many as the more serious disease, scarlet fever, and four times as many as the much more dreadful diseases, small-pox and cholera.

I believe that most of these deaths might be prevented by timely instruction to the poor as to their proper management; and isolation, unless it could be carried out from the first appearance of catarrhal symptoms, would be of very little value. In schools and large public institutions, possibly, this might be done; and, from my own experience, I am inclined to believe that a separation of a case of measles for about three weeks after the disappearance of the rash, and a subsequent thorough stoving of clothing, etc., with sulphur fumigation of rooms and furniture, will, in most cases, be sufficient to prevent infection. In whooping-cough, probably, about six weeks' isolation would be sufficient, even though the whooping may not have disappeared; but upon this point we are sadly in need of trustworthy evidence. The disease is assuredly most infectious when accompanied by catarrh, and in the early stage.

Typhoid and Typhus Fevers.—It is no doubt convenient to be able to send cases of typhoid fever to a hospital, but this course is rather to be chosen for the sake of treatment than for the purpose of preventing infection. This disease is to be arrested so much more surely by disinfection of the excreta and care as to drainage and water-supply, that I should deprecate any large provision of hospital accommodation for such cases. A large hospital for the reception of cases of a disease that ought to be entirely prevented, would certainly be a mistake. I can also give no definite surmise as to how long the stools of typhoid patients continue capable of conveying this disease.

The duration of infection in typhus fever is also beyond my power to determine, but it is undoubtedly one of the diseases whose progress as an epidemic may usually be arrested by timely isolation of the first cases, and by improved hygienic conditions.

Cholera.—It is probable that the statements made respecting typhoid fever would apply equally to the subject of cholera.

Diphtheria.—In the present state of our knowledge respecting diphtheria, isolation of cases of this disease should certainly be practised, either at home or in hospital; but in my experience, it has proved only very slightly infectious, except in cases accompanied or followed by the appearance of the peculiar scarlet rash. In these instances, it would also be unsafe to break the quarantine until desquamation, if it take place at all, has been completed. Some of these cases much resemble scarlet fever, but there are interesting points of difference into which this is not the time to enter. One of these, however, is, that they are certainly less infectious than cases of the latter disease. Diphtheria, again, is so frequently spread, if not originated, by noxious emanations from sewers, cesspools, etc., set free by imperfections in house-drainage, that care with reference to these points would certainly do far more to stamp out this complaint, than all the machinery of isolation and disinfection.

There remain now two disorders, small-pox and scarlet fever, for which especially it might be supposed that means of isolation should be provided; but one of these two, small-pox, ought to be so thoroughly prevented by efficient vaccination and revaccination, that there should in future be little need for hospital accommodation.

Scarlet Fever.—It will thus be seen that the only disease for the prevention of which isolation is likely to be needful permanently, is scarlet fever.* Even for this complaint, large hospitals are not the best device for the purposes of isolation. The establishment of comparatively small reception-houses in different parts of a town, according to the plan advocated by Dr. Radford of Manchester, would seem to be by far the best mode of preventing the spread of this disease. With regard to the limit of safety in the period of infection of scarlet fever, there is fortunately a general consensus of opinion amongst medical men, and that is, that, whilst no limit can be assigned to the duration of infection in clothing and other fomites, the person of the patient ceases to be infectious on the completion of desquamation. It is possible, however, that, in certain cases, in which Dr. W. Budd's disinfectant treatment can be carried out during convalescence, this period might be materially abridged. I have from the first adopted Dr. Budd's plan, and it has happened several times in my practice, that patients have broken quarantine before desquamation was completed, in two instances within three weeks of the outbreak of the disease, and yet no harm has in any case come to the other members of the families. If similar testimony to this could be obtained from other observers, it is possible that, in such cases as I have mentioned, we might inflict a shorter term of imprisonment. In the meantime, we must of course go upon the old lines.

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* May we not hope that the zymogen of even this disease may be found to be destructible by some other means? In that happy time, when preventive medicine has been thoroughly carried out, when houses are properly ventilated, when drainage and sewerage are perfected, when the water and milk supplies are unpolluted, and when vaccination has been universally and completely performed, at this much desired epoch, to which it may be hoped we are advancing, hospitals for the reception of cases of other diseases will be an anachronism, and scarlet fever alone will have to be provided for.

I need hardly again mention the necessity of a thorough stoving and disinfection of clothing, furniture, bedding, etc.; and yet it is certain that, even at fever hospitals, this essential measure is often neglected. I have known several of these institutions that were left for years without any provision for this process.

It will be seen that I am no supporter of the craze, now so prevalent, for building large and expensive permanent hospitals for infectious diseases. I am strongly of opinion that the erection of small buildings, with power of extension when required, by means of well devised and well ventilated wooden wards, would be the best course to take in most instances. I think that there are many obvious reasons for the adoption of this plan in preference to the one now usually followed. Amongst these are, greater economy, increased efficiency, and the power of thorough disinfection, or destruction even, when required; but there are two or three further considerations favourable to this view that have hitherto attracted little attention. I have ventured to mention these before, in a paper on "Epidemics", read in 1867 before a meeting of the Association at Oxford, and in one upon "Epidemic Cycles", read before the meeting in Manchester in 1877.

I cannot well enter into these considerations at length at the present time, as each would require a separate discussion and proof; but, briefly enumerated, they are: 1. The shape of the curve of the wave of epidemic disease, first noticed by Dr. Farr, and the possibility of calculating its rate of advance and of decline; 2. The singular mode in which epidemics have usually been found to succeed one another, noticed by Sydenham, in his *Medical Observations* (section 4, chapter i)—"As one nail drives out another, so does epidemic drive out epidemic"; 3. The fact that epidemic disorders, which chiefly affect certain organs of the body, are most common at the season of the year when other non-specific affections of those organs are prevalent, and in the places most favourable to these latter diseases; 4. The existence of definite cycles of epidemic diseases.

These phenomena of epidemics tend to show, first, that it is improbable that a hospital will be much needed for several epidemic diseases at the same time; and, secondly, that it may perhaps be possible in the future to foresee the times and the seasons when the need for the services of a hospital will arise.

HOW TO DEAL WITH CONVALESCENTS FROM ACUTE INFECTIVE FEVERS SO AS TO RESTRAIN THEM FROM COMMUNICATING DISEASE.*

By FRANCIS VACHER, F.R.C.S.E., Birkenhead.

How to deal with convalescents from acute infective fevers so as to restrain them from communicating disease, is a question which must often perplex medical officers of health. In the first place, the law gives us very little power over such cases (the 124th section of the Public Health Act is scarcely available as regards convalescents); and, secondly, our being able to influence those in charge is exceptional; so that, although we may formulate rules for dealing with convalescents, we cannot, either by fear or by favour, ensure that they are carried out. Again, in some cases, where confidence is placed in us and our counsel sought as to the disposal of a particular convalescent, the course of action we prescribe may be beyond the slender means of the person advised. Thus the difficulties in dealing with convalescents from infective fevers are very great, even when we have intelligence about these sources of danger and know where they are; yet it is probable that, for every case about which we have information, three or four are not reported, and go through the acute attack and period of convalescence, ministering relatives and sympathising friends receiving and carrying the contagium in all the luxury of full liberty.

If, therefore, convalescents from infectious fevers are to be controlled so far as may be necessary to prevent their prejudicing the health of the community, the sanitary authority exercising control must have three things—information, powers, and accommodation.

By "information", it will be understood that I mean compulsory notification of infectious disease. Unless people are required to notify cases under a penalty, the sanitary authority rarely hears of them, except from alarmed neighbours, or when a fatality has made further secrecy impossible. Happily, compulsory notification is no longer a mere idea of theorists, but an accomplished fact at Halifax, Bolton, Nottingham, Jarrow, and Burton-on-Trent; and the example of these towns in this matter is being followed at Derby, Exeter, Leicester, South Shields, Blackpool, and Warrington. The necessary powers could be obtained by most urban authorities without any opposition worth the name. The notification should be required of the householder, a lodger or subtenant being required to notify to him. In case the householder is himself infected, and disabled from notifying, the obligation should rest on the person in charge. The medical practitioner in attendance should be required to certify (on a form supplied) to the householder or person in charge, and be paid a fee for every such certificate by the sanitary authority.

I need hardly point out that knowledge of the position and circumstances of every case of infectious disease in a district is of very little use to the responsible officer of an authority, unless he can place efficient restrictions on the movements of the infected subjects, and, so far as may be practicable, prevent them from returning to their ordinary avocations and the duties of life till certified free from infection. No doubt some of the towns, in which compulsory notification is provided for, have already discovered that notification without power to control the movements of patients reported is somewhat embarrassing. To be useful in any comprehensive sense, it must be backed by such powers as are not given in any existing Act. Having advice of a fever-patient in the acute stage, or convalescent, let us see what restraint we can put on him. When a suitable hospital is provided or accessible, a person suffering from any dangerous infectious disorder may be removed thither, by justice's order, provided (1) he is without proper lodging or accommodation, or (2) lodged in a room occupied by more than one family, or (3) is on board any ship or vessel. An infected subject in a common lodging-house may be removed by the local authority without a justice's order. Thus any infectious patient properly lodged and accommodated (interpreting the words in accordance with the context) is under no restraint, except that he renders himself liable to penalty if he "wilfully expose himself without proper precautions" in "any street, public place, shop, inn, or public conveyance". With such limited power, what can the sanitary authority do except take charge of a few neglected cases, and issue an occasional summons in respect of wilful exposure?

I have said that intelligence as to fever-cases is of very little use without power to deal with them. It is certainly not less true, that power to remove and isolate cases can avail nothing unless we have fit places for their reception. The accommodation wanted is of two kinds; viz., hospitals for the reception and treatment of patients suffering from infectious diseases, and *homes for convalescents.* Accommodation of the first kind has been provided or contracted for by many sanitary authorities, while the bare fact that there is a demand for the other accommodation is scarcely yet recognised. Indeed, inasmuch as local authorities are only empowered to provide hospitals or temporary places for the reception of the sick, it is doubtful whether any special provision for the accommodation of convalescents can be legally made; and yet such homes can be effectually provided by the sanitary authorities alone. The failure of the recent attempt in Dublin to raise funds for a home shows that the work is not one which may be safely left to private charity; and as for private enterprise, it would be idle to expect much assistance from that source. Of the large number of existing convalescent homes in the United Kingdom, whether proprietary, supported by subscriptions, or maintenance charges, scarcely any are available for convalescents from infectious fevers—that is, without regard to considerations of expense. Instead of being homes for convalescents from infectious disease, they are homes for all other convalescents but these.

The Charity Organisation Society is now preparing as complete a list as possible of existing convalescent homes, with particulars as to the class or sex for which each home is available, and the extent of accommodation offered. When this list is issued, it will doubtless furnish more reliable information about convalescent homes than any at present within reach, and we shall know proximately how many beds there are at the service of patients recovering from fever. My own experience—and I live in a part of England liberally supplied with convalescent homes—is, that I know of no institution to which I can send infectious convalescents, and the result is seriously to detract from the usefulness of my fever-hospital. I am obliged either to retain patients in hospital during weeks of an often protracted convalescence, occupying ward-space which could be better employed, or to put them out into lodgings in an adjoining street, where they are subject to very imperfect control, and may sow contagium outside the circle of those who voluntarily accept whatever risk the accommodation of such lodgers implies. I need hardly say that, having no convalescent home to which I can draft off patients, I much prefer to keep them in hospital till I am able to discharge them as absolutely free from infection; and that it is only in exceptional circumstances I avail myself of the services of lodging-house keepers.

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* Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

Before I pass on from the subject of special accommodation for convalescents, the want of which every one having the management of an hospital for infectious diseases must often have felt, I should like to draw attention to another requirement almost equally urgent; *i.e.*, special accommodation for those who, though not known to be infected, have been contiguous to infected patients, and are thus (temporarily, at all events) objects of danger. So far as I have been able to ascertain, Glasgow is the only town where provision for these possibly dangerous subjects has been made. The accommodation afforded is simply a large lodging-house, called the Reception House; and in it families from crowded localities are boarded, after one or more of their members have been removed to an infectious diseases hospital. Remaining in the infected premises would be dangerous to them, and they might prove sources of danger to others. Quarantined, as it were, in the Reception House, they are under observation and out of harm's way; the fumigation of their clothes and the premises from which they were removed can be at once proceeded with; and they themselves can be bathed and disinfected. It occurs to me that an establishment of this kind might also be utilised for doubtful cases. Men and women certified as suffering from fever, but quite innocent of it, occasionally find their way into fever-hospitals; and this is especially liable to happen during times of epidemic disease, when hospital accommodation is most needed. If such cases could be sent to a reception house, and there kept under observation as long as might be deemed necessary, it would prevent some possible ill effects of incorrect diagnosis, and relieve managers of fever-hospitals of a frequent cause of anxiety.

Apologising for this brief digression, I return to my text. I have said that, to exercise the necessary control over fever-patients during the period of convalescence, the sanitary authority must have information, powers, and accommodation. Only the few towns I have mentioned have regular information of cases of infectious disease; none have efficient powers to insist on isolation; while the want of special accommodation for convalescents is not even recognised. Compulsory information of cases of infectious diseases, and powers to deal with them to prevent their spreading disease, can only be obtained by going to Parliament. Without losing sight of the fact that it is desirable to abridge somewhat the liberty of convalescents, as we already abridge the liberty of others who from various causes are dangerous to the community, and that powers to effect this will have to be obtained sooner or later, let us see if there be not some practical suggestion to be got from the consideration of the subject. Put it in this way: Convalescents from infectious diseases are a daily source of danger. Is there anything which we, as medical officers, can do to minimise this. I think that there are two things, at least, that we can do. 1. We can be more rigorously particular in refusing to discharge infectious patients from hospital till absolutely free from infection; if necessary, setting apart one or two wards for the sole use of convalescents, or adding a special convalescent ward. A garden will be found of great use in helping the hospital management to retain unwilling convalescents. 2. We might issue printed rules having reference to the management of convalescents. These could be sent out as circulars to all ratepayers, and perhaps displayed as posters; and should state simply how isolation is to be effected, and give explicit directions as to bathing, anointing, and exercising the patient, cleansing and airing his room, wearing apparel, etc.—matters on which the public are not at present sufficiently instructed.

THE SURGICAL TREATMENT OF EPISTAXIS.

By EDWARD HAMILTON, M.D.,

Ex-President of the Royal College of Surgeons in Ireland; one of the Surgeons to Steevens' Hospital.

COMMUNICATIONS on the subject of epistaxis, which have from time to time appeared in the pages of our JOURNAL, seem to elicit the fact that there exist in the minds of busy practitioners much doubt and misconception as to the best plan of dealing with this emergency, so often a source of anxiety and danger. I am induced to offer a few practical remarks relative to it, as it occurs to me that the simplest and most effectual method of arresting this hæmorrhage is not sufficiently known, nor appreciated as it should be. It is not my intention to discuss the nature, causes, or constitutional treatment of epistaxis; they are sufficiently detailed in various systematic works on medicine and surgery, in many of which the subject is thoroughly exhausted. Let us assume that the nose is freely bleeding, and that it is imperative that the surgeon should arrest the flow of blood without loss of time. We may also assume that various popular remedies have been tried, and tried in vain —they are known to every tyro. The surgeon may absolutely be summoned for the especial duty of plugging the posterior nares, as I was myself some time ago, by a respected general practitioner in this city, who sent for me late at night, and entreated me to carry out this proceeding and no other, as he had minutely detailed the steps of this operation, and did not wish that his patient (a highly nervous and sensitive lady) should be disappointed, having screwed up her courage to the point of endurance. Should the surgeon feel disposed to adopt this proceeding, let him avoid putting his trust in surgical toys like Bellocq's sound. I have seen this instrument more than once produced from the pocket-case with great formality, and, when introduced into the nostril, the thread of the screw was found so worn and imperfect that it failed to catch. The watch-spring coming forward into the mouth could not be withdrawn, so that the instrument became quite unmanageable and useless, and was flung aside with great disgust. And I have witnessed, scraping of the lining membrane of the pharynx, and much pain and impatience caused by vain attempts to use this appliance, even when perfect as an instrument. Further, it is not always at hand when required; the sooner, therefore, the surgeon accustoms himself to act without such unreliable assistance, the better for himself and his patients.

Simple, indeed, is the apparatus required for plugging the posterior nares. A foot of wire, to be found now-a-days in every wardrobe, from the kitchen to the garret—that by which mineral water-bottles are secured—answers the purpose admirably. Should a supply from either of these sources fail, the bell-wire may be pressed into the service for the nonce. A coil of thin copper-wire may be carried with advantage in the smallest pocket-case, and will be found a very useful addition to it for this and many other purposes in practical surgery. Let a loop be twisted on the end of the wire, as large as will pass through the nostril; when it appears below the soft palate, it may be conducted forward into the mouth by a dressing forceps, the finger, or a hook improvised on another piece of the same wire. The ligature, being now secured to the loop, may be drawn through the mouth, pharynx, and nasal fossa, the plug fastened to it and fixed in position in the usual way, and the operation completed. This proceeding is, however, at best most troublesome, clumsy, distressing to the patient, and by no means free from risk. A well-known case in Dublin was followed by erysipelas of the fauces, causing fatal œdema of the glottis. In our periodical literature, we find recorded such consequences as tetanus, secondary hæmorrhage, the loosened plug fatally entangled in the glottis, besides the intolerable annoyance to the patient of the ligature in the mouth. It is obviously desirable to find some simpler mode of dealing with this emergency; and I have no hesitation in asserting the proposition that plugging through the anterior nostril is all sufficient, if it be carried out with thoroughness and efficiency. Mr. Bryant, whose last edition may be regarded as the latest exposition of British surgery, recommends the use of Bellocq's cannula, and gives a wood-cut of the instrument. Speaking of plugging the nose, he says: "To do this effectually, some skill is necessary to do it; otherwise, it is useless and injurious. *To plug from the anterior nares alone is trifling with the hæmorrhage.*" To apply the author's own quaint remark, there is the way not to do it as well as the way to do it —a remark as applicable to plugging the anterior nares as to every other surgical procedure.

The plan of treating epistaxis which I would suggest cannot claim any merit for originality, as I only wish in this paper to call attention to what appears to have escaped recollection. It is a modification of that proposed, so long ago as 1862, by the late Josiah Smyly, of respected memory. His own description of it may be found in a very able and exhaustive memoir, on the subject of epistaxis, by my friend Professor Macnamara, in the *Dublin Quarterly Journal* for February 1862. I take a strip of linen material, three feet long; the width will be in proportion to the fineness of the texture; the coarser it is, the narrower it may be. We may take one inch wide as the standard. This may be soaked in some domestic astringent at hand: tea, alum-water, saturnine solutions; oil may be used, but it should be sparingly, as, although it greatly facilitates the introduction of the material, yet, as it interferes with the imbibition of moisture, it prevents the subsequent expansion of the plug, which is useful in checking the escape of blood by its compressing effect. The best of all fluids, if at hand, is a saturated solution of gallic acid in glycerine, which may be kept for the purpose. This has the advantage of combining astringency and styptic quality with lubrication. This strip of linen should be regarded as consisting of three parts, each intended for its own special position in the nostril. The end of the first portion should be grasped in the blades of a dressing forceps, and conveyed along the floor of the nostril to the posterior termination of that cavity; the remainder, about one foot, should be rapidly "paid" by the finger and thumb into the cavity of the nostril. The solid mass thus formed should be forced along the floor of the nose, first with the little finger, and then with the dressing forceps or a pencil, until it is found to occupy the posterior nostril, and distinctly felt in it by *the finger, hooked round the soft palate*. This is far the most important part of the entire proceeding, being, as it were, the basis of operations. The second portion should now be paid into the nostril in the same way, and pressed by the finger and forceps into its position—the roof of the nose. The third and last portion should be pushed into the nostril, so as to occupy a position in front of and below the other two, and, being caught within the edge of the alar cartilage, will usually retain its position without trouble. I think it desirable that the material should not be cut, but retained as one continuous piece for the facility of subsequent removal; but too much care cannot be taken in disposing of the first portion. The nostril being thus perfectly and thoroughly packed, every portion of the lining membrane is steadily and firmly compressed, and the escape of blood is rendered physically impossible. In the course of about forty-eight hours, the plug begins to loosen, the end falling from the nostril. Directions should be given to the nurse or attendant on no account to pull it, but simply cut the projecting part on a level with the nostril, according as it drops, until the entire plug comes away. For some years past, I have adopted no other mode of plugging the nostrils; and many of my professional brethren in Dublin, who have practised it, have found it simple, effective, and satisfactory. There is little fear of the plug remaining too long, as, when the natural secretion is restored, it becomes quickly loosened and unpacked, and falls away through the anterior nostril.

CASE OF ULCER OF STOMACH, PENETRATING INTO THE LIVER.

By J. INGLEBY MACKENZIE, M.B.Cantab., Rugby.

THE subject of the following history was W. L., aged 56, ill-nourished and rather emaciated in appearance, with sharp pinched expression of face. His skin was dry; his pulse feeble, regular, 60; his tongue was covered with whitish fur. His appetite was small. The bowels acted but seldom—then with difficulty. He slept very badly. The abdomen was distended. He complained chiefly of pain in the right hypochondriac and epigastric regions, increased by pressure and followed by sickness. He had been subject, he said, to "sick attacks" for years. I had attended him in one of these, in the temporary absence of my predecessor, about four years since, but had lost sight of him professionally up to March 10th, 1879, at which date I was sent for to attend him, and these notes were taken. The treatment consisted in small doses of nitro-muriatic acid, which afforded some relief to his pain; also small doses of ipecacuanha wine to allay nausea, with an opium pill to give sleep, and a wet compress over the seat of pain. He improved on this plan so much that, on March 22nd, he was able to go out and superintend a small farm he occupied for amusement; and I heard nothing of him till, on April 10th, an indigestible supper reproduced all the old symptoms, but in an aggravated form. The former treatment was resorted to, but unsuccessfully. All solid food was strictly forbidden; his diet consisted chiefly of arrow-root and brandy, with occasionally mutton-broth, thickened with ground-rice, and an opium pill at night. The treatment was continued with varying success up to the middle of July, when, talking the case over with a medical friend who was staying with me, he suggested the treatment proposed by Dr. Balthazar Foster of Birmingham, in his *Clinical Lectures*, viz., giving the stomach perfect rest, and supplying nutriment *per rectum*. This plan was adopted for two days; but, on the morning of the 10th, I was hastily summoned to find him moribund—no change having taken place to warn his friends in the least.

Post mortem Examination, eight hours after death.—The body was very anæmic and emaciated. On opening the abdomen, a long distended stomach concealed all the other viscera; the walls were very thin—so much so that the scratch of a finger-nail inadvertently pressing on them instantly ruptured them, disclosing the contents to be a dark grumous, coffee-ground like fluid, in quantity about two and a half pints. On carefully raising the stomach, it was found to be attached to the left lobe of the liver. The stomach was emptied and opened along its greater curvature, and a large ragged ulcer, opening direct into the liver, was found near the pyloric end of the viscus. On passing the index-finger about three inches into the cavity in the liver, it was found to contain the same grumous fluid as did the stomach, the edges of the ulcer being firmly agglutinated round the orifice, forming a continuous structure. The cavity in the liver had no wall, but was apparently a "burrow" caused by the action of the contents of the stomach. Just short of the pylorus (the fibres of which were considerably thickened) was discovered a pouch or *cul-de-sac*, one inch in depth, apparently in the inferior wall of the stomach, and containing similar fluid to the stomach. The intestines were shrunken in calibre, and contained small bullet-like fæces. The walls of the heart were thin, and the muscular fibres pale and anæmic. There were some pleuritic adhesions of old standing.

REMARKS.—There can be no doubt that the ulceration into the liver was an effort of nature at repair. The rupture must have occurred at some considerable distance of time from the patient's death, as the edges of the ulcer were so firmly adherent to the structure of the liver. How long, it is impossible to define. The thickening of the fibres of the pylorus was not so great as to lead one to suppose that that alone was the cause of the vomiting. The *cul-de-sac* just short of the pylorus was also a special feature in the case, leading me to think it not unworthy of record.

SURGICAL MEMORANDA.

DECALCIFIED BONE-TUBES.

IN two cases in which drainage-tubes were inoperative, I have lately employed the newly introduced (Neuber's) decalcified bone-tubes; and I regret much to have to report that the hopes of finding an efficient drainage-tube, which would allow more unfrequent antiseptic dressings, have not been verified.

In the first case, amputation of the thigh for disease of knee-joint of nine years' standing, in a female aged 37, I employed three tubes: one, inside, of the usual India-rubber; two, one of them on the outer side and one midway of the flaps, of the new decalcified bone. For two days, all looked well; but, on the third and fourth day, I found the India-rubber tube acting perfectly, while the other two were partially eroded, absolutely flattened, collapsed, and blocked. Hence arose retention of serum between the flaps, suppuration excited by the tension so produced, and a tedious recovery, not yet quite complete. In the second case, a large bursa over the patella was punctured, with the usual antiseptic precautions, and a Neuber's tube, of the smaller size, employed. But here, again, in twenty-four hours the tube had ceased to be an efficient channel of exit, and the bursa was distended with serum—leading, as might be expected, to a slower repair. India-rubber drainage-tube, often very efficient, is sometimes, from position or pressure, flattened, and so is then of little value. I hope to make a trial shortly of some tubes made from gutta-percha.

WILLIAM NEWMAN, M.D.Lond., F.R.C.S.Eng., Stamford.

TWO CASES OF FRACTURE OF THE SCAPULA.

As it is of importance on all occasions to add to surgical statistics, I am desirous of bringing before the notice of the profession the two following cases, the first of which is of rare occurrence, and of the second there are very few authentic instances.

CASE I.—On March 12th, David W., aged 42, carter, fell out of his spring-cart to the ground face downwards, the wheel passing over his shoulder. He complained of great pain about his shoulder, and of being unable to raise his arm. On being stripped, not much deformity was discernible, except some swelling at the back of the scapula. There was no injury to the shoulder-joint; but the scapula, it could distinctly be detected, was fractured transversely one inch below its spine. The treatment used was a gum and chalk shoulder-cap, extending from spine to sternum, with a pad in the axilla. This casing was removed on April 19th. Osseous union was found to be firm and complete, with no deformity beyond very slight angularity of union.

CASE II.—Mary Jane G., aged 16, on April 11th was swinging on the shaft of a hand-cart, and fell on her right shoulder. When stripped, but little swelling was discernible; the breadth of the shoulder, however, seemed increased, hanging a little forwards, outwards, and downwards. As she was a thin girl, the anatomical bearings could be very clearly defined. On manipulation, the head of the humerus could be made to perform all movements in the glenoid cavity, and, by fixing the scapula and firmly grasping the shoulder, crepitus could be obtained, most distinctly attributable to the fractured neck of the scapula—the fracture extending from the inner side of the base of the coracoid process to the glenoid cavity. The deformity was easily reducible by supporting the elbow and drawing the shoulder gently back, but it instantly returned when the support was relaxed. The treatment I adopted was somewhat similar to that in the former case. A good sized pad was placed in the axilla, the arm was bandaged to the side, and the whole fixed with a gum and chalk casing, which was also made to pass under the elbow and support it. By means of carefully applied padding, I succeeded in fixing and maintaining the shoulder in very fair position.

The girl complained of little, if any, pain; and, as far as can be observed, matters are progressing very favourably. I do not think it advisable to remove the casing until fully five weeks have elapsed from the time of injury.

C. E. RICHMOND, M.R.C.S., Warrington Infirmary.

PARACENTESIS OF THE MEMBRANA TYMPANI, IN ACUTE AURAL CATARRH.

J. R., AGED 32 (sent to me by Mr. Morris of York on January 4th, 1880), was attacked without warning by a pain in the left ear, which caused him the most intense agony, preceded by a "thickness of hearing and a fulness of the ears", along with sore-throat, before the attack of pain came on. The sensation of fulness, the technical *tinnitus aurium*, was very distressing; but lessened and changed its character, from a puffing sound, like a steam-engine, to a ringing sensation, and then was accompanied with a slight diminution of the pain; but, along with this, there was increased secretion from the pharynx and region of the posterior nares. Some of the domestic remedies, of negative or slight value, had been used before the aid of the surgeon had been sought, when he adopted blood-letting as his first remedy, but the pain continued. Wet caps, warm water, and poultices had been applied in succession as next in efficiency, but left no marked effect.

When he was seen by me, the hearing distance was about eight inches in the affected ear and normal in the right, with the subjective symptoms much as described above. My operation, however, was determined upon, not from anything stated above, but from the fact of finding much vascular injection around the periphery of the drumhead and along the handle of the malleus, while the other parts of the membrane remained of their normal colour; but, most marked of all (and could be seen by any one who is at all familiar with the examination of the normal membrane), was the bulging outward of the membrana tympani in Shrapnell's membrane. Seeing, therefore, that perforation was imminent, and that bleeding had proved ineffectual, paracentesis of the drum-membrane, as suggested by Schwartze of Halle, was adopted, and found to be of great value. A cataract needle was passed through the posterior portion of the membrana tympani, and a thorough puncture was made, through which the blood was drawn with the happiest results. A saturated solution of chlorate of potash was applied to the pharynx, while the neck was enveloped in a warm water poultice; and the Eustachian catheter and Politzer's method of inflating the middle ear were used for some time, as soon as the acute symptoms subsided. These are the major items of the treatment. I have seen the patient several times since, on account of naso-pharyngeal catarrh, and his recovery of hearing proves to be permanent; but, on the other hand, there is every reason to believe that, had this been left as a case of half-treated acute catarrh, the foundation might have been laid for that insidious and obstinate disease, chronic non-suppurative inflammation of the middle ear.

ROBERT TORRANCE, Newcastle-on-Tyne.

THERAPEUTIC MEMORANDA.

SEQUEL OF A CASE OF DIABETES INSIPIDUS, TREATED WITH ERGOT.

IN the BRITISH MEDICAL JOURNAL of December 25th, 1875, is recorded the case of a man who suffered from diabetes insipidus, and was successfully treated with ergot, after the failure of jaborandi and other remedies. Half a drachm of the liquid extract of ergot, every three hours, reduced the urine in twenty-four days from twenty pints to a pint and a half; increased its specific gravity from 1002 to 1017; and removed the excessive thirst and other distressing symptoms from which he had suffered for two years. A few days ago, I met the patient by accident; and he tells me he has never had a day's illness since he left the hospital, four and a half years ago. His urine is normal in quantity; he does not suffer from thirst; and he is strong and well in every way, and able to do a good day's work. The ergot cured him completely; and it is to be regretted that this mode of treatment is not more commonly employed in these cases.

WILLIAM MURRELL, M.D., 38, Weymouth Street, W.

THE ADMINISTRATION OF CUBEBS WITH COPAIBA.

JUDGING from the advertisements of the wholesale druggists, I should conclude that this is a combination very often prescribed. I have used for many years, with excellent results, these two remedies, with the addition of a third: buchu. It has been quite the exception for a patient to complain of the nauseousness of the mixture. The solution I have used is prepared by the General Apothecaries' Company, and is mixed with water. I quite agree with Dr. Snow in recommending the permanganate of potash injection. When practicable, I order patients to inject every hour. As an astringent afterwards, I prefer alum to sulphate of zinc.

T. GARRETT HORDER, M.R.C.S.Eng., etc., Cardiff.

PATHOLOGICAL MEMORANDA.

A CASE OF COMPLETE ABSENCE OF FEMALE GENERATIVE ORGANS.

E. G., AGED 17, an unhealthy-looking girl, was admitted into this Infirmary on February 4th, suffering from chlorosis and complaining of great pain in her left side. She stated she had never menstruated, and, thinking this was the cause of her condition, she was treated with iron preparations, under which she certainly improved, till March 25th, when she had a severe attack of epistaxis. From now, she complained more of the pain in her side, and on April 21st suddenly died. At the necropsy, I at once noticed the complete non-development of the mammæ and no sign of pubic hair; and, on looking for the uterus and its appendages, I found them entirely absent—the rectum and bladder lying in position similar to that of a male. The vagina consisted of a *cul-de-sac*, one and a quarter inches long, with the meatus urinarius at its end. The real cause of death was found to be a large abscess at the apex of a spleen, weighing seventeen ounces.

R. J. MAPLES, M.R.C.S., etc., Newington Infirmary, S.E.

CLINICAL MEMORANDA.

PUSTULAR RASH FROM SHEEP-WASHING.

IN May 1879, a gentleman, fair, tall, robust, a very distinguished athlete, presented himself to me with the front and inner side of his left arm from the shoulder to the wrist, and the left side of the chest and upper part of the abdomen covered with a pustular rash, the characters and localisation of which puzzled me considerably. I at length elicited that, about a fortnight before, he had assisted as an amateur in a day's sheep-washing. In the course of this operation, the sheep is grasped by the left hand and supported on its back against the left side of the washer, standing nearly to the middle in water, while the right hand is engaged in rubbing away the clay and dung with which the wool of the belly is often clotted. I also ascertained that the sheep had recently been dipped in a sheep-dipping composition, probably containing mercuric bichloride or arsenic, for the destruction of tick and other parasites. The cause of the eruption was now clear, though my patient had no suspicion of its origin. He wore a thin flannel shirt and duck trousers. The shirt became saturated with water from the wet sheep, but was not otherwise immersed. The right hand, being constantly washed with fresh water, escaped. His fellow-labourers, wearing their usual thick clothing, also remained unaffected. The sheep-washing season being now at hand, this case may be worth recording, as some readers of the JOURNAL in rural districts may meet with similar ones.

S. H. STEEL, M.B.Lond., etc., Abergavenny.

OBSTETRIC MEMORANDA.

AID IN FORCEPS DELIVERY.

I WISH to bring before the notice of those members of the profession who practise midwifery, a simple plan which I have found an useful help when delivering with forceps. The liability of the foot to slip while using that instrument, and thus depriving the operator of a good deal of support at the very moment when he most requires it, must have been experienced by others besides myself, and led me to design the simple holdfast which is thus constructed.

I procure a small rectangular-shaped piece of sole-leather, with loop of strap attached, large enough to admit the toe of my boot. To the piece of sole-leather, I fasten with screws two of the ordinary cricket-spikes, and, with the left foot thus armed, press it firmly on the ground before taking my seat to operate. I find I then have a firm support, which gives me much additional confidence in making traction without the least fear of slipping. I have been so much pleased with the help I have thus derived, that I venture to think it may prove equally useful to others, and trust this may be accepted as my excuse for publishing it.

ALEXANDER DUKE, M.K.Q.C.P.I., Assistant-Physician Rotunda Hospital.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

KING'S COLLEGE HOSPITAL.

SOME CASES OF ACUTE MILIARY TUBERCULOSIS.

CASE I.—Henry E., aged 29, a tailor, was admitted into Craven ward, on February 8th, 1880, under the care of Dr. Johnson. He had drunk freely, but at no time suffered from any severe illness. About a fortnight previously to admission, he was said to have had diarrhœa, and pains in the limbs; but he was not seriously ill until Sunday (February 1st), a week previously to admission, when he had a rigor. He continued at work, however, until February 5th, when he commenced to wander.

On admission, the patient was wandering and semiconscious, and answered questions incoherently. The temperature in the axilla was 101° F.; the respirations were 28 per minute; and the pulse 110 per minute. The tongue was dry and brown; the abdomen distended; and the bowels constipated. Slight dulness was observed at the base of the left lung, with some wheezing at both bases. No other abnormal pulmonary signs could be detected. The heart-sounds were normal. The pupils were equal and acted to light. The urine contained no albumen.

February 9th. The temperature varied from 101° F. in the morning to 102° F. in the evening; the pulse from 126 to 132 per minute; and the respirations were 24 per minute. The patient was wandering and restless during the night, with subsultus tendinum. The tongue was moister, but the bowels continued constipated. The urine was retained, and twenty-four ounces were drawn off. He was ordered the following draught at night: ℞ Chloral hydratis gr. x; potassii bromidi gr. x; aquam ad ℥j.

February 10th. The temperature was 100.4° F. in the morning and 101° F. in the evening; the respirations were 24 per minute; and the pulse was 136 per minute. He was quieter after the draught, but still continued semiconscious, with much tremor and subsultus. Some urine was passed unconsciously, the remainder being drawn off by the catheter. No action of the bowels.

February 11th. The temperature was 102° F. in the morning and 101.6° F. in the evening. The pulse was uncountable. There were muttering delirium and great restlessness; the abdomen being still distended and apparently tender. Twenty ounces of urine were drawn off by the catheter. For the first time, the pupils were noticed to be unequal. The patient gradually sank, and died in the evening.

NECROPSY, fifty-two hours after death. On opening the thoracic cavity, the left lung was not visible; the right being much enlarged, and extending beyond the middle line. The pericardium was pushed to the left side, and partly overlapped by the right lung. There was no fluid in the pericardium or either pleura. The left lung lay almost entirely in the vertebral groove and against the posterior third of the ribs, where it was firmly adherent. It was of a dark red colour, firm, and collapsed, and studded throughout by grey granulations. At the apex, there was a small cavity with irregular walls, and some small caseous and calcareous masses were situated in its immediate vicinity. The right lung was also studded with grey granulations, especially in its upper lobe, but less thickly than the left lung. There was no œdema or bronchitis in either lung. The spleen was soft and dark, and the liver presented no abnormal appearances. White, firm, circumscribed spots, of the size of small shot, were sparsely scattered through the cortices of both kidneys. Firm yellowish white nodules, the largest being about the size of a pea, projected on the mucous membrane of the ileum, but caused no elevation of the peritoneal coat. The ventricles of the brain were dilated, and contained a considerable quantity of fluid, the convolutions being slightly flattened. Miliary tubercles were recognised in the fissure of Sylvius on the middle cerebral artery, but none were present on the basilar artery.

CASE II.—James McM., aged 35, was admitted under Dr. Johnson on March 14th, 1880. The patient, a builder's labourer, was admitted with the following history. For the last two or three years, he had suffered from cough and slight hæmoptysis, but had improved somewhat of late. His present illness dated from about a week previously; and for the two or three nights before admission he had wandered.

On admission, the patient was much emaciated; his face livid; and he could give no connected account of himself. The tongue was moist, and covered with a brownish black fur; the breath fœtid; abdomen distended; and bowels constipated. There was no evidence of either consolidation or excavation at the apices of the lungs; loose crepitation being alone audible over the whole chest. The sputum was greenish and purulent. The heart-sounds were normal, but exceedingly feeble. The urine contained no albumen.

March 15th. The temperature in the axilla ranged from 103.4° F. to 104.4° F.; the respirations from 48 to 60 per minute; the pulse being 130 per minute. He continued to wander, and passed urine unconsciously.

March 16th. The temperature was 102.8° F. in the morning, and 102° F. in the evening. The respirations were 56, and the pulse was 130-132 per minute. Sordes appeared on the lips and tongue; the wandering continued; and the urine and motions were passed unconsciously. The bowels acted three times, and were relaxed.

March 17th. The temperature was 102.8° F. in the morning, and 103° F. at night. The respiration varied from 52 to 48, and the pulse from 132 to 138 per minute. He still wandered. The pupils were equal and contracted, and reflex action was everywhere good. The bowels acted three times.

March 18th. The tongue was dry and brown. The mental state showed no alteration, and subsultus tendinum was present. The abdomen was retracted, and the bowels acted three times. The temperature varied from 102.6° F. to 102.2° F.; the respiration from 44 to 48 per minute, and the pulse from 132 to 144.

March 19th. The temperature was 101.6° F. in the morning, and 103.6° F. in the evening. The respiration varied from 44 to 36 per minute; and the pulse from 144 to 156. The bowels acted five times. He died at night.

NECROPSY, sixty-one hours after death. There was a small quantity of clear fluid in the pericardium. The heart was flabby, but the valves normal, and there was a quantity of partly decolorised clots in the right cavities. The left lung was bound down by old adhesions, and felt solid and nodular. On section, it presented numerous yellowish-grey and grey granulations scattered through it. There was a small cavity at the apex. At the right apex was a somewhat larger cavity with irregular walls. Numerous small nodules were scattered through the lung, but it was less consolidated than the left. The capsules of the kidneys were slightly adherent, but the organs were otherwise normal. The brain was congested, but no tubercles could be discovered. All the other organs were normal.

CASE III.—James S., aged 39, a porter in the hospital, was admitted under Dr. Beale on December 27th, 1878. He was laid up with rheumatism four years previously, but had had no other illness. For a week previous to his admission, he had complained of pain about his chest and loins, together with some loss of voice.

On admission, the temperature in the axilla was 100.8° F.; the respirations were 24; and the pulse was 116 per minute. He was restless and tremulous; the tongue was moist, and covered with a whitish fur; the abdomen distended and painful on deep pressure; and the bowels relaxed. There was crepitation at the bases of both lungs, but no dulness anywhere. The heart-sounds were normal. The urine was of specific gravity 1015, acid, and contained no albumen.

On December 30th, the temperature was 100.8° F. in the morning and 101.6° in the evening; the respirations per minute varying from 28 to 24; and the pulse being 116. The patient wandered during the day, and loose *râles* were audible all over the chest. The motions were reported to be relaxed and of a light colour.

The patient continued more or less in the same condition until January 17th, 1879, when he died—about three and a half weeks from his admission. He lay in a wandering and tremulous state; the urine and motions being frequently passed unconsciously. The bowels were relaxed, an average of three or four stools being passed daily, and on one occasion the motion contained a small quantity of blood. The tongue became dry and brown. The temperature during this period varied with slight evening exacerbations, between 100° F. and 102° F., on three or four occasions only rising slightly above the latter figure, but never reaching 103° F. The pulse varied from 120 to 148, being usually between 130 and 140 per minute. The respirations oscillated between 24 and 44 per minute; the average number of respirations lying between 30 and 40 per minute.

On January 19th, the respirations varied from 36 to 48 per minute; the pulse from 140 to 136; and the temperature from 100.6° to 101.2°. The breathing became more noisy, and the pulse very small; and he died in the evening.

NECROPSY.—A cavity, of the size of a walnut, was found at the left apex, and both lungs were shotted throughout, the nodules in places commencing to exhibit a soft and cheesy aspect. The other organs presented no abnormal appearances.

Case iv.—Thomas S., aged 33, a plasterer, was admitted under Dr. Duffin on November 6th, 1877. About a month before admission, he was taken ill with vomiting and dyspnœa, and had not felt well since. Twelve days before admission, he was obliged to leave off work, and began to complain of dryness of the tongue and throat. Subsequently, the dyspnœa became worse, and diarrhœa set in about eight or nine days before admission, but he had had no cough and no shivering.

On admission, the tongue was dry and fissured; and white patches were seen on the fauces and palate, but there was no enlargement of the glands under the jaw. This condition of the throat, however, rapidly disappeared. There was urgent dyspnœa, the respiration being 60 per minute. The pulse was 130 per minute, and the temperature in the axilla was 104.8° F. Fine crepitation was audible at the right base, but there was no dulness. There was no albumen in the urine.

November 7th. The respirations were 60 per minute; the pulse varying from 130 to 145 per minute; and the temperature ranging from 104° F. in the morning to 104.8° F. at the evening visit. The bowels acted thrice, and were relaxed.

November 8th. The respirations were from 60 to 48 per minute; the pulse was 135 per minute in the morning, with a temperature of 104.2°; and in the evening was 150 per minute, with a temperature of 104.4° F. Occasional crepitation was now audible at the left base, but there was no dulness over any part of the lungs. The bowels acted four times, and were light-coloured and relaxed.

November 9th. Fine crepitation was heard at both bases, being especially marked on the right side. The patient wandered during the day. The respirations were 48 to 60 per minute; the pulse was 150; and the temperature was 103.4° in the morning, and 103° at night. The bowels acted three times. The patient died on the morning of November 10th, 1877.

Necropsy.—The lungs were both thickly studded throughout with small grey granulations. Similar granulations, though less thickly scattered, were present in the kidneys. The other organs were not affected.

Remarks.—These cases are of considerable interest, as illustrations of the difficulty which surrounds the diagnosis of acute tuberculosis in the adult from other febrile affections, more especially from typhoid fever. Thus the more or less obscure history, the absence or equivocal character of the pulmonary physical signs, the presence of abdominal symptoms or diarrhœa, the absence of marked dyspnœa (as in the first case), united in greater or less degree, and in varying combination, to render exact diagnosis exceedingly difficult. Although differing individually in the precise grouping of their symptoms, all the cases presented one common salient feature: their pulse-temperature ratio was markedly disturbed. For example, in the first case, with a temperature which never exceeded 102° F., the pulse varied from 110 to 136 per minute. Again, in the second case, while the temperature varied from 104.4° to 102°, the pulse ranged from 130 to 156 per minute. A similar condition may be observed in the other two cases—James S. and Thomas S.; and it is noticeable that although, in the latter case, the temperature took a somewhat higher range (104° to 105°), the pulse also varied disproportionately, varying from 130 to 150 per minute. Wunderlich has especially insisted on this point in the diagnosis of acute tuberculosis; and it seems evident, from the above cases, that it may prove of great value in the recognition of the more obscure cases of this disease.

SUSSEX COUNTY HOSPITAL.

TWO CASES OF HERNIOTOMY FATAL IN CONSEQUENCE OF HÆMORRHAGE FROM ABNORMALLY DISTRIBUTED OBTURATOR ARTERIES.

Case i.—Mary W., aged 62, was admitted, under Mr. Couling, February 18th, 1879. She had had a small swelling in the left groin for four months, but it had caused her no uneasiness. Three days before admission, she went to bed in her usual health, but passed a restless night, and in the morning vomiting commenced, which continued until her admission. When first seen, she was in a collapsed condition, with dry brown tongue, and frequent stercoraceous vomiting; pulse 100, feeble. Her expression was anxious; she complained of pain at the umbilicus; there was a small hard swelling at the left femoral ring, without impulse on coughing. A few hours after admission, herniotomy was performed. A small knuckle of intestine was found very tightly constricted at Gimbernat's ligament; the ligament was incised, but before the bowel could be reduced, a second stricture, formed by the sac itself, had to be divided. When Gimbernat's ligament was divided, free bleeding occurred, but this was apparently controlled without difficulty. The day after the operation, some hæmorrhage was detected from the wound; and, as it could not be controlled, the wound was again opened and the bleeding point searched for, but without success. The external bleeding was arrested by pressure and ice, but the patient gradually sank, and died on the third day after the operation.

Necropsy, twenty-six hours after death. In the neighbourhood of the wound of operation, the tissues were infiltrated with blood, that beneath the peritoneum reaching as high as the umbilicus. The hæmorrhage was found to proceed from the complete division of the obturator artery, which arose from the external iliac in common with the epigastric, and crossed over the femoral sheath and along the inner margin of the crural ring. About nine feet from the cæcum was a small knuckle of deeply congested intestine, which consisted of only a part of the circumference of the bowel; in what appeared to be the upper line of stricture was a small perforation, through which semifluid fæcal matter could be squeezed, but none had escaped into the peritoneal cavity, and there was no peritonitis.

Case ii.—Elizabeth B., aged 64, was admitted, under Mr. Jowers, January 17th, 1880. She had had a rupture five or six years, but had always been able to return it herself, and she had never worn a truss. She had been unable to return it since January 13th (four days before admission), and her bowels had not acted since. The patient walked into the hospital, and, though complaining of some little pain in the groin, showed no signs of having anything serious the matter; her pulse, however, was feeble and rapid. There was a hard swelling, about the size of a walnut, in the position of the femoral ring, without impulse, and irreducible. Soon after admission, she vomited a material exactly resembling thick liquid fæces in appearance and smell. Herniotomy was performed under anæsthetic mixture. A small knuckle of bowel and a piece of omentum which were found in the sac in a somewhat congested condition, were returned without difficulty, a very slight nick in Gimbernat's ligament being needed to relieve the stricture. No hæmorrhage occurred at the time of operation. She was apparently much relieved by the operation, and passed a good night; but, the following evening, she began to complain of a frequent desire to micturate, and of some tenderness of the abdomen; and on the day but one after the operation, she showed signs of severe collapse, and vomiting recommenced. The collapse increased, and she died early on the following morning. There was not any hæmorrhage from the wound after the operation.

Necropsy, eight hours after death. The wound of operation was healthy in appearance externally, without any ecchymosis of the surrounding skin; but, on opening it out, some clotted blood appeared, and, on tracing this back, a large mass of clot was found in the subperitoneal tissues surrounding the wound, and in that of the neighbouring part of the pelvis. It was found that the obturator artery, which arose from the external iliac in common with the epigastric, and passed over the crural canal on its course to the pelvis, had been partially divided, and this probably at the time when Gimbernat's ligament was nicked. The portion of bowel which had been strangulated was found with difficulty, as it differed but little in appearance from the rest of the intestine; on opening it, an ulcerated ring of mucous membrane showed the seat of stricture, and at one part of this was a minute perforation, through which, however, no fæcal matter had, apparently, passed into the abdominal cavity. The obturator artery on the opposite side did not arise from the external iliac, and was probably normal in origin.

Remarks.—The interest of the two cases centres, of course, in the abnormal distribution of the obturator artery, in each case the cause of death from its accidental division; this division being in the one case partial, in the other complete. But it is also worthy of observation that, although the condition of bowel was in each case much the same, one patient walked into the hospital, the other was carried in in a state of collapse.

GENERAL HOSPITAL FOR SICK CHILDREN, MANCHESTER.

CASE OF GENERAL TUBERCULOSIS, WITH HÆMORRHAGE FROM THE BOWELS: DEATH. BY HENRY ASHBY, M.D.LOND., PHYSICIAN TO THE HOSPITAL.

P. B., aged 4, was admitted to the hospital (April 14th) with the following history. Two of her mother's family had died of consumption; one of the patient's sisters had died of "water on the brain", when two and a half years old. The patient had been weak since last December, had wasted, and had a troublesome cough. Two weeks ago, she took to her bed. Five days ago, she was feverish, and delirious at night. She had no fits or paralysis, but had had pain in her head.

On admission, the patient was in a semiconscious condition. The pupils were semicontracted, but acted with light. She did not notice anything around her, but occasionally called for a drink, and, if disturbed, uttered a shrill piercing cry. The chest was resonant; scattered rhonchus was heard in both lungs; there was frequent cough. Pulse 120, weak. The abdomen was distended and resonant; no spots; an enlarged mesenteric gland was felt on deep pressure. The spleen was slightly enlarged. Both optic discs had sharp edges, and the veins were rather distended (direct examination). The diagnosis was tubercular meningitis, probably tubercle elsewhere.

April 15th. She was very restless last night, frequently crying out; sometimes she appeared to be conscious. Temperature 102°. She had passed two loose stools unconsciously. Pulse 148.

April 16th. There was marked internal strabismus of the left eye. Both optic discs were normal; the veins were full. The child was more deeply comatose. Respirations were irregular, five or six breaths taken in succession, diminishing in depth, and finally ceasing, followed by a deep breath. This afternoon, the child suddenly passed *per rectum* three ounces of dark blot-clot, and a few hours later again passed more blood. She became quite unconscious, cold, and collapsed; and died early on the 17th, having again passed more blood.

Post Mortem Examination.—The body was much wasted. The inner surface of the dura mater, over the convex surface of the brain, was studded with numerous cheesy nodules, of the size of a pea and smaller. There was much clear fluid beneath the arachnoid. In the interpeduncular space at the base, there was slight matting of the nerves and vessels. The Sylvian fissures were matted together with tubercles and lymph. There were some tubercles and lymph on the upper surface, and the optic nerves were apparently normal. There was a yellow nodule and fibroid tissue at the right apex; both lungs were stuffed with clusters of grey tubercles. The large intestine was distended with blood-clots. Ulceration began one foot above the cæcum; there was extensive ulceration of the ileum, near the cæcum. Only a small amount of blood, of brown colour, was found in the small intestine. The large bowel was intensely red; its contents were apparently pure blood-clots. There was much ulceration—the ulcers running transversely around the gut. The ulcers in the large intestine had raised undermined jagged edges. Those in the ileum were apparently older; their edges were more raised and rounded. The ulcer from which the hæmorrhage had occurred could not, after careful search, be found. The mesenteric glands were enlarged and cheesy. There were tubercles (yellow) in the spleen, and also on the surface of the liver.

REMARKS.—Hæmorrhage from tubercular ulcers is not of frequent occurrence. Their chronic nature, the tendency of the tubercular growth to involve the perivascular spaces and to the formation of fibroid tissue, are guarantees against hæmorrhage. In the present instance, the ulcers were evidently of rapid growth, their jagged sloughy edges being well marked. As no bleeding point could be found, it is probable that some, either central or eccentric vaso-motor, irritation had taken place, leading to congestion of the vessels of the large intestine, and consequent pouring out of blood from the ulcerated surfaces.

DERBY.—In his annual report on the health of this district during 1879, Mr. Iliffe attempts to answer the criticisms which we felt it our duty to make on the 27th December last (vol. ii, 1879, page 1033), with regard to the non-isolation of cases of scarlet fever whilst that disease was raging in the borough. He takes much pains to give what he regards as typical instances where isolation was desirable, but could not be compulsorily enforced. As to these, the reluctance of mothers to part with their children is undoubtedly a grave difficulty to get over; but it has been surmounted in several places by the tact and persuasion of the health officer. The real secret is, we are convinced, to make the hospital life bright and the surroundings pleasant. When this is done, the children come back delighted with their stay, and the overworked mother is only too grateful for being relieved from the anxiety and danger attendant upon nursing a sick child whilst performing her other duties. Moreover, as we have already indicated, it is impossible to secure the fullest exercise of the large extra powers which Derby has recently taken for dealing with infection, whilst the infectious hospital is not efficiently performing its functions. We trust, therefore, that the Derby Town Council will see fit to at once set about the establishment of a proper building for this purpose; and to give directions that the law as to compulsory removal to hospital is carried out in its integrity. The authority have, we are glad to find, already provided a disinfecting-chamber and a mortuary, and the provision of a proper hospital should be their next care. The epidemic of scarlatina last year, combined with the large number of deaths from pulmonary diseases, raised the death-rate very markedly. The general death-rate was 24.7 per 1,000, which exceeded that of 1877 and 1878 by 3.7 and 4.4 respectively. The 1,987 deaths (of which only 20 were uncertified) included 415 of infants under one year of age, which was equal to 132.2 per 1,000 births. Excepting scarlet fever, none of the zymotic diseases were very prevalent. Mr. Iliffe's full and interesting tables and charts deserve a word of praise.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 23RD, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Acute Rheumatism with Multiple Embolisms.—Dr. SOUTHEY read notes of this case. Phœbe G., aged 26, was admitted, in June 1879, into St. Bartholomew's Hospital, during her seventh attack of acute rheumatism. She was muscular and well nourished, had had one child, and was latterly perhaps not very temperate in her habits. The illness had begun with well marked rheumatic pains and joint-affection seven days before. On admission, she had swelling and tenderness of the right parotid gland and the knuckles of the left hand; other joints, the knees and ankles, had been stiff and painful. There were an ecchymosis and abrasion of the skin, from a recent fall upon the right forearm, and there were several purpura spots over the trunk and limbs, some of them slightly raised, others sunken; a few were vesicular. Temperature 102.4°; pulse soft, 120; respirations 36. The area of præcordial dulness was increased; a loud systolic murmur was heard at the apex. No urine could be obtained separately. Dr. Southey knew that a cardiac murmur existed when she was last under his care, about three years previously or thereabouts. She was ordered milk and beef-tea diet, and salicylate of soda, fifteen grains, every four hours. In consequence of manifest delirium, the medicine was stopped after the fourth dose, and a simple saline given, with stimulants in small doses frequently. On the following day, the temperature ranged between 100° and 99°; pulse 108; respirations 42. She was less rational, constantly mumbling and talking to herself; she passed urine and fæces involuntarily. The parotid region and whole right side of the face were more swollen. No fluctuation; great difficulty was experienced in administering nourishment, from tight closure of the mouth. Next day, the morning temperature was 99.2°; the evening, 101°; pulse 128; respirations 52. She lay flat upon her back, low in bed. Her left eyelid drooped a little. No other paralysis of motion in the arms or legs was noticed. She took nourishment better; had had some sleep; was less restless. She seemed to understand what was said to her, but articulated too indistinctly for one to make out what she said. She moved her fingers better, and appeared in less pain, although obviously feebler. On the next day, which was the tenth of the illness, the temperature was 101°; pulse 108; respirations 36. She took her nourishment well; had had several short snatches of sleep. She understood what was said to her, put out her tongue, and articulated better. Suddenly, her breathing became very hurried, and her extremities cold. She first became drowsy, then unconscious, and died on the eleventh day of her illness. At the *post mortem* examination, the swelling in the right parotid was cut into. The tissues were congested, infiltrated with serum, but contained no pus. Several of the joints afflicted with rheumatic pains were incised and examined. Some excess of synovia was found in the right knee, but no purulent fluid. On opening the abdomen, some recent lymph was found between the liver, spleen, and diaphragm; but there was no general peritonitis. The lower lobes of both lungs were œdematous. All the cavities of the heart were dilated. The endocardium of the left auricle was somewhat opaque and roughened, and a patch of softening lymph adhered loosely to its posterior wall. The anterior curtain of the mitral valve was thickened, and presented numerous minute beadings along its edges. There was a patch of soft easily detached lymph below and between the free edges of two of the aortic valves, and some atheroma of the orifices of the coronary valves, rendering them more patulous than normal. Apart from the multiple embolisms scattered broadcast throughout the viscera, cerebrum, cerebellum, stomach and intestines, liver, kidneys and spleen, as well as upon the surface of the body, the feature of principal interest was the manner in which the muscular substance of the heart itself was riddled everywhere with tiny embolic infarcta of various sizes and in various stages of secondary changes towards central softening. Dr. Southey remarked that the case might be accepted, he believed, as one of rheumatism with so-called ulcerative endocarditis, in which fragments of softening lymph detached and were swept into the current of the circulation, and, as embolisms of the skin, produced the appearances that had led to a so-called separate variety of rheumatism, purpura rheumatica, the peliosis of Schönlein, of which he had published some cases in the *Lancet*. He had seen only a few other cases of rheumatism like it before, in which several purpura spots occurred on the skin, and were especially remarked in the pinnæ of both ears. Such pathological accidents in rheumatic endocarditis were fortunately rare. This disposition of the products of inflammation deposited in the endocardium to break down thus speedily apparently occurred only in peculiar states of the blood of the individual affected by the rheumatism poison. He had already had reason to surmise that the subjects of old ague with enlarged spleens, and the owners of damaged or chronic diseased kidney, when they contracted rheumatism, were thus prone to suffer, and to present this fatal clinical complication. This particular case would, he thought, interest the Society, not because it offered much for discussion, and nothing of therapeutic importance, but by reason of its rarity, for he had never before witnessed such embolism in the heart's muscular tissue: 250 were counted by Dr. Norman Moore, who made the necropsy. Further, the accident of two or three quite tiny pin-like infarcta in the cerebral hemispheres, as well as some in the cerebellum, offered a clue to the kind of circulatory disturbance through nerve-centres, which was, perhaps, the central cause of hyperpyrexia, capillary pluggings, and microscopic embolisms of nerve-matter. Lastly, a too patulous condition of the coronary arteries, favouring, as it must, the passage of any fragments of effete matter into the heart-muscle, might explain the nutritional disturbances of the fibres themselves and the cardiac plexuses. There was no discussion after Dr. Southey's paper.

Amputation through the Hip-Joint.—Mr. WILLIAM STOKES (Dublin) read notes of this case. Advantage was taken of the facilities afforded for controlling hæmorrhage by means of Davy's rectal lever, and the best results were thereby obtained. B. Pemberton, aged 42, tall, muscular, and well nourished, who had been successively a shoemaker, sexton, mason, and cabman, was admitted to the Richmond Surgical Hospital, Dublin, August 29th, 1879. He then exhibited the signs of advanced coxo-femoral arthritis. He stated that, in 1846, being then nine years old, he fell on the left hip. For long after, the injury affected him, and he was attended in hospital by the late Dr. Hutton, and subsequently came again under treatment for three months. At the end of this time, but for a slight halt, he was apparently quite well. In 1852, the joint was again injured, and troubled him during the next five years. In 1878, he was thrown from a car, being then a cab-driver, and was at once taken to the hospital in consequence. After seven weeks, he went out greatly relieved, but was forced to resume his bed in April last year, and left it only to be conveyed to the hospital. On admission, he was deplorably ill. The least motion of the joint caused exquisite pain; even the weight of the bedclothes was unendurable. The face wore an anxious expression, and there was extreme exhaustion from pain and sleeplessness. Temperature varied between 99° Fahr. and 102° Fahr. The limb was much everted; shortening apparently great, but really only three-quarters of an inch. Three sinuses existed along the outer side of the limb, two pointing up and in toward the acetabulum, one downward. Probing the former revealed denuded and softened bone. This could not be felt in the third sinus. From all came a copious, almost constant, thin, sanious, watery, purulent discharge; a large bed-sore existed over the sacrum. It was necessary to remove the urine twice a-day with a catheter. Defæcation caused much distress. Food was not relished nor desired. There were profuse night-sweats. Altogether, his condition called for prompt operative interference if life were to be preserved. Mr. Stokes naturally considered the relative merits of resection and amputation in this case, and decided against the former in consequence of the great chronicity of the case, the probable (in truth, almost certain) existence of osseous disease below where the section should be made in excision, the age and utterly exhausted condition, from discharge and pain, of the patient. He accordingly determined in favour of amputation at the hip-joint, and the result fully justified the course adopted. He further determined on adopting Davy's method of preventing hæmorrhage in the performance of this particular amputation during the operation. On October 1st, he performed the operation. The limb was first elevated for some minutes, an Esmarch's bandage applied, then the patient was etherised, and, lastly, the lever introduced by Dr. Thomson without difficulty. It was at once interesting and pleasing to observe that, on the point of the instrument being brought over the common iliac artery, the slightest elevation of the handle caused a complete cessation of arterial pulsation in the condemned limb. It was not too much to say that the amputation was by this means rendered almost a bloodless one. The operation was done by the formation of an antero-external flap, made by transfixion, and a postero-internal one, made by incision from without inwards. This part of the procedure did not occupy more than a few seconds. The femoral artery was first secured by a carbolised silk ligature, all others by catgut. The strictest antiseptic precautions by Lister's method were observed both during and subsequent to the operation. Immediately after the operation, the temperature of the patient was 98.8° Fahr.; pulse 136; and respiration 32. The pulse being very weak, some brandy, with fifteen minims of ether, was given, and the pulse became gradually better, though still remaining at 136. Morphia was then given, after which the patient slept for some hours. At 10 P.M., the temperature was 99° Fahr.; pulse 130; and respiration 32. The patient did not complain of pain; there was no sign of hæmorrhage or other trouble. October 2nd. He passed a quiet night until 5 A.M., when a severe rigor occurred; a second one occurred fifteen minutes subsequently, but these did not recur. 9 A.M. Temperature 97.6° Fahr.; pulse 120; respiration 24. 9 P.M. The patient slept well for about four hours during the day, and took a cup of chicken-jelly, also some milk and lime-water. October 3rd. He passed a good night, having slept during the greater part of it; temperature 99° Fahr.; pulse 112; respiration 24. The wound was dressed; it looked healthy and was quite aseptic; the patient during the day took small quantities of beef-tea, chicken-jelly, and iced milk. From this date, the progress to recovery was uninterrupted. The wound remained aseptic for eight days, after which a small amount of suppuration occurred. The femoral ligature separated on the thirteenth day. The following note was taken on the twentieth day after the operation. "Wound dressed to-day; hardly a trace of suppuration. Bed-sore healing rapidly. General state of the patient very satisfactory. Is free from all pain. His appetite is good and he sleeps well." The patient remained in hospital until the middle of December, when he returned home, the wound having completely healed.

Mr. HOWARD MARSH said that Mr. Davy's method had been adopted by several surgeons, but was not yet in general sufficiently appreciated. He was fully alive to its value, because, shortly before its introduction, he had seen a patient die from hæmorrhage. The femoral artery had been well secured; but Lister's tourniquet could not be applied to the abdominal aorta, and bleeding from the posterior flap occurred. In another case, occurring soon after, Davy's lever had completely restrained the hæmorrhage. He had heard of no bad results following the use of the instrument, but it should be employed with care.—Mr. HUTCHINSON thought that many severe cases of hip-disease were lost from surgeons' unwillingness to amputate He had, in four such cases, amputated; in two of them with complete success. The patient's life in one case was certainly saved by amputation. In all these cases, which occurred before the introduction of Davy's lever, he had tied an elastic band tightly around the abdomen, and had washed out the wound with spirit. Listerism had since been introduced, and he should adopt it in any future case, but these four cases had not suffered from the want of it. He had advised amputation in one case, where unwillingness to resort to it had incurred delay, through which the patient had died.—Mr. MAC CORMAC thought that, in some severe cases of hip-disease and of disease of the femur, amputation was the only procedure which gave hopes of recovery. As to the occurrence of shock after large operations, Langenbeck, speaking chiefly from his experience on the battlefield, had attributed its occurrence chiefly to loss of blood; but, in a case of his own, of amputation at the hip, the patient (a boy) had intense shock, although he had lost scarcely any blood.—Mr. BRYANT said that resection in children was comparatively successful, but in adults was frequently fatal. He consequently thought that surgeons should more frequently advise amputation in the advanced hip-disease of adults. He had employed Davy's lever, Mr. Davy himself applying it, with the loss of only two or three ounces of blood, in a case of amputation for tumour of the neck of the femur. As loss of blood was the chief danger to be apprehended, he usually cut down directly upon the femoral artery, cut and twisted both ends at the cut, and then applied a carbolised catgut ligature to the femoral vein.—Dr. GILBART SMITH asked whether the shock produced in Mr. Mac Cormac's case might not have been due to the pressure on the aorta affecting also the solar plexus.—Mr. MAC CORMAC said that the pressure had been slight, and that it had been applied just above the umbilicus. He could not think it was sufficient to affect injuriously the solar plexus.—Mr. PARKER had amputated at the hip, in a child thirteen years old, and had found the femoral vein plugged. He could control the arterial hæmorrhage, but could not arrest that from the veins. To it he had attributed the fatal result. Mr. Stokes's case illustrated a remark he (Mr. Parker) had made at a former discussion on hip-joint disease, that sequestra were often found loose in the joint. Had they been removed at an earlier date, possibly the patient might have recovered, and his limb been saved.—Mr. STOKES thought the infrequency of the operation of amputation was due to surgeons' fear for the result; but Mr. Davy's lever had lessened the great risk of a fatal result from loss of blood. The mortality had previously been 50 or 60 per cent. The disadvantages connected with the use of Lister's tourniquet, or of Esmarch's bandage, applied around the abdomen over the aorta, were chiefly due to their interference with respiration, which Davy's lever avoided. He thought loss of blood was always present in shock, but did not know that Langenbeck considered it to be the *only* cause. Bleeding was chiefly from the posterior flap in amputations at the hip. If the case had come sooner under his notice, he might have attempted to remove the sequestra from the joint. He did not think the course of the case was entirely due to their presence. The disease was very extensive, implicating not only the head of the femur, but also the acetabulum.

Secondary Hæmorrhage from a Thigh-Stump.—Mr. W. H. CRIPPS read a paper on this case. The patient, aged 64, was under the care of Mr. Cripps at the Royal Free Hospital. He had been suffering for many years from an ulcer about the ankle, which had recently become the seat of a rapidly growing cancer. The patient being anxious for an operation, the leg was removed below the knee. It was then discovered that the tibial arteries were so brittle from calcareous degeneration, that they could be neither tied nor twisted. Thus failing to secure the tibials, Mr. Cripps immediately amputated through the lower third of the thigh. The femoral artery, being more readily accessible and less diseased, was secured without trouble. The patient progressed favourably for twenty-eight days. He then had a rise of temperature, and the stump became swollen during the night. He had a violent attack of secondary hæmorrhage. This was restrained by an India-rubber band, but immediately recurred on the band being loosened. Mr. Cripps then tied the femoral artery in continuity three inches above the flaps. Though weak from loss of blood, the patient progressed favourably for thirty days, when he had another sharp attack of hæmorrhage from the seat of the second ligature. This was treated by setting the stump firmly in a gutta-percha splint, carefully bandaging the stump from below upwards, and applying elastic pressure along the course of the vessel. This pressure was continued for a week, and no more bleeding occurred, but the patient seemed never able to rally from the loss of blood, and died quietly from exhaustion a month after the last attack of bleeding. At the *post mortem* examination, a firm clot occupied the femoral vessel as high as the profunda. The author then drew attention to the extreme difficulty of dealing with calcareous vessels in amputations below the knee, and considered that the right treatment in such circumstances was a re-amputation further up. In dealing with secondary hæmorrhage from the thigh-stump with degenerate vessels, the author was strongly of opinion that pressure should have a fair trial before adopting other measures. In the case narrated, such treatment appeared effectually to have prevented further bleeding, although the previous ligature of the artery had been unsuccessful.

Mr. HEATH thought surgeons could not, before operating, know the condition of the coats of the arteries. For brittle arteries, broad serrated forceps should be used in preference to sharp-pointed forceps, which tore the vessel's coats. Pressure long continued would arrest bleeding; and a limb might be left for a long time blanched without suffering harm from pressure, whilst a clot would be forming in the vessel. It was better not to tie vessels so diseased as those in this case, but to trust to pressure only.—Mr. BRYANT also thought it inadvisable that atheromatous vessels should be seized with sharp-pointed forceps. Such a vessel should be seized with broad serrated forceps, and twisted only. The atheromatous material broke up, and the bleeding was arrested. He had employed torsion for years to atheromatous vessels, as to others; and was confident that, if hæmorrhage did not occur within the first few minutes, it would not recur at all. He also left the forceps on the vessel for a minute or so; he broke away no part of the artery, but was careful to twist it only. He was surprised that Mr. Cripps amputated a second time. Pressure along the vessel was the best procedure to adopt.—Mr. MAC CORMAC inquired if Mr. Cripps had tried the effect of pressure.—Mr. CRIPPS said that during the operation the stump had been elevated, without influencing the hæmorrhage. At first, he had seized the vessel with ordinary forceps; and at the third trial he had used torsion-forceps; but the vessel had then become short, and had receded. He reamputated because it seemed impossible to stop the bleeding in any other way. The limb was afterwards swollen and tender; so that he had feared to employ pressure, and had resorted to ligature. He, however, still considered bleeding might ordinarily be best arrested by the use of continuous pressure along the course of the bleeding vessel.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 7TH, 1880.

W. S. PLAYFAIR, M.D., President, in the Chair.

Fibroid Polypus.—Dr. BANTOCK showed a large uterine polypus weighing 1 lb. 3 oz. in its fresh state, removed from a woman aged 51 by the *écraseur.* Symptoms had existed six years; but the tumour had only been discovered three weeks before, on the occurrence of retention of urine.

Multiple Vesical Calculi the Sequel of Prolapsus Uteri.—Dr. GALABIN showed twelve large calculi and about fifty small ones, which he had removed by vaginal lithotomy from the bladder of a woman aged 61, with the assistance of Mr. W. F. R. Lane. They were of lithic acid, and weighed 8¾ ounces, the largest measuring 1½ by 1¼ by 1 inch. Both uterus and bladder were prolapsed completely outside the body, and had not been returned for ten years. Symptoms referable to the bladder had only existed six months. The patient was crippled, and the thighs almost ankylosed, from rheumatoid arthritis. The wound was closed at once by silkworm-gut sutures; the procident mass returned, and kept up by an elastic ring. At the end of ten days, union was perfect. The stones had obviously been prevented from escaping as usual while small, owing to the position of the bladder with its orifice uppermost.—Dr. ROPER mentioned a case in which he had removed calculi by dilating the urethra, and asked why Dr. Galabin had chosen lithotomy.—Dr. AVELING thought that lithotomy was the preferable operation in such a case, and said that the risk of hæmorrhage might be avoided if the sutures were carried through the mucous lining of the bladder. He had seen two cases in which the urethra had been completely destroyed by dragging calculi through it.—Dr. R. BARNES said that dilatation of the urethra or lithotrity was most suitable for small or moderate calculi; lithotomy for a case like the present.—Mr. DORAN had removed a calculus an inch and a half in its narrowest diameter from the bladder of a girl aged 9, by dilating the urethra. But, when calculi were numerous, he considered lithotomy preferable.—Dr. ROGERS believed that Dr. Galabin had taken the best and wisest course. He had met with a case in which a large calculus was encrusted on a hairpin. This was crushed and brought away through the urethra, without much mischief following.—Dr. GALABIN had chosen lithotomy, on account of the number and size of the stones and the great amount of inflammation present. His experience was that, if the urethra were dilated much beyond the size of the index finger, more or less incontinence of urine was apt to remain permanently. No disturbance had followed the operation; but the patient was relieved immediately from her suffering.

Missed Abortion.—Dr. ROPER showed an ovum expelled entire, together with a large clot. This occurred seventy-four days after marriage; but the ovum appeared to be older than this. Twenty-six days before marriage, the patient had had phlegmasia dolens; and he thought that the clot might have been the cause of the death of the ovum and of the phlebitis at the same time.

Double Monster.—Dr. GODSON showed, for Dr. Murphy of Sunderland, a double monster, consisting of two female children united by the front of the thorax and the upper part of the abdomen. The first head was delivered by forceps; the body of the first child was extracted by hooking the fingers over the breech; then the feet and body of the second; and finally the second head. Both were born alive, and breathed for a few minutes.

Removal of Fibrous Outgrowth from the Fundus Uteri: Recovery.—Dr. GODSON related this case. The patient, aged 30, was under the care of Mr. Alfred Cooper. She suffered from great difficulty in micturition and defæcation, and such depression of spirits that life had become a burden. For the last five years, the menstrual flow had become diminished in quantity and clotted, still lasting an entire week. A hard nodular tumour was found, reaching almost as high as the umbilicus, movable separately from the uterus. The anterior wall of the uterus appeared also to be in a fibroid condition. The probe entered two inches and three-quarters. The patient being very anxious for an operation, the author sanctioned it, having warned her that considerable risk to life would be incurred thereby, and that cure of the symptoms was not certain. Mr. Spencer Wells concurred in this opinion, and performed the operation on December 10th, under carbolic spray. The pedicle of the fibroid tumour, attached to the right posterior angle of the uterus, was fixed by a temporary clamp. On drawing up the clamp to transfix the pedicle, the strain was so great that the pedicle tore away from the uterus, which receded into the abdomen. So little hæmorrhage, however, occurred, that no means to arrest it were found necessary. The patient recovered without adverse symptoms. All her troubles and low spirits had disappeared since the operation.

Removal of Uterine Fibroids by Laparotomy.—Mr. KNOWSLEY THORNTON said that he not only regarded the removal of uterine fibroids by abdominal section as justifiable in certain cases, but believed that the future of these operations would be in no way second to that of ovariotomy. The objections to operating by laparotomy for fibroids were: 1, Less fatality of fibroids when left alone, as compared with ovarian tumours; 2, The greater frequency of their relief or cure by medical, expectant, or milder surgical treatment; 3, The greater danger of the operation for their removal as compared with ovariotomy. He pointed out how often dangerous operations were undertaken for the relief of deformity, and that operations of convenience were now much more safe and justifiable, thanks to Professor Lister's method. The following proposition was advanced for discussion: "It is justifiable to make an exploratory operation, with perfect antiseptic precautions, in any case of fibroid tumour of the uterus, which has resisted medical treatment, and which is either endangering life, or preventing the subject of it from fulfilling the ordinary duties of her sex and position." The great difficulty lay in the present uncertainty of the diagnosis between the varieties of uterine fibroids. Complete records of two cases were then given: the first a complete hysterectomy, with removal of both ovaries; the second, removal of sessile fibroid and one ovary without opening the uterine cavity. Both patients recovered without fever, and without any untoward symptom. Three classes of cases were defined, each having a different amount of difficulty and risk. The author thought that the term hysterotomy should be given up, and that of hysterectomy adopted, but limited to the complete cases, in which the whole of the supravaginal part of the uterus was removed.—Dr. BANTOCK related two cases in which he had removed fibroid tumours. In the first, a small tumour weighing two pounds was removed, with a part of the uterus. The pedicle formed by the uterine body was ligatured and dropped. Death occurred from septicæmia, due to slight bleeding from the stump, with the establishment of an open canal through the cervix. In the second, an external fibroid weighing twelve pounds was removed, and the pedicle kept external. The patient did well.—Mr. DORAN said that, in the fatal case mentioned by Dr. Bantock, he had found a deep circular ulcer in the cervical canal corresponding to the ligature. He had examined also a fatal case under Mr. Thornton's care, in which the pedicle of a large fibroid outgrowth had been secured by the clamp. A slough had extended from the stump to the uterus.—The PRESIDENT believed that the operation had a great future before it; but his experience would not induce him to agree with the statement in Dr. Godson's paper that it was not more dangerous than ovariotomy. Moreover, a patient with ovarian tumour rarely lived, if left to herself; a person with fibroid rarely died.—Dr. MATTHEWS DUNCAN thought it demonstrated that the operation had a place in legitimate surgery. With increased knowledge of the natural history of fibroids, he believed that the use of the operation would be extended beyond what many timid men at present imagined. Such tumours were liable to dangerous diseases and degenerations, liable to induce peritonitis, liable even to induce cancer, especially of the peritoneum. The paramount danger arose from the bleeding which accompanied them, and produced a fatal result, he believed, more frequently than was generally supposed.—Dr. HEYWOOD SMITH criticised Mr. Thornton's use of the word laparotomy to designate abdominal section in the median line, since the word λαπάρα meant the flank. If a word were wanted to supersede gastrotomy, cœliotomy, from κοιλία, might do. He thought that, in dealing with the pedicle, a method might be devised of closing the cervical canal with sutures.—Dr. FANCOURT BARNES remarked that the word λαπάρα signified the soft part of the body between the ribs and the hip.—Dr. GRAILY HEWITT related a case in which a fibroid tumour, thought at the time to be ovarian, caused so much ascites and peritoneal irritation as to threaten speedy death. The tumour was successfully removed.—Dr. CHAMPNEYS said that the liability of fibroid tumours to tear, as happened in one of the described cases, showed that there was some risk in the legitimate proceeding of lifting impacted fibroids out of the pelvis.—Mr. THORNTON, in reply, deprecated the fastening of the pedicle up to the abdominal wall as a dangerous practice. He would remind the President that many ovariotomies were incomparably more difficult than the removal of a pedunculated subperitoneal fibroid. He had now operated for uterine tumours twelve times; in ten cases, the operations were completed; in two, they were not. Four of the former died, and one of the latter. In three complete hysterectomies, with removal of both ovaries, he had one death; one hysterectomy, with removal of one ovary, had been followed by death from hæmorrhage. In three removals of fibro-cystic tumours, all recovered.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 26TH, 1880.

F. J. GANT, F.R.C.S., President, in the Chair.

Neurasthenia of the Brain and Spinal Cord.—Dr. DOWSE read a paper on this subject. He stated that Dr. Beard of New York was the first physician who drew the especial attention of the profession to the signs and symptoms of this disease, and that Erb, in Ziemssen's *Cyclopædia of Medicine*, vol. xiii, had devoted a special chapter to what he called neurasthenia of the spinal cord. Sleep was due to nervous exhaustion consequent upon an arrest of function in the hemispheres of the brain, and during this temporary arrest of function the cells of the brain were being recharged with nutritive pabulum. In the consideration of the asthenic or exhausted state of the nervous system, we had to find out whether the arrest of nervous energy was vital and general, or whether it was local and circumscribed. The former condition was seen during the course of many acute diseases, especially in diphtheria, where the patient, as a rule, died from exhaustion of the nervous centres which gave motor power to the walls of the heart. The brain, and consequently every individual cell of which the brain was composed, was a factor as well as a nidus for the conservation of energy. Molecular displacement in the nerve-cells meant the exercise of disruptive energy, which led to a failure in the power of resistance, a diminution of vitality, a lowering of tension, a decrease of tone, and an exhaustion of the nervous system; in fact, an arrest of function and molecular inertia. The energy or force with which a nerve-cell was specially endowed might be divided into three parts: 1. The active or floating or automatic energy; 2. The complementary energy; and 3. The residual or latent energy. He had little doubt that most functional troubles of the nervous system were due to the want of an equable development of stabile energy, which resulted from abnormal molecular interchange, inducing defective correlative integrity of certain individual cells or groups of cells. Dr. Dowse considered the differential diagnosis between neurasthenia of the nervous system which for years remained a mere functional affection, and neurasthenia due to intractable arrest of development in the nerve-cells, which led on to defective nutrition of the nervous centres, and ultimately to organic disease, such, for instance, as was found to be associated with some forms of mental derangement, and with many forms of paralysis. He believed that many of the incurable cases of insanity, locomotor ataxy, progressive muscular atrophy, and many other diseases of the brain and nervous system, commenced as a neurasthenia of the nervous centres, and that in this state such conditions were quite amenable to treatment. Dr. Dowse then reviewed the signs and symptoms, bodily and mental, of exhaustion of the brain and spinal cord, drawing attention to the effects produced by overwork and worry; and he lastly considered the treatment of this disease. He agreed with Dr. Beard that there was no routine plan for treatment. Each case must be studied closely and carefully by itself. Iron and quinine were much less valuable than other drugs, such as arsenic, phosphorus, and strychnia. Although galvanism or faradisation, in his hand, never failed to give great relief during the application, and perhaps for some hours afterwards, yet the good effects soon wore off, and left the patient no better than before its application. The drug upon which he chiefly relied was the pure watery extract of opium, in doses of a quarter of a grain three or four times a day. It excited and stimulated for a short time the brain-cells, and then left them in a state of tranquillity, which was best adapted to their nutrition and repair. He concluded by referring to the benefit of proper feeding, and the judicious use of stimulants, travel, and rest.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, APRIL 9TH, 1880.

E. D. MAPOTHER, M.D., President, in the Chair.

Chronic Mammary Tumour.—Mr. WHEELER exhibited the left breast of a girl aged 22, which he had amputated, in the City of Dublin Hospital, for chronic mammary tumour. The tumour had been noticed two years and three months before, when only of the size of a pea. It remained very small for a year, and then took on more rapid growth, till, within the last few months, it had become as large as a Seville orange. It was situated inferior to the general mass of the gland; the skin over it could be easily moved, and was not discoloured. It was painful; and under the edge of the great pectoral a small gland could be felt enlarged. The capsule over the tumour was composed of several layers, the tumour itself being lobulated, opaque, and whitish. It was probably a cyst in the first instance, and gradually changed into a solid tumour. This was the second case in which Mr. Wheeler had seen a chronic mammary tumour accompanied by enlarged glands.

Ovarian Tumour.—Dr. ATTHILL exhibited an ovarian tumour consisting of a congeries of small cysts, many of which had to be ruptured in removing it. Before operation, he had suspected a rather large amount of ascitic fluid, but found the amount really very small.

Cases of Ovariotomy.—Dr. ATTHILL read brief notes of the cases of ovariotomy performed by him in 1879. They were seven in number; five were successful and two unsuccessful. An abstract of the cases, in a tabular form, was laid before the Society, but not read. In the first case, there was vomiting for fifteen days consecutively after operation, which was only alleviated by hypodermic injection of morphia, of which the patient got large quantities. The second case suffered from obstinate constipation. In the third case, pelvic cellulitis came on on the eighth day. In the sixth case, the cyst was found to be in the incipient stage of gangrene. In the seventh, the adhesions were very dense. When Dr. Atthill first began ovariotomy, he thought the operation ought to be delayed as long as possible; this opinion he now had changed, and considered that as soon as a tumour of the ovary could be diagnosed satisfactorily, provided the woman was healthy and nothing contraindicated operation, the sooner it was removed the better. Delay might cost the patient's life when least suspected, as in the sixth of his cases above mentioned, where the cyst was becoming gangrenous. Had the operation being done earlier, in all probability the patient's life might have been saved. In another case, some time ago, he wished to postpone the operation until the tumour had become larger; but, yielding to the importunities of the young woman and her friends, he consented to operate at once. Having removed the cyst, he found that it was already suppurating; and, had his advice been followed and the operation postponed, the girl would most undoubtedly have died. He would, therefore, advocate the early operation in all cases where it was possible; for, since the introduction of Listerism, ovariotomy might be classed amongst the safest operations in surgery.—Dr. MACAN agreed with Dr. Atthill in advocating the early operation. All the arguments in favour of the late operation, he said, were based on the idea that, when the peritoneum had been subjected to long continued pressure and numerous adhesions had formed, there was less healthy peritoneum to take on inflammatory action; but that, since the introduction of Listerism, that was all changed, and it was generally acknowledged that the fewer the adhesions the more favourable for operation.—Dr. FITZGIBBON was an early convert to Listerism. In July 1877, he had performed his first ovariotomy under a hand-carbolic-spray, under which each subsequent dressing was conducted. On the sixteenth day, the wound was healed, and all the ligatures had been removed, except one, which had been overlooked; this he removed without using the spray. Next day, she had a rigor; the temperature rose to 103° Fahr., followed by vomiting. In fact, she got a sharp attack of peritonitis; from which, however, she recovered. This untoward event he considered due to his having omitted to use the spray while removing the last ligature.—Mr. STOKES said that one favourite argument against the early operation was the immunity from inflammatory action enjoyed by the peritoneum after being subjected to long continued pressure, as in ascites; but, since the employment of Listerism, the irritability of the peritoneum was so diminished that even Mr. Spencer Wells, who some years ago was a strong advocate for the late operation, now recommended and practised ovariotomy at a much earlier stage in the development of the cyst.—Dr. MCCLINTOCK held that, if it could be shown that, *cæteris paribus*, the risk was not greater in the early than in the late operation, certainly the patient should not be obliged to endure the weary waiting time. But, again, in favour of the later operation, it ought to be borne in mind that ovarian tumours of even large size had been known to subside of themselves, or by medicinal treatment, or as the result of accidental rupture. One case of this kind occurred in his own practice. A lady, after pregnancy, began to swell, and a large ovarian tumour was diagnosed. One day, while skating on the ice, she fell, ruptured the cyst, had pain for some time, and the tumour totally disappeared.—Mr. BENNETT mentioned a case in which he had postponed the operation for some time, owing to the low state of health of the woman. When she returned to hospital, he determined to operate; but one morning he was suddenly sent for to see the woman, and found her in fatal collapse, the result of the bursting of a suppurating cyst into the peritoneum.—Dr. POLLOCK, Dr. DARBY, and Mr. CORLEY also took part in the discussion; and Dr. ATTHILL, in reply, stated that death after ovariotomy was not caused by peritonitis, but by septicæmia or collapse; therefore the danger of the operation did not lie in opening the peritoneum. He did not think many surgeons would wish their patients to run the risk of an "accidental cure"; for the usual result of rupture of the cyst was death. Nor, in a majority of cases, would the expectant treatment be more satisfactory; for the average ovarian tumour killed in twenty-four months; and, though a small proportion of cases survived for a long time, that could hardly be considered sufficient to justify the risk incurred by delay.

FRIDAY, APRIL 16TH, 1880.

E. D. MAPOTHER, M.D., President, in the Chair.

Spinal Abscess.—Mr. CROLY exhibited the spine and portion of pelvis of a boy, aged 18, who had died under his care in the City of Dublin Hospital. In March 1878, the boy was first admitted under Mr. Croly's care, suffering from lumbar abscess, there being no evidence of spinal disease at the time. He left the hospital improved. A short time ago, he returned with exactly the same set of symptoms from which he had suffered two years before. After being in hospital for a few days, he became paraplegic, with all the symptoms and signs usually found in cases of fractured spine, viz., œdematous legs, bed-sores, difficulty of breathing, etc., and soon died. The diagnosis made by Mr. Croly was, that the abscess had burst from the left side on to the surface of the spinal membranes, causing pressure and all its symptoms. This the *post mortem* examination proved to be true. A probe could be passed through from the sac of the abscess into the canal, and the membranes of the cord in the vicinity were thickened and inflamed.

Diseased Knee.—Dr. SWAN showed the disorganised right knee of a strumous woman, which he had removed, for the relief of pain, etc., through the lower third of the thigh. The lateral ligaments, and almost all traces of cartilage, were destroyed. Some fragments of the crucial ligaments remained, but there were numerous sinuses burrowing in all directions.

Piece of Metal in Eye.—Mr. SWANZY exhibited the eye of a boy, which he had just removed, containing a piece of metal firmly fixed in the vitreous body, close behind the lens. The wound in the sclerotic was about three lines from the corneal margin. With the ophthalmoscope, he could see the piece of bright metallic substance in the vitreous body. He endeavoured, with an electro-magnet introduced into the globe through the wound, to extract the foreign body, but without success, owing to its impaction in the firm healthy vitreous body. It became, therefore, necessary to enucleate the globe. The piece of metal was 0.16 inch long and 0.08 inch broad.

Fatty Tumour.—Mr. THORNLEY STOKER exhibited a fatty tumour, which he had removed from a patient suffering from a large number of symmetrically arranged fatty tumours, which were, moreover, synchronous in their growth. As far as Mr. Stoker was aware, that was a very unusual condition of affairs.

Details in the Treatment of Strangulated Hernia.—Mr. A. H. CORLEY read a paper on this subject, in which he advocated the early operation. Surgeons very often delayed the operation too long, and thus lost their patients and raised the mortality of the operation unduly. He quoted several passages from Hey, Teale, and others in support of the early operation. He deprecated the use of opium as an accessory to the taxis before operation. It only diminished the subjective symptoms, without in the least removing their cause, and thus often lulled the fears of the surgeon with false and fatal hopes. If the unassisted taxis failed, he advised a warm bath, with purgative enemata, to be tried; if unsuccessful, he would try anæsthesia; and, if that did not succeed, he recommended operating before the patient recovered from its effects. To avoid wounding the obturator artery, he had, some years ago, devised a knife with a notched sheath, into which the constricting fibres fitted, and could thus be divided without danger to the artery. Amongst other dangers to be avoided in the operation was that of returning the hernia *en masse*, with the stricture unrelieved. He deprecated the use of purgatives immediately after the operation. Exhaustion was the most frequent cause of death after operation; therefore, he would employ the taxis only for a short period, and, if it failed, would operate early. In conclusion, he asked the members to remember Mr. Hey's aphorism, that "he had often to regret having delayed operation, but never having done so too soon". He recommended special care in the treatment of the sac, and the special knife for dividing the constriction.—Mr. CROLY said that common sense ought to prevent surgeons from employing the taxis for an undue length of time. If a man were dying from strangulation with a rope round his neck, the first thing one would do, if it were wished to give him relief, would not be artificial respiration; it would rather be to cut the rope. Dessot had said: "Think favourably of cases in which the taxis has not been *used*"; but Mr. Croly would rather say: think favourably of those cases in which the taxis has not been *abused*. He thought anæsthetics could do no good in cases of femoral hernia, whatever their use might be in inguinal. Tartar emetic he designated "the most dangerous remedy ever suggested in strangulated hernia".—Mr. THORNLEY STOKER expressed surprise at Mr. Croly's statement that anæsthetics, in femoral hernia, were, on anatomical grounds, useless. He considered them evidently of use; for all the ligaments and fasciæ, which composed the constricting band, were in close connection with the muscles in the neighbourhood, and he could not imagine how they could help affecting them. If position had any effect, surely anæsthetics would. There were two questions which suggested themselves during the operation: first, Which of the layers is the sac? second, Is the bowel in a fit state to be returned into the abdominal cavity? The most valuable point in deciding the latter question was not so much the colour of the gut, as whether or not it retained its peculiar lustre.—Mr. NIXON considered that the obturator artery very frequently was anomalous; in three out of five subjects which he had lately examined, it arose from the deep epigastric.—Mr. BENNETT thought that the danger of hæmorrhage in femoral hernia was overrated. Quain gave the percentage of anomalous obturator arteries as twenty. If the hernia were large and old standing, it would permit a much longer taxis than a small or lately formed hernia. A fruitful cause of death, after hernia operations, was diarrhœa coming on without purgatives, after the reduction.—Mr. STOKES thought that the reason why surgeons often delayed operation was the absence of those symptoms usually set down in books and lectures as diagnostic of strangulation. There was one symptom which he regarded as invariable, and that was vomiting; he had seen cases where that was the only symptom, there being no pain or anxious countenance, or other symptoms usually observed. In another case, the man had been treated for abscess; he had vomiting and constipation, but no pain. When the operation was at length performed, the bowel was found to be gangrenous, and the case terminated fatally.—Mr. BARTON, Dr. DOYLE, and Dr. KENNEDY also took part in the discussion; and Mr. CORLEY replied.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, APRIL 17TH, 1880.

E. H. BENNETT, M.D., President, in the Chair.

Patent Foramen Ovale.—Dr. W. G. SMITH showed a patent foramen ovale, from the body of a fat woman aged sixty years. The heart's action had been irregular and tumbling, and there was a loud systolic apical murmur—the case appearing to be an ordinary one of mitral regurgitation, with its usual sequelæ. After death, many quarts of fluid were found in the peritoneal cavity. There was considerable pigmentation of the peritoneum, and the omentum was of a dark slate-blue colour. The pericardium was ten inches in vertical measurement, but contained very little fluid. The heart was large and flabby, weighing twenty-six and a half ounces. It presented granular fatty degeneration under the microscope. Atheroma existed in the pulmonary artery. The foramen ovale was patulous, admitting two fingers. The septum in its lower part was cribriform. There were insufficiency and puckering of the mitral valve. The right chambers of the heart were dilated. There was no narrowing of the pulmonary artery. No cyanosis had been observed during life.

Croup.—Mr. THOMSON presented some of the viscera of a child aged fourteen months, who had suffered from croup, for which tracheotomy was performed without much difficulty or loss of blood. The child died suddenly next day. The larynx was so blocked with false membrane that all traces of the vocal cords were lost. A firm clot passed from the right auricle into the right ventricle, and into the pulmonary artery. The croupous membrane existed in the pharynx as well as in the larynx and trachea. The operation performed was the high incision.—In the discussion on the case, Dr. FINNY said that he regarded the disease as diphtheria, and he suggested that the cause of sudden death was probably granular degeneration of the heart.—The specimens were referred to the Committee of Reference, for report on the pathological condition of the heart and on the nature of the clots in the heart.

Disease of Knee-Joint.—The PRESIDENT exhibited the right leg of a married woman, aged about fifty years, which he had amputated for destructive disease of the knee-joint. She could flex the joint and walk on the limb, even leaning the whole weight of the body upon it. Notwithstanding, there was a large abscess below the joint. This abscess was treated antiseptically, but the progress of disease necessitated amputation. Numerous sequestra lay free in the joint; and great destruction of bone had occurred. The cartilages were extensively ulcerated.

Phthisis Laryngea.—Dr. W. G. SMITH showed the larynx and lungs of a man aged forty-five years, who succumbed to pulmonary and laryngeal consumption. The right edge of the epiglottis was eroded, and small yellowish nodules studded its surface. The cartilages were necrotic. The vocal cords were scarcely recognisable. There were no cicatrices or other evidences of syphilitic disease. The lungs were extensively broken up.

POISONING BY OIL OF TANSY.—Dr. George Jewett, in the *Boston Medical and Surgical Journal*, March 4th, calls attention to the poisonous properties of the *tanacetum vulgare*, or common garden tansy, which has a popular reputation in America as an emmenagogue and as a means of procuring abortion. He gives two cases of poisoning from the oil. In the first of these, a woman took two doses, of fifteen drops and a drachm respectively, two hours apart, with a meal intervening. Fifteen minutes later, convulsions occurred, respiration was apparently suspended, followed instantly by complete and general cyanosis. The pupils were widely dilated, pulse 120, respiration imperfect, 35 per minute. Emetics, followed by internal and external stimulation, restored the patient, and convalescence was established by the next day. In a second case, death occurred from the ingestion of a teaspoonful of the oil of tansy. The fatal dose has not been ascertained. Death has also ensued from the use of a decoction of the leaves. By its use as a vaginal injection in one case, abortion was produced, apparently from the local irritative effect. No antidote to the poison has yet been found; the proper treatment seems to be the removal of the noxious element by apomorphia or some other emetic, and the administration of stimulants.

REVIEWS AND NOTICES.

CEREBRAL HYPERÆMIA; THE RESULT OF MENTAL STRAIN OR EMOTIONAL DISTURBANCE. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of the Mind and Nervous System in the University of the City of New York, etc. London: Sampson Low, Marston, Searle, and Rivington.

IN this book, Dr. HAMMOND has grouped together a very large number of symptoms traceable to an abnormal condition of the higher nerve-centres, most of which must be familiar to all medical practitioners of much experience, in these days of over-competition and high pressure. For the most part, these symptoms may be classed among the so-called functional morbid states; they are essentially transitory in their nature, are interchangeable with one another, and they are some of the most troublesome with which we have to deal in practice. Not only are they very numerous, but they may combine in almost endless varieties. The mind may be affected; there may be simple loss of memory or of judgment; the power of the will may be lessened, and the patient find himself unable to make up his mind, or to carry out a determination when formed. The power over the emotions may be diminished, or the temper, hitherto equable, become irritable and undependable. The mental disturbance may even go further, and give rise to illusions, hallucinations, or delusions. Headache is rarely, if ever, absent, and the head frequently feels distended or constricted, as though by a tight band round it. Vertigo is common; in some cases constant; in others, occurring only at intervals. The special senses were almost always more or less affected, becoming either more or less acute or altered in character. The general sensations may be altered in the same way, either in the direction of hyperæsthesia, anæsthesia, or paræsthesia; and muscular power may be diminished or lost in certain groups of muscles or in a whole limb. In short, Dr. Hammond has very ably summed up the manifold signs, objective and subjective, of "functional" disturbance of the brain.

In his chapter on causation, we find that Dr. Hammond attributes the great majority of such cases to a long continuance of unduly severe mental strain, or to the too frequent occurrence of strong emotion, especially in the young. In addition to these, however, he attaches importance to sudden extreme emotion, to the action of poisons, such as alcohol and opium, and to exposure to the extremes of heat and cold. The presence of a hereditary tendency to neurotic disease appears to constitute a factor by no means uncommon in the production of these troublesome conditions.

Dr. Hammond has thus given a full and accurate description of a number of well known varieties of morbid states, and the novelty of the work lies in the explanation of their pathology. Now, in this explanation, we cannot but think that Dr. Hammond has fallen into an error which is one of the most frequently committed and the most difficult to avoid in the explanation of groups of clinical phenomena, viz., the concentration of the attention too exclusively upon some one element in the causation or in the pathological sequence of such phenomena, to the exclusion of all others. In all organs of any complexity, the normal action is made up of processes of the most varied kinds, which act and react upon one another, and show a mutual interdependence, often of a very delicate nature. Departure from its ordinary mode of action in the case of any one of these processes will give rise, not only to such modifications in the functions of the organ as may be directly traceable to this primary change, but to other and secondary modifications due to derangement of the balance hitherto existing among the various processes; and in this way, a complex morbid state will be set up, which may render it difficult to assign to each factor its proper position in the pathological sequence. For instance, any organ is liable to become diseased if either the quantity or the quality of the blood supplied to it be changed; if its nerve-supply be interfered with, or if the tissue elements themselves become modified, whether from disease, over-use, or any other cause which disturbs their healthy nutritive activity. Each of these departures from the normal may, perhaps, be attended by a train of symptoms peculiar to itself; but as a rule there will be so much in common between the results of the different morbid conditions as to render each one, even when existing alone, far less well defined than might at first sight appear to be probable. But what makes the analysis of disease still more difficult is, that no one of these states exists for any length of time without inducing one or more of the others; and to decide which is cause and which is effect, which is the primary and which are the secondary lesion, becomes, in many cases, well-nigh impossible. As an illustration of this, we may mention the still undecided controversy regarding the *rôle* played by inflammation in pulmonary phthisis; one party declaring that it is the primary condition on which the tissue-change depends, the other that there is a primary alteration in the mode of growth of the tissue which, during its development, sets up the inflammation. But if this be so with organs of such comparative simplicity as the lungs, and with diseases in which we have ample means for *post mortem* investigation at every stage, how much greater must be the difficulty when we have to deal with an organ so complex and so difficult of examination as the brain, and with diseases where opportunities for *post mortem* examination are rare, and generally unproductive in tangible results. This, however, is the task that Dr. Hammond has undertaken, in endeavouring to explain the pathology of the obscure nervous conditions he has described in his book; and he has cut the Gordian knot by taking vascular changes alone into consideration, leaving all other possible causes unmentioned. Of these vascular changes, he attaches by far the greatest importance to hyperæmia, and it is indeed to this comparatively simple morbid process alone that he traces the manifold functional nervous derangements resulting from over-work or prolonged emotion. Hyperæmia of the brain becomes in his hands a distinct entity, a disease *per se*, capable of lasting for many years, but readily yielding to suitable treatment at almost any stage, and after almost any length of time. By hyperæmia, he does not mean cerebral congestion, as the term is generally understood, for in several places he makes a distinct separation between the two conditions; thus, in one place he says, "It is true that, in the advanced stage, when, instead of hyperæmia, there is rather congestion, stupor may ensue." We ourselves have been accustomed to look upon hyperæmia and congestion as synonymous terms, but it is evident that the hyperæmia which Dr. Hammond postulates as the cause of the various conditions which he has grouped together in his book, is what we may perhaps be allowed to term a chronic mild congestion, the word congestion being used by the author only for advanced degrees of hyperæmia, and for cases which we cannot but think were really the results of inflammation.

If the various conditions described by Dr. Hammond can all be traced to a slight excess of blood in the brain, that certainly is a discovery in pathology which should be of the greatest service in practice; but, before announcing it as a fact, the discoverer should weigh against this hypothesis all other possible explanations of the symptoms in question, and should bring forward a carefully prepared argument in favour of his own views. This, however, we fail to find in Dr. Hammond's book. As we have said, he has left all other possible explanations unmentioned. When an organ suffers from over-fatigue, we should expect to find the seat of the disease in the tissues themselves rather than in the blood-supply. Too great a call has been made on their nutritive activity, and hence their nutrition has become impaired, and this altogether independently of any modification in their vascularity; and the difficulty will be rather to restore the vital energy of the organ than to control the circulation through it. Then, again, the overwork or other cause which has brought about this brain-exhaustion will at the same time have been productive of pernicious effects in other tissues of the body; the vitality will be everywhere lowered, the blood will be deteriorated, and hence another cause of malnutrition of the brain and the production of nervous symptoms. We find, then, that Dr. Hammond has not taken into consideration other factors which are certainly present, whatever may be their relative value; and, on turning to his argument in favour of his own theory, it appears to us far from strong. By the nature of the disease, he can obtain little or no help from *post mortem* examination; and, as a fact, we find that he has not attempted any proof of this kind. Certain symptoms seem to him consistent with a state of cerebral hyperæmia, and hence he infers the existence of hyperæmia wherever these symptoms are observed. But this is a most unsatisfactory basis of argument. The greater number of the symptoms which he quotes are no more traceable to hyperæmia than they are to various other conditions; indeed, the author himself recognises this when speaking of chronic cerebral anæmia; he says, the symptoms "frequently present great resemblances to those of cerebral hyperæmia". The symptoms upon which he places the greatest reliance as indicative of hyperæmia are, the presence of vertigo, increased temperature of the scalp, and congestion of the retina and of the membrana tympani. Of vertigo, the author says, "in cerebral anæmia, it is scarcely ever a prominent symptom". We have to confess that this is a new idea to us, for we have been accustomed to look upon vertigo as one of the commonest symptoms in the condition we have hitherto believed to depend upon cerebral anæmia. As regards the alteration in surface temperature of the scalp, Dr. Hammond says that it is augmented in the cases of which he treats, and may even reach three or four degrees above the normal temperature of the body. We find it difficult to believe that a simple hyperæmia of the brain should give rise locally to so great an elevation, the temperature of the rest of the body remaining normal. Dr. Hammond, however, goes further, and claims to be able to tell which part of the brain is most hyperæmic, by ascertaining which parts of the scalp are hottest. We think that such a statement needs to be much more fully supported by details than it is in this work. The other symptoms, viz., hyperæmia of the retina and of the membrana tympani, are not conclusive in a problem of comparative diagnosis like the present, for the vascularity of delicate membranes like these varies greatly in different persons and under different circumstances, and it by no means always constitutes a measure of the vascularity of the brain.

Dr. Hammond attaches weight to the results of treatment directed to the removal of the hyperæmia; but in the only case narrated in the book, the treatment of which is detailed, recovery was effected by the administration of arsenic and strychnia, agents which cannot be considered to act by producing contraction of vessels. In his chapter on treatment, he enumerates, one after another, a large number of remedies, but his account is so general and so wanting in scientific detail, that it is of little or no help in the argument.

To sum up, we think that Dr. Hammond has failed to make out his point, that the evil results of overwork and its congeners are primarily traceable to cerebral hyperæmia. Hyperæmia may be one of the conditions present, this we have long looked upon as probable; but we are inclined to think that the main factor in these cases is impaired nutrition of the brain through exhaustion of the nervous elements.

NOTES ON BOOKS.

A Manual of Examination of the Eyes. By Dr. E. LANDOLT, Paris. Translated by SWAN BURNETT, M.A. Philadelphia: D. G. Brinton. 1879. This is one of the best manuals, both in scope and arrangement, of ophthalmology which we have thus far met with. The author's object is to impart a scientific and thoroughly accurate knowledge of certain branches of ophthalmology—those, namely, which more than others admit of exact treatment. With this object always present to his mind, he deals in succession with such subjects as the external examination of the eye; the doctrines of strabismus, accommodation, and refraction; the movements of the eyes; ophthalmoscopy; etc. Every one of these heads is treated at considerable length, and with great clearness and accuracy of statement. The author appears anxious to show how much modern ophthalmology is indebted to the facts of modern science, and how completely in many cases it has ceased to be a matter of uncertainty or empiricism. A book of this sort is evidently just the one to put into the hands of students. It teaches quite as much as any elementary treatise should teach, and it inculcates habits of accurate and logical observation, of more real value as an instrument of mental training than any amount of crude and undigested facts. The student who shall have carefully mastered, not merely the contents, but the method of this little manual will have made considerable progress in the study of scientific medicine. It is a book which we can very strongly recommend to all earnest students, whether of ophthalmology or general medicine. The English translation is in many respects very unsatisfactory. The style is bald and often obscure, words are used in wrong senses, and the laws of grammar are too often disregarded. The translator's knowledge of French is evidently of the most elementary description. A very copious table of errata has, in self-defence, been appended to this translation by Dr. Landolt himself, and forms an useful, indeed necessary, accompaniment to the work in its English or American dress.

Description of Different Varieties of Skulls and of Human Remains. By W. FRAZER, F.R.C.S.I., M.R.I.A. London: McGowan and Co. 1880. In this pamphlet, Mr. FRAZER gives an account of some skulls and other human remains obtained during the recent excavation of a large sepulchral mound at Donnybrook, near Dublin. The bones have been subjected to careful examination by Mr. Frazer, who finds that the crania can be arranged in accordance with Sir William Wilde's classification of skulls found in Ireland, into those of Firbolgs, Celts, and Danes. Other noteworthy features observed by the author were, a number of platycnemic tibiæ and of humeri with perforation of the olecranon cavity. The pamphlet will be interesting to students of ethnology.

SOUTH LONDON SCHOOL OF PHARMACY.—The medals and certificates for the term ending April 15th, were presented by the Secretary on April 17th to the following successful competitors. Senior Chemistry: medal, Mr. Price; certificate, Mr. Carruthers. Junior Chemistry: medal, Mr. Hill; certificate, Mr. Waring. Materia Medica: medal, Mr. Williams; certificate, Mr. Horne. Botany: medal, Mr. Walkley; certificate, Mr. Waring. Pharmacy: medal, Mr. Waring. The Secretary's prize for Organic Chemistry was presented to Mr. W. Williams.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 8TH, 1880.

DIPHTHERIA IN SOUTHERN RUSSIA.

UNDER the above heading, there appeared a few days ago in the *Times* a letter from the correspondent of that paper at Odessa, which certainly must have attracted the attention of all their medical readers. For some years past, we have seen in English, French, and German medical and lay papers, occasional short notices of the ravages which diphtheria made amongst the population of Southern Russia, but their want of authenticity caused them to be placed more or less in the class of sensational news, which is eagerly collected concerning the inner state of Russia. Moreover, other apparently more urgent political news, such as the Russo-Turkish war; the development of Nihilism, its outrages; the appearance of the plague at Wetlianka, the measures taken to suppress this imminent danger, their discussion, and many other things, for a time so completely diverted attention, that a recent telegram, stating that in one single department of that Empire no fewer than twelve thousand children had succumbed during the last few years to diphtheria, was again met with some incredulity.

Unfortunately, however, it appears that all these reports were only too well founded, if the statistics of the *Times* correspondent are to be trusted. These, even according to his own statement, by no means represent the true extent of the evil. It is easy to see that, if the number of qualified medical men in that part of the country be so exceedingly small as represented in his letter, it will be an utter impossibility for them, not only to watch the progress of the disease in every individual case, but simply to keep reports of the numbers and results of all the cases under their care; and that most likely a very considerable proportion of cases exist in which during the whole progress of the disease no medical man is called in at all, and which never come to the knowledge of the authorities. But, even if we omit all speculations on this subject, it is evident that an epidemic of so great extent and malignancy as are described in the *Times* letter is a very serious national disaster. At present, there are not fewer than fifteen districts or provinces infected with diphtheria, which, in accordance with most of the other recent experiences, instead of abating, increases during its progress in malignancy up to a mortality of as much as 73 per cent. in some places.

There are two points in the letter which seem to call for some comment, viz.: (1) the etiological statistics; and (2) the measures which have been at last adopted in order to eradicate the evil. Whilst giving accurate details in the former respect, the writer does not mention anything about the proportion of pharyngeal and laryngeal diphtheria, nor regarding the results of tracheotomy in the latter subdivision. Possibly this may be accounted for by the fact that the letter, which is intended for the instruction of the public, is evidently written more from the point of view of a social economist and a statesman than from that of a medical man. With respect to the etiological statistics, we may say at once that the tremendous number of cases which form their material should render them a valuable addition to our knowledge; in matters of fact, however, they bring very little, if anything, new. That children before the age of ten years are more liable, and succumb much more readily to the disease than adults, we all know; that, as a rule, if only for a time, the intensity and malignancy of the disease increases with its progress is an experience which has been made in Vienna, New York, Paris, and many other capitals in which diphtheria is more or less endemic; and that even the mortality up to the present is not extremely high in comparison with other epidemics—*e.g.*, the Florentine, in 1872 and 1873, in which more than 50 per cent. died—is shown by the statement that the percentage of death in the Russian epidemics in 1876 was 36, and in 1877 about 40, though certainly the increase in the rate of mortality is alarming.

As to the influence of the seasons, it is stated that, in one district, that of Meergorod, in which the development of the disease has been studied with greatest attention, it has been observed that, whilst in the months of June in the three consecutive years of 1876, 1877, and 1878, the number of sick greatly increased, and went on increasing till the following October or November, at the same time the lowest rate of mortality invariably occurred in June, August, and September, in which months no more than a third of the stricken died, whilst in the first and last months of the year nearly one-half of all who were attacked died. This is certainly a curious fact, which, if we may for a moment indulge in theoretical speculations, would seem to point out that the driest months of the year favour most the development of the diphtheritic poison, whilst the coldest and wettest ones promulgate its virulence. But it must be confessed that at least the latter part of this speculation is a rather idle one; for the mere fact of the further development of the poison might go hand in hand with the development of greater virulence. At the same time, the reports of the most careful observers on former epidemics as to the influence of seasons are so widely discrepant from each other, and there are so many well observed facts proving that in many severe epidemics the disease raged steadily throughout the year in spite of changes of weather and temperature, that we still must believe in the comparative independence of the affection from such influences.

However this may be, there seems no doubt, from the arguments which the correspondent brings forward, that the truth of the following statements is established: 1. That diphtheria is the most formidable of all epidemical diseases which have ever appeared in Russia; 2. That the mortality is steadily increasing; 3. That the disease is spreading further and further; and 4. That it threatens to depopulate whole provinces. The numbers given in support of the latter statement are terrible enough, if one remember that, of the whole of all the deaths from diphtheria, 90 per cent. happen to victims under twenty years of age, and only 10 per cent. to those above. Thus, in the government of Meergorod, of 125,000 inhabitants, reckoned at the end of 1875, only about 122,000 remained in 1879; and similar conditions seem to have been observed in many other districts.

Facts of such a nature may be ignored for some time; but they will finally make themselves prominent and remarkable, even to the most neglectful of governments; and thus at last it appears that feeble attempts are made to deal with the disease, after it has been neglected, incredibly enough, and allowed to spread for not less than eight years. In the meantime, "improbable as it may appear, until this year nothing has been done". The number of medical men was, and is, utterly inadequate to the area over which the disease extends and to its intensity; the local government of each province is precluded from intrenching in any way upon the authority of a neighbouring government; and a voluntary co-operation of several provinces seems to be very difficult, if not impossible. Such a thing as hygiene apparently does not exist in Southern Russia; the peasants in many places prefer to look upon their own misfortune as a visitation of God than to seek medical aid; and, in not a few places, there even exists a manifest irritation against the profession, who are accused of unnecessary cruelty. There are differences of opinion in high quarters as to what is to be done, though at last all agree that something must be done; and thus we see "how many obstacles have to be overcome in the struggle with diphtheria".

However, at last an attempt has been made to deal with it, and, we think, in the proper direction—viz., by increasing the medical staff. But this certainly will not be sufficient, unless, at the same time, proper steps be taken to eradicate the evil at its roots. Seeing how far it has spread, an isolation of the stricken districts would be probably a matter of impossibility; but further progress might possibly be checked, if the immense administrative power of an absolute government were used with the necessary energy, and in the proper direction. If it were made compulsory in the adjacent, as yet not infected, provinces to bring every case of throat-affection under the notice of the authorities; if proper measures were taken immediately to isolate suspicious cases, and to enforce hygienic rules, with that energy which the Russian Government shows in political affairs; if a sufficient number of competent doctors, endowed with the necessary amount of discretionary power in matters of public interest, were specially engaged for that purpose, and garrisoned at the borders of the infected provinces, the further extension of the epidemic might be avoided. At the same time, all possible attention should, of course, be paid to the deplorable provinces which have for such a long time suffered from the ravages of the disease. Temporary hospitals ought to be erected in each of the capitals of the stricken governments, and in as many other places as possible, to which the patients are to be brought, if necessary, by compulsion of the parents. It is deplorable enough that a government allows its subjects to remain in such a state of ignorance that, instead of seeking medical aid, they detest it; but, if so, it is the duty of an absolute government to enforce better knowledge, even against the will of superstitious peasants. Finally, a thorough disinfection of all the infected places ought to be effected. In all these directions, General Loris Melikoff has certainly set a good example to his countrymen, and shown how much intellectual energy can do in vanquishing the most dreadful enemies of mankind.

In conclusion, we wonder whether the incidental remark of the *Times* correspondent, about the "cauterisation of the patients' throats", is borne out by facts. It would be much to be regretted, indeed, if our Russian *confrères* had not yet come to the almost universal conviction of the medical profession in this country, as well as in France, Germany, Austria, and America, viz., that the local use of caustics to the diphtheritic patches rather aggravates than checks the local process, by affecting the healthy surrounding parts of the pharyngeal mucous membrane.

TUBERCULOSIS AS A CONTAGIOUS DISEASE.

THERE are few names known to contemporary medical science which arrest the attention of students of pathology more powerfully than that of Professor Cohnheim of Leipzig. In the early part of his career, he distinguished himself by a series of remarkable discoveries, and he is now becoming widely known and appreciated as a lucid and suggestive teacher. In none of his published writings with which we are acquainted is this power of exposition more happily developed than in a small *brochure* from his pen on tuberculosis viewed as a contagious malady,* which has been recently published. A short account of the method by which the author attempts to harmonise the varied observations which have been recently made on this disease, by showing how they are all explained by the assumption of the truth of one central fact, for the appreciation of which medicine and humanity are indebted to the science of experimental pathology, will prove useful, if it do no more than show how much is being done, and yet remains to be done, in a fruitful and important field of research.

In the theory which was originated by Virchow, long adopted in Germany, and now largely taught in this country, it is held that a fundamental difference exists between miliary tubercle—tubercle properly so called—and the inflammatory products found in scrofulous disease of the lymphatic glands, and in the form of phthisis called by the Germans caseous pneumonia. The latter processes are regarded by Virchow as purely inflammatory in their nature, and as differing from other inflammatory processes only in that there is neither absorption nor further development. This theory is based on certain anatomical facts, and may be conveniently termed the anatomical theory. One of the objects of Professor Cohnheim's *brochure* is to show that, since Villemin has proved that tubercle can be transmitted by inoculation, this anatomical theory has been completely shattered. The test for tubercle now no longer consists in certain qualities of colour or consistence, nor in the presence of certain microscopical elements—tests which, in any case, have been shown, during the last few years, not to have the value which had been assigned to them—but in the capacity of a morbid product, when introduced into the body of a rabbit or a Guinea-pig, to produce tuberculosis in the animal. What produces tuberculosis is tubercle, what fails to produce tuberculosis is no tubercle. Judged by this criterion, the caseous pneumonia and miliary tubercle are manifestations of one virus; and the doctrine of Laennec, which for a time had been in the shade, has now received ample confirmation. Further, the scrofulous lymphatic gland is found to contain the same poison.

For the application of this test all animals are not equally reliable. "Dogs, for example, show little susceptibility, whilst rabbits and Guinea-pigs have it in a remarkable degree. The way in which the tuberculous substance is introduced into the animal is almost a matter of indifference; the common and most convenient method of procedure is inoculation by a small incision either into the subcutaneous tissue, the pleural or peritoneal cavities, or the anterior chamber of the eye. Chauveau and others have infected rabbits by feeding them with tubercular matter, and in Munich animals were rendered tubercular by inhalation of tubercular sputa in spray. Whether there is much or little tubercular substance employed, whether it is used alone or mixed with other tissues—as, for example, pieces of lung containing tubercular nodules—is of little importance; of far greater consequence, on the other hand, is it that the substance used should be fresh and free from decomposition. The fresher it is, the less likely is the experiment to be affected by septic and similar influences, and infection is the more certain. How the infection takes place, is best seen in animals when the tubercular matter has been introduced into the anterior chamber of the eye. In this case, if the substance be absolutely fresh, the irritation produced by the introduction soon passes away, the small portion introduced becomes gradually smaller and smaller, and may even completely disappear. Then, for a time, the eye is completely clear and intact, until suddenly on the iris a smaller or larger number of minute grey nodules appear, which grow to a certain size, and then caseate, exactly as happens with human tubercle. In the rabbit, Salomonsen and Cohnheim observed the eruption usually about the twenty-first day after inoculation; in Guinea-pigs, as a rule, a week earlier. In the rabbit, also, the period of incubation is sometimes shortened to fourteen days."

It is this test that, applied to human tubercle on the one hand, or caseating scrofulous products on the other, shows that they are both caused by the same virus. All these morbid products are effective, and in the same degree. If a piece of tubercular peritoneum or cerebral membrane be introduced into the peritoneal cavity of a rabbit, typical tuberculosis, beginning in the abdominal organs, is the result. But inoculation with a piece of lung affected with caseating pneumonia, or of a caseating testicle, produces exactly the same effect, and nothing succeeds better than a freshly excised scrofulous lymphatic gland from the neck.

Those who are convinced that all contagious virus is due to a parasite will, of course, not hesitate to believe that the tubercular poison is corpuscular, and that, in a not very distant future, this corpuscle will be demonstrated in the tubercleinodule and in scrofulous products. Until, however, this goal has been reached, there remains no other test for tubercle than that of infection. The leading principle here, as in all infecting maladies which produce local changes, is that a tubercular or scrofulous product is generated wherever the tubercular virus is present and remains for a certain time. The chief factor, therefore, in determining the localisation of the disease, is the mode of introduction into the system. Once introduced, its further extension is influenced by the conditions of the structure of the part, and takes the direction of the natural roads of the organism. Consequently, whilst, on the one hand, the course which the disease takes is very different in different cases, the eventual entrance of the virus into the circulation affords the conditions for the development of tubercle in distant organs. The influence of the point of introduction is strikingly exemplified by inoculation experiments. When a small piece of tubercle is introduced into the peritoneal cavity, there constantly follows, in the first instance, tuberculosis of the peritoneum, spleen, and liver; after inoculation into the anterior chamber of the eye, the iris is first affected; after feeding with tubercular matter, the intestine and the mesenteric glands; after the inhalation of pulverised sputa, the lungs and bronchial glands; and, when the material has been introduced into the subcutaneous connective tissue, it is the nearest lymphatic glands in which the disease first develops.

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* *Die Tuberkulose vom Standpunkte der Infectionslehre*; von Julius Cohnheim. Leipzig: 1880.

That the lungs are affected with tubercular disease in a far larger ratio than other organs shows, in Professor Cohnheim's opinion, that the poison is introduced into the human economy most frequently with the inspired air. This conception finds support, he believes, in the frequency with which the bronchial and tracheal lymphatic glands are affected in a very early stage of the disease—so much so, that an extensive tubercular pleurisy, and still more frequently advanced caseation of the glands, is found, whilst in the lungs there are only found a few nodules or a very scant amount of caseous infiltration. An analogous condition is found in the certainty and rapidity with which inhaled carbonaceous particles reach the pleura and bronchial glands. The conditions which determine whether the inhaled virus shall produce disseminated tubercle or caseous pneumonia are still unknown.

Whilst the pleura and bronchial glands become diseased immediately after or simultaneously with the lungs, the anatomical relations of the air-passages with each other and the digestive canal furnish the means for further development of the disease. So soon as a breaking down of tubercular products and consequent ulceration have taken place, a certain quantity of tubercular, that is to say, of infecting matter, must leave the lungs. This reaches the trachea and larynx, and, if it take root there, tubercle and tubercular ulceration are the consequence. Then come the pharynx, the soft palate, the root of the tongue, and tonsillar region, which are all exposed to the same influence. A certain proportion of the matter is swallowed, but the passage through the œsophagus is too rapid, and undoubtedly the acid reaction of the gastric juice too adverse to the local inoculation and further development of the organised tubercle-poison, to favour the development of the disease in the gullet and stomach, where tuberculosis is exceedingly rare. When, in consequence of the swallowing of large quantities of tubercular matter, catarrh of the stomach has been produced, the chief obstacle to the transmission of the virus into the intestine is overcome. In the bowel, infection will most likely follow at points where the intestinal contents are longest detained; that is to say, in the neighbourhood of the ileo-cæcal valve, the lower portion of the ileum, the cæcum, and ascending colon. The upper and lower extremities of the tube are less exposed. It is easily ascertainable in what parts of the intestinal wall the tubercle is most likely to fix itself—on those points, namely, where all absorbed substances are first retained; that is to say, in the lymphatic structures, the isolated and grouped lymph-follicles. These are, in fact, as is well known, the seat of caseating and tubercular ulcers of the intestine. Simultaneously with or immediately following the development of the virus in the follicles comes the development in the mesenteric glands; whilst, on the other hand, the tubercular ulcers admit the poison into the branches of the portal vein, and the liver is then endangered. How frequent is tuberculosis of the liver, every one knows who has taken the trouble to examine this organ with sufficient care in all cases of chronic tuberculosis. With this combination, consumptive disease of the lungs and intestine frequently ends, but further developments sometimes take place. The disease may enter the ductus choledochus and produce tuberculosis of the bile-ducts. More frequent and more important is transmission to the peritoneum from deep ulcers of the intestine. And the virus inhaled with the atmospheric air may take root directly in the larynx and trachea, producing the so-called primary tuberculosis of the larynx.

Whilst the tubercular disease of the digestive tube which has been described in the foregoing sketch is secondary to the affection of the lungs, there are cases in which the intestinal canal admits the virus into the system for the first time. Amongst this class of cases, Professor Cohnheim reckons advanced tubercular disease of the mesenteric glands and peritoneum, without disease, or with only a very slight disease of the lungs—a form of the affection rare in adults, but unfortunately very common in young children. The reason why young children are specially exposed to this danger may, perhaps, be found in the experiments of Gerlach, Klebs, Orth, and others, who have shown how close is the connection between the virus of the consumptive disease of cattle and that of human tuberculosis, and have further proved that the virus from the diseased cows is contained in their milk. Whether the milk of tubercular women contains the virus does not seem yet to have been investigated; but, with the well-known prevalence of tuberculosis amongst cattle on the one hand, and with the widespread prevalence of the habit of bringing up children on cow's milk on the other, an explanation of the frequency of primary consumptive disease of the intestines is ready to our hand. Perhaps the influence of food in producing tubercular disease has even a wider extent. The question may at least be entertained whether all the so-called scrofulous inflammations of the lips, mouth, and pharynx, and especially the caseating swellings of the lymphatic glands of the neck, are not due to the direct inoculation of the tubercular virus contained in food, and more especially here, also, in infected milk.

Professor Cohnheim's remarks on uro-genital tuberculosis are very suggestive. Direct infection from one sex to the other, as by syphilis, although not impossible, is scarcely to be expected. If the virus from tuberculosis of the uterus ever is transmitted *in coitu* to the male urethra, or, perhaps, what is not so unlikely, if a man with tuberculosis of the lungs or other organ can transmit the tubercular virus to the genital mucous membrane of a woman, such cases must still be very exceptional. As a rule, uro-genital tuberculosis is a disease of excretion. The virus, from whatever source it has entered the blood, is excreted by the kidneys, and doubtless, like cinnabar particles, oil-drops, milk-globules, and bacteria, through the glomeruli. It by this means gets access to the urinary passages, and, on whatever point it gets a hold, tuberculosis develops. Most frequently, this takes place in the open canaliculi of the pyramids; but the disease may develop also in the pelvis of the kidney, in the ureter, and the bladder, and even in the prostatic portion of the urethra tuberculosis may occur. It may cross in the bladder to the other ureter, and ascend to the other kidney; more frequently, however, it is the urethra that is attacked. In the male, the virus attacks the prostate, thence passes by the *ductus ejaculatorii* to the seminal vesicles, and onwards to the vas deferens, the epididymis, and testicle, but it can also pass directly where the ureter and the vas deferens cross. In the female, the anatomical arrangement of parts renders the route by the urinary passages very improbable. In the great majority of cases, the parts affected are the Fallopian tube and the uterine mucous membrane, the virus entering the tube from the peritoneum, which is scarcely ever found free from tubercle in genital tuberculosis in the female.

Although analysis shows that uro-genital tuberculosis is scarcely ever the primary outbreak, this cannot be said of all the parts where tubercle is localised. In meningeal tuberculosis, there are cases, especially in children, in which the usual deposits in the lungs or glands are not to be found. How, in such cases, and even in those in which the deposits in other organs are present, is the transmission of the virus to the meninges of the brain to be explained? Dr. Cohnheim is in such instances disposed to accept Weigert's explanation, who has suggested that the poison gets access to the membrane of the brain from the nose, passing through the foramina of the ethmoid bone.

Still more difficult of explanation are cases of tubercular disease of bone and fungating tubercular disease of joints, occurring in individuals in whose other organs no tubercular deposit is to be discovered. Although in most such cases the development of the local disease is traced to an injury, yet it is not to be supposed that an injury can beget the tubercular poison. Professor Cohnheim conceives it to be possible that, in such persons, the virus is already circulating in the blood, and that, with the exudation which follows the injury, the poison leaves the blood-vessels and engrafts itself in the tissues.

As a rule, the tubercular poison is not spread through the medium of the circulation, although in favourable instances this occurs; and metastatic tubercle, comparable to the most developed forms of metastatic inflammations and tumours, is sometimes found. When we add to this mode of infection the direct transmission from the peritoneum to the spleen, through the lymphatics of the diaphragm to the pleura, from the pleura to the pericardium, etc., we need not wonder at the number of organs that are sometimes found affected with tuberculosis.

In explanation of instances of acute miliary tuberculosis come the cases described by Ponfick, in which, as a cause of the contamination of the blood with large quantities of the poison, tuberculosis and caseous infiltration of the thoracic duct were found. A more frequent cause, however, of this rapid form of the disease is tuberculosis of the blood-vessels of the lungs, instances of which are recorded by Weigert. A local tuberculosis of the pleura, bronchial glands, or mediastinum has extended into the wall of a pulmonary vein, and a large surface of caseating tubercular substance has projected into the lumen of the vessel. In the light of these discoveries, acute miliary tuberculosis loses much of its mystery.

When the chronic nature of scrofulous affection of the lymphatic glands, and the immunity to the general health that often follows it and scrofulous disease of the joints, are compared with the rapid and deadly course of acute tuberculosis, it may seem extraordinary that they are all attributable to the same poison; but inoculation of rabbits shows that they all produce the same disease—a pure tuberculosis. In endeavouring to account for the comparative innocence of some classes of cases, it must not be forgotten that the human organism may even overcome entirely the poison. Tuberculosis can heal. Pathological anatomy has long known cretification and cicatrisation after tubercular deposit and ulceration. Professor Cohnheim, assuming the error of the dualistic theory of syphilis, compares the localisation of tubercular affections with cases of syphilitic infection in which there is no manifestation of disease further than the nearest lymphatic glands. Individual differences in the behaviour of the organism which has been infected by tubercle are seen even in inoculated rabbits. When equally large pieces of the same caseating lymphatic gland are introduced into the peritoneal cavity or into the anterior chamber of the eye of a number of Guinea-pigs or rabbits, the first outbreak of tuberculosis takes place at about the same time and in the same manner in all of them, but the further progress shows the greatest imaginable diversities. One animal succumbs after five weeks, and, on examining the body, nodules and caseation are found in almost every organ: the peritoneum, liver, spleen, lymphatic glands, the lungs, vascular walls, etc. A second lives over two months; a third, three months, and longer; in another, not only the eye but the lungs are almost completely filled with tubercle; in another, the respiratory organs are almost entirely free, whilst the abdominal organs are extensively affected; in a sixth, the eye is completely destroyed by caseous panophthalmitis, whilst the animal is otherwise perfectly healthy, is not emaciated, eats well, and is strong and lively; and when finally, after many months, it is killed, tubercle is found nowhere except in the eye.

Professor Cohnheim will not have it that the different powers possessed by individuals of resisting the tubercle poison are due to the presence or absence of a phthisical or consumptive habit of body. The so-called consumptive habit of body has nothing to do, he believes, with a facility for receiving the virus, but is a product of the disease. Individuals with this phthisical habit of body are not specially predisposed to tubercle, they are already tubercular. In their case, the disease has been either acquired in early life or has been inherited. That tuberculosis is hereditary is too well known to require to be more than stated; but, translated into other language, that means nothing more or less than that the tubercle-virus can be transmitted in the semen and in the ovum: whether it can, like the virus of small-pox, be transmitted to the fœtus through the placental circulation, remains yet to be learned. The only difference in this respect between it and the syphilitic poison is that, while the latter manifests itself in the offspring before or soon after birth, in the case of the tubercle poison the development takes place at a later period.

Thus, in the whole history of tubercle everything is due to the special nature of the poison and its effects. According to the present manner of looking at the subject, every man is tubercular in whose body the tubercular virus has taken root. There is, accordingly, no predisposition for tubercle any more than there is a predisposition for syphilis, although some persons are more easily infected than others. Nor is there any constitutional predisposition that causes hyperplastic or inflammatory products to caseate like tubercle instead of being absorbed or changed into connective tissue, but only those pathological products undergo the specific change which are already the product of the tubercular virus. Other than this, there is nothing in the whole course of tuberculosis wherein there is a difference in principle between it and other diseases arising from local infection. Not even the fever is pathognomonic.

The summary which we have given of Professor Cohnheim's views, and as far as possible almost literally in his own words, will, we hope, give some idea of the nature of one of the problems that have been for the last few years earnestly engaging the attention of pathologists, and will also indicate the line of observation and investigation that inquirers are now following in endeavouring to acquire a fuller knowledge of the nature of tubercular disease. The small *brochure* on which we have so freely drawn, well merits the attention of all who are engaged in the active practice of medicine; and as this is hardly possible so long as it is only accessible in the original German, we would fain hope that some competent pen may translate it in its entirety.

MISS LONSDALE AND THE NURSING AT GUY'S HOSPITAL.

It was not to be expected—and, indeed, it would have been scarcely justifiable—that the extraordinary denunciation of the medical staff, students, and nurses of Guy's Hospital, published by Miss Margaret Lonsdale in the *Nineteenth Century* for April, would be allowed to escape a reply. Accordingly, her article has been the subject of comment, in the May number of the same periodical, by Sir William Gull, consulting physician, and Dr. Habershon, senior physician, to the hospital; and, in addition, Dr. Moxon, another of the physicians, publishes a reply to her in the last number of the *Contemporary Review*. Each of these writers speaks with the authority derived from an intimate acquaintance, extending over many years, of the management of the hospital; and it would be superfluous to insist on their well known honourable character as a guarantee for the truth of what they write. Sir William Gull writes with a feeling of regret that a good cause—that of enlisting the sympathies of the authorities and of the public in favour of a better class of nurses—should have been impaired by the want of fairness or want of knowledge which has prevented Miss Lonsdale from recognising the labours of others. He refutes, from his personal observation, derived from a residence of fifteen years within Guy's Hospital, her wholesale condemnation of the moral character of the old nurses; and he has no reason to believe that there has been any deterioration. He then answers her accusations against the conduct of the medical staff and students; refutes her statement that "a doctor is no more necessarily a judge of the details of nursing than a nurse is acquainted with the properties and the details of administration of drugs"; and points out the utter absurdity of such a proposal as that the nurses should be allowed to exclude, except at certain times, the students from the wards. We will quote Sir William Gull's concluding paragraph, as it contains the pith of his argument.

"I cannot bring to a close these few remarks on Miss Lonsdale's paper respecting 'The Crisis at Guy's Hospital' without a feeling of pain and disappointment. The tone in which she has written respecting all concerned, whether medical men, students, or nurses, is exaggerated, disrespectful, and unfair. The reckless way in which a worthy though uneducated class of women are stigmatised, the unworthy motives which are attributed to gentlemen of education, the statement that medical men and their pupils are so devoid of moral sense and refinement that their words and ways are only decent because a lady is present in the wards to restrain them, and that the opposition to lady-nurses is grounded upon nothing so much as upon the desire to get rid of such restraint—all these utterances, taken together, indicate, on the part either of the writer or of those who have inspired her, an animus which all must deplore. For my own part, I have special grounds of regret. Comparing small things with great, I had long hoped that our large hospitals might be made as available for the education and training of carefully selected women for nurses, as they have so long and successfully been for the education of medical men; and, whilst I have been encouraging the authorities at Guy's to prosecute this movement, comes this writer's article, like a dead fly in the ointment of the apothecary, and mars the work."

Dr. Habershon briefly sketches the circumstances under which Guy's Hospital and its medical wards have risen to their brilliant position, through the labours of the members of the medical staff and of the treasurers, from Mr. Benjamin Harrison downwards; and remarks that "we are asked to believe that blind sentiment and the theoretical ideas of strangers are better guides than the experience of those who have spent the greater portion of their lives in the wards of the hospital, and who have attained to no mean position in the profession". He comments on the changes introduced last November by the new matron (without any consultation with the medical staff); especially that by which the nurses were required to be removed to other wards every three months. Of the mischievous working of such a system, he gives a lamentable illustration from private practice. The consequence of this rule has been, as many of our readers are aware, the exodus of about fifty nurses since November—"but not one of them for impropriety of conduct"; and other institutions have gladly taken them into employment. He agrees with Sir William Gull in refuting the calumnies uttered by Miss Lonsdale against the character of the nurses, and in exposing the absurdity of the argument that "doctors are not necessarily judges of the details of nursing"; and refers to the fact that Guy's Hospital has long received nurses for training from several institutions—such nurses being now compelled to go elsewhere. Passing to the effect of some of the new rules on the patients, he refers, *inter alia*, to that which orders the nurse or probationer to "wash backs"—without, as it appears, any regard to the condition of the patient or the remonstrances of the physician or students. "If," says Dr. Habershon, "this be the new system of training, we should be sorry to have the attention of these trained nurses, however refined they may be, or to recommend them to our private patients." Dr. Habershon ably defends the character of the students, and of the late matron and sisters, against the attacks of Miss Lonsdale. As regards the nursing, the staff, he says, would willingly receive trained nurses; "and the more thoroughly they are trained the better, provided that the training is according to the requirements of disease, instead of being guided by sentimental theories". Further, if the hospital is to be conducted as an institution for the skilful treatment of disease, it must be under the direction of the doctors, instead of the matron, in all things that concern the patients".

In the *Contemporary Review*, Dr. Moxon deals more with Miss Lonsdale's attacks on the morals of the physicians and nurses than with the working details of the new system, which Miss Lonsdale supports. The hysterico-malignant ravings of the young writer are most admirably analysed, and every charge against the nurses is refuted. For instance, it appears from Dr. Moxon's article that the sisters, so politely called "women", "little more than experienced housekeepers", "who kept and gave out the wines and spirits ordered by the doctors, and either partook of them or not as they felt disposed", were, A. the daughter of a colonel; B. the granddaughter of a baronet, daughter of a physician; C. the sister of a physician; D. the niece of the late Bishop of Winchester; E. the daughter of a colonel in the army; F. the sister of the lastmentioned lady. A similar statement regarding the social position and character of these ladies is made by Dr. Habershon in the article in the *Nineteenth Century* to which we have already referred. To assert that these ladies would "partake or not" of the patients' stimulants is as gross and unjustifiable a libel as it is possible to conceive. Space does not allow us to follow Dr. Moxon through his complete and categorical refutation of Miss Lonsdale's charges. Some of them, indeed, refute themselves, they are so obviously improbable; others demand an extraordinary amount of credulity on the part of the reader. In reviewing Miss Lonsdale's other and better known work of imagination *Sister Dora*, the *Saturday Review* of last Saturday seems in doubt as to the accuracy of some of the almost miraculous feats attributed by our young authoress to Sister Dora. For example, Miss Lonsdale assures us "it is a fact that she was *in the habit* (the italics are ours) of bringing back to life patients who had sunk into the first stage of the fatal collapse which so often precedes death from small-pox, by actually putting her mouth to theirs, and breathing into them until vitality was restored". Comment in a medical journal on such a statement is needless. Were Sister Dora alive, we feel sure her one exclamation would be, "Save me from my friends". The *Saturday Review*, in concluding its notice, says, "There are plenty of self-called female apostles in the present day, of whom Sister Dora was never one, ready enough to prate about what they call 'women's rights'. They might be better employed in trying to learn the noble lesson she has bequeathed them of the reality of woman's work". We heartily endorse this.

MICROSCOPIC ORGANISMS IN THE INTESTINAL CANAL.

At a time when the association of special parasites with morbid states of their host is readily interpreted as evidence in favour of current theories regarding the parasitic origin of disease, any exact information as to the true significance of the phenomenon in particular cases is useful and important. As a valuable contribution to pathological research in this direction, we may call attention to a report by Dr. D. D. Cunningham, recently published in the fifteenth report of the Sanitary Commissioner with the Government of India, on the development of certain microscopic organisms occurring in the intestinal canal.

Dr. Cunningham's endeavour was to ascertain the nature of certain parasitic forms, which in India, at all events, are specially related to cholera and certain other conditions in which the contents of the intestinal canal are of an abnormal character, and to determine the relation which they bear to those conditions. The intestinal contents in such cases, like those in health and in other forms of disease, abound in organisms of various kinds, but are specially characterised by the frequency with which they contain excessive numbers of monads and amœbæ. The excessive development of these bodies certainly bears a definite relation to the existence of abnormal conditions in the host; and Dr. Cunningham's aim is to show what is the real nature of this relation.

The organisms to which Dr. Cunningham specially refers are the same as those which have already been described and figured by other observers; but in this report he has entered into fuller details regarding them, and the various steps in their development are now for the first time placed on record. The parasite, to which Dr. Cunningham gives the name of *Protomyxomyces Coprinarius*, and which appears to be closely related to the organisms included within the protist groups of protomonadinæ and myxomycetes, and in certain respects to represent a connecting link between them, is not peculiar to cholera, nor is there any reason to suppose that it ought in any way to be regarded as the cause of that disease. On the contrary, its more frequent presence in such cases would seem to be merely the effect of the alkaline character of the intestinal contents very generally observed in cholera.

According to Dr. Cunningham, it is not confined to choleraic or even to human excreta as a basis, and only attains its full development externally to the bodies of the animals within which it occurs. Its immature forms occur parasitically as normal inmates of the digestive canal in certain of the lower animals. In the human subject, both in health and disease, the parasites are very frequently present in varying numbers. During health, their number and activity are limited, due to repressive influence exerted by the normal intestinal contents as a medium. Their excessive abundance in certain forms of disease is due to abnormal conditions of the intestinal contents, permitting of the occurrence of processes of rapid multiplication. Normal human excreta do not form a medium in which any further development of the parasitic elements outside the host-body can occur. On the contrary, the normal series of fermentative changes through which the excreta pass after exit from the body, ensures the complete destruction of the parasitic elements. No such destructive effect, however, is exerted by the changes occurring during the decomposition of the excreta in certain lower animals, specially cows and horses; and here the parasitic elements, on their escape from the body, undergo further processes of development, resulting in the production of reproductive bodies, securing the continuance and diffusion of the species. Such excretal matters, therefore, serve as a constant source whence parasitic elements may be transferred to the bodies of other animals. Human excreta which have passed through the initial processes of decomposition, and which have thus become alkaline, allow of the continued existence and multiplication of elements of the parasite which may then obtain access to them, and may thus serve as a second centre of reproduction. The introduction of the reproductive elements of the parasite into the human body is mainly effected through the medium of the air, and, *per se*, seems to be quite innocuous. The special association of the parasite with intestinal disorders appears to be dependent on the abnormal condition of the intestinal contents, allowing of the rapid multiplication of reproductive elements which may obtain access to them.

EARL FORTESCUE has accepted the Presidency of the Sanitary Congress, to be held in Exeter in the autumn.

THE first annual "Shepherd Memorial" gold medal for excellence in the principles and practice of surgery has been won by Mr. Duncan James Reid, of Marischal College, Aberdeen.

MR. E. A. CARTTAR has been elected Coroner for West Kent, in lieu of his late father. The present Coroner's father had held the office for forty-nine years, and his grandfather for twenty-two years previously.

THE fatality from measles last week showed a further increase in Plymouth, and caused 20 deaths, against numbers increasing steadily from 11 to 18 in the five preceding weeks; no fewer than 251 deaths from this disease have been recorded within the borough since the middle of November last.

THE *Times of India* says it is reported that Dr. Coats has been appointed to the vacant post of principal of the Calcutta Medical College, and that Dr. Lidderdale, superintendent of vaccination, Darjiling Circle, will succeed Dr. Coates as sanitary commissioner, Bengal.

THE Contagious Diseases Act was revived in Bombay on March 1st, after a long interval, but the revival has been so sudden, and the authorities are so unprepared, that for some weeks to come the Act can only be nominally enforced.

MRS. DEEBLE, Superintendent of Nurses under the War Department, whose speedy return from South Africa was notified in last week's JOURNAL, arrived at Southampton on Wednesday, the 5th instant. She was accompanied by six of the nursing sisters, who have been working under her directions in the military hospitals in Natal and the Transvaal. All the reports which have reached this country, from the medical as well as from other officers, have agreed in praising most warmly the earnest manner in which these ladies have performed their nursing duties, and in representing their services as having been greatly appreciated by the sick and wounded officers and men who have been placed under their care during the recent campaigns in South Africa.

THE President of the Metropolitan Counties Branch, Mr. John Wood, F.R.S., has issued invitations to a *conversazione* to be held at the South Kensington Museum, on Friday next, the 14th instant, at 9 o'clock. We trust that there will be a numerous attendance in response to Mr. Wood's kind invitation. The Branch is much indebted to the present President as well as to his predecessors, not only for the able manner in which they have performed their official duties, but for much generous hospitality. These presidential *conversazioni* cannot fail to have a most beneficial effect, both in carrying out the social objects of the Association, and in aiding to bring it and its organisation and purposes prominently before the public. The Metropolitan Counties Branch at present comprises more than eight hundred members, among whom are included most of the leading members of the profession in the metropolis.

UNIVERSITY OF LONDON.

THE following examiners for 1880-81, were elected at a meeting of the Senate held on April 28th. *Chemistry:* Professor Debus, Ph.D., F.R.S., and Professor Dewar, M.A., F.R.S. *Botany and Vegetable Physiology:* W. T. Thiselton Dyer, Esq., M.A., B.Sc., and Sydney H. Vines, Esq., D.Sc., M.A. *Comparative Anatomy and Zoology*: Professor E. Ray Lankester, M.A., F.R.S., and Professor A. Milnes Marshall, D.Sc., M.A. *Geology and Palæontology*: Professor P. Martin Duncan, M.B., F.R.S., and R. Davies Roberts, Esq., D.Sc., M.A. *Practice of Medicine*: W. H. Dickinson, Esq., M.D., and C. Hilton Fagge, Esq., M.D. *Surgery:* John Cooper Forster, Esq., M.B., and Professor John Wood, F.R.S. *Anatomy*: Professor John Curnow, M.D., and Professor Redfern, M.D. *Physiology:* Philip H. Pye-Smith, Esq., M.D., B.A., and Professor J. Burdon Sanderson, M.D., LL.D., F.R.S. *Obstetric Medicine:* J. M. Duncan, Esq., M.D., LL.D., F.R.S.E., and Henry Gervis, Esq., M.D. *Materia Medica and Pharmaceutical Chemistry:* Professor E. B. Baxter, M.D., and F. T. Roberts, Esq., M.D., B.Sc. *Forensic Medicine*: Professor D. Ferrier, M.D., M.A., F.R.S., and Thomas Stevenson, Esq., M.D.

THE FARR TESTIMONIAL FUND.

WE desire to call attention to the notice on page 721, in which is printed a list of the influential General Committee which has charged itself with the promotion of a Testimonial Fund, to be raised in grateful acknowledgment of the long and valuable public services of Dr. William Farr, C.B., F.R.S. Dr. Farr has been for nearly half a century intimately connected with every effort in the direction of public health progress, and none of his fellow-labourers in the field of sanitary reform have exercised so powerful and beneficial an influence. The first subscription list, which we publish this week, augurs well for the success of the project; and we earnestly hope, while we do not venture to doubt, that the efforts of the Committee will meet with a ready response, not only from the medical profession, but from all who are interested in public health. The influence of Dr. Farr's work upon public health in England has been great, and will be lasting. The object of the Testimonial Fund should, therefore, recommend itself widely and generally.

RESIGNATION OF MR. P. H. HOLLAND.

WE understand that Mr. P. H. Holland, Medical Inspector of Burial Grounds for the Home Office, has resigned his appointment. Mr. Holland, who has held this position for a great many years, received his diploma as a Member of the Royal College of Surgeons as far back as 1833; and he has, therefore, fairly earned retirement. Under the familiar title of "Old Mortality", Mr. Holland's name has long been associated with burial grounds and their regulation; and in him probably is bound up the only knowledge as to the general sanitary circumstances of such places that we possess. His resignation should facilitate a reform which has long been wanted, and which was indeed contemplated by Mr. Osborne Morgan's Burial Bill of 1877, viz., the transfer of the duties under the Burial Acts from the Home Office to the Local Government Board. The latter department has, under Mr. Martin's Interments Act of last session, important duties to discharge with reference to the provision and regulation of cemeteries, and it would seem well that to them should also be extended the supervision of the duties wihch have heretofore been discharged by Mr. Holland. This could easily be done by an act of a few lines, and both economy and efficiency would result.

THE MEDICAL SOCIETY OF LONDON.

The Medical Society of London held its annual *conversazione* at the Society's Rooms, Chandos Street, last Monday. The oration was delivered by Dr. Broadbent, who chose for his subject "The Pulse, and some of its indications". There was some excellent music at the *conversazione*, which took place after the oration, and altogether the meeting was a pleasant one.

SMALL-POX IN LONDON.

The deaths from small-pox in London, which had been 9 and 15 in the two preceding weeks, further rose to 18 last week, and exceeded the number in any week since the end of February 1879; 10 were recorded in the Metropolitan Asylum Hospitals at Homerton, Stockwell, and Deptford, 3 in the Small-pox Hospital at Highgate, and 5 in private dwelling-houses. Eight of the deceased small-pox patients had resided in the North and 6 in the East groups of registration districts. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 167 to 187 in the four preceding weeks, further rose to 196 on Saturday last, and 49 new cases were admitted to these hospitals during last week. The Highgate Small-pox Hospital contained 21 patients on Saturday last. Small-pox last week caused 4 more deaths in Dublin, but not one in any of the nineteen English provincial towns.

STATISTICS OF FROST-BITE.

Dr. H. Fremmert has published in Langenbeck's *Archiv*, volume xxv, the statistics of the cases of frost-bite admitted into the Obuchow Hospital in St. Petersburg during the ten years 1867-77. The total number was 494, 456 being males and 38 females. In general, the number of cases of frost-bites was greatest in the most severe winters; but it was not in absolutely direct ratio to the temperature. The circumstances which specially favoured the occurrence of frost-bite were sudden changes of temperature, early setting in of frost, severe frost occurring during great public works, and long-continuing violent winds. The total number of cases of frost-bite occurring in St. Petersburg during 1870 is calculated by the author as about 700, of which 11 per cent. were admitted into the Obuchow Hospital. In this year, there were three deaths from the operation of cold. Moderate degrees of cold are sometimes borne for an astonishingly long time without destroying life. In the winter of 1850-51, a peasant was enclosed in his sledge by a firm crust of snow. On the first day, he had some bread, but afterwards nothing until he was found at the end of twelve days. He was then conscious; his face was yellowish, his body much emaciated; several toes were frozen. He recovered; but there was still obscurity of vision in both eyes at the end of two months. Of 402 cases of frost-bite occurring in men, regarding which accurate data could be obtained, 112 occurred in passive conditions; viz., 55 during sleep on the ground, and 57 in wagons or sledges. Almost 40 per cent. of the frost-bites occurred during intoxication. Of the 38 cases in women, 7 were in passive and 11 in active conditions; in 10, the attack took place during intoxication. Only 212 out of the 494 patients had sufficiently warm clothing. In 29 cases, the individuals were exposed to the action of cold during at least twelve hours; in 300 cases, the exposure was shorter, but in all cases lasted several hours; in 91, it varied from half an hour to two hours. As regards the part of the body, in 333 cases of frost-bite the lower limbs alone were affected; in 105, the upper limbs; in 38, both the upper and the lower limbs; in 12, the limbs and other parts of the body. In only 6 cases, the extremities were not frost-bitten, the parts affected being the external ear, the nose, the cheeks, the prepuce, and the glans penis. The right hand was affected more than twice as frequently as the left, and the right foot oftener than the left in the proportion of three to two. This latter fact is believed by Dr. Fremmert to be due to the practice of allowing the right foot to hang out of the sledge during travelling. The spontaneous separation of frozen fingers and toes took place generally on the sixteenth, seventeenth, and eighteenth days, but sometimes was delayed until the middle of the sixth week. The general health of the patients remained undisturbed throughout in 52 per cent. of the cases; in 23 per cent., frost-bite caused general disturbance—viz., in 7 per cent. there was hospital gangrene, in 6 per cent. erysipelas and phlegmon, in 8.4 per cent. traumatic and pyæmic fever (after operation), and in 1.6 per cent. septicæmia, cerebral embolism, and tetanus. The average duration of treatment was in the mildest cases little more than two weeks, in mild cases six weeks, and in severe cases from two to five months. Death occurred in 42 cases (in 18 from pyæmia and septicæmia); 54 patients were discharged in progress of recovery, and 398 cured. The author says little of treatment; vertical suspension was found useful, and antiseptic dressings were used.

ANIMAL VACCINATION IN BOMBAY.

We learn from the last annual report of the Sanitary Commissioner for the Government of Bombay that, during 1878-9, animal vaccination was maintained in that Presidency at two places only—Poona and Bombay. In Surat, where it continued for two years, it was given up, as the supply of heifers obtained previously from the Dheds and Mahommedans was in time exhausted, and Hindoos refuse to lend them. In Poona, 71 heifers were bought for 220 rupees, and maintained at a cost of 80 rupees. The pay of their attendants was 85, and, after their use, they were sold for 92 rupees. Thus the total expenditure amounted to 293 rupees, or less than £15. Out of these 71 heifers, there were failures in five only. In Bombay, 404 calves were operated on, and seven proved unsuccessful. Of these seven, three or four were said to have been affected with foot-and-mouth disease. The calf-lymph received from Dr. Warlomont proved successful in two heifers. Compared with 1877-8, the cost of heifers last year was less by 340 rupees; and, considering that 80 additional heifers were used, this economy reflects great credit on the superintendent of vaccination. The actual cost was 2,252 rupees. In connection with this universal use of calf-lymph at Bombay, it is significant that only one instance of small-pox occurring after vaccination was recorded there during the year, and this was of a very mild type. Animal vaccination seems to be gradually extending in our Eastern empire; for we are told that, during last year, "vaccination has been made compulsory by law in the town of Kurrachee, where animal lymph will have to be kept up".

TRICHINOSIS FROM EATING SAUSAGES.

In his last annual report on the health of the Dunmow Rural Sanitary District during 1879, Dr. Armistead gives the following interesting particulars with regard to an outbreak of trichinosis at Thaxted, in Essex, in June of last year. He states that, on June 18th, he examined fifty-two persons who had eaten some sausages purchased at eightpence per pound from a man who had a stall in the street at Thaxted, on June 14th. Of these persons, forty-four showed symptoms of irritant poisoning, three others were slightly ill, and only five escaped without any ill effects. The cases were suspected, from the symptoms, to be due to the presence of trichinæ; and a microscopic examination of the sausages proved this to be correct. The symptoms varied a little, but there were generally diarrhœa, which in some cases was very severe; vomiting; thickly coated tongue; pain in the stomach and back, and in the muscles, sometimes extending to the ends of the fingers; pain in the head, and, in some cases, double vision and swelling of the eyes. Here followed more or less fever, with perspirations, thirst, and loss of appetite. In four of the cases, vomiting and diarrhœa, with pain, began within twelve hours after eating the sausages. In one case, sixteen hours elapsed. In twenty cases, the symptoms were very violent at about the twenty-fourth hour. In four cases, there were no symptoms for thirty-six hours, and in nine cases for sixty hours. In one case, three days elapsed; in five cases, six days; and in three cases the symptoms were so slight that no notice was taken of the commencement. The variation may be accounted for in several ways. Age seems to have had some effect, for children were much less severely attacked than adults, which is contrary to what might have been expected. Some of the pork used in making the sausages was salted, and probably foreign; and it was only in certain portions that trichinæ were found. The number of trichinæ consumed would, therefore, vary; and this might, to some extent, account for the variation in the severity of the symptoms.

THE CAUSES OF INSANITY.

Dr. Clouston, in his report of the Royal Lunatic Asylum at Morningside for 1879, says:

> "It is a striking fact in connection with the hard times, that 'business anxiety' is put down as the cause of the disease in no fewer than twenty-four cases, being half as often again as this cause ever before appeared in our list. I am often asked if the hard times have sent more people to the asylum than usual. I think they have sent some cases to us; but the number of such is very few indeed, compared with the great number of admissions. But it is always to be kept in mind that those very persons might have been upset had they been over-prosperous. There are some persons of so unstable a brain-equilibrium that, if they do not get overset one way, they do another. If it is not distress, it is dissipation; if it is not starvation, it is surfeiting or drink; if not over-religious excitement, it is over-speculation. In this way, different causes tend to equalise each other in different years. There is no more interesting fact in the history of mental disease, to my mind, than this, that in that most sober, moral, and self-restrained of all the English societies, the Society of Friends, the malady has been proved by statistics to be as common as, if not more so than, in the general population. Such a fact should make us careful and charitable in judging of the causes of this terrible malady; and it absolutely disproves those sweeping statements that one sometimes meets with, that most of the insanity of the kingdom is due to drink. The fact is, that it would require harmonious relations to exist between the organism and its concomitants for many generations before brain-weaknesses could be eradicated. Taking all the moral and mental causes together, as opposed to the more physical causes, they account for only sixty-nine out of the three hundred and forty-five cases admitted during the year; and, on comparing this number with the average number of such causes assigned in the five previous years, I find that there are only five more cases this year. The most distressing of all the cases admitted was one whose insanity was unquestionably due in the most direct way to his losses in the City of Glasgow Bank, which struck him down and killed him as literally as if it had been a blow on his head. In connection with intemperance as a cause of persons being sent to asylums, an Act of Parliament was passed last year which, I think, will be of service to the community among the better-off classes; viz., Dr. Cameron's Habitual Drunkards' Act. It is merely a permissive measure; but I hope one or two of the 'retreats' provided for will soon be established in Scotland."

COMPULSORY VACCINATION IN MADRAS SCHOOLS.

Colonel R. M. Macdonald, Director of Public Instruction, has submitted to Government the result of his inquiries into the question of making vaccination in schools compulsory. Colonel Macdonald himself recommends that vaccination be made compulsory: 1. In all Government and aided schools of every grade in the town of Madras; 2. In all Government and aided schools in the Mofussil in which English is taught. He would leave it to the local fund boards and municipalities to decide whether vaccination should be compulsory in all or any of the vernacular schools under their control or aided by them. Dr, Cornish, the Sanitary Commissioner, generally approves of these measures. The Government have passed the following order on the subject. "Until vaccination is made compulsory, Government cannot go as far as the Director of Public Instruction suggests. But Government wish that vaccination be made a condition precedent for holding a Government scholarship or stipend or free scholarship, and that it be required of all students in Government schools. It is not fair that vaccinated students should be exposed to risk (protected more or less though they be) by the admission of unvaccinated fellow students. As regards local funds and municipal schools, the proceedings of Government, dated October 28th, 1879, No. 2,049, will be communicated to all local fund boards and municipalities."

A NEW POLICE REGULATION.

An order has been issued from the Home Office, through the Chief Commissioner of Police, directing that when boys brought before the courts of summary jurisdiction are ordered by the magistrates to be whipped, in accordance with the provisions of the Act which came into operation at the beginning of the year, a medical man shall be present at the carrying out of the sentence. The order also fixes the scale of remuneration which the medical attendant shall receive—viz., for the first boy, 5s.; and for every succeeding one, 3s. 6d.

THE CONSUMPTION OF QUININE.

The *Journal de Pharmacie de Constantinople* says that a statistical calculation of the amount of quinine used in the world shows that 100,000 *kilogrammes* (more than 98 tons avoirdupois) are consumed; the value of this being 56,000,000 *francs* (£2,240,000). If to this be added the cost of other salts of quinine—the hydrochlorate, hydrobromate, etc.—the result will be a total sum of £2,248,000 spent annually in quinine alone.

DEAF-MUTISM.

M. Boucheron has lately read a paper at the Paris Academy of Sciences on a mode of treatment of certain infantile cases of deafness, or deaf-mutism. The cases to which he referred are those arising from naso-pharyngeal catarrh, causing the mucus of the Eustachian tube to swell and stop the passage; the stirrup-bone, ere long, being, through pressure of external air on the tympanum, made to press strongly on the liquid of the labyrinth, injuring the acoustic nerve. M. Boucheron gives chloroform to the child, and practises catheterism, insufflation of air, and pharyngeal cautérisation with a brush dipped in iodine solution.

POST MORTEM EXAMINATION OF THE STOMACH.

M. Damaschino lately described to the Biological Society of Paris a method of preserving the stomach after death. It is almost impossible to make a necropsy within twenty-four hours after death, and during that time the stomach undergoes changes due to the action of the gastric juice and to the decomposition of food. He thinks that this can be obviated by filling the stomach with eighty-six per cent. of alcohol one or two hours after death. Besides its antiseptic properties, the alcohol hardens the tissues and renders them much more advantageous for microscopic investigations. The mucous membrane is rendered a little paler in colour.

RAPID POST MORTEM EMPHYSEMA.

Dr. William G. Porter has presented a case (*Transactions of the College of Physicians of Philadelphia*, 3rd Series, vol. iv, 1879; and *Boston Medical Journal*, January 29th) which has a medico-legal interest in its relation to the question of decomposition as a means of determining the time of the death in any given case. The patient was an Englishman, fifty-eight years old, of stout build, of temperate habits, though a large eater; he was a healthy man, so far as was known, until his last illness attacked him. Dr. Porter was called at 5 A.M., October 4th, to prescribe for the relief of excruciating epigastric pain which had supervened after several days of nausea, with occasional vomiting. Morphia, given hypodermically, controlled the pain; and other measures were adopted to palliate the attack and to prevent its recurrence. Moderate fever developed, and in the course of the day several large soft bilious stools were passed. At midnight, there was more pain, still referred to the epigastrium; the skin was warm, but the patient was pulseless at the wrist; full collapse developed presently, and death ensued at about 1 A.M., October 5th. An undertaker was immediately summoned, and the body was placed in ice within two hours after death. At eight o'clock in the morning, the body had swollen "enormously"; at nine, the corpse, by its distension, had lifted the lid of the ice-box several inches, carrying with it a layer of ice that covered it. The whole surface of the body was jaundiced. The features were distended beyond recognition, and the face was smeared with clotted blood which had been forced from the bloated mouth and nostrils. When at this time (eight hours after death) the usual *post mortem* incision was made in the median line of the body, air without appreciable odour escaped from the cellular tissue; the tissues receded from the knife as if they had been stretched to the utmost. A large amount of air, also without odour, escaped from the peritoneal cavity, although there was no peritonitis. The liver, kidneys, and spleen were emphysematous and buoyant. The heart was empty, and its tissue was friable. There was no odour of putrefaction.

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SCOTLAND.

THE LORD RECTORSHIP OF GLASGOW UNIVERSITY.

It was announced recently by the Liberal Association of the University of Glasgow, that it was determined to bring forward Mr. Bright as a candidate for the office of Lord Rector, which becomes vacant in November next. The Committee of the Glasgow University Conservative Club have now intimated that Mr. Alfred Tennyson has consented to allow himself to be nominated for the above office. It is satisfactory to learn that Mr. Tennyson has agreed to accept nomination on the understanding that his candidature will be promoted on purely literary grounds.

UNIVERSITY OF EDINBURGH.

The summer session commenced on Monday, when there was a large attendance of students. So seriously has the overcrowding in the botany class become (through the totally inadequate accommodation of the class-room), that Professor Dickson has felt it necessary to divide the class into two sections and to lecture twice daily, thus, of course, doubling the amount of speaking work at least. At the class of natural history, there is a large attendance, and this session it is again to be taught by Professor Alleyne Nicholson of St. Andrew's, who, in his introductory remarks, stated that, although Professor Sir Wyville Thomson had recovered from his illness, he did not yet feel himself sufficiently strong for the work of this session. The course this summer will be especially on the vertebrate animals. The classes of clinical surgery and clinical medicine were opened on Monday and Tuesday in the new Royal Infirmary, the introductory lecture in the latter being by Professor Sanders. The extramural school promises to be well attended this session, and many of its supplementary courses are a great boon to Edinburgh students.

GRADUATION AT ST. ANDREW'S.

The graduation ceremony in Science, Arts, Divinity, and Medicine in St. Andrew's University was held on Thursday, April 29th. In the Faculty of Medicine, ten candidates received the degree of M.D.

GRADUATION CEREMONY AT GLASGOW UNIVERSITY.

The 1879-80 session of the Glasgow University was brought to a close on April 30th by the annual graduation ceremonial for the capping of those who have passed the necessary examinations in medicine, science, and arts. The prizes were also distributed to the successful students, and various honorary degrees were conferred by the Senatus. Among the recipients of the latter were John B. Cowan, late Professor of Materia Medica in the University, and Dr. Michael Foster, Prelector on Physiology, Trinity College, Cambridge, on both of whom the degree of LL.D. was bestowed. At the conclusion of the proceedings, which were attended by a large body of the general public, Principal Caird delivered an address, in the course of which he alluded to the loss the University had sustained by the resignation of Dr. Cowan on the ground of failing health; and he assured that gentleman "that the respect and esteem of professors and students would follow him into his honoured retirement". After referring to the recent elections and to various other matters more or less political in their character, the Principal intimated that several donations and bequests had been made to the University during the past year, and he concluded with an appeal to private liberality for assistance in carrying into operation the provisions of the report of the Royal Commissioners on the Scottish Universities.

PARLIAMENTARY REPRESENTATION OF EDINBURGH AND ST. ANDREW'S.

The Right Hon. Lyon Playfair, M.P. for the united university constituency of St. Andrew's and Edinburgh, will be appointed Chairman of Ways and Means in the new Parliament. The office does not necessitate the re-election of the member who accepts it, so that the members of the general councils may be congratulated on the avoidance of another election turmoil, although it is not certain that Mr. Playfair would have had his seat contested had re-election been necessary.

GLASGOW DISTRICT BOARD OF LUNACY.

At a meeting of this Board, held on April 28th, it was agreed that it was inadvisable at present to take any steps towards the acquisition of ground with the view to the erection of an asylum, as it was felt that, unless such a course was eventually shown to be unavoidable, it would be a matter of regret were the Board to be placed in the position of being obliged to erect and maintain, for the use of the district, a second high-class curative asylum, which would involve a superfluous amount of accommodation for patients of the first class, and thus entail an unnecessarily large expenditure and a large additional burden upon the ratepayers. The alterations at Kirklands Asylum, which will provide additional accommodation for pauper lunatics, are being rapidly pushed on. The expenses connected with the purchase of this asylum amount to £29,000.

REGISTRAR-GENERAL'S RETURNS.

From the returns of the Registrar-General for the week ending Saturday, April 24th, it appears that the death-rate in the eight principal towns was 25.1 per 1,000 of estimated population. This rate is 0.2 above that for the previous week of the present year, and 1.4 above that for the corresponding week of last year. The lowest mortality was recorded in Greenock, viz., 11.8 per 1,000; and the highest in Paisley, viz., 37.2 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 5.4 per 1,000, being exactly the same as for last week. In Glasgow, there has been a considerable diminution in the number of deaths from whooping-cough. Measles caused 46 deaths, being the same number as for last week, of which 23 occurred in Edinburgh. Acute diseases of the chest caused 139 deaths, being almost the same number as for last week. A male, aged 20, died in the Royal Infirmary, Glasgow, from hydrophobia. The mean temperature was 48.8, being 4.7 higher than that of the week immediately preceding.

WATER-SUPPLY OF ROTHESAY AND ST. ANDREW'S.

An important addition to the water-supply of the popular watering-place Rothesay was made last week, when the supplementary supply of water from Loch Dhu was turned on. The cost of raising the level of the loch so as to secure this water, and the expense of laying the pipes, amount to about £10,000. The loch is the property of the Marquis of Bute, who, for a nominal sum, has given the use of it to the community. At St. Andrew's, for some time past, operations have been going on for the purpose of providing it with a better and more abundant supply of water for domestic use. Between the reservoir and filtering-beds and city, the carrying capacity of the pipes has been doubled, while the watershed and streams have had their sources of contamination attended to, and deleterious matters from farm-steadings, etc., intercepted; in the Grange district, the water is largely derived from springs, and the wells in connection with these have been cleaned out and new pipes laid to carry the water to the reservoir. Samples of the water as it now exists have been taken for analysis.

IRELAND.

DR. J. EMERSON REYNOLDS, University Professor of Chemistry in Trinity College, Dublin, has been nominated for the Fellowship of the Royal Society, in recognition of his discoveries in chemical science.

MR. GEORGE H. PORTER, Surgeon to Her Majesty the Queen in Ireland, and Senior Surgeon to the Meath Hospital, has been elected a Corresponding Member of the Edinburgh Medico-Chirurgical Society.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT the annual election of examiners in this College, held on Tuesday last, the following Fellows were elected: *Examiners for Fellowship and the Letters Testimonial:* B. Wills Richardson, Edward A. Stoker, Edward S. O'Grady, Henry Gray Croly, William Thomson, R. L. Swan, W. Frazer, B. G. McDowel. *Midwifery Court of Examiners:* Henry Croly, William J. Smyly, J. J. Cranny. *Examiners in General Education:* Frank J. Davys, Michael J. Malone, Robert Morton.

SMALL-POX IN DUBLIN.

WE regret to state that another severe outburst of small-pox—and that, too, in many instances, of a bad purpuric type—has taken place. Twenty-eight fresh cases of the disease were admitted into Cork Street Fever Hospital last week; which was the greatest number received there in any week for the last fifteen weeks. The deaths from the disease in the Dublin registration district for the week ending the 24th ultimo were double the number registered in any of the preceding four weeks. There were ninety-two cases under treatment in the Dublin Hospitals on the 29th ultimo.

THE CITY OF DUBLIN HOSPITAL.

THE yearly income from all sources of this hospital, as of other similar institutions in Dublin, has, mainly in consequence of enlargement and increased efficiency, fallen so far short of its expenses that the balance due to its bankers on December 31st last was £1,951. The Board of Directors, being reluctant to reduce the number of patients in the house, have made an appeal to the public, which we trust will be answered in such a manner as to relieve the hospital from debt, and enable it to be carried on with undiminished efficiency.

ST. MARK'S OPHTHALMIC HOSPITAL.

THE Board of Governors will proceed to the election of a Surgeon to the Hospital—*vice* the late Mr. Rainsford—on Monday next. By a recent resolution of the Board, it has been determined that the offices of Surgeon, Assistant-Surgeon, and Resident Surgeon shall be annual offices, terminating on May 31st each year: and that the Resident Surgeon shall not be eligible for re-election oftener than once.

THE REGISTRATION OF INFECTIOUS DISEASES.

THE Honorary Secretary of the Dublin Branch of the Association having brought before the Public Health Committee of the Corporation of Dublin, as the sanitary authority for the city, the resolution in favour of the compulsory notification of infectious diseases adopted at the last annual meeting of the Branch, and having, also, pointed out the advantages to be derived from such a system, a report in its favour from the consulting sanitary officer of the city—Dr. Mapother, President of the Royal College of Surgeons in Ireland—was read at the last meeting of the Committee. Dr. Mapother recommends, we are pleased to see, that the head of the family should be the informant; as was proposed in the Report of the Chairman of the Parliamentary Bills Committee (BRITISH MEDICAL JOURNAL, November 22nd, 1879). The following resolution was adopted by the Committee: "The Committee approve and recognise the necessity of an efficient system of registration of infectious diseases, and will be prepared to support any effort to secure same, but pronounces no opinion at present as to the particular method best adapted to secure the desired result." The first step to be taken in furtherance of such result is to obtain a loca Act of Parliament by which the Dublin registration district migh be brought under the scope of an Act such as that drafted by the Parliamentary Bills Committee. As one of the present members for the City of Dublin—in which infectious diseases are so rife—is an eminent medical man, and as the senior city member is a member of the Corporation, the most important Committee of which has wisely pledged itself, at the instance of the Dublin Branch, to support any effort to secure an efficient system of registration of infectious disease, we trust there will now be no difficulty or delay in obtaining the necessary Parliamentary powers.

SMALL-POX IN ENNISKILLEN.

A COUPLE of weeks since, small-pox was introduced into Enniskillen Workhouse by a tramp from Belfast, where the disease exists to a moderate extent. The man died, and the epidemic spread; and last week there were nine cases in the Hospital Workhouse. Considerable difficulty has been experienced in causing the removal to hospital of those attacked with the affection. A large number of people have been vaccinated and revaccinated; but the Board of Guardians, fearing that any additional cases might arise, have memorialised the Prisons Board for use of part of the gaol for an hospital, as the accommodation in the workhouse has been exhausted.

HEALTH OF BELFAST.

DURING the month of April, the number of cases of zymotic diseases reported by the medical officers of the dispensary districts has been very much less than usual, only nineteen cases having been returned to the health department between March 30th and April 30th. Two cases of small-pox were removed to the Union Hospital, both being of a modified type, so that we may regard that disease as nearly absent. The average death-rate has been higher than for several months preceding, having reached 28.41 per 1,000. This increased mortality has taken place from general diseases, especially those of the respiratory organs, 263 deaths having been recorded from lung-disease. Were it not that whooping-cough gave a mortality of 28, measles 14, and diarrhœa 12, the deaths registered from zymotic diseases would have been remarkably low; and, therefore, the high death-rate may be attributed to the harsh inclement weather which prevailed. Typhoid fever was the only zymotic disease of any importance that occurred, and the disease seems to have been of a mild type, while the total absence of typhus fever is very remarkable.

HEALTH OF DUBLIN: QUARTERLY REPORT.

In the Dublin Registration District, the number of births registered during the quarter ended April 3rd amounted to 2,650, being equal to an annual ratio of 1 in 29.7, or 33.7 in every 1,000 of the population. The deaths numbered 3,165, affording an annual ratio of 1 in 24.9 or 40.2 in every 1,000; but omitting the deaths (92) of persons admitted into public institutions from localities outside the district, the rate was 39.1 per 1,000. The deaths show an excess of 551, or 21 per cent. over the average of the corresponding quarters of the last ten years, and a rate of mortality above that average amounting to 6.9 per 1,000 inhabitants. The deaths from zymotic diseases amounted to 650, being an excess of 174 as compared with the average for the corresponding quarter of the past ten years; a result mainly due to the prevalence of measles, scarlatina, and whooping-cough. Small-pox caused 61 deaths, measles 90, scarlatina 129, and fever 83. Whooping-cough caused 113 deaths, against 38 in the previous quarter. To phthisis 341 deaths were due, mesenteric disease 56, and hydrocephalus 63. Bronchitis caused 581 deaths, pneumonia 107, and lung-disease unspecified 46. Two hundred and seventy-six deaths in children were attributed to convulsions. Diseases of the heart and circulatory organs produced 132 deaths, paralysis 49, cephalitis 24, apoplexy 29, liver-disease 29, and Bright's disease 20. Cancer caused 45 deaths, and gout 3. The mean of the mean weekly temperature for the quarter was 41.7°; and the rainfall for the thirteen weeks measured 6.890 inches.

THE INTERNATIONAL MEDICAL CONGRESS.

A MEETING of the Committee which has been constituted to promote the International Medical Congress was held at the College of Physicians on Friday, April 30th. Several new members were added, viz., the Presidents of the various medical societies in London, Edinburgh, Glasgow, and Dublin. A small Executive Committee was also appointed to present a report as to further arrangements. Professor Humphry gave notice of objection to the date at which the meeting is proposed to be held; and it was referred to the Executive Committee to consider and report upon the subject at the next meeting of the General Committee, so that the subject may be discussed again. The question is, as to the propriety and convenience of the time named, viz., between the 4th and 15th of October, 1881.

THE EFFECTS OF CLIMATE ON HEALTH AND DISEASE.

Dr. J. H. TYLECOTE of Sandon made some very interesting and practical remarks on the effects of climate on health and disease, in an address delivered by him at the annual meeting of the Staffordshire Branch of the British Medical Association at Walsall. After some introductory remarks, Dr. Tylecote said that his purpose was to consider more particularly the effect of the natural physical configuration and structure of the earth's surface upon the physical being of its inhabitants. It has been determined that the difference of altitude is equivalent to difference of latitude, and that the geological nature of the soil is of the greatest importance as influencing the physical climate of a country for good or evil, inasmuch as different soils radiate heat with varying degrees of intensity, and have different powers of attracting moisture. Referring to the diversity of vegetation and the different classes of plants to be met with in different localities, even in the same countries, this diversity depending in a great measure upon the nature of the geological strata near the surface, Dr. Tylecote said that the question naturally arose whether, if the stratification so affect the plants which cover the earth, it would not likewise have a corresponding influence upon the animals which browse it, as well as upon the human beings who dwell upon it. The answer to this inquiry was to be found in the great diversities of form and organisation which are found to exist in the faunæ of different countries, and the various races of mankind which inhabit the different quarters of the globe. Each race of mankind, like the various classes of plants, has its prescribed salubrious limits, beyond which it cannot live without undergoing some physical degeneration; nevertheless, of the various races of mankind, it was found that the inhabitants of temperate climates will bear the greatest extremes of temperature with the least amount of deterioration. With regard to the English people themselves, both the peculiarities of their physical conformation, and their distinctive mental qualities, are attributed by Dr. Clavel to climatic influences. He says: "When he examines the geographical position of England, a land possessing a humid rather than a cold climate, the observer pictures to himself beforehand that he is about to meet a people of imperious appetite, of a vigorous circulation, of a powerfully organised locomotive system, and a sanguine lymphatic temperament. The power of the digestive functions shows that the nervous system is unable to obtain dominion, and that there is lack of sensibility. The frequent fogs which destroy the perfume of the earth, the stormy winds of the ocean, and the absence of wine, announce a poverty of sentiment and inspiration, and of the arts founded on them. The level plains, which are as a rule met with in England, are not favourable to the development of the lower extremities, and it is a fact that the power of the English lies not so much in the legs as in the arms, shoulders, and loins. This power in the upper regions of the body gives an Englishman a peculiar appearance. In view of his brawny shoulders, his thick and muscular neck, and broad chest, we rightly divine the ready workman, the daring seaman, the indefatigable mechanic, the soldier who is ready to die at his post, but who bears up with difficulty against forced marches and hunger."

The foregoing general considerations of the effect of physical climate in determining the form and character, together with the geographical distribution of plants and animals, lead to the investigation of the particular laws which govern health and disease distribution in man. Most classes of plants and animals occupied a determinate zone of their own, whose limits they rarely passed, and if the investigation be carried further, it will be found that certain classes of disease have their prescribed limits, beyond which they seldom extend. This has been recognised by Keith Johnston and others, who have mapped out the globe into regions styled "realms of disease", each characterised by a particular type of disease. The influence of temperature and degree of altitude in modifying types of certain diseases, is well seen wherever any disease passed beyond its prescribed boundaries; cholera, for example, which is indigenous to the tropical zone, is shorn of much of its virulence when it appears in this country. Again, in the higher districts of tropical countries, it is found that the severe remittent and yellow fevers of the lower regions change into mild remittent and intermittent fevers. It has also been long known that the inhabitants of certain localities are more or less liable to be affected by diseases peculiar to them; and that a country is unhealthy in proportion to the extent of the marshy or undrained alluvial soil it contains. This is well illustrated in our own country in the fenny districts of Lincolnshire, and in the "broads" of Norfolk and in Cambridgeshire, where intermittent fever still has its habitat, although the effect of a thorough system of drainage in speedily carrying off the water, and thus allowing little moisture to evaporate or to soak into the soil, had caused ague to disappear from many parts of England, where it formerly prevailed to a considerable extent. Calculous affections, likewise, were believed to prevail more in certain localities than others, but it was doubtful whether this was attributable to the character of the drinking-water, as determined by the geological structure of those districts. Goître, again, was more commonly met with in the mountainous parts of Cumberland, Yorkshire, and Derbyshire, and was generally supposed to be caused by the drinking-water being derived from the magnesian limestone of those districts. But this affection appeared to Dr. Tylecote to be also very prevalent in the valley of the Trent, where it cannot be said to be attributable to this cause, unless the presence of an unusual amount of both carbonate and sulphate of lime, which exist in the water of the district, can be considered an analogous factor in its causation. Although, as he has noted, it had been long recognised that the diseases he had mentioned prevail in particular districts presenting certain physical and geological features; and that, speaking generally, cold damp localities, having a retentive non-porous soil, are inimical to health, and are therefore to be carefully avoided (when possible) as residential sites, more especially by those who have a predisposition to phthisis or rheumatism; still, it was only recently that the natural laws which govern the distribution of many other diseases had been made a special study. For a valuable contribution to our knowledge of this subject, we are particularly indebted to the researches of Haviland, whose laborious investigation of the published disease and mortality returns have revealed many startling facts as to the location of many diseases. In glancing over Haviland's disease-maps, it is interesting to observe the regularity with which certain diseases are distributed in accordance with the laws laid down by him, and so universally does this maintain, that, given the geological structure and physical aspect of a district, it would appear that the nature of its prevailing diseases might be predicated with great certainty, although observers would undoubtedly be liable to fall into error if they ignored altogether the influence of the social and other causes of disease. Dr. Tylecote then considered some other diseases, whose geographical distribution depends more upon social than on physical causes, of which he selected scarlet fever as an example. It would appear that the rate of mortality from this disease, as might be anticipated, was in proportion to the density of the population, inasmuch as the highest mortality districts are met with in the mining and manufacturing districts of Durham, Lancashire, North and South Staffordshire, and South Wales; whereas the lowest are in the essentially agricultural counties of Suffolk, Huntingdon, and Hereford. And it was curious to notice that low mortality districts were never found in close proximity to those of high mortality, unless the physical configuration was such as to prevent free intercommunication, thus showing that the spreading of infectious diseases even was influenced by the character of the physical surroundings. In conclusion, he gave a short summary of a case which illustrates the effect, upon a chronic invalid, of living upon a great variety of geological formations. The particulars of this case had been supplied to him by a friend. He wrote: "Twelve years ago, my wife was seized with what was supposed at the time to be acute sciatica, but which subsequently developed into disease of the spine and abscess. At this time, and when the disease was thought to be sciatica, we were living on the slate rock, and a mile from us it formed a junction with the mountain limestone. I took a cottage two miles away, *i.e.*, one mile upon the limestone, where it cropped up at the surface, and there was generally but a thin layer of earth above it. The relief the change afforded was marvellous. Her powers of locomotion were greatly increased, and much mitigation of pain ensued. This led me to change of residence altogether. At first we were unfortunate, and found ourselves, owing to a mistake in the information, upon clay. Here the symptoms became much aggravated. A removal to Freshwater, in the Isle of Wight, wrought a great change for the better, and she was able to walk again with freedom; the chalk acted like the limestone. On a return to the clay, the symptoms were again aggravated, and the recumbent position had to be altogether maintained. The abscess which ultimately formed was aspirated at intervals for six months. After a subsequent three months' sojourn on the gravel of the north of London, the old red sandstone of Devonshire was tried with little benefit for a year. Then she went to Cornwall, where she resided for nearly four years, in an elevated situation on the porous granite of the district, with the highest results. The disease was arrested, resulting in an apparently complete recovery." Numbers of similar cases might be cited to prove that, not only does soil affect those who are otherwise healthy with some disease peculiar to the locality, but it also, more or less, affects invalids suffering from other diseases. Dr. Tylecote concluded by pointing out the importance to medical men of an acquaintance with the physical and meteorological conditions by which they are surrounded.

OUR CONFESSIONAL.

MAGNO INGENIO, MULTAQUE NIHILOMINUS HABITURO, CONVENIT ETIAM SIMPLEX VERI ERRORIS CONFESSIO; PRÆCIPUÈQUE IN EO MINISTERIO, QUOD UTILITATIS CAUSA POSTERIS TRADITUR; NE QUI DECIPIANTUR EADEM RATIONE, QUA QUIS ANTE DECEPTUS EST.—(Celsus *De Medicina*, Liber viii, cap. 4.)

LACERATED PERINÆUM.

THE following are examples of one of the most distressing accidents that can happen to an accoucheur.

In the first case, that of a primipara, the presentation of the head was natural, and everything foreboded a good and safe delivery; but after waiting many hours, during which the pains were lessening in force, and fearing some impaction, I determined to use the forceps. As in first cases the soft parts are always to be considered, I slipped the instrument off before the head passed the vulva; but after the head was born, I helped the shoulders to assume the natural position; and while I was doing so, the woman gave a very decided bearing-down, accompanied by a grunt, bringing the child safely into the world. But with what result? The rupture of the perinæum from vagina to anus, taking the sphincter as well. This was feared from the apparent ease with which the shoulders passed, but might easily have remained undiscovered. There was only one thing to be done, and that was to stitch the rent up, which was speedily done with a darning needle and stout thread, the only things at hand. Everything was done to keep the parts sweet and clean; Condy's fluid and carbolic acid being freely used to prevent blood-poisoning; but about the third day the wound began to be œdematous; the stitches worked out; the temperature rose to 104° F. The case ended in septicæmia, and death occurred about the fifth day after delivery.

The second case was that of a multipara, who had never had a child at full time. She had a lingering labour, and the use of the forceps was indicated, as the head did not advance for some hours, though the pains were frequent and severe. I diagnosed that the cord was round the child's neck—a fertile source of delay in some instances, though I am not aware that anyone has recognised it as such. There might have been impaction of the shoulders, but this could not be determined. However, the forceps was applied, due attention being paid to the sacral curve, and the nurse's hand with towel supporting the perinæum. The forceps was only used gradually during pains; but what was my astonishment on finding the perinæum torn, and a large vaginal rent in addition to the safe delivery of the child! There was no injury to the sphincter this time; so I put two stitches of silver wire deeply and securely into the wound. Fortunately, this second case recovered perfectly, though there were indications of a wound two inches long in the posterior vaginal septum.

I think these two cases point to more special care in the use of the forceps. The forceps should not be allowed to remain on while the head is passing through the vulva. A long unwieldy pair would be likely to cause distention and rupture in women who are inclined to *embonpoint;* and even a pair of short forceps would, if extracted too quickly, be likely to give rise to the same effect. In applying stitches to a lacerated perinæum, they cannot be too deep or too evenly applied; for if too near the surface, there is a chance of leaving a sinus, or button-hole opening, communicating with the rectum if the sphincter be wounded, or with the vagina if otherwise; and unless the stitches are even, one part of the wound has a tendency to overlap the other, preventing proper union. The sutures should be of strong silver wire, for I am afraid the carbolised catgut would slip out if the wound became œdematous. Further, the sutures should not be too near the commissure of the vulva; for we know this—*i.e.*, the fourchette—is often wounded in first cases, and the discharge (lochia) subsequent to deliver has to pass over this rough bridge, as it were, running down between the sore and irritating it; and if sutures were there, this would only increase the mischief. Besides, if a slight portion remain open, there will be more room for a subsequent delivery. I think a solution of Condy's fluid is the best preparation to use, the wound being covered with lint soaked in a solution of carbolic acid. I am of opinion that before the extraction begins with the forceps, the accoucheur should always await a pain, and pull gently but firmly in the direction of the axis of the outlet; but if the pains are gone, he should take his time and let the woman know he is assisting her, and allow the nurse to assist him. Cazeaux and Leishman appear to attribute perineal rupture to the shoulders alone, but I have my doubts whether, in some cases, even a too precipitate labour might not cause this accident. I believe, also, that the head itself, even in ordinary labour, might do it; and if extracted too quickly with the forceps, would easily do it.

Let these cases be a warning to young practitioners especially, not to be too sanguine of success, for this may be cut short by many an untoward occurrence. My second case recovered perfectly; and, having lost one, I was especially careful; but we lose our care when we are successful, and I know of many instances where "a little more care might have saved a few more lives". AN M.D. OF NEW YORK.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

THE thirty-ninth annual report of this institution, for the year 1879, is very satisfactory. During the year, the sanitary condition of the hospital has been excellent. The total expenditure amounted to £7,075, against an income of £7,698. At the beginning of the year, the sum of £2,281 was raised by a special appeal on behalf of the charity; if that amount be deducted from the income of the year, if credit be taken for one-third of the triennial Hospital Sunday collection, and if the sum derived from legacies be estimated on the average of the last five years, it will be seen that the committee have at last succeeded in balancing expenditure and income. The old debt, the remnant of an accumulation of many years of deficit, now stands at nearly £3,500. Arrangements are being made for a great bazaar in the Town Hall for the purpose of clearing off this burden. It is satisfactory that the debt has not been increased during the past year, and that it has been shown that the charity can be worked on its present income. The number of in-patients admitted during 1879 was 1,706, being 93 more than in the previous year. The out-patients have fallen from 14,220, in 1878, to 12,962. That this most satisfactory decrease in the least satisfactory part of the work of a large hospital, has been in some measure due to the efforts of the executive to guard the institution from abuse, is shown by the statement that 438 applicants have been rejected during the year as being able to pay for medical advice, 207 as being medically unfit for treatment at a hospital, and 21 as being cases for parochial relief.

THE BROMPTON PROVIDENT DISPENSARY.

THIS is a well organised dispensary, and, as it is situated in a central locality, we should be glad to see it more liberally supported by the gentry of the neighbourhood, and more largely used by the working classes. The past year, owing to the depression in trade and other causes, has been a trying year for provident principles; notwithstanding, the number of members now paying regularly shows an increase by 49 since this time last year. The year opened with 416 members on the books, 175 were added during the first six months, and 116 during the six months following, and there are at present 465 members paying regularly. Of the remaining 242, 20 have died, 28 have left the neighbourhood, some have allowed their payments to lapse, and many have re-entered and been registered as new members, so that some considerable deduction may be made from the number who appear to have dropped off in the course of the year. The members' payments for the year, not including fines or midwifery fees, amounted to £93 12s. 10d., *i.e.*, from January to June, £47 0s. 10d.; and from June to December, £46 12s. 0d.—showing an increase from last year of more than £20. In accordance with Rule XV, these sums were appropriated to the remumeration of the three medical officers, with a deduction of 20 per cent. from the first, and 15 per cent. from the second.

In accordance with the directions of the committee, £100 has been invested in £101 5s. 4d. 3 per cent. consols in the name of the treasurer. The balance in favour of the dispensary at the close of 1877, was £150 8s. 3d., which was reduced at the close of 1878 to £121 4s. 2d., and is now, after the investment of £100 in consols, £4 19s. 0d.

MR. ARTHUR GRAHAM has been appointed surgeon to the Midland Railway Company's Friendly Society, Nottingham and Melton Line.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-EIGHTH ANNUAL MEETING.

THE Forty-Eighth Annual Meeting of the British Medical Association will be held at Cambridge, on Tuesday, Wednesday, Thursday, and Friday, August 10th, 11th, 12th, and 13th, 1880.

President: DENIS C. O'CONNOR, A.B., M.D., Professor of Medicine in Queen's College, Cork.

President-elect: G. M. HUMPHRY, M.D., F.R.C.S., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

An Address in Medicine will be delivered by J. B. BRADBURY, M.D., F.R.C.P., Physician to Addenbrooke's Hospital; Linacre Lecturer in Physic.

An Address in Surgery will be delivered by TIMOTHY HOLMES, M.A., F.R.C.S., Surgeon to St. George's Hospital.

An Address in Physiology will be delivered by MICHAEL FOSTER, M.D., Hon. M.A., F.R.S., Prælector in Physiology in Trinity College, Cambridge.

The business of the Association will be transacted in Eight Sections.

SECTION A.: MEDICINE.—*President:* George Edward Paget, M.D., D.C.L., F.R.S., Cambridge. *Vice-Presidents:* George Johnson, M.D., F.R.S., London; P. W. Latham, M.A., M.D., Cambridge. *Secretaries:* W. B. Cheadle, M.A., M.D., 2, Hyde Park Place, London, W.; D. B. Lees, M.A., M.D., 2, Thurloe Houses, Thurloe Square, London, S.W.

SECTION B.: SURGERY.—*President:* William S. Savory, M.B., F.R.S., London. *Vice-Presidents:* William Cadge, F.R.C.S., Norwich; John Wood F.R.C.S., F.R.S., London. *Secretaries:* John Chiene, F.R.C.S.Ed., F.R.S.Edin., 21, Ainslie Place, Edinburgh; George E. Wherry, M.B., M.C., F.R.C.S., 63, Trumpington Street, Cambridge.

SECTION C.: OBSTETRIC MEDICINE.—*President:* W. S. Playfair, M.D., London. *Vice-Presidents:* H. Macnaughton Jones, M.D., Cork; Henry Gervis, M.D., London. *Secretaries:* R. N. Ingle, M.D., F.R.C.S., 21, Regent Street, Cambridge; C. E. Underhill, M.D., 8, Coates Crescent, Edinburgh.

SECTION D.: PUBLIC MEDICINE.—*President:* Henry W. Acland, M.D., LL.D., F.R.S., Oxford. *Vice-Presidents:* Arthur Ransome, M.A., M.D., Manchester; Thomas Pridgin Teale, M.A., F.R.C.S., Leeds. *Secretaries:* William Armistead, M.B., St. Mary's Villa, Station Road, Cambridge; Thos. J. Walker, M.D., 18, Westgate, Peterborough.

SECTION E.: PSYCHOLOGY.—*President:* J. Crichton Browne, M.D., LL.D., F.R.S., London. *Vice-Presidents:* G. F. Blandford, M.D., London; P. M. Deas, M.B., Macclesfield. *Secretaries:* G. M. Bacon, Hon. M.A., M.D., Lunatic Asylum, Fulbourn, Cambridge; Henry Sutherland, M.A., M.D., 6, Richmond Terrace, Whitehall, S.W.

SECTION F.: PHYSIOLOGY.—*President:* William Rutherford, M.D., F.R.S., Edinburgh. *Vice-Presidents:* Arthur Gamgee, M.D., F.R.S., Manchester; Robert McDonnell, M.D., F.R.S., Dublin. *Secretaries:* W. H. Gaskell, M.A., M.D., Grantchester, Cambridge; William Stirling, D.Sc., M.B., Marischal College, Aberdeen.

SECTION G.: PATHOLOGY.—*President:* Sir James Paget, Bart., D.C.L., LL.D., F.R.S. *Vice-Presidents:* Samuel Wilks, M.D., F.R.S.; W. Howship Dickinson, M.D. *Secretaries:* W. S. Greenfield, M.D., 15, Palace Road, Albert Embankment; Charles Creighton, M.A., M.D., Anatomical Museum, Cambridge.

SECTION H.: OPHTHALMOLOGY.—*President:* William Bowman, F.R.C.S., F.R.S., London. *Vice-Presidents:* Henry Power, F.R.C.S., London; Henry R. Swanzy, M.B., Dublin. *Secretaries:* W. A. Brailey, M.A., M.D., 38, King's Road, Brownswood Park, London, N.; David Little, M.D., 21, St. John Street, Manchester.

A Subsection of Otology will be formed, of which Mr. W. B. Dalby, F.R.C.S., of London, will be Chairman, and Dr. James Patterson Cassells of Newton Terrace, Sauchiehall Street, Glasgow, honorary secretary.

Treasurer: R. M. Fawcett, M.D., 3, Scrope Terrace, Cambridge.

Honorary Local Secretaries: Bushell Annington, M.A., M.D. (Hon. Medical Secretary), Walt-ham-sal, Barton Road, Cambridge; A. P. Humphry, Esq., M.A. (Hon. Reception Secretary), Corpus Buildings, Cambridge.

Letters relating to the strictly medical work (Sections, Museums, etc.) of the meeting should be addressed to Dr. Annington; other letters to Mr. A. P. Humphry.

TUESDAY, AUGUST 10TH, 1880.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1879-80.
8 P.M.—General Meeting. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 11TH.

9.30 A.M.—Meeting of Council of 1880-81.
11 A.M.—Second General Meeting. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.

THURSDAY, AUGUST 12TH.

9.30 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, AUGUST 13TH.

10 A.M.—Address in Physiology.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting.

SPECIAL NOTICE.

ACCOMMODATION IN CAMBRIDGE.

MEMBERS of the Association who propose to bring ladies to Cambridge on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, A. P. Humphry, Esq., 56, Corpus Buildings, Cambridge. The prices at which lodgings will be obtainable vary from three shillings to one guinea per day (inclusive of attendance) for a bed-room and sitting-room.

Hotels.—The following are the principal hotels in Cambridge.

"Bull" (Trumpington Street).—Bed, 3s. 6d.; sitting-room, 6s. to 10s. Attendance, 1s. 6d.; breakfast, from 2s.

"Lion" (Petty Cury).—Bed, 3s. 6d.; sitting-room, 5s. to 7s. 6d. Attendance, 1s. 6d.; breakfast, from 2s. 6d.

"Hoop" (Bridge Street).—Bed, 5s.; sitting-room, 7s. 6d. Attendance, 1s. 6d.; breakfast, from 1s. 6d.

"University Arms" (Regent Street).—Bed, 2s. 6d.; double bed, 3s. 6d.; sitting-room, 5s. Attendance, first day, 1s. 6d.; following days, 1s. Breakfast, with meat, 2s. 6d.; plain, 1s. 6d.

Applications for hotel-accommodation should be addressed direct to the landlords.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of this Branch will be held at the Bristol Museum and Library, on Wednesday evening, May 19th, at half-past seven o'clock; J. BEDDOE, M.D., President.

Clifton, May 1880. E. C. BOARD, *Honorary Secretary.*

NORTH OF IRELAND BRANCH.

THE annual meeting of this Branch will be held in the Belfast Royal Hospital, on Thursday, the 20th May, at 4 P.M. The members will afterwards dine together.

Members wishing to read any papers, or intending to be present at the dinner, will please communicate with

JOHN MOORE, M.D., *Honorary Secretary.*
2, Carlisle Terrace, Belfast, April 26th, 1880.

EAST YORK AND NORTH LINCOLN BRANCH.

THE annual meeting of this Branch will be held at the Hull Infirmary on Wednesday, May 26th, at 1.30 P.M.

Gentlemen who desire to make any communication, or to propose any resolution, are requested to inform the Secretary on or before May 15th. It has been decided that the time allotted to each communication shall be limited to fifteen minutes.

E. P. HARDEY, *Honorary Secretary.*
Regent Terrace, Hull, April 29th, 1880.

EAST AND WEST KENT DISTRICTS: CONJOINT MEETING.

A CONJOINT meeting of the above districts will be held at St. Bartholomew's Hospital, Rochester, on Thursday, May 27th, at 2 P.M. The chair will be taken by Dr. BOWLES of Folkestone, President of the South-Eastern Branch.

The dinner will take place at the Bull Hotel, at 5 P.M.; charge, 6s. 6d., exclusive of wine.

The following papers will be read:

1. Dr. Bowles: Observations on Stertor.
2. Dr. Golding-Bird: On the Galvano-Cautery.
3. Dr. Bell: Five Cases of Strangulated Hernia.
4. Mr. Tyson: Three Cases of Tracheotomy for Croup.

WILLIAM KNIGHT TREVES } *Hon. Secs.*
A. H. B. HALLOWES

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING of the above district took place at the Queen's Hotel, Upper Norwood, on March 11th, at 4 P.M.; WILLIAM GANDY, Esq., in the chair. Thirty members and visitors were present.

The Honorary Secretary.—The following resolution, proposed by Dr. BOWLES, President of the Branch, and seconded by Dr. HOLMAN, was unanimously passed: "That the best thanks of this meeting be given to Dr. J. H. Galton, for his able, zealous, and courteous discharge of the duties of District Honorary Secretary during the past six years." Dr. J. Herbert Stowers was elected Honorary Secretary.

Papers.—The following papers, etc., were read:

1. Dr. W. F. Coles: On Aids to Lingering Labour. Dr. Coles also described and exhibited a new instrument, which he considered will prove of much value to obstetricians, often taking the place of forceps, and capable of being applied with both rapidity and safety.
2. Dr. J. S. Bristowe: On Ulcerative Endocarditis.
3. Mr. A. E. Durham exhibited a specimen of Wound of the Heart, and a drawing.

The following took part in the several discussions: The Chairman, Drs. R. L. Bowles, J. S. Bristowe, W. F. Coles, H. Hetley, C. Holman, D. W. C. Hood, R. M. Miller, S. Parsons-Smith, J. Walters; and Messrs. A. E. Durham, E. H. Galton, and the Honorary Secretary.

Next Meeting.—The following resolution was passed. Proposed by by Dr. J. H. GALTON, and seconded by Dr. W. F. COLES: "That the next meeting of the District be held at Reigate, on Thursday, October 14th."

Dinner.—Eighteen members sat down to dinner.

SPECIAL CORRESPONDENCE.

MELBOURNE.

THE Health Section of the Social Science Congress held their first meeting last week; the President, Dr. McCrea, in the Chair. Papers are invited on the following subjects, which are to be discussed: 1. Ventilation in all its bearings; 2. The Disposal of Noxious Gases; 3. Drainage and Sewage; 4. Water; 5. Food and Drink; 6. Contagious Diseases and their Prevention; 7. The Registration of Diseases; 8. Poisons; 9. Recreation; 10. Keeping and Killing of Animals for Food. Dr. Neild, who has been lately elected a member of this Committee, has been unanimously appointed honorary secretary to the same. The activity shown in this department augurs well for its results, the Committee itself consisting of the best representative men.

A movement which is assuredly growing in importance and engaging the public mind is the foundation of a paying or self-supporting public hospital, on the principle of the home hospitals. The originator of this proposed scheme is Mr. William Gillbee. At a meeting of the Committee of Management of the Melbourne Hospital, Mr. Gillbee moved a resolution to the effect that a self-supporting hospital will be the means of meeting a serious want; that it will be of great service in preventing the hospital abuse which at present exists; that it will meet the cases of many classes of people who at present, when attacked by illness, are unable to procure, for a payment within their individual means, the medical attendance, skilled nursing, and home comforts which they need. Mr. Gillbee strongly opposes the idea of paying wards in a hospital. He states that this would have the effect of breaking down the discipline and management of the institution, if it were allowed; that a mixed community of paying and non-paying patients would be detrimental to the hospital. He proposes that a suitable building be procured, and that the rent or purchase of the building be defrayed by debentures. I think that this proposition is a good counter-action to that spirit of pauperism which characterises the origin of our impositions, and thereby a means of preventing habits of improvidence and recklessness among the wage-earning classes of our community.

March 18th, 1880.

CORRESPONDENCE.

THE REPRESENTATION OF THE UNIVERSITY OF LONDON.

SIR,—I have to express my acknowledgments to Dr. Horace Jeaffreson for his sentiments on my behalf with regard to the representation in Parliament of the University of London. The moment I understood that Sir William Gull would allow himself to be put in nomination, I used my best endeavours on his behalf, feeling sure that he would be a far more acceptable representative than myself, and far more likely to carry weight in Parliament. I have also every hope that his heart is in favour of medical reform, and that he will protect the interests of his medical brethren in the public services. In the face of Sir W. Gull's candidature, I feel a certain amount of disappointment at the support given by members of our profession to other candidates.—Yours truly, ALFRED CARPENTER.

Croydon, May 5th, 1880.

SIR,—In a letter on the representation of the University of London Dr. Rogers says: "I believe I am correct in asserting that by far the largest number of graduates are members of the medical profession.' I would point out to him that the list of members of Convocation contains 1,819 names, or thereabouts; and that, of these, only 460 are medical graduates. We, therefore, form, as nearly as possible, only a quarter of the constituency. Under these circumstances, it would, I fear, be impossible for us to expect to return a member of our profession, unless he happened to be also a man of marked eminence in general politics and statesmanship.

The late election showed that two-thirds of the graduates belong to the Liberal party; and it showed, if I mistake not, that a large majority of the medical graduates voted for the Conservative candidate. It would, therefore, be an unfortunate time for us to start a medical candidate, as such. In times of great national importance, when questions of vital interest to England are at stake, it is, I think, our duty to be "citizens" first and "doctors" afterwards. As a Liberal, I, of course, exceedingly regret that so many of our medical graduates should have thought fit to throw in their lot with the opposite party. It used not to be so; but I am bound to believe that they were actuated by motives of public duty.—I am, sir, yours very truly,

W. L. WINTERBOTHAM, M.B.Lond.

Bridgwater, May 3rd, 1880.

SIR,—May a Conservative Member of Convocation offer a remark or two upon the letter addressed by Mr. Fowler, the Chairman of Mr. Charles's Committee, during the recent contest to one of the secretaries of Sir George Jessel's Committee? This letter has been issued as a circular to the Conservative graduates. The effect of it will probably be, that some Conservatives at least may be induced to support Sir George Jessel, in the belief that he is, in the judgment of the active members of their party, the most acceptable candidate. It should be understood that the Conservatives have taken no collective part in the present contest. Mr. Fowler has no authority to speak on their behalf. A very large proportion of the Conservative Members of Convocation are graduates in Medicine and Science. Many, probably most of them, think there are lawyers enough in the House; that we are lawyer-ridden enough as it is; whilst the men fitted to represent science might be counted on one's fingers. Accordingly, lacking a Conservative candidate, their sympathies are largely in favour of the claim of Sir John Lubbock, our Vice-Chancellor, who would carry into the House literary culture, eminent scientific capacity, and the confidence and esteem of the scientific world.—I am, etc., M.D.LOND.

SURGICAL STATISTICS.

SIR,—Your judicial summing up in the BRITISH MEDICAL JOURNAL of April 10th induces me to ask your publication of the following remarks, seeing that, by your editorial pen, special emphasis is laid on Professor Lister's advocacy of what he terms "a principle". My reason for taking part in the discussion is lest the bulwarks of surgery be overthrown. Professor Spence, having taught surgery for nearly half a century, is apprehensive of the fundamental truths on which the art is based becoming swept away (in one fell swoop) by a new method of treating wounds, properly termed Listerism, but improperly, I think, called the antiseptic method. He considers that there are varieties of lacerated wounds, as every general practitioner knows there are various kinds of coughs. Some lacerated wounds will heal kindly by the use of cold pure water, while others heal better when dressed with medicated water; just as some coughs are relieved by sedatives, others by stimulants. Whatever Professor Lister's teaching to his students may be, from his published communications I am inclined to infer that he pays little attention to constitutional conditions. If such be the case, his pupils, as practitioners, will soon find themselves in trouble. No one knows so well as an observant general practitioner the value of attention to minute details, which prevent him from erring in prognosis and in treatment. Professor Spence's statistics, as I can testify, prove the excellent results to be attained by so-termed "simple" dressings after surgical operations; and, though the percentages thus obtained are, when taken as a whole (that is, irrespectively of constitutional conditions and like circumstances), not seemingly so good as those afforded by the Listerian method, still they indicate the importance of attention to other points than merely the wound. Listerism has conferred a most valuable boon on surgery by proving the importance of *cleanliness* and *rest* in the treatment of wounds; but to preach this method as a panacea against pyæmia, septicæmia, and erysipelas, is to reduce the art of surgery to a low level.

It is, however, a matter of surprise to me, that some of the numerous surgeons throughout the country have not gone systematically to work to learn what is "sepsis", and under what conditions the so-termed antiseptics become most potent. As shown by Mr. Vacher and myself in our Reports on the Life-History of Contagium (BRITISH MEDICAL JOURNAL, 1875-76-77), several of the surgically termed antiseptics are not destroyers of vaccine-contagium, and are, therefore, probably not at all, or are only slightly, destructive of germ-life. Hence we may infer that such bodies get the credit due to other conditions, when spray is applied surgically, and act probably, as Mr. Savory eloquently testified in his Surgical Address at Cork, as irritants and retarders of the healing process. To suppose a germ, surgical or medical, to be capable of destruction by a spray such as is to be seen where the Listerian method is employed, is to me equally conceivable with the drowning of a fly by a shower of rain. We have as yet had no statistics as to the results of surgical operations performed under improved conditions of cleanliness, such as are derivable from increased temperature; for example, soaking sponges in *boiling* water before they are used, and washing wounds with steam-spray. Supposing this means proves insufficient, the next step would be to purify the atmosphere by generating some germicidal gas, as ozone, sulphurous acid, chlorine, etc. (several of which we have demonstrated in our contagium reports); and thus, in my humble opinion, operating in an antiseptic atmosphere and under antiseptic conditions will be more nearly and easily reached than by Listerism. The observations on which was based my Fothergillian Essay (an epitome of which has appeared in the London Medical Society's *Proceedings*, vol. iv, and which I hope ere long to lay before the profession), along with others made since that was written, have proved to me that little is known about the constitutional or local conditions favourable to the development of septicæmia and pyæmia.

When we learn from Professor Spence that, after trying various methods of treatment (including Listerism) during a practice of over forty years, he has returned at last to the use of the simplest, we cannot help desiring that other surgeons would act likewise, and give us the benefit of their experience. Professor Spence's twelve amputations at the hip-joint with five recoveries, against Professor Lister's three, all of which died, show that constitutional conditions dare not be cast aside. Again, Professor Spence's thirty-eight excisions of the mamma with two deaths, *versus* Professor Lister's thirty-eight with three deaths, speak decidedly in favour of simple dressings. In no line of surgical practice is Listerism likely to be so victorious as in excision of the mamma, seeing that in such operations no bony nor articular tissue is invaded by the knife.

We have further before us other important testimony to the simple method of surgical treatment, and one which has been too much overlooked. Dr. McVail's paper in the BRITISH MEDICAL JOURNAL of March 20th, 1880, states that, among five hundred and thirty-seven serious surgical cases treated during the past three years in the Kilmarnock Infirmary, there was a mortality of "1.1 per cent." Among these, one hundred and seven operations were performed with a mortality of "2.8 per cent." He says: "In the five years and three-quarters chosen by Mr. Lister, the mortality from operations was 4.4 per cent.; Dr. Borland's was 2.8. Mr. Lister had eighty major amputations, with nine deaths, or 11.25 per cent.; Dr. Borland had thirty-four, with three deaths, or 8.8 per cent. The former had sixteen primary amputations, with four deaths; while the latter had eight, with two deaths; so that here the ratio is the same." The value of statistics may be readily overestimated; but they are of value, and as such cannot be overlooked.

My desire in troubling your readers with these remarks is to warn the rising generation of surgeons against the empiricism liable to be engendered by generalisations, and to induce them to study most carefully the various phases of "sepsis" in the treatment of surgical wounds.—I remain yours truly, P. M. BRAIDWOOD.

17, Rodney Street, Liverpool, April 1880.

PHYSICIANS AND PATIENTS.

SIR,—F.R.C.P. gives two cases, and says "What should I have done?" How does this method of dealing with these cases strike him? I will quote the first as I should have dealt with it.

A patient comes twenty miles to consult me. I find he has been till the last week under the care of his ordinary medical attendant, a friend of my own. I prescribe for him. I communicate this fact, and my opinion on the case, to the medical attendant (telling the patient that I am doing so), and I advise the patient to continue under his treatment.

Would it not have been also better to follow a similar course in the second case?

The patient is ignorant. *Assume* a consultation. Prescribe, and communicate with the ordinary medical attendant. You show your good faith, and none of the three interests suffers.—Yours, etc.,

April 1880. M.D.

SIR,—From the practitioner's point of view, I should like to give my experience of the matters adverted to by F.R.C.P. in your last issue. My rule of conduct has been to sink self in the case of really serious illness, and to overlook any inattention to etiquette on the part of my patient, knowing how exacting human nature is on such occasions. On the other hand, when a captious fractious patient shows a want of confidence, and goes to town and consults another without acquainting me, I leave him thereafter to his own devices. In such a case, the course followed in this part of Yorkshire among consultees is, to give an opinion and communicate by next post with the ordinary attendant.

In my opinion, the remedy for the occasional unfortunate *contretemps* of your correspondent is, not to send the consulting one about his business, but to prescribe for him through his usual family attendant by letter, not forgetting to read him a sound lecture on his want of generous confidence. But, after all, a line of conduct is difficult to draw; offences must come, and require forbearance on all hands. And yet it has often struck me that a little more independence on the part of the fraternity would do more than anything else in educating the lower middle classes at least as to the measure of trust they ought to place in surgeons and consulters. I have lived ten years in this neighbourhood, and without boast can say I have brought about a wonderful reformation, in that time, in the public estimate as to how medical men are to be treated.—I am, etc., M.D.

Near Leeds, April 26th, 1880.

SIR,—*A propos* to the remarks made by F.R.C.P. in his letter to the JOURNAL of the 24th ultimo, I find from experience that many London consultants are not so tenacious of their neighbour's welfare as he is. A few years ago, I had a patient under my care whose friends wished him to see a London surgeon. I had to make the selection; and wrote to the gentleman, giving him particulars of the case, asking his opinion on it; and made the appointment as to the most convenient time for the patient to visit him.

My patient went up, saw the surgeon; was given a prescription, and told to call again in a fortnight's time; but from that day to this, I have not heard from the consultant.

My patient, being one of the upper class, a military officer, was greatly nettled by such conduct, and, as a matter of course, did not trouble him again; and I guess it is needless for me to state that I never did. Lately, I had under my care a lady, the subject of an obscure uterine enlargement, verified by one of the leading practitioners in this town. Her friends being very anxious and uneasy about her, I suggested that she should consult a London specialist, mentioning his name. The patient, however, and her friends expressed themselves perfectly satisfied with the opinions given and the treatment adopted. To my surprise, in a short time I found that they had clandestinely gone up and consulted the physician. A prescription was supplied, but it was taken to be dispensed to a third practitioner, who for some months has continued to do so; although I have, on being called in to attend other members of the family, been assured that he has never been consulted by the patient, and that he is, as far as she is aware, perfectly ignorant of the character of her ailment. Such is the treatment to which provincial practitioners, unless comparatively independent, are obliged to submit.—I am, sir, yours faithfully,

Cardiff, May 3rd, 1880. THE DUPE.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

SIR,—At a meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt Court, Fleet Street, last Monday evening, it was decided to seek an interview as early as may be practicable with Mr. Dodson, the newly appointed President of the Local Government Board, for the purpose of impressing on him the expediency of so amending the Poor-law Medical Officers' Superannuation Act as to secure that, in all proper cases, superannuation allowance shall be granted by all local boards, subject to the initiation of the Local Government Board. The Council already possesses information as to several cases of special hardship where superannuation has not been granted; but, with the view to making their case as complete as possible, they would feel obliged if Poor-law medical officers would supply any instances that have come to their knowledge where superannuation allowance has been refused. To make such information really useful, it will be necessary that the name of the ex-medical officer of the union, the term during which he held office, his age, and the grounds (if any) given for refusing superannuation, should be supplied. As I am engaged in drawing up a memorial which we propose to present to the President, I shall be much obliged if gentlemen will forthwith send any such information to me.—I am, sir, yours obediently,
JOSEPH ROGERS, Chairman of Council.

33, Soho Square, May 4th, 1880.

DUNGANNON UNION.

A CASE of considerable interest to dispensary medical officers was decided at Dungannon Quarter Sessions last week. Drs. Jameson, Kydd, Browne, and Leatham, medical officers of the various dispensary districts in the union, proceeded against the Dungannon Board of Guardians by civil bill process, the cause of action having arisen in the following way. It appears that, early in 1879, a majority of the board of guardians, from economical motives, at a special meeting, carried a resolution reducing all the salaries of the officers of the union by fifteen per cent. The medical officers objected to this proceeding, and petitioned the Local Government Board, who communicated with the guardians, and refused to sanction the proposed reduction. The guardians, however, were obstinate, and declined to be guided by the Local Government Board, asserting their right to alter and fix the salaries of their officers. Cheques were filled for the salaries of the medical officers as reduced, and forwarded to them, but in every case were returned, and processes issued against the guardians for the recovery of the balance. The Chairman, after a lengthened hearing, ruled that the Local Government Board was the supreme authority in fixing and regulating salaries and matters of the kind; and that, as their authority was conveyed to the guardians by sealed orders directing them to continue the salaries as originally arranged, the plaintiffs were entitled to decrees with costs.

MALLOW UNION.

AT a meeting of the guardians of this Union, held on the 30th ultimo, it was proposed that the salary of Dr. Fitzgerald, medical officer of the workhouse, should be increased from £100 to £120 *per annum*. The Chairman spoke in high terms of Dr. Fitzgerald, and warmly recommended the considerable reduction he had effected in the amount of stimulants used in the hospital. For the increase, twelve voted; and five against; the resolution granting the increase being adopted.

ROYAL COLLEGE OF SURGEONS.—At the primary examination for the diploma of membership of the Royal College of Surgeons, *i.e.*, in Anatomy and Physiology, which has just been concluded, there were one hundred and fifty-four candidates, out of which number no less than forty-six failed to acquit themselves to the satisfaction of the Board of Examiners, and were consequently referred to their studies for three months, including three who had an additional three months.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY. — On Saturday morning, the ceremony of the distribution of prizes awarded at the close of the winter session, 1879-80, took place in the theatre of the above-named institution, in the presence of the staff. The prizes were awarded as follow. First medical prize, Mr. E. E. Lennon; second medical prize, Mr. Austin Cockle. Senior surgical prize, Mr. A. H. Murray; junior surgical prize, Mr. John Mullins.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on April 29th, 1880.

Bailey, Robert Greenoak, Public Dispensary, Leeds.
Billiald, Richard Atherstone, Kington, Herefordshire.
Bovill, Henry Howard, 32, James Street, Buckingham Gate, S.W.
Bush, Erasmus, New Thornton Heath, Croydon.
Butler, Herbert Paton, Lambeth Infirmary, S.E.
Chaffey, Wayland Charles, 28, Cedars Road, S.W.
Challinor, Samuel Macmillan, Bolton.
Clark, William Thomas Marston, Cross Deep, Twickenham.
Dickinson, Thomas Vincent, 33, Sloane Street, S.W.
Gibbs, Alfred Napier Godby, Clifton, Bristol.
Hartley, John, Middlesex Hospital, W.
Henty, Sydney Haviland, 308, Camden Road, N.
Hine, Henry, Nottingham.
Holland, Edward Wilmot, 140, York Road, S.E.
Kemp, John Robert, Richmond, Surrey.
Pepler, William Henry, St. Bartholomew's Hospital, E.C.
Plummer, Charles Joseph, 3, Wilton Terrace, S.E.
Rake, Beavan Neave, Guy's Hospital, S.E.
Renner, Charles, M.D.Würzburg, 42, Harley Street, W.
Spackman, Henry Robert, 14, Percy Circus, W.C.
Stevenson, Frederick Coney, M.B.Toronto, Castletown, Isle of Man.
Wheeler, William Henry, 63, King Edward's Road, E.
Wilkins, Henry George Gastrill, Ealing, W.
Williams, William Daniel Campbell, 116, Gower Street, W.C.

The following gentlemen were admitted Members on April 29th 1880.

Dunbar, James John Macwhirter, M.B.London, 77, Ladbroke Grove, W.
Lubbock, Montagu, M.B.London, 6, Foulis Terrace, S.W.
O'Connor, Bernard, M.D. Queen's University, 40, Brook Street, W.
Tirard, Nestor Isidore Charles, M.B.London, King's College, W.C.
Whittle, Ewing Mould Glynn, M.D.Dublin, Cambridge.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 29th April, and, when eligible, will be admitted to the pass examination.

Messrs. St. John O. Rands, Maurice P. Jones, Alfred Searle, Arthur T. F. Brown, George H. Graham, and Charles E. Beebe, students of Guy's Hospital; Hugh Rayner, Arthur R. Rackham, Frederick Stroyan, and Frederick J. Paley, of St. Bartholomew's Hospital; William D. Halliburton, John E. Penn, and Francis G. Penrose, of University College; Francis E. Marston and Edward C. Maynard, of St. Thomas's Hospital; Hugh St. D. Griffiths and Edward Corner, of King's College; Charles H. Wise, of the Westminster Hospital.

Six candidates were rejected.

The following gentlemen passed on the 30th ultimo.

Messrs. Arthur Shadwell, Thomas G. C. Evans, Stanley S. Hoyland, Dence J. Slater, Arthur J. Williams, and Frank Broadbent, of St. Bartholomew's Hospital; Robert T. N. Samuel, Robert N. Fenner, Edwin C. Tatham, and Herbert W. S. Verity, of King's College; Richard W. Brogden, George Kendall, and Thomas Carr, of Guy's Hospital; Howard Downes, Edward A. Dingley, and George E. Perry, of University College; Henry U. Bromley, of St. Mary's Hospital; George Locke, of the Charing Cross Hospital.

Six candidates were rejected.

The following gentlemen passed on the 3rd instant.

Messrs. Arthur H. Roberts, Howard W. Hunt, Arthur Maude, Edward R. Williams, Edmund W. Roughton, and Ernest Wilcox, of St. Bartholomew's Hospital; Arthur J. Stiles, Henry P. Birch, W. Vernon Shone, and George H. Fink, of University College; Robert H. S. Spicer, Walter R. Tytheridge, P. Percival Whitcombe, of St. Mary's Hospital; William F. Lace, Charles J. W. Tatham, and Edward B. Townsend, of King's College; William T. F. Davies, Sidney Worthington, and Alfred E. C. Woodhouse, of Guy's Hospital; Rolla E. Rouse, St. Thomas's Hospital.

Four candidates were rejected.

The following gentlemen passed on the 4th instant.

Messrs. George H. Vos, James R. Payne, and Walter Overend, of St. Bartholomew's Hospital; R. Hamilton Russell, of King's College; Francis A. Stokes, of University College; H. Swetenham Turner, of St. Mary's Hospital.

Four candidates were rejected, including one who had an additional three months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, April 29th, 1880.

Pestonji, Bejanji, Bombay.
Williams, William Rees, 40, Cambridge Street, S.W.

The name of George S. Clarke was omitted from the list of candidates who passed the Preliminary Examination in Arts (second class), April 23rd and 24th.

UNIVERSITY OF DUBLIN.—At the First Commencements in Trinity Term, held on Thursday, April 22nd, in the Dining Hall of Trinity College, the following Degrees in Medicine and Surgery, and Licence in Medicine, were conferred by the University Caput.

Master in Surgery.—John Benjamin Story.
Doctor in Medicine.—Charles Richard Whitty.
Licentiate in Medicine.—George Brazier-Creagh.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners held on April 19th and 20th, the undernamed gentlemen were admitted to the Fellowship of the College.

Banks, Dr. Samuel Henry, Surgeon-Major H. M. Bombay Army.
Potter, Dr. Henry, Surgeon-Major H. M. Bengal Army.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

*BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications to the Honorary Secretary on or before May 30th.

*BELGRAVE HOSPITAL FOR SICK CHILDREN—House-Surgeon. Stipend, £30 per annum, with board and lodging in the hospital. Applications, with testimonials, to the Honorary Secretary on or before May 30th.

*BIRKENHEAD BOROUGH HOSPITAL—Junior House-Surgeon—Salary, £60 per annum, with board, lodging, etc. Applications, with testimonials, before May 11th.

CUMBERLAND INFIRMARY, Carlisle—House-Surgeon. Salary, £100 per annum, with board and lodging. Applications, with testimonials, to the Secretary on or before May 11th.

*DUDLEY DISPENSARY—Resident Medical Officer. Salary, £120 per annum, with apartments, coals, and gas. Applications, with testimonials, to the Honorary Secretary before May 22nd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications, with testimonials, on or before May 8th.

LIVERPOOL INFIRMARY FOR CHILDREN—Assistant House-Surgeon. Remuneration, £50 per annum.

*LONDON HOSPITAL, Whitechapel—Sixth Assistant Physician. Applications, with testimonials, on or before May 24th.

NOTTING HILL PROVIDENT DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished apartments, firing, lighting, and attendance. Applications, with testimonials, to the honorary secretary on or before May 25th.

PARISH OF BIRMINGHAM, MARSTON GREEN COTTAGE HOMES—Medical Officer. Salary, £100 per annum. Applications not later than May 11th.

*ROYAL FREE HOSPITAL, Gray's Inn Road—Junior Resident Medical Officer. Applications, with testimonials, to the Secretary on or before May 19th.

ROYAL ISLE OF WIGHT INFIRMARY, Ryde—House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications, with testimonials, not later than May 18th.

SPILSLEY UNION—Medical Officer for the Stockney District.

SUNDERLAND UNION—Medical Officer for Bishopwearmouth East District.

*TORBAY HOSPITAL HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications, with testimonials, to the Honorary Secretary not later than May 22nd.

*UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications, with testimonials, not later than May 18th.

WALLINGFORD UNION—Medical Officer for the Dorchester District. Salary, £100. Applications on or before May 17th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CHAFFEY, Weyland C., M.R.C.S., appointed House-Surgeon to the Victoria Hospital for Children, *vice* Paul Tarleton, L.R.C.P.Ed., resigned.

CHISHOLM, J. M., M.A., M.B., appointed Junior House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* R. Wearing, M.D., resigned.

DAVIES, A. Mercer, L.S.A., appointed House-Physician to the Westminster Hospital, *vice* Seaton G. Hamilton, M.R.C.S.

HARKNESS, Thomas, M.B., appointed House-Surgeon to the Inverness Northern Infirmary, *vice* D. S. Macdonald, M.B., resigned.

*NEILL, Channing, M.D., appointed Honorary Physician to the Ryde Dispensary.

*ROSS, James J., M.D., appointed Consulting Physician to the Inverness Northern Infirmary.

*RYERSON, G. S., M.D., appointed Lecturer on Ophthalmology in Trinity Medical School, Toronto, Canada.

TAYLOR, George, M.B., appointed Junior House-Surgeon to the Cheltenham General Hospital and Dispensary, *vice* William Shaw, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

COGHILL.—At St. Catherine's House, Ventnor, I.W., on the 30th ultimo, the wife of J. G. Sinclair Coghill, M.D., F.R.C.P.Edin., of a son.

MARRIAGES.

DUNCAN—GALT.—On April 29th, at St. Andrew's Church, Southport, by the Rev. Thos. Eagar, M.A., Rector of Ashton-under-Lyne (uncle of the bride), assisted by the Rev. Prebendary Cross, M.A., Vicar of St. Andrew's, James Duncan, M.B., Ashton-under-Lyne, to Maria, youngest daughter of the late John Galt, F.R.C.S.E.

EBERLE—HOBSON.—On the 1st instant, by licence, at Hornby Church, near Bedale, Yorkshire, John James Eberle, Physician of the Medical College, Easingwold, Yorkshire, to Lucy Elizabeth, elder daughter of Joseph Hobson, of the same town.

SHAND—TRACEY.—On April 10th, at the British Legation, Berne, Henry M. Shand, M.D., Aberdeen, to Mary G., youngest daughter of the late Frederick Tracey, Esq., of New York.

DEATH.

*MITCHELL.—Suddenly, on the 29th April, J. T. Mitchell, Esq., M.R.C.S., 206, South Lambeth Road, aged 51.

PUBLIC HEALTH.—During last week, being the seventeenth week of this year, 3,596 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 22 deaths annually in every 1,000 persons living. The annual death-rate was 22 in Edinburgh, 22 in Glasgow, and 38 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Brighton 14, Wolverhampton 14, Portsmouth 16, Sunderland 17, Hull 18, Bristol 18, Sheffield 19, London 20, Birmingham 20, Leeds 20, Newcastle-upon-Tyne 21, Bradford 21, Salford 21, Norwich 22, Leicester 22, Oldham 26, Manchester 26, Nottingham 28, Liverpool 28, and again the highest rate 36 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 2.9 per 1,000 in the twenty towns, and ranged from 0.7 and 1.1 in Wolverhampton and Leeds, to 3.9 in Nottingham and Salford, and 16.0 in Plymouth. In London, 1,387 deaths were registered, which were 201 below the average, and gave an annual death-rate from all causes of 19.8 per 1,000, a lower rate than has prevailed in any week since October last. The 1,387 deaths included 18 from small-pox, 31 from measles, 35 from scarlet fever, 15 from diphtheria, 78 from whooping-cough, 13 from different forms of fever, and 12 from diarrhœa—altogether, 202 zymotic deaths, which were 47 below the average, and were equal to an annual rate of 2.9 per 1,000. The deaths referred to diseases of the respiratory organs, which had declined from 395 to 294 in the four preceding weeks, fell to 260 last week, and were 80 below the average; 153 resulted from bronchitis, and 73 from pneumonia. Different forms of violence caused 61 deaths; 46 were the result of negligence or accident, including 17 from fractures and contusions, 5 from burns and scalds, 8 from drowning, and 11 of infants under one year of age from suffocation. No fewer than 13 cases of suicide were registered. At Greenwich, the mean temperature of the air was 44.8°, and 3.7° below the average. The general direction of the wind was north-easterly, and the horizontal movement of the air averaged 14.6 miles per hour, which was 3.4 above the average. Rain fell on three days of the week, to the aggregate amount of 0.08 of an inch. The duration of registered bright sunshine in the week was equal to 44 per cent. of its possible duration.

A VERY sensible recommendation was appended to the verdict of the jury which on Wednesday last was empanelled to inquire into the deaths lost at a fire at the warehouse of Messrs. Hodgkinson, druggists, in Aldersgate Street, on Friday last. The verdict was as follows: "We are agreed that the fire arose from accidental causes, but we are of opinion that great carelessness was shown in permitting the use of a naked gaslight in a room containing inflammable oils, and recommend that future accidents be guarded against by the use of a wire gauze surrounding the burner, and the use of a fixed instead of a hinged gas-bracket."

WE regret to announce the sudden death of Miss Mary Merryweather, the Lady-Superintendent of the Training School for Nurses for Westminster Hospital. A long controversy at the hospital had just been closed by a resolution expressive of a desire to continue the work of the nurses. Miss Merryweather had been seized by her mortal illness before hearing of this event, and died of apoplexy early on Wednesday morning. She and her sister, after a successful labour in the same work at Liverpool, had been transplanted to Westminster in 1874 by the instrumentality of Lady Augusta Stanley; and some of the great improvements manifest in the Westminster Hospital since that time are owing to her care and supervision.

SAMARITAN FREE HOSPITAL.—On Tuesday last, May 4th, a concert was given by Miss Holland's choir at Grosvenor House, by kind permission of the Duke of Westminster. The entertainment, which was in aid of the extension fund of the hospital, consisted chiefly of Bach's musical version of Schiller's "Lay of the Bell". It was highly successful, a large and fashionable audience being present. The sum of £159 was collected by tickets, exclusive of £10 in donations.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—The thirty-second anniversary festival in aid of the funds of this hospital was held on the 28th ult., under the presidency of Mr. C. T. Ritchie, M.P. The chairman, in proposing the principal toast of the evening, said that since its establishment, in 1855, as many as 340,000 persons had been relieved. The committee were unable to make use of forty beds standing unoccupied for want of funds. A large amount had been subscribed for the support of the hospital by that class of persons for whose benefit it was especially intended. The Bethnal Green Working Men's Society had given altogether £2,300; the Mile End New Town Working Men's Society had subscribed £700; the Hackney Road Working Men's Society, 250 guineas; the Stepney Benevolent Society, 300 guineas; the Mutual Friendly Aid Society, 280 guineas; and the East End Society Fund, £1,000. Subscriptions were announced amounting to about £3,200.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY........	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Lawson Tait, 1. "Third Case of Extra-Uterine Gestation, treated by Abdominal Section"; 2. "On the Treatment of Pelvic Suppuration by Abdominal Section and Drainage"; Mr. Fredk. Eve, "On a Case of Subcoracoid Dislocation of the Humerus, without laceration of the Capsule".

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Barwell, "On Section of the Femur above the small Trochanter for Angular Ankylosis of the Hip"; Dr. Greenhow, "Ten Cases of Rheumatic Fever treated with Salicin"; Dr. Greenhow, "Fifty Cases of Rheumatic Fever treated with Salicylate of Soda"; Dr. Graily Hewitt, "A Case of Acute Hysterical Vomiting of ten months' duration, caused by Displacement of the Uterus"; Mr. Henry Morris, "Two Cases of Disease of the Mastoid Bone, in one of which a severe attack of Herpes of the Face followed Thrombosis of the Jugular Vein and Lateral Sinus". Dr. Stephen Mackenzie will show a case of Anterior and Posterior Polio-myelitis following Small-pox.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

NOTICE TO ADVERTISERS. — Advertisements for insertion in the BRITISH MEDICAL JOURNAL should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

PRESCRIBING DRUGGISTS.

SIR,—Can you inform me whether a druggist can be prosecuted under the Apothecaries' Act for prescribing over the counter? We have one here, who boasts that he does no retail, but gets a living entirely by prescribing. Owing to his "cheap Jack" eloquence, he attracts immense numbers of the better class of people, whom he supplies with medicine at eightpence a bottle.—I am, sir, yours, etc., W.

⁂ An unqualified person practising as our correspondent describes can be prosecuted under the Apothecaries' Act.

DR. DOBELL'S SEDIMENT-COLLECTOR.

SIR,—Will you kindly permit us to state that we made this instrument, in accordance with Dr. Dobell's instructions, so far back as May 1879.—We are, your obedient servants,
S. MAW, SON, AND THOMPSON.
7 to 12, Aldersgate Street, London, E.C., May 3rd, 1880.

BROTHERLY KINDNESS.

SIR,—There can be very little doubt that the case to which you have so properly directed attention was one of central detachment of the placenta, and that Mr. Smith was entirely free from blame. Some years ago, Dr. Oldham published a series of cases of this kind in *Guy's Hospital Reports*, which fully explain why it is that the patient is moribund before help can be given.

Many years ago, I was asked to see a case of this sort for a brother practitioner in his absence. On my arrival, I found the woman dying. She lived only a few minutes after my arrival. She had been working in the fields, when she "felt something snap inside her"; she went home, being near the time of her confinement. Attempting to pass water, there was a sudden gurgle of hæmorrhage, nearly filling the utensil. I found her blanched and pulseless; the os undilated; no sound of fœtal heart. As the case was in the country, more than an hour had elapsed since the hæmorrhage, and the patient was at the point of death. Any interference was simply impossible. At the *post mortem* examination, the placenta was found to be detached centrally, exactly as in Dr. Oldham's case.—I am, yours truly,
M.D.

SIR,—I have just read, at page 659 of the BRITISH MEDICAL JOURNAL, the notes of a case of sudden death from so-called accidental uterine hæmorrhage, reported by Mr. W. J. Smith of Rotherham. A case precisely parallel to that related by Mr. Smith occurred three years since amongst the patients of the Western General Dispensary. The woman, aged about 26, in her third pregnancy, and at the eighth month, mounted on a chair, and stood partly on it, partly on the edge of a dressing-table, in order to adjust a window-blind. The latter coincidence is very remarkable. While in that position, with her arms extended upwards, she slipped and fell, the enlarged and prominent abdomen coming probably into violent contact with the small table on which her right foot had rested. Profuse hæmorrhage, just as in Mr. Smith's case, immediately ensued, while the poor woman lay in a prostrate condition on the floor. Not a moment was lost in summoning the house-surgeon from the Western General Dispensary, close by; and he, on his arrival, immediately despatched a messenger and cab for me. I followed instantly, but only to find the room deluged with blood, and the patient a corpse. She had died within half-an-hour after the accident; and the house-surgeon, Dr. Tidbury, a competent obstetrician, as well as one of our midwives, who first saw her, assured me there was not time for anything to be done. No inquest was held; and the husband, who was greatly afflicted by the occurrence, which took place while he was absent at work, would not hear of a *post mortem* examination.—I am, etc.,
T. FITZPATRICK, A.M., M.D., late Honorary Physician Accoucheur to
April 30th, 1880. the Western General Dispensary.

"SISTER DORA" AND THE CHOPPED-OFF FINGER.

SIR,—Can any of your readers give information of the name of the surgeon of the Walsall hospital referred to by Miss Margaret Lonsdale in the following paragraph, which I extract from that lady's *Biography of Sister Dora?* If the words mean what they appear to do in the writer's report of the case of reunion of an amputated finger, it might be scientifically instructive to obtain further particulars regarding it from the surgeon in question. The extract is taken from page 108 of the fifth edition of the abovementioned work.

"The surgeon considered that she set all kinds of fractures better than general practitioners (probably because she had more practice), and he used to affirm that a broken thigh would most likely be better dealt with by her than by himself. A boy came up to the hospital one day, having just chopped off one of his fingers. 'Where's the finger?' inquired Sister Dora. 'It's at home', replied the boy. 'You stupid fellow! Go and fetch it this moment, and mind you are quick'. On the production of the missing article, she set the fracture, and the surgeon bears witness that the finger healed perfectly and became useful."—I am, etc.
A SURPRISED SURGEON.

COLONIAL APPOINTMENTS.

SIR,—In reply to "West Indian's" query in the JOURNAL of February 7th, 1880, p. 231, allow me to inform him that such Colonial appointments in the West Indies or in British Guiana are not desirable. They are not worth applying for. They are not "desirable appointments for a married man with a wife and family to accept".—Yours truly,
A BRITISH GUIANA SURGEON.

THE EFFECTS OF HYDROFLUORIC ACID.

SIR,—"An Aberdeen Student" must have been mistaken as to the words used by a Professor of Chemistry. I have made and used large quantities of the acid a few years since, and have occasionally had small ulcers from its use. These are troublesome to heal, more especially if the person still continue at his work with it; but if the patient be in fair health and be removed from the vicinity of the fumes, the healing process will take place. Of course, there are some people of a strumous habit, who would be doubly unfortunate in contracting hydrofluoric acid ulcers, and the healing of such ulcers might be difficult.—I am, etc.,
The Laurels, Aldbro, Hull, May 3rd, 1880. WM. HENRY BROWNE.

MISTAKEN IDENTITY.

A LONDON correspondent of the *Allgemeine Wiener Medizinische Zeitung* (who signs himself "Physician eines Hospitals in London") announces that "Sir Henry Thompson, the celebrated operator for stone in the bladder and stricture of the urethra, has been elected a member of the new Liberal Parliament". The writer is evidently referring to Sir Henry M. Thompson, Bart., the member for Knaresborough, whom he has confounded with the eminent surgeon of partly similar name.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

THE TERMS ASEPTIC AND ANTISEPTIC.

SIR,—It is to be hoped that the culminating point has now been reached in the abuse of the above terms when we have a proposal to prevent the "introduction" of the term aseptic—*vide* report of the South London District of the Metropolitan Counties Branch, in the JOURNAL of May 1st. Almost diametrically opposite in meaning, could any terms be more explicit? If a part have been cleansed (in Mr. Lister's meaning) it is aseptic—the *a* of aseptic being the simple negation of septicity, or the presence of any thing or condition which would lead to septicity. If, on the other hand, we wish to denote the *means* used to prevent (*anti*, against or opposed to) septicity, we speak of them as antiseptics, no matter whether they are carbolic acid dressings or not. It is ridiculous to hear men speak of their hands, instruments, etc., being antiseptic, when the most they mean is that these things are aseptically clean. Aseptic hands and instruments apply antiseptics, whilst they themselves avoid implanting germs or other matter which would give rise to septicity; and this is all they do. Aseptic hands and instruments are powerless as antiseptics, therefore they are not antiseptic to a further extent than that which has been named.—I am, yours faithfully, WILLIAM FEARNLEY.

81, Elgin Road, St. Peter's Park, W.

FARR TESTIMONIAL FUND.

GENERAL COMMITTEE.

Chairman—The Right Hon. the Earl of Derby.
Treasurer—Richard Biddulph Martin.

The Right Hon. the Earl of Shaftesbury, K.G.
The Right Hon. the Earl Fortescue.
The Right Hon. the Earl Granville, K.G., F.R.S.
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Frankland, Professor, F.R.S.
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Logie, Cosmo Gordon, M.D., F.R.S.E.
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Stevenson, Thomas, M.D.
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Wakley, James, M.D.
Wakley, Thomas H.
Walter, John, M.P.
Wilson, Erasmus, F.R.S.

Honorary Secretary—Noel A. Humphreys, General Registrar's Office,
Somerset House, W.C.

THE above Committee has been formed for the purpose of raising a Testimonial Fund for presentation to Dr. William Farr, C.B., F.R.S., on his retirement from the public service, as a mark of general appreciation of the value of his long and successful labours in the promotion of public health, and in the development of the science of vital statistics.

To those interested in the progress of public health it is scarcely necessary to enlarge upon the services of Dr. Farr, who has perhaps more than anyone else contributed to the awakening of interest in public health, which led to the passing of the Public Health Acts of 1870 and 1872, and has been especially marked in recent years. Dr. Farr may almost be said to have created the science of vital statistics in England, and his method of mortality statistics has been of infinite value in supplying a standard by which the relative health and sanitary condition of different localities may be measured and compared.

Appointed superintendent of the Statistical Department by the first Registrar-General on account of special qualifications for turning to good account the statistical information supplied by the Civil Marriage, Birth, and Death Registers, Dr. Farr has since amply fulfilled these expectations. The Registrar-General's annual, quarterly, and weekly reports, have become, under the superintendence of Dr. Farr, models of statistical analysis and tabular arrangement, and as such they have been accepted in all parts of the civilised world.

Many and valuable statistical papers have been, during a long series of years, contributed by Dr. Farr to the journals of the Royal Society, the Statistical Society, the British Association, the Social Science Association, the British Medical Association, and other learned societies. These abundantly testify to his thorough mastery of statistical analysis and to his indomitable industry in the pursuit and dissemination of knowledge on all subjects appertaining to the progress, health, and happiness of mankind.

During the greater part of Dr. Farr's official career he was in the receipt of but a small salary, and it is impossible to doubt that, if he had devoted himself with only the same energy either to his own profession or to the actuarial profession, a large measure of success would have attended his labours. Under these circumstances, the Committee desire to secure the substantial success of the Testimonial Fund, in order that it may serve as a fitting acknowledgment of the value of Dr. Farr's unselfish official and unofficial services, which appear to have been but insufficiently recognised by the State.

The Committee confidently appeal for the general support of all who appreciate the beneficent influence which Dr. Farr has exercised upon sanitary progress during little short of half a century.

It is requested that all communications may be addressed to the Honorary Secretary, and that all cheques or Post-office Orders may be crossed "Martin and Co."

First List of Subscriptions.

	£	s.	d.
The Earl of Derby	50	0	0
De Cappelain, J.	52	10	0
Proprietors of the *Lancet*	50	0	0
Heywood, James, F.R.S.	25	0	0
Norman, George Ward	25	0	0
Carpenter, Alfred, M.D.	20	0	0
Graham, Major George	20	0	0
Walter, John, M.P.	20	0	0
Apothecaries' Society	10	10	0
Lord Aberdare	10	10	0
Brassey, Thomas, M.P.	10	10	0
Erichsen, John Eric, F.R.C.S.	10	10	0
Hamilton, Archibald	10	10	0
Martin, R. Biddulph	10	10	0
Newmarch, William, F.R.S.	10	10	0
Thomson, James	10	10	0
Watson, Sir Thomas, Bart., M.D., F.R.S.	10	10	0
Westgarth, W.	10	10	0
The Earl Fortescue	10	0	0
The Earl of Shaftesbury, K.G.	10	0	0
Chadwick, Edwin, C.B.	10	0	0
Curling, T. B., F.R.S.	5	5	0
Tuke, T. Harrington, M.D.	5	5	0
Simon, John, C.B., F.R.S., D.C.L.	5	5	0
Paget, Sir James, Bart., F.R.S.	5	5	0
Bailey, A. H., Pres. Inst. Act.	5	5	0
Burrows, Sir George, Bart., M.D., F.R.S.	5	5	0
Jenner, Sir William, Bart., K.C.B., M.D.	5	5	0
Frankland, Professor, F.R.S.	5	5	0
Gairdner, Professor W. T., M.D.	5	5	0
Mouat, Fred. John, M.D.	5	5	0
Saunders, W. Sedgwick, M.D.	5	5	0
Janson, F. H.	5	5	0
Hart, Ernest	5	5	0
Lubbock, Sir John, Bart.	5	5	0
MacLaren, A. C.	5	5	0
Lord Houghton, D.C.L., F.R.S.	5	5	0
Henniker, Sir Brydges P., Bart.	5	0	0
Acland, Henry W., M.D., F.R.S., D.C.L.	5	0	0
Rawlinson, Robert, C.B.	5	0	0
Grimshaw, T. W., M.A., M.D.	3	3	0
Clode, William	3	3	0
Bristowe, John Syer, M.D.	3	3	0
Bain, W. Pellew, M.D.	3	3	0
Pitter, Joseph	2	2	0
Hassall, Arthur Hill, M.D.	2	2	0
Logie, Cosmo Gordon, M.D., F.R.S.E.	2	2	0
Druitt, Robert, M.D.	2	2	0
Clover, Joseph Thomas, F.R.C.S.	2	2	0
Spottiswoode, William, Pres. R.S.	2	2	0
Fayrer, Sir Joseph, K.C.S.I., F.R.S.	2	2	0
Carillon, J. Wilson, F.S.A.	2	2	0
Bennett, J. Risdon, M.D., LL.D., F.R.S.	2	2	0
Fraser, Thomas R., M.D., F.R.S.	2	2	0
Vacher, Francis, F.R.C.S.	2	2	0
Corfield, W. H., M.A., M.D.	2	2	0
Oakes, Thomas	2	2	0
Lewis, James	2	2	0
Humphreys, Noel A.	2	2	0
Balding, D. B., F.R.C.S.	2	2	0
Philipson, G. H., M.A., M.D.	2	2	0
Rendle, William, F.R.C.S.	2	2	0
Rendle, George	2	2	0
May, George, F.R.C.S.	1	1	0
De Chaumont, F., M.D., F.R.S.	1	1	0
Rigden, George, M.R.C.S.	1	1	0
Hill, Alfred, M.D.	1	1	0
Stevenson, Thomas, M.D.	1	1	0
Greenhill, W. A., M.D.Oxon	1	1	0
Jevons, W. Stanley	1	0	0

ERRATUM.—In the list of Fellows of the Royal College of Physicians, on page 669 of last week's JOURNAL, the address of Dr. Cornelius B. Fox should have been given as Ilfracombe, instead of Chelmsford; he having for some time ceased to reside at the latter place.

REMOVAL OF TATTOO-MARKS.—W. S. writes that sailors usually apply a "fresh sole-skin" bound on the marks, and repeated if necessary.

NOTICES of Births, Marriages, Deaths, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

Inflammation of the Breast treated by Cold Applications.

MORE than forty years ago I made a friend stare by telling him I should like to treat a case of inflammation (that was not under my care) by cold applications. Some time later I was able to do, as I then thought best, by treating a case of mammary inflammation as above suggested. The breast got well; but some time later there supervened cardiac symptoms—valvular obstruction; in course of time ascites, temporarily relieved by tapping; finally death at an early age. I do not now recommend cold in such cases. The only doubt as to the cause of the later illness arose from the mother of the young patient dying of the same complaint a few years afterwards.—I am, etc., J. R. WELLS.

20, Fitzroy Street, Fitzroy Square, W.

Treatment of Ranula.

SIR,—I have at present a case of ranula under my care, which so far has resisted all treatment. I have tried simple incision, and keeping it open by passing a probe, removing a large piece by scissors, and lastly, making a free circular opening, and throwing into the cavity some powdered red oxide of mercury. A small part under the tip of the tongue has consolidated, but it is again forming opposite the molar teeth, and last time I saw the patient there was a fluctuating swelling under the jaw, which, at meal times, was stated to increase considerably in size.

I shall be glad if any of your readers will inform me what treatment they have found most efficient; and, also, what effect the obliteration of the duct is likely to have upon the salivary gland.—I am, yours faithfully,

YOUNG SURGEON.

Priority given to Doctors' Bills.

AN American contemporary says that Captain John H. Chamberlayne has introduced a bill into the Virginia Legislature, of which the following is a portion: "Where the assets of the decedent in the hands of his personal representatives, after the payment of funeral expenses, *claims for physicians' fees for services rendered during the last illness of the decedent*, and druggists' accounts for articles furnished during the same period, and charges of administration, are not sufficient for the satisfaction of all demands against him, they shall be applied—first, to debts to the United States; secondly, taxes, levies, etc.; .... thirdly, debts due as personal representative; .... fourthly, all other demands ratably, except those in the next class; and, fifthly, voluntary obligations."

The Cure of Cold by Abstinence from Liquids.

SIR,—Could any of your readers inform me why total abstinence from drink of any kind for forty-eight hours effects a cure for common catarrh. I know it does, having tried it myself, and Dr. Tanner in his work on *Medicine* says: "Dr. C. J. B. Williams assures us that any cold can be cured in forty-eight hours or less by almost total abstinence from liquids." But he does not give the reason why it serves as a cure, which reason I am anxious to know.—Yours obediently,

Bampton, Devon, May 4th, 1880. R. H. COLLINS.

⁂ Dr. C. J. B. Williams used to recommend the treatment referred to in his lectures on Medicine at University College. We believe that his explanation of the *modus operandi* was that it reduced the amount of fluid in the body.

Glass Pessaries.

THE *Boston Medical and Surgical Journal* says: Dr. A. A. Smith recently exhibited to the New York Clinical Society a glass pessary, which had been given him by a medical friend living out of New York, with the following history. In 1849—thirty years ago—it was introduced into a vagina, and had not been once removed until a short time ago. The woman recently fell downstairs, and subsequently had a bloody vaginal discharge. The physician discovered and removed the pessary, which had become well imbedded in the tissues. It was incrusted with calcareous deposit, and was introduced for uterine displacement years ago, with no advice, according to the woman's statement, regarding its subsequent removal. The pessary was concavo-convex, and about three inches in diameter, with a small opening in its centre. To effect its removal, a catheter was passed through this opening and traction made upon it. Dr. Smith called attention to the duty of physicians to impress upon the patients the importance of the regular removal of pessaries. Dr. Peabody said he had found a pessary, thickly coated with calcareous material, in making a *post mortem* examination. He mentioned an instance of the removal of a pessary, by Dr. E. K. Henshel, which had been introduced seventeen years before by the latter's father. Dr. Foster said he had cut out from the vaginal tissues a pessary which seemed to have been made of iron. Dr. Smith mentioned the removal of one by Dr. Sayre from the uterine cavity after its retention for ten years, and alluded to another case of prolonged retention of a pessary in the vagina, which finally gave rise to an attack of peritonitis. Dr. Weir remarked that he had removed a glass pessary eight years after its introduction, and asked whether glass pessaries were better borne than others, to which there was no reply.

"Advice and Medicine, Sixpence!"

SIR,—The tradesman, who, whilst vending an inferior article at a first-class price, holds out to the public a bait in the shape of a trumpery "present", is of course looked upon by all his fellows (who would be honest if they were allowed) as a mean underhanded person, who seeks to enrich himself by any means, however sordid, at the expense not only of his brethren, but of the public generally, and one who aims at the very root of all fair dealing. But what shall we think of a member of a learned profession, who, instead of trying to raise the status of his calling, degrades not only himself, but his brother practitioners, by such mean and paltry acts as advertising, puffing, and, without a blush of shame, offers his services at so many pence? I have not the honour legally to belong to your profession, inasmuch as I am unqualified, and have nothing to look forward to but a life of hard work as an assistant. Still, I consider my position far preferable to that of a man whose windows are plastered over with whitening like those of a mock auction room, and daubed with a dozen such inscriptions in red and blue, as "Certificates for Clubs and Schools, 6d. each", "Visits, 6d. each", "Advice and Medicine, 6d. *each bottle*" *(sic)*, etc. So long as I uphold the honour of my profession by all means in my power, by conducting the practice of my principal in a gentlemanly manner, having a due regard for all the little amenities of medical etiquette, and so long as I continue to look upon the means by which I earn my living as one of the noblest on God's earth, so long shall I think myself socially and professionally the superior of a "qualified gentleman", who stands on his doorstep of an evening in his shirt-sleeves, smoking a long pipe. I often wonder if the turning over in his pockets of the money obtained in so mean and grovelling a manner is sufficient to compensate him for the contempt of, not only his professional brethren, but even of their "unqualified" assistants. I enclose two handbills emanating from the surgery of this "gentleman", in which, like Little Jack Horner, he proclaims to the public, "What a great man am I!" And of what class are his assistants, Drs. —— and ——? have they taken service in such a concern knowing it to be what it is? If they are, as their principal "advertises" them, two qualified men, then have we two more scabby sheep, two more social lepers and professional outcasts. If, on the other hand, they are unqualified men (and the man who estimates his own services as low as sixpence is scarcely likely to pay first-class salaries), by what right are they Doctors?

I can see in every week's medical journals complaints of unprofessional behaviour on the part of "gentlemen", but the profession at large has the power to stamp out such practices as these, which are every year lowering the status of a grand and noble profession, and bring not only the perpetrators themselves, but also those who have every disposition to uphold the dignity of their calling, into scorn and disrepute. There are said to be scabby sheep in every flock, but I cannot think very highly of the licensing bodies if they are powerless to put a stop to such unprofessional practices, or too torpid to notice them. There are plenty of restrictions, but no manner of protection.

Let us rather have the honest old barber-surgeon, or the white-aproned apothecary and the open surgery, than "duly qualified" medical "gentlemen" who do not estimate their services at a higher rate than "Advice and medicine, sixpence each bottle."—I enclose my card, and have the honour to remain, sir, your obedient servant, PASQUIN.

⁂ We have already, some time ago, expressed our opinion of the handbills to which our correspondent refers. They are simply disgraceful.

RECURRENT HERPES, WITH LIGHTNING PAINS: NO ATAXIA.—The article referred to by "Herpes" was by Dr. Buzzard, and is to be found in *Brain*, No. 2 (Macmillan and Co).

Wanted Diagnosis and Treatment.

SIR,—A married lady, aged 27, has for many years suffered at intervals from intense pain in one of her toes. This pain is described as that of a red hot iron being pressed into the toe; and the agony is at times so acute as to cause a feeling of sickness and faintness. It is unaccompanied by any redness, swelling, or external appearances whatever. It is not caused by pressure from tight boots. It attacks either foot, and the third toe is the one generally affected. The pain comes on at irregular intervals; sometimes when out walking, at other times in the morning on rising. The patient is not subject to hysteria or neuralgia, and is healthy in all other respects. I should be glad to receive hints as to treatment.—Yours, M.D.

Exotic English.

IN an advertisement extolling the virtues of a medicament for the treatment of phthisis, which has just been issued in English by a Paris *pharmacien*, the following quaint paragraph occurs.

"The phthysis, as everybody knows, begins by the growing lean, paleness and loss of appetite. Soon after comes a light dry cough with expectoration of clear spittles; the growing lean continues then some nightly perspirations make their appearance, mainly on the breast; some pains are felt in the back, between the shoulders; finally, one or several bloody expectorations ensue. Then the cough becomes more frequent, more capricious; the spittles are of a greenish colour opake, striated with yellow, later of a rounded form, heavier, sometimes floating in the midst of a clear liquid; afterwards they become greyish like a pease-soup, mixed with blood. The oppression increases, the fever becomes more intense, mainly during the night; then follow vomitings, diarrhæ, and the consumption so rapidly increases that the patient slowly dies."

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. W. H. Spencer, Clifton; Dr. Deahna, Stuttgart; Mr. W. K. Treves, Margate; Dr. C. M. Durrant, Ipswich; Our Edinburgh Correspondent; Mr. Eastes, London; Dr. Macewen, Glasgow; Dr. F. Henderson, Glasgow; Dr. W. L. Winterbotham, Bridgwater; Dr. J. H. Warren, Boston, U.S.A.; Mr. S. H. Steel, Abergavenny; Mr. W. Buchanan, Chatham; Mr. D. Davies, Bristol; Dr. J. G. Wilson, Glasgow; Mr. W. Fearnley, London; Mr. F. Lowndes, Liverpool; Dr. S. W. Smith, Pershore; Dr. Fitzpatrick, London; Mr. B. Barrow, Ryde; Mr. A. Harris, London; Dr. J. B. Tuke, Edinburgh; Dr. J. Ingleby Mackenzie, Rugby; Our Glasgow Correspondent; Our Dublin Correspondent; Mr. W. H. Browne, Aldbrough; Mr. H. Vincent, London; Mr. Colin Rogers, London; Mr. A. Jackson, Sheffield; Dr. C. B. Fox, Ilfracombe; Messrs. Maw, Son, & Thompson, London; Dr. W. Campbell, Cardiff; Pasquin; Mr. H. Brettell, Dudley; Mr. A. Doran, London; Mr. F. Willcocks, London; Mr. A. Buchanan, London; Mr. F. Smith, Plumstead; Dr. A. B. Brabazon, Bath; Mr. H. T. Wood, London; Mr. A. Graham, Keyworth; Mr. R. H. Collins, Bampton; Dr. A. W. Barclay, Dr. A. Duke, Dublin; Mr. G. E. Norton, London; Mr. A. H. B. Hallowes, Maidstone; Mr Ernest Morgan, London; Mr. D. H. Gabb, Hastings; Mr. J. R. Cross, Clifton; Dr. Joseph Rogers, London; Dr. McKendrick, Glasgow; Dr. Taaffe, Brighton; Dr. W. S. Paget, Great Crosby; Dr. Taylor, London; Mr. R. Paramore, London; Mr. J. W. Davies, Clun; Mr. H. Handford, Nottingham; Dr. Lush, Weymouth; Dr. A. G. Sandberg, London; Mr. Jabez Hogg, London; Dr. R. G. Salmond, London; Mr. T. F. Chavasse, Birmingham; etc.

BOOKS, ETC., RECEIVED.

Des Divers Modes de Terminaison des Grossesses Extra-Utérines et de leur Traitement. Par B. Deschamps, Docteur en Médecine, etc. Paris: J. B. Baillière et Fils. 1880.

Rocky Mountain Health-Resorts. By C. Denison, A.M., M.D. Boston: Houghton, Osgood, and Co. London: Trübner and Co. 1880.

Potable Water. By Chas. Ekin. London: J. and A. Churchill. 1880.

Manual of the Principles and Practice of Operative Surgery. By Stephen Smith, A.M., M.D. Boston: Houghton, Osgood, and Co. London: Trübner and Co.

Metric Record of Prescription and of Medical Observation. London: H. K. Lewis. 1880.

Lectures on Rest and Pain. By the late John Hilton, F.R.S. Edited by W. H. A Jacobson, B.A., M.B. London: George Bell and Sons. 1880.

THE CROONIAN LECTURES
ON
SOME POINTS IN THE PATHOLOGY AND TREATMENT OF TYPHOID FEVER.

Delivered before the Royal College of Physicians of London.

By WILLIAM CAYLEY, M.D., F.R.C.P.,
Physician to the Middlesex Hospital and to the London Fever Hospital; Lecturer on Medicine to the Middlesex Hospital Medical College.

LECTURE III.*

ANOTHER abdominal symptom remains to be considered in relation to the bathing, viz., tympanites. When great, not only is it in itself a cause of much distress and even danger, but it indicates either very severe nervous depression or serious local lesions. The actual cause of the condition is, no doubt, paralysis or loss of tone of the muscular coat of the intestine. Sometimes it comes on early, before the middle of the second week, and is then a most ominous symptom, and is an indication of a profound shock to the nervous system. This early tympanites is, I believe, most beneficially influenced by reducing the temperature by bathing and cold compresses, together with free stimulation. The tympanites of the later stages of the fever is often due, in addition to the local lesions, either to actual peritonitis, or, at any rate, extensive and deep intestinal ulceration, and demands, besides the local application of cold to the surface of the belly, the free use of opium. I cannot say I have ever seen much advantage result from the remedies usually recommended for this affection, such as charcoal to condense the gas, or stimulating enemata to expel it. The latter sometimes give temporary relief; but, unless the tone of the intestinal wall be restored, the gas soon reaccumulates. Attempts to draw off the gas by introducing a tube into the rectum only occasionally succeed. In order to do so, the tube must be passed quite into the sigmoid flexure—no easy matter to accomplish—and, moreover, the gas is often contained in the small intestine.

Seeing how little influence the antipyretic treatment appears to exercise on the typhoid lesion of the intestine, when, as is often the case, it is deferred till the end of a week or more, it becomes a matter of great importance to recognise as early as possible those cases in which the primary infiltration has gone very deep, and where, in consequence, there is danger of arterial hæmorrhage or perforation taking place when the sloughs separate; for probably the best chance of preventing these accidents is to arrest as far as possible the peristaltic movements at this period of the disease by means of opium. Unfortunately, we have no signs on which we can rely with any certainty. It has been said that twitching of the muscles indicates severe intestinal lesions, but this does not accord with my own observation. In a large proportion of the cases of perforation which I have seen, this sign has been absent; and, from my limited experience of typhus, I should say that muscular twitchings were much more common in this disease, where there is no ulceration. On the whole, I think that great tympanites is the most valuable indication which we possess of this condition.

Another point of interest in connection with cold bathing is the effect on the kidneys. Dr. George Johnson has shown that prolonged cold bathing will often induce a temporary albuminuria in healthy persons; it might, therefore, be anticipated that, in a disease like typhoid, the severer forms of which are often attended by albuminuria, repeated cold baths would tend very much to increase the frequency and danger of this complication. Such, however, does not appear to be the case; and none of those who have extensively employed this mode of treatment have found any increased frequency of the rare complication in typhoid fever—acute nephritis. One such case occurred this year in the London Fever Hospital, but this patient had never been bathed.

A case of acute nephritis and uræmia in typhoid fever was admitted last winter into the Middlesex Hospital under the care of Dr. Greenhow, but neither had this patient been bathed; and two similar cases have been reported by Professor Immermann as occurring in the hospital at Basle, but in both these the affection was already present on the patient's admission. Hence, albuminuria need not, I think, be regarded as a contraindication.

Another point of great interest is the effect of the treatment on relapses, and I think it cannot be doubted that relapses are rendered more frequent. The probable causes of this I have already considered. In order to prevent these relapses, Professor Immermann has tried the effect of salicylate of soda; and he gives four to six doses of fifteen grains daily for ten or twelve days from the time of complete defervescence. Of fifty-one patients treated in this manner, only two relapsed, giving a ratio of less than four per cent.; while of two hundred and thirty-four patients treated at the same time and under similar conditions, but without the salicylate, thirty-three relapsed, giving a proportion of twenty per cent. His paper has come into my hands too recently to enable me to try this mode of treatment on more than a few cases, but so far some of them have relapsed.

Against the general adoption of this mode of treatment, it has been objected that in the great majority of cases it is unnecessary; that upwards of 80 per cent. of the cases, if properly fed and nursed, will recover; and that therefore so troublesome and even distressing a method ought to be reserved for the comparatively few cases which are likely to end fatally. This argument is not without force, and no doubt a large number of the milder cases do not need repeated bathing; but it is notoriously impossible to predict at the outset, with any certainty, the course of an attack of typhoid fever, and any delay in commencing the treatment deprives it of a large part of its efficacy. A mild case of typhoid, or any feverish attack of which the diagnosis is at first doubtful, should from the outset be treated on the same principles, though in a less rigorous manner.

The patient should be confined to bed in a cool room with thorough ventilation, and be only lightly covered, and from time to time may be sponged with cold water or have a cold affusion. Most persons in the upper and middle classes are accustomed to have a cold sponging or a cold affusion daily, and if they are feverish this will be still more grateful to their feelings; at the same time, abundance of cold drinks should be given to quench thirst and keep the mouth moist. If the case should prove to be one of febricula or simple catarrhal fever, no harm, but rather good, is done; if it turn out to be typhoid, we shall have obtained control over the fever from the first, and as soon as the temperature, in spite of these milder means of refrigeration, begins to maintain itself above 102°, and signs of febrile oppression manifest themselves, we can have recourse to the more energetic means of reducing it.

We have now to bring this mode of treatment to the test of statistics, and to inquire what is the effect on the general rate of mortality. First we must endeavour to compare together like instances, and this we are enabled to do pretty satisfactorily by contrasting the rate of mortality in the same hospitals before and after its introduction. Thus, in the hospital at Basle, of 1718 patients treated on the expectant plan, 469 died, giving a mortality of 27.3 per cent. Of 982 patients treated partially on the antipyretic system, 159 died, giving a mortality of 16.2 per cent. Of 1483 cases treated thoroughly in this way, 130 died, giving a rate of 8.8 per cent. In the hospital at Kiel, of 330 patients treated on the expectant plan, 51 died, giving a mortality of 15.4 per cent. Of 160 cases treated by Jürgensen by cold baths, 5 died, giving a mortality of 3.1 per cent. In the military lazaretto at Stettin, of 1591 cases treated before the introduction of bathing, 405 died, giving a mortality of 25.6 per cent.; since, of 121 cases, 5 have died, giving a rate of little more than 4 per cent. Similar results have been obtained at Zürich.

Perhaps the most striking results of this mode of treatment were obtained in the field-hospitals during the Franco-German war, which show a difference in the mortality between the ordinary and the antipyretic treatment of between 20 and 40 per cent. for the former, and 3 or 4 to 12 per cent. for the latter. It is interesting to compare with these numbers the rate of mortality in the English army on home service in times of peace.

If we now take the general results as given by Dr. Brand, we find that of 8141 cases treated antipyretically, 600 died, giving a mortality of 7.4 per cent., while the average rate in hospitals under the ordinary treatment is certainly not less than 16 per cent.

One result of this is, that while formerly the rate of mortality in the English hospitals was decidedly lower than that in the German hospitals—a result which we were disposed to ascribe to our better sanitary arrangements, better nursing, better feeding, and more free stimulation—it is now more than double. I think, therefore, that it is impossible to doubt that this mode of treatment considerably diminishes the rate of mortality.

I will now give briefly my own experience of this mode of treatment, which, however, in itself has been too limited to justify me in drawing any positive statistical conclusions, though it has been sufficient to convince me of its great advantages. At first, I confess I was prejudiced against it. Not that I ever doubted that it was advantageous to reduce the temperature in fever; but I regarded this repeated cold bathing as in itself impracticable, and moreover an unnecessarily severe proceeding. I therefore proceeded very tentatively, at first only giving a bath occasionally when the temperature was very high and the symptoms severe. Seeing the good effects which often followed, I gradually administered the baths more frequently, and supplemented them by quinine and salicylate of soda and the other means of reducing the temperature; but it is only quite recently that I have endeavoured systematically to keep the temperature below 102.2°; and I have rather followed Liebermeister than Brand in the free use of quinine and the other antipyretic remedies, and have moreover largely supplemented the baths by sponging with iced water, cold packing, and ice-compresses.

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* Concluded from page 687 of last number.

Including all cases—viz., those which were only bathed occasionally, as well as those in which the method was more thoroughly carried out —I have treated one hundred and twenty patients, of whom eighteen have died, giving a mortality of 15 per cent. This is not much below the average mortality, during the last decade, of the London Fever Hospital in London; but it must be remembered that these were all severe cases, while the general rate of mortality is reckoned on the mild and severe cases together; therefore the results are really very favourable. Of these one hundred and twenty cases, forty were treated systematically by applying remedies to reduce the temperature whenever it maintained itself above 102° to 103° in the axilla. In the earlier cases, the higher maximum was taken; in the latter cases, the lower. The means employed were cold baths, cold sponging, cold packing, cold compresses, quinine (usually in thirty-grain doses), salicylate of soda in sixty-grain doses, and sometimes digitalis. With the exception of one fatal case, I have excluded from this list all cases where less than ten baths or equivalent modes or methods were administered. The largest number of baths given in any case was sixty-four. All these cases were of great severity, and in some the condition was almost desperate when the treatment was commenced.

Four deaths took place, giving a mortality of 10 per cent. Of these four fatal cases, in one, a patient in the Middlesex Hospital, the treatment was not begun till the eighteenth day; the patient was then in a state of great prostration, with delirium, stupor, and hypostatic pneumonia. She had thirty-eight baths. The second case, treated in the London Fever Hospital, was a woman aged 29. The treatment was commenced on the tenth day. She had fifteen baths, was cold-sponged fifteen times, and had nineteen thirty-grain doses of quinine. She recovered from the primary attack, relapsed, and died on the forty-second day. During the relapse, she was only bathed once. The third case, also treated in the London Fever Hospital, was a youth aged 18. The treatment was commenced on the eleventh day; number of baths, eleven; quinine given fifteen times. He was apparently progressing favourably. His temperature had fallen, and no bath had been given for two days, when he was suddenly seized with a violent attack of tetanic spasms with opisthotonos, after which his temperature again rose and his urine became bloody. He died of asthenia on the twenty-fifth day. After the attack of convulsions, he was not again bathed. The fourth case I have already mentioned in a former lecture. The patient died, on the fourteenth day of the disease, of acute granular degeneration of the heart. She got out of bed in the middle of the night and fell dead on the floor. She had only been bathed eight times, as her temperature was never very high.

Of the fourteen deaths which occurred among patients in whom the treatment had only partially been carried out, in eleven cases it was not commenced till after the eleventh day of the disease, and in seven of these not till after the fourteenth. In five cases, only one or two baths were given, and the treatment, therefore, could not be considered to have been tried. One case was admitted with acute meningitis and maniacal delirium, and died within thirty hours, and the surface of his brain was found covered with lymph. Three cases died of peritonitis, in two of which there was perforation; of these, one died in a relapse, during which he was not bathed. One case died of hæmorrhage. One was the subject of valvular disease of the heart, of pericarditis and pleurisy; in this latter case, the treatment was not commenced till the twenty-ninth day of the disease, and he was only bathed on two occasions when the temperature became very high.

The remaining deaths were due to asthenia and hypostatic congestion of the lungs. No patient has died in whom the treatment was commenced before the eighth day, and only two in whom it was commenced before the tenth. Of the whole number of one hundred and twenty cases, thirteen, or ten per cent., relapsed; one relapsed twice. Of the forty cases systematically treated, five relapsed; four of the thirteen relapses proved fatal.

I may add that, last year, in which the treatment by bathing, though still only partially, was more completely carried out than in any previous year, the rate of mortality in the London Fever Hospital has been lower than has occurred since the exclusion of the pauper patients.

In conclusion, I trust I have brought forward sufficient evidence—not indeed to convince my hearers of the superiority of this mode of treatment—but enough to show that it is deserving of a fair trial, by the results of which it must stand or fall. Its objects all will acknowledge to be rational; and the means, when judiciously applied, are free from danger. Moreover, we may claim in its favour the weight of authority; and though we may not say in medicine, "Errare malo cum Platone quam cum aliis vera sentire", nevertheless, when we follow Currie, Gregory, Giannini, Horn, Chomel, Graves, Trousseau, Traube, Liebermeister, Brand, Jürgensen, Binz, von Ziemssen, Wunderlich, Chavanne, Cayla, we may feel some assurance that we are not wandering far from the right track. And I think it can hardly be doubted but that we have here a potent weapon, originally indeed forged in this country by a skilful artificer, but allowed to get rusty from disuse; but which, again sharpened and polished by the great physician of Stettin, has been restored to our hands—a weapon by whose aid we may well hope that we shall succeed in saving a considerable proportion of those 8,000 victims who every year in England alone succumb to the attacks of this treacherous disease.

ABSTRACT REPORT OF LECTURES
ON THE
COMPARATIVE ANATOMY OF MAN.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, LL.D., F.R.S.,
Conservator of the Museum, and Hunterian Professor of Comparative Anatomy in the College.

LECTURE VII.—THE RACES OF AFRICA (*continued*): MODIFICATION OF THE NEGRO TYPE.

AT several parts of the equatorial region of Africa, from the Gulf of Guinea to the White Nile, indications have been met with of a small race of Negroes, sometimes so small that the name of pigmy may truly be applied to them—differing from the ordinary Negro in the short rounded form of the head. These bear some resemblance to the diminutive members of the Oceanic black races who inhabit some parts of the East Indian Archipelago, especially the Andaman Islands, and to whom the name of Negrito is now generally applied; and Dr. Hamy, who has collected together all the evidence at present accessible as to their existence, has proposed to distinguish them by the name *Negillo*. The Akkas of Schweinfurth appear to belong to this race. In many districts, they are more or less mixed with ordinary Negroes, and their physical characters are therefore obscured; but some skulls in the collection of Dr. Barnard Davis bear a striking resemblance to those of the Andamanese, and have a cephalic index of 80 and upwards.

The greater part of Africa, between the equator and the most southern parts, where the Hottentots and Bushmen dwell, is inhabited by Negroes who, for linguistic reasons, are grouped together and separated from the more northern tribes, and are now generally known to ethnologists by the name of *Bantu*. Their range seems to have extended southwards in comparatively recent times, encroaching upon that of the original inhabitants. They are a pastoral people, warlike, energetic, and intelligent, owning large herds of cattle, and living in villages composed of a number of beehive-like huts. The southern Bantu, who at present are the best known, from their vicinity to the British and Dutch settlements of South Africa, are divided by Fritsch into—1. The Ama-Xosa, who inhabit at present the south-east portions of the Bantu territory adjoining the sea, between the Cape Colony and Natal. To these the name Kaffir, derived from an Arabic word applied to them as unbelievers or heathens, is commonly given; but the name is sometimes used in a wider sense for the Bantu Negroes generally. The Ama-Xosa include the well-known tribes of Gaikas and Galeikas, with whom we were at war in 1877. 2. The Ama-Zulu, situated to the north of these, in Natal and Zululand; 3. The Bechuanas, occupying the central or inland country; 4. The Ova Hereros or Damaras of the western coastlands. Each of these divisions is composed of numerous small tribes, frequently at war with each other, and constantly changing in relative importance and even locality. The growth of the Zulu nation is a striking example of the mutable character of native African political combinations. At the commencement of the present century, they were an extremely insignificant tribe; but by the military and political genius of their chief Chaka, who conquered and absorbed all the neighbouring tribes, a powerful kingdom was formed, which was consolidated by his successors, Dingaan, Panda, and Ketchwhyo;

under whom, however, it has been destroyed by the superiority of English weapons and organisation. Five crania of Zulus who were killed in the fatal battle of Isandthlwana last year have already reached the museum through the kindness of Mr. Fynn, a magistrate in Natal, Colonel Mitchell, the Colonial Secretary, and Dr. R. J. Mann; and their uniformity of characters is such, that they probably are very fair average specimens of the race. They are the skulls of large powerful men in the prime of life. The capacity of their cranial cavity is remarkable, far above that of the ordinary Negro, even above that of the lower class of Englishmen, the average of the five being 1,580 cubic *centimètres;* but one measures as much as 1,745. Their average latitudinal index is 751; the altitudinal index 76.6. Their orbits are remarkably small and low, the index being 81.7. The form of the nasal bones and the nasal index, which is 60.7, are characteristically negroid; but they differ from ordinary Negroes in two important points: they are not truly prognathous, but mesognathous; the alveolar index, which is 100.4, being intermediate between that of the Negro and the European; and their teeth are small, the index being only 40.7. The crania of other Zulu and Kaffir tribes previously examined give similar results, especially a large cranial capacity, and a less degree of prognathism than is found in the equatorial Negro.

Another great division of South African people comprises those popularly known as Hottentots and Bushmen, or, in their own language, as Koi-Koin. They formerly inhabited a much larger district than at present, but, encroached upon by the Bantu from the north, and by the Dutch and English from the south, they are now greatly reduced in numbers, and indeed threatened with speedy extinction. The Hottentots are at present divided into three principal groups, namely, 1, the Namaguas; 2, the Korannas; and 3, the Griquas. The latter especially are much mixed up with other races, and, under the influence of a civilisation which has done little to improve their moral condition, they have lost most of their distinctive peculiarities. The pure-bred Hottentot is of moderate stature, has a yellowish-brown complexion, with very frizzly hair, which, being less abundant than that of the ordinary Negro, has the appearance of growing in separate tufts. The forehead and chin are narrow, and the cheek-bones wide, giving a lozenge-shaped appearance to the face. The nose is very flat, and the lips prominent. The women are often remarkable in possessing an immense accumulation of fat upon the nates, called *steatopygy*, and also great elongation of the nymphæ and of the preputium clitoridis. In their anatomical peculiarities, and in almost everything else except size, the Bushmen agree with the Hottentots. In fact, they appear to be a stunted, outcast branch of the same race, living the life of the most degraded of savages among the rocky caves and mountains of the land, of which the comparatively civilised and pastoral Hottentots inhabit the plains. Their usual appellation is derived from the Dutch "Bosjesman", which means "Man of the Woods", as they have been regarded, both by Kaffirs and by Dutch, as something nearly allied to beasts, and have been treated accordingly and nearly exterminated. Notwithstanding their general low condition of culture, they show remarkable power of drawing, sketching animals especially with very life-like accuracy. The osteological characters of the Bushmen are tolerably well illustrated in the museum, both by skeletons and by crania. Their average height would appear to be from 137 to 142 *centimètres*, and there is very little if any difference between men and women in this respect. The form of the skull is extremely characteristic, and could scarcely be mistaken for that of any other race. It has generally a very primitive, almost infantile, appearance, though the capacity of the cranial cavity is not the smallest, being larger than that of the Andamanese and the Veddahs of Ceylon. In general form, the cranium is rather oblong than oval, having straight sides and a flat top, and especially a vertical forehead, which rises straight up from the root of the nose. The lower occipital region is greatly developed, and presents a marked contrast to that of the Andaman Islanders. They are moderately dolichocephalic or mesaticephalic, the average of ten specimens being 75.4. The height in all is considerably less than the breadth, the average index being 71.1, so that they are decidedly low skulls. The zygomata are little developed; the malar bones project almost as much as in the Mongolian races, giving a nasi-malar angle of 140°. The glabella and infraorbital ridges are little developed, except in the oldest males. The orbits are elongated and low, the average index being 81.4. The space between the orbits is very wide and flat, there being no depression at the root of the nose. A large portion of the ascending process of the maxilla is visible on each side of the nasals. The nasal bones are extremely small and flat, and the aperture of the nose is very wide: the average nasal index being 60.8. On the other hand, they are rarely prognathous. In this and in some other respects, they bear a resemblance to the infantile condition of the true Negro.

TWO CASES OF PHTHISIS IN WHICH HYPERVENTILATION WAS EMPLOYED.

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THESE cases were prepared for publication many months ago, but were laid by in hopes that opportunities might occur of obtaining additional experience. This prospect has been blighted by the refusal of the authorities—perhaps quite right—to allow the isolation-wards to be used for the purpose. So, as I am not likely to be able to add to them, I send them for publication, not asserting more for the method than that it does no harm, and seems to do good, and therefore in bad cases is worth a trial. This paper is a sequel to one published in the *Lancet*, 1877, vol. ii, pp. 417 and 451.

CASE I.—H. T., aged 16, box-maker, was admitted on April 23rd, 1877. He was quite well and at work three weeks previously, except for a cough; he used to spit blood in the morning. He was now very ill, with a deep red flush on his right cheek; the margins of it were very defined. His aspect was distressed; he knit his brows. He seemed a little strange, but answered rationally. The tongue was baked, red, dry. The abdomen was very tender. There were no spots. He had had diarrhœa and light stools. He lay low, with his knees drawn up. Temperature 105°; pulse 140; respiration 35. The heart's sounds were normal, and its action regular. In both fronts were dry sibilant *râles;* air did not enter freely. At the lower left back, there were dulness and weak breathing, with imperfect crepitation; elsewhere the same signs, but more resonance. Soon after the visit, he had several copious liquid stools, quite like those of typhoid; the diarrhœa was checked by an opiate enema. Salicylicate of soda, in forty-grain doses every hour for six hours, was ordered at the visit, and eight ounces of brandy with milk and beef-tea, etc. In the night, he had much delirium, was almost unconscious, and seemed to be choked with phlegm in his throat; he was relieved by a linseed-and-mustard poultice to his chest, which rallied him and cleared his throat. Bark and ammonia every four hours were ordered. No material change occurred up to the 30th; there were no spots, but the tongue continued dry and baked; the left chest moved less freely than the right. The brandy was increased to twelve ounces on the 27th. The morning temperature had three times been below the normal, and the evening temperature had three times been at or a little below 100°. On four days, it had been 103.4°, or a little more.

On May 1st, the morning temperature was 99°, the evening, 101°; pulse 110; respiration 40. Some very typhoidal spots had appeared on the abdomen. The tongue was moist at the sides, but dry in the middle. The urine, two days before, contained a notable amount of albumen, and very little chloride. He took nourishment and his stimulant well. The sister tried to turn him on his side this morning, but was obliged to desist on account of the pain produced in the abdomen. The lower anterior parts of the chest collapsed markedly during inspiration.

May 4th. During the last two days, he had been spitting up a good deal of deeply tinged mucus, more than rusty. The left back was rather dull in the lower half; air entered imperfectly, especially at the lower part; much coarse mucous *râle* was heard throughout this back; near the base, the breathing was semitubular. The right back was in nearly the same state, but there was no bronchial breathing. Breathing was pretty natural in both fronts. The tongue was quite moist and clean. Pulse 96, distinct; the left was arrested by a pressure of 267 *grammes*. The urine was not albuminous, of medium colour; it contained a tolerable amount of chloride; specific gravity 1010. On the 5th, there was a very copious sudaminal eruption all over the belly and chest. The stools were very offensive, pale. He was ordered a drachm and a half of tincture, and an ounce and a half of decoction, of cinchona on the 10th, and eight ounces of port in place of brandy. On the 12th, ten minims of oleum terebinthinæ were added to the mixture. On the 17th, he was extremely weak, and spat up a large amount of pus, but took his food well. On the 25th, he was sent up to the hyperventilation-ward. The expectoration on the 22nd was muco-puriform, and pretty copious. He was ordered to have chicken. Up to the 25th, the evening temperature had been three times only 103° since May 1st, and seven times 101° or below; the morning mostly a little lower, but on three days higher, than the evening reading.

June 1st. Expectoration was much less; he looked and felt better. Pulse 96, regular, steady, distinct. He enjoyed the chicken. On June 4th, he was ordered potassæ chloratis gr. x, glycerini ʒss, aquæ ℥j, four times a day. On the 7th, a chop was ordered. June 15th. His skin was harsh and dry. He was very thin. He ate his chop. There was much nearly dry *râle* in both backs, with rather weak and harsh breathing, especially towards the base. In the upper parts, it was more free, and there was less *râle*. In the left mid-back, the breathing was quasi-bronchial. The expectoration was puriform, somewhat nummular. Pulse 100, small, weak. Up to June 9th, the temperature at the morning reading had always been 100° or a little more, and at the evening, eight times 103° or above. The pyrexia was therefore certainly greater than before he was sent to the hyperventilated ward. He was ordered a drachm of chemical food three times a day.

July 7th. Both backs were well recovered throughout, and the breathing heard there was now almost natural and free from *râle*, rather harsh in some parts, but wonderfully improved. In both upper fronts, there was fairly good resonance and breathing, a little better in the left than in the right. He slept fairly and ate well; but he was very thin and pale, and his pulse was quick. His weight on the 14th was 85½ lbs.; he then was discharged.

From June 10th to his discharge (July 14th), the evening temperature was three times 103°, and four times 101°; but on twenty nights it was not taken. The morning temperature was almost invariably a degree or so above the normal. On the 29th, he came to the hospital. His weight was 86½ lbs.

August 13th. He came to the hospital. He said he was much stronger, but was very thin still; weight 84½ lbs.

Table of Temperature in H. T.'s Case.

DATE.	A.M.	P.M.
April 23	—	1 P.M. 105
" "	—	8 P.M. 103.4
" 24	97.6	100.
" 25	99.4	101.2
" 26	100.8	103.8
" 27	100.2	100.2
" 28	96.4	99.6
" 29	96.6	103.6
" 30	102.6	103.6
May 1	99	101
" 2	102.2	100.4
" 3	99.4	100
" 4	99.8	101.8
" 5	101	100.5
" 6	100	102
" 7	101	101
" 8	99	101.4
" 9	100.4	102
" 10	100.5	103.2
" 11	100.6	103
" 12	98.7	—
" 13	99.4	—
" 14	99.4	100.8
" 15	102.4	101
" 16	101.6	102.5
" 17	101.1	101.4
" 18	—	101.5
" 19	100.8	102.2
" 20	100.2	—
" 21	101.6	101.6
" 22	—	100.4
" 23	—	101
May 24	102	103
" 25	101.6	102
" 26	100.8	102
" 27	100.4	103
" 28	100.4	103
" 29	100.2	103.4
" 30	100	101.6
" 31	100	102
June 1	100	103
" 2	101	102.6
" 3	100	104
" 4	101	102.6
" 5	100	102
" 6	100	103
" 7	100.2	103
" 8	100	103
" 9	99	102
" 10	—	102.2
" 11	99	—
" 12	99	103
" 13	98.4	101
" 14	100	99
" 15	99.6	103
" 17	—	102.8
" 18	—	102.2
" 19	99.4	103
" 20	100	101
July 10	99.4	102.2
" 11	—	102.2
" 12	100	102.6
" 13	99.4	100.2

REMARKS.—It may be questioned whether the acute malady in this case was typhoid fever or acute miliary tuberculosis. I adopt the former view, chiefly on the ground that a considerable amount of recovery took place; whereas the latter disorder would surely have ended fatally long before the date of the patient's discharge. It may be objected that the temperature was too low on four nights of the first eight days of his stay in the hospital to admit of the disease being typhoid; and this objection has some weight, unless we doubt the accuracy of the observations, which I do not. But it is possible that the evening rise, beginning unusually early, might have subsided a good deal before the temperature was taken, as actually happened on the first day, when the temperature was 105° at 7 P.M. and 103.4° at 8 P.M. Again: it is within my experience that similar variations do occur in the course of undoubted typhoid. Thus, in one of my patients, a temperature of 101.6° occurred on the sixth evening, while on the fifth it was 103.6° and on the seventh 103.4°; and, again, on the seventeenth day, an evening temperature of 101.2° intervened between a temperature of 102.8° the day before, and a temperature of 103° the day after. Wunderlich, though maintaining the typical character of the temperature curve in typhoid, yet admits that complications and the circumstances of individual cases may cause many irregularities and deviations from the normal course of the fever. The occurrence of cough and hæmoptysis, before acute illness declared itself in our patient, makes it highly probable that the typhoid was grafted on a pre-existing pulmonary tuberculosis. By May 4th, the acute malady was passing off, and thenceforward the symptoms were in great measure those of ordinary consumption. The chief difference was that the physical signs did not indicate the existence of cavities, and that they were more marked at the lower than at the upper parts of the lungs. It is probable that the deposit of tubercle, or of cheesy nodules—for me essentially the same thing—was more diffuse than is usually the case. If any, however, prefer to consider the case as one of *strumous* bronchopneumonia, I make no objection. The essential point is, that the lad was suffering under a chronic disease of the lungs, attended with great emaciation, which was not cancerous, nor common bronchitis, and which assumed serious proportions from the time of the attack of typhoid—a malady which notoriously often gives a fatal impetus to a previously latent tuberculosis, or even calls it into existence. Had the patient remained in the ordinary wards, the probability is great that the phthisis would have gone from bad to worse (as it mostly does in hospital air), and would ere long have ended fatally. The improvement which took place in the state of the lungs, under hyperventilation, was certainly remarkable; and the appetite and general condition also improved materially. The persistent pyrexia and emaciation were, however, ugly signs; and I cannot but fear that the disease ultimately went on to a fatal termination under the worse feeding and worse aëration of his home. I give the case as a simple record of experience, and only remark that the patient suffered no injury from free exposure to the air; but, on the contrary, obtained some very decided benefit. His stay in the hyperventilated ward was fifty days. Had he remained in the ordinary wards, he would never have gone out alive, I verily believe.

CASE II.—M. Y., female, aged 21, married, was admitted November 24th, 1877, into Boynton Ward under Dr. Meadows' care. He found nothing amiss with the pelvic organs, but an accumulation of hardened fæces, which he regarded as the cause of a dull, heavy, dragging pain referred to the left iliac region, where there was also tenderness on pressure; the pain extended higher up when she coughed. She came under my care January 4th, 1878. She stated that she had always been delicate at the chest from birth; she had a bad sore-throat at the age of sixteen. The catamenia had been regular from the age of eleven up to the time of her marriage, three years ago; since then, the pain had only occurred once. She had milk- and brain-fever after the birth of her first child. Her second child was born in August 1877; since then, she had had (she said) almost constant thick vaginal discharge, as well as abscesses in the neck. While pregnant the second time, she had spontaneous hæmorrhage from the right foot, no wound existing. She also affirmed that she had, at one time, abscesses on her ankle. She used to be very hysterical, and seemed now very excitable. A brother was in a deep consumption. There was no history of phthisis in the parents. She had now a dry harassing cough. The pulse was too quick and weak to count easily. The appetite was bad; her bowels costive. In the right upper front, small crepitations were well marked, and some *râles* were heard also in the right back. The left lung seemed fairly sound. The heart was normal. The abdomen was markedly tender in the left iliac region; a blister to this part had not benefited her. She was ordered to take a drachm of confection of senna occasionally; to take, three times a-day, 8 grains of hyperphosphite of lime and half a drachm of solution of biphosphate of lime in an ounce of water; to have a vaginal suppository containing one grain each of extract of belladonna and opium, applied every night; and to use an injection of lotion of chloride of zinc (1 grain to the ounce). On the 17th, she was improving. She spat but little; the old pain in the left iliac region did not trouble her much now. On January 21st, she was spitting a good deal of mucous pus; the right chest-front, three days later, was found full of moist *râles*. She was decidedly feverish, and coughed much at night. A blister was applied, and ipecacuan spray, at first alone, afterwards with morphia, employed; and ten grains of chlorate of potash and a drachm of glycerine in an ounce of water four times a-day ordered; but on February 4th, she was sweating much, and her other symptoms, including physical signs, were the same; the urine was high coloured, clear, not albuminous; the temperature for the last five days in the evening was 101.7°, or somewhat lower; last night, it was 100.4°. She was sent up into the hyperventilation ward on the 6th. On the 11th, I noted signs of a large cavity in the right upper front, and of a much smaller one in the left; there was fair breathing in the greater part of both backs. On the 16th, she spat very little; her state varied, but she certainly seemed better on the whole; she coughed but little. The evening temperature was 100°-104°; pulse 102. On the 25th, she was doing well. She was up and dressed on the 23rd; she had at times pelvic pain. On January 28th, she was suffering severely since midnight with pelvic pain on the right side, at the iliac fossa. The belladonna and opium suppository was repeated. She was ordered 20 grains of saccharated carbonate of iron twice a-day, and two drachms of cod-liver oil twice a-day. Weight 89½ lbs.

On March 2nd, she still suffered much from the pelvic pain, mostly at night, but it was felt also by day; it was of a gnawing kind. Pulse

120; temperature last three nights 100°; last five mornings 98°. She sweated at night. She was taking food better, and felt better in herself. Port (4 ounces) was ordered. On March 8th, the pelvic pain was much better; she felt altogether better, except some pains in the right chest; the night-sweating was much less. Pulse weak, 90. The temperature, since the 1st, had only once exceeded 99° in the evening, and for three days had been below normal. On the 16th, the weight was 93½ lbs. The right front was rather flattened, decidedly more than the left; the movement of both was fairly good; the resonance of the left was better than of the right. Air entered pretty well in the left upper front; a few crepitations were heard occasionally under the left clavicle. In the right front, there was marked bronchial or cavernoid breathing, with a few occasional muco-crepitant *râles;* the voice in the same situation was bronchophonic. There were good resonance and breathing in the lower two-thirds of the right back, also in the left. There was marked prolongation of expiration in the right supraspinal fossa; breathing otherwise was pretty good there. Breathing was defective, with well marked crepitations in the left supraspinal fossa. She had no expectoration; no night-sweating. She felt very well, and went, about a week later, to Walton. I have not heard of her since.

REMARKS.—This patient, soon after she came under my care, had all the appearance of being in a rapid consumption; and certainly the destructive process, as certified by the physical signs, went on at a great rate. Under hyperventilation, it came to a standstill, and a good recovery for the time ensued. If this result can be credited wholly to the method, it speaks strongly in its favour. But I have some doubt whether we are quite warranted in doing so. Phthisis sometimes occurs in bursts separated by shorter or longer pauses in the morbid action, and such may have been the case here. At any rate, it is clear that free exposure to cold wintry air in nowise hindered the improvement which took place, even if it did not promote or produce it. It is noteworthy that this patient, who had a highly neurotic diathesis, suffered from pelvic, probably ovarian, neuralgia, before and after her phthisis assumed formidable proportions, but was free during the severity of the lung-disease. This illustrates the connection held by some good authorities to exist between the neurotic and tuberculous diatheses, which is of such a kind that the one may replace the other, as in one member of a family who, when all the others die of phthisis, survives, but is epileptic.

I have notes of only one other case where hyperventilation was employed, a case of chronic phthisis; but the treatment was interrupted too soon, and no other conclusion can be drawn than that it did not act injuriously, though practised in February and March.

I trust that I have made out a case for the trial of hyperventilation in cases of pyæmia and like conditions, and in phthisis, when these disorders are otherwise practically desperate. I am sure exposure to cold—even winter cold—air need not be dreaded overmuch. Let the patient be clothed as warmly as may be, so as to avoid chilling of any part of his cutaneous surface, and we may, I believe, admit cold air with little risk to his oral or nasal air-inlets. Nothing venture, nothing have; and if we can give our patients but scanty hopes from the use of other remedies, why not supplement them with hyperventilation? As regards phthisis, I agree altogether with Dr. Unger at Davos, who begins and ends his summary of treatment, as quoted by Dr. Clifford Allbutt, with "Luft, überall Luft", (*vide Lancet*, 1877, vol. ii, p. 616). So thought Sydenham too, I ween.

THE LIVERPOOL LOCK HOSPITAL AND THE PREVALENCE AND SEVERITY OF CONSTITUTIONAL SYPHILIS IN LIVERPOOL.

By FREDERICK W. LOWNDES, M.R.C.S.Eng.,
Surgeon to the Hospital.

NOTHING can be more disheartening to all concerned in the working of voluntary Lock hospitals, than to witness daily their comparative uselessness as sanitary institutions, so far at least as the female wards are concerned. Writing in 1870, Mr. James R. Lane, Senior Surgeon to the London Lock Hospital, says: "Voluntary Lock hospitals may afford charitable relief to the individual sufferers, but, from a sanitary point of view, I believe them to be absolutely useless. From long experience of these women, I know them to be, with rare exceptions, far too reckless of consequences to apply for admission and to seclude themselves for treatment, until their disease has reached a stage which renders it impossible for them to pursue their calling any longer, and until they have done all the mischief of which they are capable."

The experiences of my colleague Mr. McCheane and myself, at the Liverpool Lock Hospital, confirm the above remarks almost word for word. The accommodation at the hospital comprises fifty beds, twenty-five for each sex; these are contained in two wards on each side of the central building, which contains the superintendent's residence, kitchen, offices, etc. The male wards are, with rare exceptions, filled all the year round, mostly with cases of constitutional syphilis. On the other hand, the female wards are rarely filled, and then only for a very short time. The appearance of the women on admission shows that they have mostly been diseased for a very long time, and it is too evident that they have come, not because they are diseased, but because they are so diseased as to be unable to continue their calling. When the disease is comparatively slight and recent, I have observed that it is generally of a character to give pain when intercourse is attempted; such as an ulcer on the fourchette with an unusually contracted vagina. Everything has been done to encourage women to enter the hospital. Some years ago, when the number of students attending the practice of the hospital was somewhat large, the attendance on the female side was restricted to third year's men; later on, however, the female patients diminished so seriously, that the attendance of students was limited to the male wards only; after which, the numbers rose to an average of from twelve to fourteen constantly in. With the assistance of friends, the wards were made more cheerful by means of pictures, engravings, etc., and, on the urgent representations of Mr. McCheane and myself, the committee relieved the female patients from floor-scrubbing, which they had been previously required to do, and had this work done by hired labour. I have had frequent opportunities of seeing and questioning female patients after their discharge from the hospital, and all speak in grateful terms of the uniform kindness of the resident superintendent and matron, Mr. and Mrs. Sergeant. Hence it is extremely mortifying, after showing visitors the male wards filled with patients, to show them a female ward nearly if not quite empty. It is the more so when taken in conjunction with the well known fact that, within a quarter of a mile of the hospital, are streets in which brothels may be counted by scores, and prostitutes by hundreds. Many of these latter belong to a low class frequented by sailors, hence a large proportion must of necessity be diseased. In this large seaport, with a population rapidly approaching 600,000, with a number of seamen computed at from 40,000 to 50,000 constantly among us, the small number of twenty-five beds in the female wards of the only voluntary Lock hospital, are actually greater than the demand for them. The following are the numbers of patients admitted during the last five years.

Year.	Males.	Females.	Total.
1875	295	172	467
1876	336	150	486
1877	326	141	467
1878	391	183	574
1879	319	215	534

It is gratifying to notice a marked increase in the number of females during the last two years; but the preponderance of male over female patients is very remarkable, and indicates how many more females could be admitted, did they apply in the early stages of disease. But it may be asked, "Do not many go to the workhouse?" Mr. Hagger, the vestry clerk, has kindly furnished me with the admissions into the Lock wards of the Liverpool Parish Infirmary for a number of years past; but the last five years will suffice for the purposes of the present paper.

Year.	Males.	Females.	Total.
1875	123	186	309
1876	149	175	324
1877	100	136	236
1878	98	234	332
1879	106	229	335

It will be seen here that the female patients considerably predominate, a circumstance easily explained. Patients are admitted into workhouses, not because they have venereal or any other disease, but because they are paupers and destitute. The rules of our hospital preclude the admission of all patients not properly supplied with clothing, and also all who may be simultaneously infected with scabies. These find their way to the workhouse. Again, in a town like this, the number of females likely to be brought to a destitute condition from venereal diseases is obviously greater than that of males. This is confirmed by the greater readiness of males to enter the Lock hospital than females. The recent commercial depression, extending as it did to seamen and labourers of all ranks, has probably had more effect in increasing the admission of prostitutes, both into the Lock hospital and workhouse, than any wish on their part to be cured.

In the BRITISH MEDICAL JOURNAL for December 1st, 1877, page 764, is a short summary of cases admitted into this hospital during the two years June 1st, 1875, to May 31st, 1877, with classification of the various forms of disease. It is enough here to reproduce the single fact that, out of 1,066 cases, 627 were cases of constitutional syphilis. From our register, which he keeps with the most scrupulous exactness and care, Mr. Sergeant has prepared the following

Return of Patients Admitted during the Year 1879.

	Total Patients.		Constitutional Syphilis.		
	Male.	Females.	Males.	Females.	Total.
Gonorrhœa	10	—	—	—	—
,, and epididymitis	28	—	—	—	—
Abscess of perinæum	6	—	--	—	—
Vaginal discharge	—	15	—	—	—
Buboes and simple sores	86	56	—	—	—
Primary syphilitic sores	106	84	106	84	190
Primary and secondary syphilis	49	26	49	26	75
Secondary syphilis	30	30	30	30	60
Tertiary syphilis	4	2	4	2	6
Total	319	213	189	142	331

It will be seen that the majority of our cases are of patients suffering from constitutional syphilis. Now, as we admit none but those suffering from venereal disease, and select the more severe cases, this large proportion of syphilis might appear nothing remarkable, and only what might be expected. But it has been stated by some members of our profession that constitutional syphilis is a comparatively rare disease, seldom seen, and likely to be still more rare as time advances. Of course, the misrepresentations of those who have a motive for ignoring the real truth may themselves be ignored; but there are many practitioners who honestly believe in the diminution of syphilis, mainly because they happen to see very little of it. Whatever may be the case elsewhere, there is no such diminution in Liverpool; constitutional syphilis prevails to a very great extent, and frequently in a very severe form. At the Seamen's Dispensary for Venereal Diseases, there were, in the ten months February 26th to December 31st, 1877, 847 patients, of whom 167 suffered from syphilis. During the years 1878 and 1879, special care was taken to ensure as accurate a record as possible of all the cases, by my colleague Dr. Armand Bernard and myself, with the following results.

	1878.	1879.
Simple sores	226	173
Gonorrhœa	364	321
Gleet	200	169
Primary syphilis	112	101
Secondary do.	95	83
Tertiary do.	5	6
Totals	1002	853

The falling off in the numbers for last year is due to the commercial depression already alluded to, which caused fewer vessels to arrive and depart from this port; while the seamen, having, to use a nautical phrase, "a southerly wind in their pockets", had less to spend in drink and debauchery. The proportion of cases of syphilis is 22 per cent., but this must be considered as rather under the probable total amount, as many patients are seen only once or twice before proceeding to sea, whose cases, being doubtful, are returned as simple sores, but which have subsequently proved to be syphilis.

Writing in 1869, the late Mr. Acton remarked (*Prostitution*, 2nd edition, page 68): "I doubt whether venereal complaints, although evidently more severe formerly, were ever more common than at present, or whether, since syphilis was first treated in hospitals, the large proportions here noticed, namely, two out of three out-patients at the Free Hospital, nearly one in two at St. Bartholomew's, one out of every three at the *Dreadnought*, one out of four in the army, one out of seven in the navy, at any former period suffered from venereal disease, and yet many believe that the disease is declining. That such is not the case, if number be any criterion, must be admitted by all who weigh well the above statistics, and compare them with the statements met with in nearly all the books that have treated of syphilis."

The number of cases treated in our hospital were, in 1878, 574, and on looking over the numbers since 1859, I find that the next highest number was in 1870, when it was 562; in 1869, 515; in 1864, 516; and in 1863, 500. With the exception of these and the year 1879, when it was 534, the numbers are considerably less. I am not able to give any reliable statistics of the cases seen at our dispensaries; with one exception (the Stanley Hospital), no out-patients with venereal diseases are seen at our general hospitals, nor at the Lock hospital. At the Eye and Ear Infirmary, a large number of cases of syphilitic disease of the eye are seen, and a considerable number of cases of infantile syphilis among the out-patients at the Infirmary for Children. But, as syphilis is a disease by no means limited to the class whence hospital patients are derived, only very partial returns can be obtained from them. This is increased by the inference which must be obvious to all who read the above returns, that, for every female found in the Lock hospital and Parish Infirmary Lock wards, at least twenty might be found outside in a diseased condition; and of these, many are undoubtedly suffering from syphilis. Some are seen by private practitioners; a large number, I regret to say, by a low class of chemists and druggists, who profess to treat them as long as they have any money left, and then send them to the Lock hospital or elsewhere. How much disease is caused by this want of seclusion and proper treatment, is quite incalculable. Bearing all these facts and inferences in mind, let us see what light may be thrown by the experience of private practice. Mr. Acton, in the work I have already quoted, wrote: "I cannot pretend to offer an opinion as to the general increase or decrease of these complaints in private practice. There is, in our profession, very little interchange of notes and statistics, and no organised correspondence with any body or society; and I fancy no medical man could draw a sound deduction as to the greater or less prevalence of any particular disease from the state of his own practice. Each one, however, may, without difficulty, contribute a little information to the common stock, by analysing the mass of cases which are presented to him. I shall give here one or two opinions, resulting from my own experience, which may perhaps be hereafter of value to others wishing to compare the proportions of the various affections in 1879 with those prevailing in our day. In the first place, the venereal affections now seen in private practice are slight. Patients come to the medical man early. The *mauvais honte*, which formerly acted to their prejudice, is passing away, and the necessity for immediate treatment generally admitted. To this cause I attribute to a great extent the mildness of the disease and the rapidity of cure in the majority of cases. No doubt can exist that improved treatment and a more correct diagnosis are operating in the same direction; science has been assisted by the almost complete abstinence of the upper classes generally from intoxication, though not from liquor, and by the liberal ablutions now so much and so beneficially in fashion."

With most of the above all who see much of this disease must agree, so far as concerns the upper classes, among whom, however, very severe cases will be found. Mr. Acton continues: "I have, every now and then, cases of tertiary symptoms, which return again and again, and offer most rebellious instances of the virulence of the disease among the weak and debilitated; but still death from syphilis is almost unheard of in private practice. . . . . It is to be regretted that, in the present day, the indurated sore is not more rare, attended as it is with many sad sequelæ. Secondary symptoms are not severe; but, although slight, they linger on for months, now better, now worse, until the powers of the system, if well supported, get the better of the affections of the tongue or the eruption of the skin. Rarely now are the deeper structures affected, and patients generally, if not very injudiciously treated, completely recover within a reasonable time."

Mr. Worthington, consulting surgeon to our hospital, who had upwards of forty years' experience of hospital and private practice, informed me recently that he saw no diminution in the frequency or severity of constitutional syphilis. Mr. McCheane, speaking from an experience of upwards of thirty years, both of hospital and private practice, informs me that he sees no diminution either in its frequency or severity. He has now under his care in the hospital a case which, in its severity and rapidity, equals any case he ever remembers to have seen; and in private practice, he sees daily very severe forms of constitutional syphilis. I have made numerous inquiries among professional friends here as to their experiences, which confirm the above. General practitioners, and especially those who have obstetric practice, must obviously prefer to observe reticence on this subject, so far as the publication of details is concerned, and the numbers of cases which cannot be recorded must be very large. Instances of wives being infected by their husbands are painfully common, together with, as a consequence, repeated abortions, premature labours, and death of the infants. Should pregnancy not occur, there is the occurrence, little less painful, of the insidious appearance of the disease, neglected because, from ignorance of its real cause, medical advice is not at first sought, with weeks and months of anxious suffering before a cure is effected. Again, syphilitic diseases of the eye and teeth in young children are very frequent, while numerous cases of paralysis and other nervous disorders, also of diseases of internal organs which were formerly regarded as obscure, are now well known as the results of syphilis. The deaths from syphilis in Liverpool during the last five years were as follows.

Year.	Males.	Females.	Total.	Infants under one Year.
1875	42	28	70	60
1876	47	33	80	66
1877	40	31	71	65
1878	33	34	67	61
1879	37	38	75	62

These are much below the real number; and I may here mention that, when attending, some months ago, a married woman who died from tertiary syphilis, her friends were very importunate for me to suppress the real cause of death, on the grounds that it might lead to forfeiture of the burial-club money. I certified the death as due to tertiary syphilis; but now that this word is so familiar to the public, or even its abbreviation (syp.), it would be well if practitioners could, by some modification of our death-registration system, be spared the invidious choice of stating the cruel truth, or of suppressing it at the risk of giving an incorrect certificate.

My own experience is, that the cases of constitutional syphilis which come under my care in the hospital are just as severe as those I remember to have seen when I attended the hospital twenty years ago as a student. Among the patients at the Seamen's Dispensary, very severe forms of primary and secondary syphilis come before us, being much aggravated by the dirty habits of merchant seamen, want of facilities for cleanliness on board ship, and neglect. In private practice, indurated sores and very severe constitutional symptoms are seen by me daily, and I have observed that, besides merchant-seamen, labourers of all kinds, carters, cabmen, and others, suffer very severely from syphilis. It is also very prevalent among mere lads of all classes, some of whom suffer most severely in the attempts to conceal the matter from their parents.

It appears to me only what we might expect, that syphilis should prevail to a great extent in our large seaports. That it did do so in Plymouth and Devonport, Portsmouth, Cork, and Queenstown, years ago, is clear; and it is equally clear that, in those ports, it has been considerably reduced among the common prostitutes, the sailors, soldiers, and civil population. It still prevails largely in London, Liverpool, Dublin, Belfast, Kingstown, Leith, Hull, and other ports, and there is no proof of any reduction. As throwing some light upon the reason of its prevalence and severity in Liverpool, I hope in another paper to give some information respecting the number and condition of prostitutes in this town.

A CASE OF CHRONIC HYPERPLASTIC ENDOMETRITIS (ENDOMETRITIS FUNGOSA): WITH REMARKS ON THE TREATMENT OF METRORRHAGIA.*

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In the present communication, I wish to call attention to a form of disease which, so far as I know, has as yet not met with more than a passing and brief mention in any of our English text-books on the diseases of women. It nevertheless seems to me to present features peculiar and distinctive enough to make it worthy of separate recognition. My attention was called to it by a case under my care in the London Hospital. At the time when the patient was under treatment, I was not acquainted with any account of the disease; I was then only aware that the case was an unusual one. Since then, on reading Olshausen's paper on the subject, I recognised that his description applied to my patient. I will first give an account of the case, and then comment upon it. (I narrate the case from notes by Mr. Lapthorne Smith.)

J. R., aged 44, a paper-ruler's wife, was admitted into the London Hospital on March 27th, 1878. She gave the following history. Her previous health had on the whole been good, except that she had had several attacks of "rheumatic fever". She first menstruated at the age of thirteen, and was always regular, without pain (except during pregnancy), until her present symptoms began. She was married at the age of twenty-six, and had three children; the last eleven years ago. There was a good deal of flooding after the last delivery; but her confinements were otherwise natural. She did not suckle any of the children. During the last two years, she had suffered at times from amenorrhœa, lasting from two to eight months at a time, and followed by a copious loss of blood from the womb. In September 1877, after four or five months' amenorrhœa, there was considerable flooding. She subsequently did not menstruate for two or three months, after which she was regular till eight or nine weeks ago, when there was another profuse hæmorrhage, lasting a week, and followed by "green waters" for two or three days. For four months she had been suffering from "falling of the womb", which was for eight weeks accompanied with retention of urine, needing the use of the catheter. She had been, up to the time of admission, under the care of Mr. Mahony of the Commercial Road, with whom I saw her in consultation. He had employed the remedies usual in cases of uterine hæmorrhage, and the patient had kept her bed a good deal. She did not know whether or not she had been pregnant during these periods of amenorrhœa, but did not think so. She never had any leucorrhœa, nor any urinary or rectal trouble. She had slight pain occasionally in the right side of the abdomen, but no other pain. Hæmorrhage recurred five days before admission.

When admitted, she was slightly wasted and markedly anæmic. The heart's apex-beat was in the normal position, and its action was regular; but a soft systolic murmur was heard over the apex. There was no œdema of legs or feet, or signs of anything abnormal about the lungs. The uterus was low in the pelvis, large, but regular in shape, slightly retroverted and retroflexed. The cervix was thick, but otherwise healthy; there was no erosion nor abrasion. The body was so large, that the presence of a fibroid growth seemed at first probable.

She was kept in bed, and given a mixture containing ergot and ammonia. On April 2nd, this was changed for a mixture containing ergot, strychnia, and digitalis. The hæmorrhage, however, did not abate. On April 4th, a sponge-tent was put into the cervical canal. On the evening of this day, the temperature, which until then had varied between 98° and 100.5°, reached 102°. On April 5th, the cervical canal was dilated sufficiently to admit the finger; but it was found that a complete exploration of the uterine cavity could not be made without anæsthesia. On the introduction of the finger before ether was given, an irregular piece of pale tough membrane, about a square inch in superficial extent, smooth on one side and rough on the other, came away. This was, unfortunately, accidentally thrown away, and therefore was only examined with the naked eye. Under ether, the uterus was ascertained to be movable, equably enlarged, and its cavity dilated. Its interior was found to be lined with a soft velvety flocculent layer, feeling as if thrown into thick folds. No polypus, polypoid growth, or solid product of any kind, was present. Strong nitric acid was applied to the interior of the uterus with a swab. No ill effects followed this proceeding. The temperature sank to 98.4° on the day following the putting in of the tent. On April 6th, it rose to 101.2°, and the next day fell to 99.5°; it never afterwards exceeded 100°. Slight brownish discharge lasted for about a fortnight after the application. On April 22nd, she was allowed to get up; and on May 3rd she returned to her home. The uterus was still enlarged, and was acutely retroflexed; it was quite movable. There was no tenderness. She felt well, had no pain, and no discharge.

On September 15th, she attended, and said she had not menstruated since being in hospital. On November 23rd, she said she had menstruated twice since the last note, scantily and with very little pain, the flow lasting between four and five days.

May 14th, 1879. She had been regular up to March, scantily; had seen nothing since then. She was now attending at the London Hospital on account of dyspeptic troubles—bad appetite and constipation; but there were no uterine symptoms. She had no discharge. She complained of abdominal pains when the bowels were confined, but not at any other time. No treatment was carried out for the retroflexion, because it did not appear to be causing any symptoms.

Remarks.—The important points about the case are these: the hæmorrhage; the enlargement of the uterus, with expansion of its cavity; the swelling, softening, and easy detachment of its lining membrane; and the removal of symptoms by the application of nitric acid. I would remark, with reference to this particular case, that the hæmorrhage did not depend either upon the mitral disease or upon the retroflexion; for, after the hæmorrhage had ceased, the retroflexion was still present, and so was the mitral murmur.

The fullest account of this disease is that given by Olshausen (*Archiv für Gynäkologie*, Band viii, 1875, S. 97). Before expressing any opinions about it, I will briefly sketch its clinical characters. I shall best do so by abridging the account given by the author to whom I have referred.

The chief symptom of the affection is hæmorrhage. This may begin as gradually increasing menstrual losses, or as irregular hæmorrhages progressively becoming more severe, or as profuse bleeding suddenly taking place. Sometimes there is leucorrhœal discharge in the intervals of hæmorrhage, sometimes not; but often a thin reddish discharge from the uterus. There is, as a rule, no pain, other than a slight aching about the pelvis, except that sometimes blood in the uterine cavity seems to provoke uterine contraction. The losses of blood lead to anæmia, which may reach a high degree, and then produce other symptoms such as anæmia usually does—dyspepsia, disturbed sleep, œdema of legs, etc. Vaginal examination shows nothing strikingly abnormal. Olshausen says the cervix is found usually rather soft, and the os wide and gaping; but these conditions may sometimes be due to antecedent labours, and are not distinctive enough to be of service in diagnosis. The uterus is, as a rule, normal in position. It is usually somewhat enlarged; but the degree of increase in size varies. It may be very slight; but the organ may be so big that its long diameter is equal to that of one three months pregnant. Its shape is not altered. The introduction of the sound is easy, and not more painful than in health, but usually provokes bleeding, which may be considerable. It shows a lengthening of the uterine cavity, proportional to the increase in size of the organ. When the cervical canal has been dilated by tents and the finger is introduced into the uterine cavity, its entrance may be hindered by a thick soft spongy mass occupying the internal os. If it be not so, and the finger without hindrance reach the fundus, nothing abnormal is felt in the uterine cavity, except that this cavity is enlarged, and its lining membrane is thick, soft, uneven—feeling, says Olshausen, like a soft cushion, into which the finger can be pressed. Bischoff compares it to soft moss. The mere introduction and withdrawal of the curette, without any intentional scraping, will bring away shreds of membrane; while, if it be drawn along the uterine wall with some little pressure, large and thick pieces of the membrane lining the uterus will be withdrawn. If the operator have been at all doubtful of the conclusion arrived at from the sense of touch, this behaviour of the lining membrane under the curette will, according to Olshausen, make the diagnosis certain. The curette, he says, gives rise to only slight hæmorrhage. Its use is painful, but the pain is seldom severe; he does not think anæsthesia required. (Bischoff, it may be mentioned, usually finds chloroform desirable.) It is necessary, for cure, to continue scraping until no more membrane is withdrawn by the curette. The bits of membrane removed are seen to be quite alike, all the pieces resembling each other, both in an individual case and in different cases. They are smooth on the inner surface, and rough on the outer, where they were attached to the uterus. Microscopic examination shows them to consist of a hypertrophy of the uterine mucous membrane, with increase of all its elements, moderate dilatation of gland-tubes, enlargement of vessels, and cellular infiltration of connective tissue.

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* Read before the East London and South Essex District of the Metropolitan Counties Branch.

Although in my case a microscopic examination of the bit of membrane removed was unfortunately not made, yet I think the clinical features of the case correspond accurately enough with this description.

It is not my intention here to discuss the pathology of the disease. It is, however, necessary for me to briefly state the reasons which I think justify us in regarding this group of morbid phenomena as a distinct form of disease, deserving of separate description and study. *In limine* I would point out that, in cases such as have been described, the condition of the uterus is certainly not that of health. In a healthy uterus, the lining membrane does not come away in thick flakes with the mere introduction of the finger or the curette. Indeed, it would be very difficult, if not impossible, with the most dexterous manipulation of any instrument, to get the healthy mucous membrane away in large thick strips. The question which is naturally suggested by the description of the phenomena of my case is this, whether the swollen, softened, easily detached membrane lining the uterus was not really the decidua of an abortion. Olshausen remarks on the resemblance between the two conditions. With reference to this possible fallacy, it must, therefore, be mentioned that this author states that he has met with similar thickening and softening, both clinically and *post mortem*, in women past the childbearing age. Therefore it seems certain that it may occur independently of pregnancy. (It may be added, that supposing, in my case, the repeated hæmorrhages separated by intervals of amenorrhœa to have been really so many unnoticed abortions, a fresh pregnancy following immediately upon each abortion, then such a condition, leading, as it must do, to great anæmia and debility, calls quite as much for cure as cases of evident disease.) Whether a name implying a process of inflammation is rightly applied to the disease, is a question into which I shall not go, but will adopt, without expressing any opinion as to its fitness, the name used by Olshausen, to whom belongs the credit of having given the first full description of the disease.

Olshausen, Bischoff, Routh, and Matthews Duncan, following in this respect Récamier and Nélaton, describe this disease along with other conditions producing similar symptoms. Thus Duncan says[*]: "In his (Olshausen's) description, and in some others, there is a tendency to neglect the slighter forms of the disease, and to consider only the prolonged and severer, where hypertrophy of the mucous membrane occurs. This hypertrophy is general, or exaggerated in parts, which project into the enlarged tender cavity of the uterus, like polypus or molluscum; and this gives some of its various names to the disease—endometritis polyposa, vel tuberosa, vel fungosa. But the majority of cases are comparatively slight, and uterine hypertrophy may be inconsiderable or absent. When uterine hypertrophy is present, it is owing to, and caused by, the growth of the mucous membrane, which can easily be felt to be morbid, soft, thickened, and with prominences of various sizes, if the cervix is dilated by a tangle-tent to admit of the passage of the finger." Olshausen, in his paper, describes cases such as mine, in which there was general thickening and softening of the lining membrane of the uterus, and cases in which there were distinct polypoid projections, under the common title of endometritis fungosa; but he separates the two classes of cases, applying the term *chronic hyperplastic endometritis* to the former.

The distinction between the two forms of disease had been previously pointed out by Routh (*Obstetrical Transactions*, vol. ii, p. 130), who says: "It would appear that, in these obstinate cases of menorrhagia, there are two conditions of the uterine mucous membrane which require to be removed: one is the presence of polypi of various sizes and number, which grow from its surface; the other is a softened state of the mucous membrane, probably inflammatory in character, and which bleeds upon the slightest touch, in many cases upon the slightest movement of the patient." I would draw attention to the remarkable parallelism between the case I have narrated above, and the second of the cases given by Routh in his paper.

Bischoff describes, under the name of endometritis fungosa, four different forms of disease of the lining membrane of the uterus: one dependent upon œdema of the normal tissue, with the formation of very vascular granulation-tissue; one invariably a sequence of abortion, which he calls the decidual form; diffuse adenoma; and diffuse sarcoma ("Die sogennante Endometritis fungosa", *Correspondenz-Blatt für Schweizer Aerzte*, Jahrg. viii, 1878).

Récamier and his followers used the curette without previous dilatation of the cervix and exploration of the uterine cavity; therefore, I do not see how they could form any exact idea of the condition of the interior of the organ. Nélaton, however, narrates a case (*Gazette des Hôpitaux*, 1853, No. 17) in which strips of thick membrane were brought away with the curette. From his description, the case would seem, like my own, and the second of Routh's cases, one of those described by Olshausen. There is unquestionably a clinical resemblance between these cases of general thickening, softening, and ready detachment of mucous membrane, and the cases in which distinct local "fungosities" are met with, so that they cannot be distinguished from one another until the uterine cavity has been explored. Still, progress in diagnosis, and, therefore, in treatment, consists in the differentiation from one another of classes of disease at one time thought alike; and, therefore, I think it is well, where we have a distinct point of difference between two morbid conditions, not to lose sight of it, even though their clinical histories may seem to us much the same. And it is obviously desirable to separate cases which can be easily cured from those, such as adenoma and sarcoma, in which cure is difficult and relapse likely to take place.

As to the etiology of the disease, we know very little. The ages of Olshausen's patients ranged from twenty-one to seventy-six. He has met with it in the unmarried, in the sterile, and in those who have had children; but, from the frequency of its occurrence in the latter class of patients, it would seem that childbearing disposes to it. It also follows some acute general disease; Dr. Duncan gives two cases following typhoid fever.[*]

Nor do we know much of its natural history. Whether it has any tendency to recovery, or whether it may ever spontaneously disappear, we do not know; because it has in most cases only been found out when the uterine cavity was explored with a view to active treatment. This much, however, is certain; that it may lead to losses of blood so profuse and frequent as to seriously weaken the patient; and, when such is the case, treatment is certainly called for. It does not appear to have any relationship with malignant disease, but, on the contrary, is capable of cure.

The treatment of this affection is at first that proper for uterine hæmorrhage, the cause of which we do not know; and it is for this reason that I have entitled this part of my paper, "Remarks on the Treatment of Metrorrhagia".

A patient, the subject of this morbid condition, consults her medical adviser for metrorrhagia. He examines the uterus, and other organs of the body, and finds nothing to account for the hæmorrhage, except that the uterus is rather large. He thinks of an incomplete abortion, a polypus, cancer of the body, etc.; but from digital examination, he can get no information to guide him. In such a case, if hæmorrhage be not great, it is not necessary to do more than keep the patient at rest, freely open the bowels, and give ergot. The degree of hæmorrhage which we ought to consider profuse depends, not upon whether the patient thinks it excessive or not, nor even upon the absolute amount of blood that has issued from the vagina (supposing that this point could be ascertained), but upon the effect of its loss upon the patient. If she be evidently becoming anæmic, her mucous membranes getting pallid, then the hæmorrhage, even though it may be described to us as only slightly exceeding the patient's customary menstrual loss, yet demands treatment; and conversely, if, although the patient complain of profuse discharges of blood, yet her complexion and mucous membranes remain florid, and her bodily functions be well performed, no interference involving even a slight risk should be resorted to. It is usually desirable to make a vaginal examination, unless there be strong reason against it (as in the case of a young unmarried woman), because uterine hæmorrhage, not enough *per se* to produce grave disturbance of health, may yet be an early symptom of disease, such as cancer of the neck, or polypus, in which the sooner local treatment is carried out the better for the patient. But, should vaginal examination reveal nothing, we should not go further till we have objective evidence that the hæmorrhage needs to be stopped.

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[*] West's *Lectures on the Diseases of Women*, edited by Duncan, 4th ed., 1879, p. 130.

[*] Slavjansky (*Archiv für Gynäkologie*, Band iv, S. 285) has described a condition presenting some resemblance to this, which he found almost invariably present in women who had died from cholera: but during life the uterine symptoms were quite insignificant as compared with those of the cholera; and there is no evidence that uterine symptoms with any special frequency remain or arise after recovery from cholera. Therefore it seems to me that the condition described by Slavjansky is more correctly to be regarded as a part of the morbid anatomy of cholera, than as a separate disease of the uterus coinciding with it.

Artificial dilatation of the cervix is sometimes, though seldom, followed by ill consequences; and, therefore, we should not expose our patient to the risk of those evils, unless we are satisfied that the disease is injuring her health to such an extent that it is worth her while to incur the possibility of ill results. We are not at present in possession of any data from which to state in what cases it is that dilatation is not well borne, or in what proportion such cases are met with; these are points that yet have to be made out. But, speaking generally, I believe that, in the large majority of cases, this process is acccompanied with a good deal of pain and some pyrexia; sometimes by much retching; occasionally perimetric inflammation results; and death has been known to follow. The pain and pyrexia usually subside when the dilatation is finished, and the risk of more serious consequences is small; still, it is large enough to be kept in mind, and to induce us to refrain from this measure, unless we ourselves are quite certain that the disease present is impairing health.

The treatment practised and advocated by Récamier and his followers for hæmorrhagic endometritis was to scrape out the interior of the uterus with the curette. Various kinds of curettes have been devised, the latest, and probably safest, of which is the "dull wire" curette of Dr. Thomas of New York. Published cases show that, by this means, conditions presenting similar symptoms to the disease in question, may be cured. But this does not seem to me the best possible practice. The first thing, in my opinion, should be to ascertain as accurately as possible what is the morbid condition we are dealing with. The hæmorrhage may, for instance, be caused by a small fibrous polypus, in which case the curette would be quite useless, and might be injurious. And, according to Aran (*Maladies de l'Utérus*, p. 478), who speaks from experiments on the dead body, it is not possible with the curette to be sure of touching every part of the inner surface of the uterus. It therefore seems to me but a haphazard practice to scrape the uterine wall without having first found out what is the morbid condition present; for such treatment may not be suitable to the case, and if it be, we may fail in carrying it out successfully.

If, in a case of the kind, the general measures to which I have referred, which cannot make the patient any worse, fail to check the hæmorrhage, the next step should be to dilate the cervical canal, either with sponge or laminaria tents, until it is big enough to admit the finger. Then the cavity should be digitally explored, and treatment suitable to the condition present carried out. If chronic hyperplastic endometritis be the cause of the hæmorrhage, it is to be recognised by the enlargement of the uterine cavity, the thickening and ready detachment of its lining membrane, and the absence of any other morbid condition.

The treatment recommended by Routh and by Olshausen is the removal of the diseased lining membrane of the uterus with the curette. This measure has in their hands proved very successful. In my case, the application of strong nitric acid alone effected a cure. It would obviously be going too far to say, from one case, that the application of nitric acid will cure every case of the kind. But, in some of the cases in which the curette was used, a relapse took place; therefore this mode of treatment is not invariably successful. Bischoff, on account of the possibility of a relapse, thinks it desirable, after the use of the curette, to apply some mild caustic to the uterine cavity. It appears to me that, by passing a swab charged with nitric acid through the dilated cervical canal, and pressing it against the interior of the uterus, we are at least as likely to modify the nutrition of the lining membrane as if we scraped it off with a curette; that we are more certain of reaching every part of the internal surface; and that this treatment involves a less degree of rough interference with the uterine cavity than does the use of the curette. These considerations, joined to the favourable result of the case I have narrated, would induce me, should another case of the kind come under my care, to treat it in the same way.

CHOREA SANCTI VITI, OR ST. VITUS'S DANCE:

ITS TREATMENT WITH THE BATH MINERAL WATERS.

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I WILL preface my remarks on the above mentioned subject with an apology to the numerous readers of the JOURNAL, for inflicting upon them the results of observations, which have nothing to recommend them but a truly honest desire to place before them what I consider sufficient grounds whereon to rest a simple, agreeable, and generally available mode of treatment, for an affection or disease which is always troublesome, and occasionally intractable. While engaged in the consideration of the subject, I was irresistibly led on to seek information regarding the early history of "Chorea Sancti Viti". An historical sketch of the disease, interesting though it might be, would occupy too much space in the JOURNAL, to the exclusion of more valuable material; but I would strongly recommend to those interested a perusal of the historical sketch of this and other analogous diseases, given in Hecker's *Epidemics of the Middle Ages*, translated from the German by Dr. Babington and published by the Sydenham Society in 1844.

I have traced the history of this very extraordinary affection so graphically described in those pages, and extending from a date almost prior to the Christian era, down through the middle ages, to the present time, through all its varied phases of development, as the dancing mania, or Chorea Sancti Viti, through the bacchanalian orgies dedicated to St. John the Baptist, the tarantism of the Italians, the ecstatic movements of the dancing dervishes of Asia Minor, witnessed by myself, the "convulsionnaires" in France, the hysterical results of camp meetings in America, and of religious revivals in our own country; and I have come to the conclusion that unhealthy, morbid, mental excitement now, as in past ages, is powerful to produce evil effects; and the fact that such effects are now only met with in isolated cases—though these cases are sufficiently numerous—is due, *not* to want of material on which to work, but to the removal of the superstitions of the dark ages, to the advance of civilisation and education, and to the teaching of sound and practical religion, instead of enthusiastic spasmodic fanaticism.

The earlier writers on the Bath mineral waters are, as far as I have been able to ascertain, silent on the subject of St. Vitus's dance, or chorea, with one exception. I have in vain searched for a record of any such case in the works of Drs. Wilkinson, Barlow, Lucas, Charlton, Phillips, Wm. Falconer, and Gibbs. The single exception is Dr. Peirce, who mentions five cases of Chorea Sancti Viti to show "How many strange infirmities our crazy carcases are here liable to"; of these patients four were males and one a female—the latter did not use the baths. The ages of the males were thirteen, fifteen, and twenty-four, the female was under fifteen; all the males are reported to have been cured. To come down to our own period, in Dr. R. W. Falconer's treatise on the *Bath Mineral Waters*, he states that, in chorea or "St. Vitus's dance", bathing and douching down the whole back is productive of good results. In Dr. Tunstall's essay on the *Bath Mineral Waters*, of which an edition revised by Dr. Carter has recently appeared, chorea is referred to under its common name of St. Vitus's dance; and it is therein stated, "the Bath waters are so useful in themselves, that there is no need to enlarge upon auxiliary remedies, such as strychnine and sulphate of zinc." In my paper on the "Uses and Abuses of the Bath Mineral Waters", published in the BRITISH MEDICAL JOURNAL, 1878, I gave the statistics, as far as was possible with the means at my command, of the curative effects of these waters in chorea. I recorded sixteen cases of this disease discharged from hospital during the year ending May 1877. My remarks are to the following effect. "The total percentage of 'cured' is 75 per cent. The results of treatment of this troublesome disease by mineral baths were to me quite unexpected; and, had I not the opportunity of personal observation in many cases, I should have been sceptical."

I regret that the individual history of patients admitted into the Bath Mineral Water Hospital, as regards the previous subjective symptoms, is generally very imperfect and obscure, being dependent upon the brief and usually *ex parte* statements of friends and professional advisers naturally anxious to gain admission to hospital for their clients. The clinical-history in hospital is, I fear, not as closely attended to as is the case in general hospitals. However, although the appended list of cases, which have been selected at random from the records of the hospital, may not contain much which will contribute to scientific knowledge, I think much useful and valuable practical information will be gained on the subject of a simple and successful mode of treatment of a disease, which in past ages became developed occasionally into a formidable epidemic, and even in the present age must be regarded as an affection, always troublesome, often intractable, and sometimes incurable.

My remarks on the appended cases, eighteen in number, will be brief. All but one were females; their ages varied from eight to twenty; their residence in hospital varied in duration to from three to four months. The existence of the affection before admission, as far as was ascertainable, varied from three weeks to fifteen months. Exciting cause is given as fright in four cases, acute rheumatism in three, rheumatism and hysteria in one case, hysteria alone in one case, sympathy in one. Fourteen out of eighteen were discharged cured, four were discharged "much better". Eleven cases were treated by baths and internal use of mineral waters alone. In the remainder, the supplementary treatment was iron, arsenic, iron and quinine, zinc, bromide of potassium, and, occasionally chloral hydrate. One case only, twenty-seven years of age, was readmitted.

TABLE.—*Eighteen Cases of Chorea.*

No.	Sex.	Age.	Admitted.	Discharged.	Cause.	Treatment.	Results.	Duration of Disease before Admission.
1	Female.	8 years.	September 28, 1875.	December 23, 1875.	Fright.	Baths and waters.	Cured.	2 months.
2	Do.	16 ,,	March 11, 1876.	June 22, 1876.	None.	Baths and waters.	Cured.	1 month.
3	Do.	15 ,,	October 22, 1877.	January 10, 1878.	Do.	Liq. arsenicalis, baths and waters.	Cured.	..
4	Do.	16 ,,	March 10, 1876.	June 17, 1876.	Do.	Baths and waters.	Cured.	..
5	Do.	14 ,,	December 3, 1874.	February 11, 1875.	Do.	Baths and waters.	Cured.	3 weeks.
6	Do.	8 ,,	August 23, 1875.	October 21, 1875.	Fright.	Baths and waters.	Cured.	..
7	Do.	15 ,,	January 18, 1872.	May 9, 1872.	Acute rheumatism.	Baths and waters.	Cured.	3 weeks.
8	Do.	16 ,,	,, ,,	May 31, 1878.	None.	Baths and waters.	Cured.	15 months.
9	Do.	20 ,,	March 18, 1878.	May 2, 1878.	Hysteria.	Iron and quinine, baths and waters.	Much better.	,,
10	Do.	..	,, ,,	September 2, 1878.	None.	Baths and waters.	Cured.	3 weeks.
11	Do.	9 ,,	July 26, 1879.	October 22, 1879.	Fright.	Baths and waters.	Cured.	,,
12	Do.	27 ,,	,, ,,	October 9, 1879.	Hysteria, rheum.	Val. zinci gr. iii, ter die, baths and waters.	Much better.	,,
13	Do.	18 ,,	,, ,,	September 18, 1879.	Acute rheumatism.	Baths and waters.	Much better.	,,
14	Do.	15 ,,	,, ,,	September 10, 1879.	Valv. disease, acute rheumatism.	Baths and waters.	Cured.	..
15	Do.	14 ,,	May 19, 1879.	September 16, 1879.	..	Baths and waters.	Much better.	14 months.
16	Do.	16 ,,	July 18, 1879.	September 23, 1879.	Fright.	Liq. arsenicalis, zinc. ferri, baths and waters, etc.	Cured.	14 months.
17	Do.	18 ,,	August 10th, 1879.	October 29, 1879.	Sympathy.	Baths and waters.	Almost well.	Never had it.
18	Male.	12 ,,	March 22nd, 1880.	May 10th, 1880.	..	Reclining bath: liquor arsenicalis.	Cured.	..

Of the eighteen cases recorded, six arose from causes directly or indirectly influencing the nervous system, as far as regards volition and co-ordination; to this category I might add four of the six cases in which no causes are given; thus, there would be ten cases to be placed to the credit of functional nervous lesion, real or imaginary; in four cases, the symptoms had been preceded by rheumatism, acute or chronic. The part which rheumatism plays in producing chorea is apparently a *quæstio vexata*. Taking a broad view of the matter, I do not think that rheumatism, *per se*, has much influence directly in producing this disease, but I think these affections may be and are frequently concomitant; and I believe that both diseases are the outward and visible signs of a poisoned and consequently deteriorated condition of blood, causing, in the case of chorea, defective nerve-nutrition, and its consequent train of symptoms. I think, too, that we may ascribe the frequent connection of amenorrhœa and chorea to the same cause, viz., a vitiated and impoverished condition of blood, producing its effects on those functions which, considering age and sex, are most likely to be disturbed, viz., the functions of the cerebro-spinal system. If we divide choreic cases into two classes: (1) those in which the symptoms are connected with actual cerebro-spinal disease, accidental or congenital; (2) those in which there is no such causation present, my opinion would be that cases of the second class are instances of perverted or inco-ordinate muscular actions, owing to loss of volitional power, due to functional disturbance of the nervous system; further that, generally speaking, owing to impaired or defective blood-making, nerve-nutrition is "below par", and consequently the nerve-functions are easily morbidly affected by exciting causes, such as fright, sympathy, or imitation.

The seventeenth in my category presented in a most remarkable manner the apparently uncontrollable power of morbid sympathy or imitation to produce chorea in its most violent form. This patient, a girl aged 18, was admitted to hospital for chronic rheumatism and amenorrhœa. She was a stout healthy looking girl. Her home was in the quiet village of Wrington in Somersetshire; her mode of life and general surroundings were most unsensational. There happened to be, in the same ward with this girl, a child suffering from chorea, but not of an exaggerated type. After being in hospital about a month, this girl was suddenly seized with chorea in its most severe form. In attempting to walk, she knocked herself black and blue against furniture or whatever came in her way; she could not hold a cup in her hands, or feed herself, and, at night, was sometimes jerked as it were out of bed. Her facial contortions and grimaces were horrible to behold. No votary of St. John, no disciple of St. Vitus, no victim of tarantism could have proved a more perfect specimen of "Chorea Sancti Viti" of the middle ages. It became necessary to isolate this girl completely from her fellows, some of whom, in accordance with the history of the disease, would in all probability have been similarly affected, and the Mineral Water Hospital would have been assimilated to an asylum for "jumpers" or "shakers". This patient was placed in a room by herself, with one attendant, the room being so padded and arranged that she could not injure herself. Mr. Coppinger, the Resident Physician, has favoured me with notes of the case. I should mention that in this, as in all the cases which I have seen, the thoracic movements were bilateral. The medical treatment employed was bromide of potassium and chloral hydrate in full doses at night. When the symptoms were most violent, six leeches were applied to the inside of the thighs; and, after a time, when the acute symptoms had subsided, she had tincture of belladonna perchloride of iron, and a reclining bath daily at 100° Fahr. This was palpably a case of acute chorea, induced by morbid sympathy, in a female at the age of greatest nervous susceptibility, and under circumstances of functional derangement adapted to aggravate the symptoms. I think there could be no better example than this of a case of acute chorea, and no case better suited to form a link in the chain of connection between the epidemics of the middle ages and the sporadic cases of the present. It also bears out to some extent the theory of Dr. Sturges as regards this and other analogous diseases, regarded by him as simply an affection of function.

I have an extreme aversion to making a statement of successful treatment of disease, unless I can adduce some good reasons for removing that treatment from the accusation of being "empirical". Past history helps me materially in my effort to prove that there are good reasons to expect successful results from such treatment.

There is incontrovertible evidence that this disease is the same now as in ages past, only differing in degree, that difference being due to surrounding circumstances, to which I have alluded. I think also the history of chorea goes far to prove that the immediate causation is a "functional" disturbance of the balance of nerve-power, and that this nerve-storm may be caused by conditions involving impaired nerve-nutrition, such as are contributed by depraved blood-making, as in rheumatism, amenorrhœa, and possibly other allied diseases.

There exist abundant proofs of the beneficial effects produced by the internal and external use of the Bath mineral waters in improving depraved conditions of blood; thus their use would tend to remove the causes leading to the production of choreic symptoms. Again, it is well known that these waters exercise a decidedly sedative influence on the spinal nerves; thus their application would tend directly to subdue or diminish aggravated involuntary muscular movements. I believe myself that time, care, careful moral training, proper nutrition and isolation, may probably effect a cure; but, from personal experience in private cases, I know that cure will not be effected in anything like the time within which it can be, with the addition of the use of the Bath mineral waters.

I hope that my remarks may prove a just claim that, in this troublesome affection, treatment by these waters should be regarded as based upon a rational and not merely an empirical foundation.

ANNULAR STRICTURE OF THE INTESTINE.

By STEPHEN MACKENZIE, M.D., F.R.C.P.,
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HAVING recently had another case of annular stricture of the intestine under my care, and successfully diagnosed, I am glad of the opportunity in reporting it to answer some observations which my former paper on the subject* called forth. In the article in question, I wrote, "The fact that full sized properly formed fæces are occasionally passed of course shows that there can be no organic stricture". It is this statement which has been called in question. Dr. Heath of Torquay, in the BRITISH MEDICAL JOURNAL for September 27th, 1879, page 496, draws attention to the fact that Dr. Walters of Reigate, in the same number of the JOURNAL as that in which my article appeared, communicated a case of annular stricture of the junction of the sigmoid flexure and rectum, for which colotomy was performed. In his description of the symptoms, Dr. Walters says, "Sometimes the evacuations were not larger than the little finger; at others, large bulky motions would be passed", and, commenting on the case, he writes, "In stricture in this region no positive reliance can be placed on the size of the stools: fæcal matter may dribble through a stricture situated high up in the rectum as this was, accumulated in the lower part of the bowel, and be discharged in a large mass." Dr. Sawyer of Birmingham, after quoting my statement, says his experience is directly contrary to it, and writes that "The presence of a tight stricture of the intestine, so low down as the junction of the sigmoid flexure and rectum, is compatible with the occasional passage of fæcal masses of normal size and shape". He narrates the case of an elderly gentleman whom he saw for intestinal obstruction, and writes, "A solid motion which he had recently passed was shown to me: it was of normal shape and size. I was able to reach an annular stricture at the lower extremity of the sigmoid flexure."

These striking cases show that my statement on this point was a little too unguarded. I was quoting from my own experience, and am very glad to have this supplemented and corrected by that of others. I am much obliged to those who have drawn attention to the point and raised the question as to the value to be attached to the appearances (and statements as to appearances) of the fæces in stricture of the intestine. It will be found that standard authors, as a rule, draw attention to the altered character of the stools in stricture, but do not speak with distinctness as to the absolute value attaching to the sign. Dr. Hilton Fagge, in his valuable article in *Guy's Hospital Reports*, however, writes, "I am, for my own part, indisposed to place much reliance on the statement of a patient, that the motions have for some weeks been abnormally narrow. To expect a trustworthy answer to an inquiry upon this head is to demand more than can ordinarily be looked for, at least from the common run of hospital patients. It has not yet, I think, been determined how near the anus disease must be for such an effect to occur"; he adds, "some careful observations in reference to this question appear to be needed". Dr. Hilton Fagge, in deprecating the importance attaching to alterations in the character of the stools, only intends his remarks to apply to the statements of patients. He considers the symptom of some value when the facts are verified by the surgeon. Whilst admitting Dr. Sawyer's proposition, that "the presence of a tight stricture of the intestine, so low down as the junction of the sigmoid flexure and the rectum, is compatible with the occasional passage of fæcal masses of natural size and shape", I still think that the passage of small, lumpy, flattened, or otherwise deformed fæces, when properly formed and sized fæces are *never* passed, is a sign of great value in the diagnosis of stricture of the intestine. Of course, it is not the only sign, nor invariably, when present, pathognomonic of this condition of the bowel. It would be valuable to elicit in the JOURNAL the experience of different observers on this point, as derived from cases with *post mortem* examinations. The case I have now to report shows, I think, that the symptom is of decided significance.

CASE.—R. C., aged 61, with no hereditary tendency to disease, was naturally loose in the bowels, going twice or thrice a-day. For the three or four last summers she had attacks of diarrhœa and vomiting lasting about a fortnight; there was no blood in the stools. For eighteen months preceding her death, her bowels became constipated, and she had to take three or four pills a-week to procure evacuations. About September 1879, she began to have pain, like knives cutting her across, about the hips and bottom of the abdomen, which later became localised in the abdomen, and associated with flatulence. Her bowels became more and more constipated and never acted without pills. The motions were hard and lumpy, but not ribbon-like; never properly formed. She was seen by me on December 1st, 1879, when she was suffering from constant pain, flatulence, distended abdomen, constipation, and anæmia. Some sulphate of soda was ordered for her to be taken each morning. The first dose procured a copious pulpy motion, but subsequently it failed in its effects. The obstruction increased, the pains became aggravated, and vomiting occurred. She became a patient in the London Hospital under my care, on December 31st, 1879. Her abdomen was distended, and tympanitic throughout the course of the colon and elsewhere; there was much borborygmus; some tenderness on pressure: no lump could be felt in the abdomen. Rectal examination revealed no disease. Her tongue was coated; appetite lost. Pulse 72, regular, moderately full, soft, and compressible. Respiration 14, temperature 99°. Her bowels had acted the previous day after taking two pills; she then passed with much pain four hard lumps about the size of marbles: the pain continued for some time after the evacuation. A linseed poultice was applied to the abdomen, and a simple enema given; the latter brought away a few scybala. The following day, January 1st, another injection brought away more hard fæces. She vomited. On January 2nd, she was ordered a bismuth mixture and a drachm of Glauber's salts every other morning, in warm water. On January 5th, the bowels not acting, an enema was given which opened the bowels fairly. The fæces were hard, and of the size and shape of walnuts. During the next few days, action of the bowels was only obtained by means of enemata: the motions always hard and lumpy. On January 10th, she had a good deal of pain in the abdomen; a drachm of castor-oil was ordered each morning. On the following day, January 11th, she had a motion, partly liquid, and the remainder scybala about the size of walnuts. She vomited this day. January 12th, she had a motion in the night, and again this morning. There was no vomiting, the abdomen was less tender. January 13th, she had a great deal of diarrhœa in the night due to the castor-oil. There was no vomiting. On January 14th, 15th, 16th, there was more or less free action of the bowels: no vomiting. She felt weaker but thought she could eat a chop on the 16th. January 19th, there was much wind and pain: the bowels were open. She could only take liquid food. January 20th, she complained a great deal of pain, diffused all over the abdomen. She had frequent vomiting. The abdomen was distended but not tense: the stools copious and liquid. She looked hectic, but the temperature was only 98.2°. January 23rd, she had liquid stools and frequent vomiting. Temperature 98.6°; pulse 114; respiration 26. She was vomiting frequently. She gradually became weaker, the pulse increasing in frequency, but the temperature remaining normal till the day of her death, when it rose to 101.5°. The daily excretion of urine ranged between twenty and thirty-five ounces.

At the necropsy, the abdomen was distended; on opening it, the colon was greatly dilated throughout its visible course, and, on displacing the remaining intestines, the dilatation of the colon was found to cease abruptly at the sigmoid flexure. There was slight recent peritonitis. On removing the intestines, the stricture was found to be situated twelve inches above the anus. The bowel was constricted throughout its circumference over an area not greater than one third of an inch, and its calibre reduced to the size of a No. 8 catheter. The stenosed part showed a slightly raised red border of neoplastic nature. The whole of the colon above the stricture was greatly distended and filled with yellow turbid fluid; its mucous membrane was much congested: there was a small superficial ulcer just above the stricture, and some pin-head-sized ulcers were found in the cæcum. The mucous membrane of the ileum was congested, and presented peculiar changes in its epithelium. There was no enlargement of lymphatic glands, no secondary deposit in any organ. The remaining *post mortem* appearances were unimportant to the case.

I regret very much that I did not recommend colotomy, for the case was an exceedingly favourable one for the operation. It is doubtful if surgeons would have consented to perform it with the free evacuations the patient was having. It is quite clear, however, that the relief was insufficient and too late. Changes had taken place in the bowel from over-distension and straining, and inflammation had extended to the peritoneum. I shall have greater confidence in advising colotomy on another occasion. In such cases, as advocated by Dr. Sydney Coupland and Mr. Morris (BRITISH MEDICAL JOURNAL, January 26th,

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* "Annular Stricture of the Intestine: its Diagnosis and Treatment" (BRITISH MEDICAL JOURNAL. May 31st. 1879, p. 805).

1878, p. 122), and by myself in the paper to which I have alluded, it is much safer to open the ascending colon in the right loin, although, in this case, the bowel might have been got at in the left loin above the stricture.

DUCHENNE'S PALSY AND THE PATELLAR TENDON-REFLEX.

By H. DONKIN, M.B.,
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THE interest felt of late by neurologists in the import of modifications of the so-called patellar tendon-reflex is my excuse for these few remarks.

The increase of this phenomenon in affections where we have reason to believe there is some release of the spinal system from the normal brain-control, or in other words, where the inhibition of reflex action is in abeyance, does not present any special difficulty. We have an example of this furnished us by the *spastic* or *spasmodic* paralysis, which has been attributed to sclerotic change in the lateral columns of the spinal cord. It might be of interest to inquire whether hysterical disease is illustrated by the same phenomenon.

But when we consider the diagnostic and etiological value of the abolition of the tendon-reflex, we are met with a somewhat more complex question. The stoppage of the impulse which leads to the reflex action of the quadriceps extensor cruris may take place in the centre, or in the afferent or efferent nervous apparatus. From what we know of the absence of this phenomenon in locomotor ataxy, where it has been hitherto chiefly observed, we appear to have good reason in considering central change to be the obstacle. The reflex disappears before there is any marked sensory or motor paralysis, and morbid anatomy connects with this disease a definite lesion of the cord. It would seem that the abolition of this tendon-reflex probably points to some spinal lesion, in cases where sensation and voluntary power over the muscles still exist in the limb in question. Now, among the affections in which this phenomenon has been studied, Duchenne's palsy, or pseudo-hypertrophic paralysis, is somewhat prominent. I have noted it in two well marked cases (one of which is still in the ward) that I have lately had under my care at the East London Hospital for Children; and I find four cases with this symptom mentioned in Dr. Gowers's very valuable lecture recently published. Considering how very lately it is that attention has been directed to the knee-phenomenon, hitherto known chiefly to schoolboys, these four observed cases probably bear a larger proportion to the whole list than appears at first sight. Dr. Gowers certainly states that, early in the disease, the reflex is present; but, in support of this, he quotes no individual case. It is desirable that further observations be made on this perhaps important point; though it is but rarely that early cases of Duchenne's disease come under the notice of physicians. At first sight, however, the loss of tendon-reflex appears to have some bearing on the hitherto unwritten pathology of this malady. Although there is no positive anatomical evidence in favour of the theory of its central origin, there is not much to be said as yet for the German explanation, quoted and espoused by Dr. Gowers, that the disease is a congenital nutritive and formative weakness of the striated muscle-substance. There are many and important clinical points of analogy between Duchenne's disease and progressive muscular atrophy, which we are now tending to class among spinal diseases; and it can hardly be denied that, should further observation confirm the frequent occurrence of the absent knee-phenomenon in Duchenne's palsy, we should take this fact into account when discussing its probable origin, remembering the analogy of locomotor ataxy.

It may be urged by some that the absence of tendon-reflex is connected in the disease we are considering with the very muscles which are notably weakened, namely, the quadriceps extensor cruris; and that the stoppage of the reflex stimulus may take place in the motor nerve to this muscle, or in the muscle itself. But we must remember that, although these muscles are shown to have lost working strength, especially in the action of rising from the ground, yet a very fair voluntary power remains for some time of extending the leg on the thigh when the patient is lying on his back. It might be interesting, however, in this context to inquire, more accurately than has hitherto been done, into the degree of power of these extensor muscles in the stages of locomotor ataxy previous to the setting in of the general paretic condition.

Further observations may settle the question as to whether the diagnosis and pathology of Duchenne's disease may gain any such light from the absent tendon-reflex, as we think we have derived therefrom in our study of locomotor ataxy.

HYDATID DISEASE OF SPLEEN AND LEFT LUNG: NECROPSY.

By WM. S. PAGET, M.D.Lond., Great Crosby.

THE perusal of Dr. Wilson's case of hydatids in the Cheltenham General Hospital, reported in the JOURNAL of April 3rd, calls to mind an interesting case, perhaps almost unique, which I had about three years ago, and of which I preserved full notes, but never published them.

Mrs. L., aged 39, married at the age of 28, with a family of four children, had enjoyed fairly good health all her life up to four years ago, when she first complained of pain in the left side under the false ribs; she noticed, also, slight swelling in this locality, at the same time commenced attacks of hæmoptysis, large quantities of florid blood being expectorated at intervals of three or four weeks, usually at a menstrual period, which latter, however, was as a rule profuse. Along with the expectoration of blood, or sometimes alternating with it, large shreds of parchment-like membrane were expelled; they were only got rid of after a severe attack of coughing. Over the region of the swelling, the patient complained of a tickling sensation, as though something were moving inside.

Mrs. L. had been under medical advice four years previously to my seeing her, and two of the gentlemen whom she consulted had informed her that she was expectorating "live things" (as she expressed it). Her condition, when first seen by me, was as follows; face worn and anxious, slightly icteric; considerable emaciation; pulse 120; temperature 100°; respiration laboured; cough paroxysmal, attended by profuse expectoration of thick muco-pus, sometimes half a pint in twenty-four hours; occasionally large parchment-like pieces of membrane in the expectoration, of laminated structure, but no echinococci on microscopic examination. She complained of considerable pain in the left subclavicular region. The digestive system was much impaired, most articles of food being rejected sooner or later.

The physical signs in the chest were deficient expansion on the left side, and at the apex indications of breaking-up of lung-tissue; respiration feeble at the left base; condition on the right side normal. Over the splenic region was a swelling bulging to the extent of six inches below the false ribs, tolerably firm, but with an indistinct fluctuation. When examined in this region, the patient expressed herself as confident that it was from this quarter the shreds of membrane came in the paroxysm of coughing; but, on applying the stethoscope and desiring her to cough, no evidence could be obtained of any communication between the tumour and the left lung, though the amount of muco-pus expectorated seemed more than could be accounted for by the physical condition of the left apex. The urine was scanty, depositing lithates; no albumen. The subsequent progress of the case was downwards; signs of large cavity at the left apex; frequent vomiting; dyspnœa urgent. Death took place suddenly one day in attempting to clear the throat of some membranous shreds.

My diagnosis was that the tumour was splenic, probably hydatid; that it had suppurated, become adherent to the left lung, and was discharging itself by this means; that there was co-existing phthisical disease of the left apex, or else an old suppurating hydatid cyst in that locality.

NECROPSY.—I had considerable difficulty in obtaining an examination; but, after great persuasion, succeeded in obtaining permission to examine the chest and abdomen. The lower lobe of the left lung was comparatively healthy, but at the apex was a large cavity, in which three fingers could be placed, full of muco-pus and large detached shreds of membrane; others of similar character hanging from the walls; these were of precisely the same nature as those expectorated. The right lung and the heart was healthy. The tumour projecting from beneath the left false ribs proved to be the spleen; it was nine inches long, six inches broad, four inches thick, and weighed two pounds and three-quarters. On making an incision into it, acephalocysts in all stages flowed out, varying in size from a pin's head to a walnut; in the centre was a quantity of saponaceous material, consisting of shrivelled cysts and fatty matter. The cysts and fluid together measured over a pint. The liver, though carefully examined, showed no signs of either recent or old-standing hydatid disease in the shape of cicatrices. The other abdominal organs appeared healthy.

REMARKS.—The point of chief interest seems to me to be the relation between the affection of the spleen and that of the lung, for that the latter was hydatid, I think, admits of no doubt; as far as could be gathered, they seem to have originated about the same time. It is a matter of regret that I could not glean any particulars from her previous medical attendants; one, to whom I wrote, remembered the case, but could not find any notes of it. A curious feature is the non-affection of the liver; for I believe it is almost an invariable rule that, when the spleen is affected, there are found traces of previous liver-affection. If it be suggested that the secondary growths are started by conveyance of the parasite in the portal blood-stream, the splenic ought to be the older growths, the hepatic the more recent; and, in the case just reported, one would have expected to find (if this theory were correct) a recent tumour in the liver; the opposite state of things, however, appears to be the rule: an old liver-affection, a recent splenic one, when these coexist. This case would seem to lend support to the theory that the hooked embryos, when liberated in the human alimentary canal, make their way at different periods into neighbouring organs, and thus originate hydatid growths at different stages, quite independently of the blood-stream.

THERAPEUTIC MEMORANDA.

TOLERATION OF OPIUM IN AN INFANT.

Having lately had under my care a case showing remarkable tolerance of opium in an infant, I subjoin the following details. On April 10th, I was called to see an infant aged four months, suffering from obstinate constipation, the bowels never being opened except by the use of purgative medicine. The child was considerably emaciated, notwithstanding that he took the breast readily, and there was a good supply of milk. The right testicle had not descended, being felt in the groin. Otherwise, there was no evidence of organic disease. At the same time, I found that, to relieve the constant abdominal pain, the mother was administering, in teaspoonfuls, from six to eight drachms of laudanum in the twenty-four hours. The mother also stated that less than fifty drops of laudanum produced no effect, and that, were the opiate withheld, the child drew his legs tightly upon his belly, and screamed so as to preclude any possibility of quiet in the household. At birth, the child was fat and healthy, nor was there any evidence of wasting for six weeks afterwards. When a few hours old, the child was fed with some biscuit-powder, and shortly afterwards began to scream and draw up his legs. Carminatives were given with but little effect; then small doses of a sedative mixture, containing morphia; and the bowels were cleared out repeatedly. Notwithstanding, the pain recurred as soon as the influence of the sedative wore off, and the dose required to be increased in order to afford the necessary relief. Since that time, the bowels have never operated without medicine, and there has been constant pain and flexion of the thighs on the abdomen, except when the child is narcotised. The mother also tells me that the last medical man called in declined to attend the case on her refusal to withdraw the opiate. I told her my belief that the child was being slowly poisoned by the laudanum, and strenuously urged her to decrease the dose gradually. At the same time, I recommended three or four teaspoonfuls of cod-liver oil to be given daily, and a mild aperient powder every second or third night should the bowels not act of themselves. Now (April 18th), the child is getting between three and four drachms of laudanum in the twenty-four hours, nor has it suffered during the withdrawal of the opiate as it did on previous occasions.

J. Mackenzie Booth, M.A., M.B., Aberdeen.

BROMIDE OF ETHYL AS AN ANÆSTHETIC.

I administered bromide of ethyl at the Middlesex Hospital a few weeks back, with the following results.

The first patient was a corpulent man, aged 47, suffering from fistulæ in region of anus, who had often had anæsthetics before. He was inhaling for six minutes before he was fully under its influence, and the operation lasted nearly forty minutes. Fifteen drachms of the anæsthetic were used, and he vomited three times during the operation, the vomiting continuing more or less for two days. The pulse was not quickened. This patient has since been operated upon, when chloroform was used, after which he had no sickness.

The next patient was a boy aged 17, suffering from disease about hip. He was kept under the influence of the anæsthetic for twenty-two minutes, during which time he inhaled fourteen drachms. He vomited twice during the operation, and was very sick all through the night.

The next patient was a man aged 34, suffering from fistula *in ano*. It was seven minutes before he was insensible; he struggled a good deal, and was never completely relaxed. He retched, and then vomited, the vomiting continuing all that night. He inhaled twelve drachms. The mode of administration was on lint, with towel placed over it, except in the last case, when a leather cone was first used; but, the muscles not becoming relaxed, the former mode of administering was resorted to. All the patients quickly recovered consciousness.

G. Everitt Norton, Chloroformist to the Middlesex Hospital.

OBSTETRIC MEMORANDA.

ERGOT SUPERSEDED.

I wish to explain to Dr. Roden that Weiss and Son supplied me with a "vaginal plug", price four shillings. In the case to which he refers there was free hæmorrhage before labour, and during the pains; these were feeble and far between. The os uteri was not much dilated or dilatable. In such circumstances, the profession consider ergot contra-indicated, I believe. The effect of the presence of a foreign body, such as the hand (see Dr. Bernard of Londonderry, in the British Medical Journal, April 17th, page 585) or the elastic plug (Barnes's), is to induce contractions and expulsive efforts favourable to the cessation of hæmorrhage. I have often induced pains when the head only was born, during the prolonged period of suspense awaiting an expulsive effort, by inserting the finger and pressing backwards against the fourchette. Dr. Roden tells us how to inflate the pessary; but I cannot clearly understand how the air is to be retained within it. I found this the difficulty.

Samuel W. Smith, M.D.

A CASE OF COMPLETE ABSENCE OF FEMALE GENERATIVE ORGANS.

E. G., aged 17, an unhealthy-looking girl, was admitted into this Infirmary on February 4th, suffering from chlorosis, and complaining of great pain in her left side. She stated that she had never menstruated; and thinking this was the cause of her condition, she was treated with iron preparations, under which she certainly improved till March 25th, when she had a severe attack of epistaxis. From now, she complained more of the pain in her side; and on April 21st suddenly died. At the necropsy, I at once noticed the complete non-development of the mammæ and no sign of pubic hair; and on looking for the uterus and its appendages, I found them entirely absent, the rectum and bladder lying in position similar to that of a male. The vagina consisted of a *cul-de-sac* one inch and a quarter long, with the meatus urinarius at its end. The real cause of death was found to be a large abscess at the apex of a spleen weighing seventeen ounces.

Reg. Maples, M.R.C.S., etc., Newington Infirmary, S.E.

SURGICAL MEMORANDA.

TREATMENT OF CHRONIC CYSTITIS BY ANTISEPTIC INJECTIONS.

During the last few months, I have had several cases of chronic cystitis, in which there has been, from enlargement of prostate or partial paralysis of the muscular coat of the bladder, retention of urine, and consequent decomposition of that secretion.

No plan of treatment has answered so well in my hands as the daily introduction, once or twice each day, into the viscus, after the residual urine has been drawn off by a catheter, of a weak solution (1 in 100) of carbolic acid, at the temperature of 98°. The bladder appears to be singularly tolerant of the solution, and very great relief (with sometimes absolute cure) has followed on this plan. But it has seemed to me that it is of all things important that the solution find its own way, *slowly* and steadily, into the bladder. To ensure this, I reject absolutely any syringe, and simply attach to the end of any catheter of proper size, introduced into the bladder, a piece of India-rubber tubing, at least six inches long. To the distal end of this tube is attached a small glass funnel, into which the lotion is slowly poured. The flexible tube receives the weight from above, and, loosely held in curved form, allows the lotion to trickle slowly along the catheter. The funnel must be maintained at the height just necessary to allow this.

W. Newman, M.D.Lond., F.R.C.S.Eng., Stamford.

CASE OF BULLET-WOUND.

I was called to T. E., who had attempted to commit suicide by firing a revolver into his mouth. On examining him, I found a very little blood in the mouth. On washing it out, I found the right side of the tongue charred, and an opening through the right tonsil about the size of a goosequill. On exploring this, my director took an upward and backward course to the transverse process of the first cervical vertebra, and then towards the left. I could detect the bullet firmly impacted in the body of that bone. The man seemed none the worse for the injury. I held a consultation, and we decided that it would be injudicious to attempt to remove the bullet. He was committed to prison, and thus I lost sight of him for ten weeks. He is now in perfect health, and in no way suffers from the bullet, which has never been removed.

Walter Buchanan, M.R.C.S.E., etc., Chatham.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

BIRMINGHAM GENERAL HOSPITAL.

NOTE ON A CASE OF A SEVERE ATTACK ANALOGOUS TO GASTRIC VERTIGO. BY JAMES RUSSELL, M.D.

THERE are few forms of disease in which clinical phenomena illustrate in a more interesting manner the results afforded by the minute dissection of the nerves, characteristic of the anatomy of the present day, and the relations held to one another by certain nerves in their ultimate distribution, than that large and curious group of cases which have vertigo for a leading symptom. The explanation of the phenomena presented by Menière's disease, which is based upon the influence exerted on the semicircular canals in directing the equilibrium of the body, is in striking agreement with the observations made by the late lamented Lockhart Clarke, in his laborious dissection of the medulla oblongata, reported in the *Philosophical Transactions* for 1868. It is there explained that the outer and inner auditory nuclei are derived mainly from the grey matter of the restiform body and of the posterior pyramid (the restiform and post pyramidal nuclei); and, further, that one division of the root of the auditory nerve (the anterior division) may be traced to the superior vermiform process of the cerebellum.

With this demonstration by Dr. Clarke, of the connection between the central organs of hearing and the cerebellum, may be connected the suggestions of Dr. Hughlings Jackson as to the office held by the cerebellum in directing the automatic movements of the muscles and limbs, and especially in maintaining the equilibrium of the body, which are epitomised in the *Medical Times and Gazette*, October 26th, 1878. But the group of cases to which this explanation applies has been largely extended by Dr. Woakes, who has brought the well-known cases of stomach vertigo within the same category, although in these cases the auditory apparatus, central and peripheral, is itself quite free from disease. Altered circulation within the labyrinth, and consequent compression of the endolymph, constitute the basis of Dr. Woakes's explanation; and he refers, in confirmation, to the relations which are effected in the inferior cervical ganglion, between certain afferent nerves from the stomach and the vaso-motor branches of the sympathetic present in the vertebral plexus. (BRITISH MEDICAL JOURNAL, vol. i, 1878, page 364.) But the nervous connections which subsist in the inferior cervical ganglion are shown by Dr. Woakes to comprise, in addition, the inhibitory nerve of the heart, besides the vaso-motor plexus of the vessels of the arm: hence, by a similar explanation, other cases come to be included, in which the symptom of vertigo has not been present, but in which the phenomena point rather to cardiac failure as the chief cause of the derangement. In not a few of these last-mentioned cases, the patient talks of being giddy, but, on inquiry, it is found that true vertigo has never been experienced. In other cases, again, a mixed condition prevails, in which it is difficult to apportion the relative responsibility between the heart and the equilibrating apparatus.

But, entirely apart from the interest attaching to these anatomical details, the explanation of attacks such as those to which I refer has much importance by removing the case from the dreaded category of epileptic attacks, and placing it under a more hopeful aspect. It is true that, occasionally, the true vertiginous disorder is so intense that there seems little to choose between it and true epilepsy. A case of Menière's disease is described by M. Charcot (*Le Progrès Médical*, December 11th, 1875), in which the patient was restricted to the most absolute stillness in the recumbent position; still, as a rule, the cases now in question have a more cheerful look out, and, at the worst, are without some of the most dreaded results of confirmed epilepsy, viz., loss of mental control. The diagnosis, however, is sometimes not easy; and I have met with several cases in which the more unfavourable conclusion had been arrived at. It is with reference, more particularly, to the last-mentioned view of the subject that I insert a brief note of the following case; simple as the symptoms appear, when a full report had been obtained, the derangement was so severe for two or three days that, having nothing but the present condition before us, the diagnosis shifted between epilepsy and meningeal hæmorrhage. The history subsequently obtained from the patient made the matter clear.

J. B., a healthy-looking man, with grey hair and spare habit, was brought to the Birmingham General Hospital, having been "taken in a fit". It was afterwards found that he had been subject for the last two years to attacks, of which the only account he could give was, that they began with violent belching; then what he thought was the wind came on, and seemed to go all over him, rendering him tremulous, making his head very queer, and causing him to feel much difficulty in keeping on his feet. He had never been rendered helpless by the attack, nor had he lost consciousness until the present occasion, when the unconsciousness was only partial, though, when seized in the street, he had felt great fear as to his ability to reach his destination. He had never staggered, nor been conscious of giddiness. The attacks were brief, though some had lasted for a quarter of an hour. He was always relieved by a small dose of brandy. Sometimes, the attacks had occurred in the night, and then he had been compelled to arouse his wife, in order to get the dose of brandy. He had been a healthy man, excepting that some time ago he had indigestion, attended with pain across the chest. He was placed on milk-diet, and soon recovered. He was, however, very morbidly impressible. His habits had been strictly temperate. A certain degree of rigidity in the radial arteries was the sole evidence of fault in his physical organisation. His optic discs were healthy. The commonest cause of the attacks was long abstinence from food; but the most certain means of inducing them was afforded by a meal of tea; he had been compelled in consequence to substitute cocoa. On the morning of his present attack, he had had tea for his breakfast. He was engaged in emptying boats, when he suddenly cried out that "he was bad"; he did not fall, but was helped into the hut near the boat, and, having had some brandy, was conveyed to the hospital. In the out-patient room, Dr. Simon found the patient unable to stand, and, suspecting that intracranial hæmorrhage had occurred, sent him into the wards. That was about 10 A.M. Dr. Malet, the house-physician, found the patient sitting on a chair, having, every few minutes, attacks of fearfully violent eructation, effected with a loud noise; during the intervals of belching, the man was only half conscious; he could not be made to reply to any question, and hardly to protrude his tongue, which was very furred. After a bath, he had an attack of apparent unconsciousness; he then lay on his back, almost like an apoplectic; the pupils were dilated, and feebly sensitive to light; respiration was stertorous; the cheeks were blown out and drawn in with respiration. The face was dusky, and there was profuse perspiration. The pulse was very soft and full, and was accelerated. It was some hours before he recovered from this condition, and he was not fully himself until the following morning; for two or three days, he appeared dazed and confused. His recovery was speedy and complete. He had only an imperfect recollection of what had taken place; he remembers being conveyed to the hospital and being placed in the bath, but there his memory becomes at fault. The attack just described happened on December 1st of last year. On March 6th he visited the hospital in perfect health. He had been taking liquor strychniæ.

WORKINGTON.—This district has lately had the advantage of being furnished with a supply of pure water from one of the Cumberland lakes, in place of the suspicious and polluted supplies formerly in use. As a consequence, there has been a marked decrease in the district of typhoid fever; and Dr. Ward thinks that it may also beneficially affect the fatality of other diseases. Pulmonary complaints naturally swelled the deaths of the year, which were 33 in excess of the deaths of 1878. Whooping-cough appears to have been present in the district in an epidemic form; but as to other zymotic diseases nothing is stated, and, as the tables referred to in the report are not printed with it, it is difficult to give any of the year's statistics. Dr. Ward is much impressed with the dire effect on the health of the community of an impure house-atmosphere, which he regards as one of the most important factors in the production of diseases of the respiratory organs, the brain, and nervous system, as well as of tubercular and zymotic diseases. He gives several instances of stuffy and unventilated bed-rooms being associated with cases of disease of this nature; and states, as the result of his experience, that in nothing are the fatal effects of defective sanitary influences so much seen as in certain diseases of the brain. "Tubercular inflammation of the brain, water in the head, convulsions and other head affections, seem to have a close causative relation to want of fresh air, defective ventilation, and to sewer or other filth influence." Out of the 24 fatal cases of this nature investigated in the town during the year, Dr. Fox found in 17 some filth influence defiling the house-atmosphere associated therewith—such as imperfectly ventilated water-closets, either within or contiguous to the dwelling; slop-stone waste-pipe communicating with the sewer; contiguous stable; or some other sanitary defect of a similarly injurious nature.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 11TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

A THIRD CASE OF EXTRA-UTERINE GESTATION TREATED BY ABDOMINAL SECTION. BY LAWSON TAIT, F.R.C.S.

THE case differed from the two previously read before the Society, in that the operation was performed before the death of the child, whose life was saved, but the mother succumbed to the operation. Mrs. S., aged 33, had been married fourteen years and had had six children. Since her last menstruation, in May 1879, she had been in constant pain, of which a severe attack occurred in July. In October, she became satisfied she was pregnant; and Mr. Lattey, under whose care she was, suspecting the nature of the case, asked Mr. Tait to see her. A large abdominal swelling was evidently a pregnancy, and to the left of the umbilicus was a prominent mass, which, from its rhythmic contraction, was clearly the uterus, and was attached to the larger mass behind it. The head of the child was detected between the rectum and vagina. The pain becoming agonising, and being unrelieved by opiates, an operation was determined on. Ether was administered on the morning of January 31st; and, on making the median incision, the empty uterus was found, and the cyst, which was the right broad ligament, was opened and the child removed without difficulty; the edges of the opening in the cyst were then secured to those of the parietal wound, leaving an opening for the discharge of the placenta, and the peritoneal cavity was closed. The child was at first profoundly narcotised, but was now, three months afterwards, thriving and well. The death of the mother, which occurred on the fourth day, seemed to be from protracted shock. At the *post mortem* examination, there were found some morbid appearances in the liver, and *ante mortem* clots in the heart, but no peritonitis. The cyst proved to be the broad ligament, as diagnosed, and there was a deciduous lining in the uterus in process of separation. The Fallopian tube had been ruptured at its lower aspect, the ovum thus escaping into the tissue of the broad ligament; and the case confirmed the author's opinion that all extra-uterine pregnancies were originally tubal, that the tube burst between eight and twelve weeks, and where this did not produce death, an extra-uterine pregnancy was completed. The unfavourable result to the mother was due to the delay in the operation; but the case was of interest from the saving of the child. The child might have been removed by vaginal section, but the presence of large venous sinuses in every direction made it likely that any injury to one of them would be fatal; and in vaginal section it was impossible to see what to avoid.

Mr. DORAN had made *post mortem* examinations in several cases of extra-uterine pregnancy. He regarded vaginal incision as very dangerous, as the rectum was often pushed down by the tumour, especially in the later stages.—Mr. SPENCER WELLS did not think it necessary to assume that rupture of the Fallopian tube occurred in all cases of extra-uterine pregnancy. An ovum might escape at the end of the tube and lodge anywhere. In a case of combined intra-uterine and extra-uterine pregnancy which he had examined, there was no rupture of the tube.—Dr. JOHN HARLEY suggested operation for the removal of the fœtus as soon as a correct diagnosis could be made. In a case under his care at St. Thomas's Hospital, a woman had a painful tumour in the side of the abdomen. He at first thought it to be malignant, especially as it increased in size. Soon, however, he found it to be an extra-uterine pregnancy. The woman was transferred to the obstetric wards, and was not operated on till pregnancy was far advanced. The children lived for two or three months, but the woman died.—Mr. KNOWSLEY THORNTON asked whether the ether had anything to do with the fatal result. He thought shock more likely to attend the use of ether than of chloroform or of ethidene bichloride.—The PRESIDENT asked how the placenta had been dealt with in Mr. Tait's case.—Mr. TAIT said that the placenta had been left in the wound, as first recommended by Kœberlé. In such cases, it was gradually removed, and the wound healed from the bottom. He believed that ether was antagonistic to shock. The pathology of extra-uterine pregnancy was too extensive to discuss at present; but he had treated of the subject fully elsewhere, and he adhered to his belief that in all the cases where examination had been made there was rupture of the Fallopian tube.

ON THE TREATMENT OF PELVIC SUPPURATION BY ABDOMINAL SECTION AND DRAINAGE. BY LAWSON TAIT, F.R.C.S.

IN this paper, Mr. Tait advocated the principle of opening and draining the various conditions of suppuration classed as "pelvic abscess". He pointed out, and quoted Dr. West in support, that, in very many of these cases, the abscess opened into the rectum or other part of the intestine, into the bladder, or amongst the muscles of the anterior abdominal wall. When such openings were established, either death occurred or recovery was extremely protracted. Even when the abscess opened into the vagina or could be tapped from that canal, the recovery was frequently prolonged to an extent not commensurate with the size of the abscess. The author narrated six cases of pelvic origin, all of which seemed to have originated in extraperitoneal hæmatoceles. In none of them would vaginal tapping have been effectual in properly emptying the abscess of the *débris* of the clots. They were opened from above, the opening into the abscess-cavity being carefully stitched to the opening in the abdominal wall, save in one case where an already made adhesion rendered this part of the operation unnecessary. Wide glass drainage-tubes were then inserted, and were changed for smaller ones, and these again for wire or soft India-rubber tubes. The abscesses were closed, and the patients restored to health in about thirty days; they all made rapid and complete recoveries. Mr. Tait's general conclusion from these cases was, that the opening of such abscesses by abdominal section was neither difficult nor dangerous; that recovery was made in this way more certain and rapid than in any other. In future, he would always advise an exploratory incision in cases where he was satisfied there was an abscess, but where he could not reach it or empty it satisfactorily from below.

The PRESIDENT asked Mr. Tait whether the operations had been performed antiseptically, what was the size of the tubes, and whether any antiseptic measures had been used to exclude air from the tubes.—Dr. JOHN HARLEY asked whether there was any impairment of the action of the intestines, and what was the state of the coils of the small intestine.—Mr. KNOWSLEY THORNTON said that the operation described by Mr. Tait was a great advance in surgery. Cases of pelvic suppuration had long been very unsatisfactory. He had treated two cases on the plan recommended by Mr. Tait. While many cases in which there was an opening through the vagina did badly, there was no doubt that some did well; but he thought that the abdominal section was to be preferred, especially if it were done antiseptically.—Dr. HEYWOOD SMITH inquired as to the length of the incision; also whether there was any difficulty in the cases in which the boundary-wall of the abscess was stitched to the abdominal wall.—Mr. SPENCER WELLS thought that, in most cases, it was unnecessary to open the peritoneal cavity. The blood, pus, or serum could escape through an opening made through the vagina with a trocar; it should be kept free by means of a piece of wire, and an antiseptic solution, as of iodine or carbolic acid, should be injected.—Mr. HENRY MORRIS asked whether Mr. Tait would operate as he had described in all cases of pelvic cellulitis without suppuration. He had had a man under his care with pelvic suppuration, which he treated successfully by making an opening above Poupart's ligament, and introducing a large drainage-tube. He could not, however, see that anything was gained by a double incision. He had seen cases do well after the operation *per vaginam*.—Mr. MORRANT BAKER asked what was the extent of the incision, and how far the peritoneum was opened and the intestines exposed.—Mr. LAWSON TAIT said that Lister's method was followed in the first four cases, not in the others. The glass tubes used were those recommended by Kœberlé, varying in length from six to two inches, and from an inch to a quarter of an inch in diameter. No special antiseptic measures were used after the operations. In the sixth case, the patient had symptoms of septic poison before the operation; when the opening was made, these ceased, although no antiseptic was used. There was no intestinal adhesion in any of the cases, nor any difficulty about the action of the bowels. The incision was about the same length as in ovariotomy; the peritoneum was opened in five of the cases. There was no difficulty in stitching the wall of the abscess to the abdominal wall. Cases might be operated on through the vagina, but their progress was very tedious, and there was a probability of missing the abscess in tapping *per vaginam*. For the present, he would limit the abdominal operation to cases in which this probability existed.

SUBCORACOID DISLOCATION OF HUMERUS WITHOUT RUPTURE OF CAPSULE. BY FREDERICK S. EVE, F.R.C.S.

Mr. EVE described a case of subcoracoid dislocation of the humerus without laceration of the capsule, and with an indentation on the posterior surface of the head of the humerus; and made some remarks on the mode of production of fracture of the anatomical neck with dislocation. Thomas B., aged 36, was knocked down by a train, while at work on the line. On admission to St. Bartholomew's Hospital, he was found to have sustained a subcoracoid dislocation of the right humerus, presenting the ordinary characters. The dislocation was readily reduced by traction with the heel in the axilla. He died twelve hours after the accident, from injuries to the thorax. At the *post* *mortem* examination, except some laceration of the lower part of the deltoid, the muscles of the shoulder were found to be not damaged. The joint was unopened; but, on incising the capsule, it was found to have been detached from the anterior margin of the glenoid cavity, but remained continuous with the periosteum. On the posterior surface of the head of the humerus, at the margin of the articular cartilage, a deep vertical indentation or groove was seen, into which the anterior margin of the glenoid cavity accurately fitted. Mr. Eve said that the injury was probably produced by direct violence. He had been unable to find on record a single case of traumatic dislocation in which the joint was not opened. The groove or indentation was, doubtless, from its position and shape, produced by the forcible impact of the humerus against the anterior margin of the glenoid cavity. Malgaigne, who mentioned two specimens of old dislocation forwards in which somewhat similar grooves had been formed by attrition, thought that they were sometimes produced as in the case related (*Fractures et Luxations*, p. 496). An easy explanation of the mode of production of fraction of the anatomical neck with dislocation of the head, was suggested by this case, for, if the blow had been sufficiently forcible, the head would have been chipped off by the anterior margin of the glenoid cavity, and would then have been displaced forwards. An explanation was also given of the cases of impacted fracture of the anatomical neck, with rotation of the head of the humerus on its axis, which was borne out in several particulars by the two cases recorded by Mr. R. W. Smith (*Fractures and Dislocations*, pp. 196 and 197). In both these, the head was displaced forwards.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 4TH, 1880.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

Cancrum Oris leading to Necrosis of Lower Jaw.—Mr. CRIPPS showed the *débris* of an inferior maxillary bone taken from a child two years old, a patient at St. Bartholomew's Hospital. The child had been quite well until a fortnight before admission, when it began to be feverish. On admission, there was a large swelling over the right lower jaw. The swelling increased in size, and superficial ulceration set in. Ten days later, the whole mass sloughed, and the child died. *Post mortem*, the whole structure was found converted into a clay-like substance, and in the *débris* were the remains of the bone. The interest of the case lay in the diagnosis. The ulceration was much slower than in ordinary cases of cancrum oris. There was no history of measles, nor of phosphorus poisoning, nor of the child having taken mercury. A favourite cat had suffered just before from a swelling of the nose and mouth, for which it was killed, and it was possible that the child had been infected by it.—Mr. MORRANT BAKER had seen the case during life, and agreed with Mr. Cripps that it was not an ordinary case of cancrum oris.—Dr. DOWSE had seen three cases closely resembling this one in one family after measles.—Mr. MACNAMARA suggested that the case was one of acute necrosis rather than of cancrum oris. He had seen a case of this disease in an infant.—Dr. SHARKEY had seen a case of cancrum oris in which the whole upper jaw on the right side came away in one piece.—Mr. CRIPPS, in reply, could not accept the view put forward by Mr. Macnamara that the case was one of acute necrosis, using the term in the same sense as applied to acute necrosis of bones of the limbs. In the latter case, the necrosis was primary, the bone died rapidly throughout its whole length, and the soft parts were involved at a later period; in the case he had described, the soft parts were first involved, the necrosis spread slowly, and was evidently secondary.

Intestinal Obstruction in a New-born Infant.—Mr. CRIPPS narrated the case of a child, who, three days after birth, had passed no motion. On examining the rectum, the finger was stopped an inch within the anus. Thinking that the case was one of imperforate anus, Mr. Willett, under whose care the child was, operated, but without result, the child dying two days later of peritonitis. After death, the rectum was found to be quite patent; the obstruction being situated about two feet above the ileo-cæcal valve, and being due to a volvulus, which could be undone with great ease.—Mr. BAKER stated that he had examined the case, and that he believed a diagnosis was impossible.

Imperforate Rectum.—Mr. CRIPPS further showed a specimen of this malformation. The child had passed no fæces, but vomited the contents of the intestine at intervals. No operation was allowed by the parents at that time; and, a month later, the child was brought to the hospital again in fair health, having passed no fæces, but relieving the intestine by vomiting. An exploratory incision was then made, but without finding the rectum, and the child died three days later of peritonitis. *Post mortem*, it was found that the rectum ended in a large dilated extremity about an inch from the anus, and a *cul-de-sac* passed in from the anus for about three-quarters of an inch. The puncture had passed into the recto-vesical fold of peritoneum; hence the fatal result.

Rapid Collapse in Strangulated Hernia.—The PRESIDENT narrated a case of strangulated femoral hernia in an old lady, whom he had first seen seventy-two hours after strangulation had set in. She had remained tolerably well till a few hours before, when she got out of bed, and almost directly afterwards became collapsed. After her death, it was found that the intestine above the point of strangulation was dilated and intensely congested; below the strangulation, it was collapsed and pale. The mesentery connected with the first-mentioned portion was also exceedingly congested. There was no lymph on any part of the gut, and no trace of peritonitis, thus conforming to the rule that peritonitis does not occur in the case of strangulated hernia except after an operation or severe taxis. The cause of death was obscure; it might perhaps be attributed to abdominal shock.—Dr. SAMUEL WEST thought the case offered a possible explanation of the cause of shock. There was extreme congestion of an extensive system of veins, which might be looked upon as a bleeding of the rest of the body into the abdominal veins, resulting in syncope.—Dr. THIN suggested that the cause of the congestion of the intestine might perhaps be found in mechanical injury to the capillaries, resulting from the great distension of the bowel, leading to obstruction to the flow of blood.

Diffuse Sarcoma of the Liver in an Infant.—Mr. PARKER showed the liver of a child five weeks old, whose liver occupied nearly the whole abdomen when it was first examined, about three weeks after birth. The surface of the abdomen was irregular over the hepatic region, and it was hard to the touch. The veins of the abdominal wall were enlarged, but there was no ascites, nor was there any jaundice. *Post mortem*, the liver weighed thirty-three ounces, and was of a dark plum colour, and contained a large quantity of blood. The surface was smooth; the capsule not adherent. Diffused through the entire substance was a quantity of new growth, appearing in the form of nodules, varying in size from a millet-seed to a walnut. Microscopically, this was found to consist of round cells about the size of red blood-corpuscles. There was no history of syphilis. A second growth was found lying in the adipose tissue between the spleen and the left kidney. He had called it a round-celled sarcoma, but it was possible it might be a syphilitic growth. The existence of a secondary growth, however, argued against the latter hypothesis.—Dr. PYE-SMITH thought that the case was one of acute syphilitic infiltration, resembling cases which Dr. Wilks had been the first to describe. The sections were not unlike those found in diffuse interstitial hepatitis, which would probably have its origin in syphilis. He thought it highly improbable that the case was one of primary sarcoma.—Dr. CORY asked whether the spleen was enlarged, as was usually the case in children dying from congenital syphilis.—The PRESIDENT mentioned a case in which the liver was so large as to be an obstruction to labour. In this case, there was abundant evidence of syphilis.—Mr. PARKER, in reply, said that the spleen was not enlarged. He had inquired carefully, of both the father and the mother, into the possibility of syphilis. There were no other signs in the child of syphilis, and mercurial inunctions, which had been tried, had not been of any service. He believed that general syphilitic hepatitis was one of the rarities of pathology. On the other hand, considering how greatly the liver was dependent upon the mesoblast for its development, he thought that there was nothing unscientific in looking upon the tumour as a primary sarcoma.

Chondro-sarcoma of the Leg.—Mr. PARKER showed a tumour which had grown in three months in the left leg of a child one year and a half old, involving the knee-joint and the bones above and below it. Before death, the right knee had also become affected. After death, it was found that the whole length of the femur was involved, except the head and the great trochanter. The tumour was of a tough fibrous structure. There were similar, but smaller, growths in the right leg, and also in the left lung. The left inguinal glands were enlarged. The microscope showed that all the tumours were composed of fibrous cartilage with strands of ossifying tissue, and here and there islets of calcareous deposit.—Mr. GOULD asked whether the lymphatic glands contained any real secondary growth. He had seen a somewhat similar case, but in that instance the glands, though enlarged, contained no malignant structure. He would ask whether the tumour grew into the veins, as he had seen this occur in cases of the kind.—Mr. PARKER replied that the glands contained growth of the same nature as the bone; there was no invasion of the veins by the growth.

Congenital Talipes Varus and Talipes Calcaneous.—Mr. ROBERT W. PARKER exhibited these specimens. The talipes varus had occurred in a child who had died immediately after birth. The fibula was situated behind instead of outside the tibia, and the front of the latter bone was overlapped by the muscles of the calf. In the talipes calcaneus, the muscles on the front of the leg were shortened, whilst those on the back were lengthened. The cases were interesting in relation to the causation and the treatment of these affections. He believed that their origin lay rather in a primary malformation of the bones than in paralysis of one set of muscles. He thought that this view was borne out by the twisting of the bones seen in the first case, and the alteration in length of the muscles in the second case.—Mr. Wm. Adams believed that the altered arrangements of the bones were more apparent than real; and he did not think there was any primary malformation of the bones. But he was equally indisposed to believe in the existence of a congenital paralysis. There could be no doubt that at birth there is deviation of the bones, but this is not more than would be due to the feet having been in an abnormal position for the last few months of pregnancy. The cause of the abnormal position, he thought, was to be found in a spasmodic action of certain muscles, most probably arising from some morbid nervous condition.—The President asked whether talipes calcaneus was not often met with as the result of paralysis in spina bifida.—Mr. Adams replied that his experience went to show that varus was the most common, and calcaneus the least common, form of clubfoot met with in cases of spina bifida.—Mr. Parker stated, on the other hand, that he had most often met with talipes calcaneus in cases of spina bifida. As regarded the pathology of club-foot, he thought the mechanical explanation of malposition of the bones, arising most probably from abnormal position of the child *in utero* was the simplest. If the origin were primarily nervous, he thought that the disease would be less amenable to treatment.

Sequel of a Case of Tertiary Syphilis.—Mr. William Adams narrated the sequel of a case of syphilitic gummata, recorded by him in vol. xx of the *Transactions*. The patient lived for seven years afterwards. The tonsils, soft palate, larynx, and pharynx were involved. Tracheotomy was performed, and the patient lived for a year afterwards, dying a few days after the removal of the tube.—The President called attention to the great value of recording the sequelæ of living cases exhibited at the Society.

Micro-photographs of the Blood in Yellow Fever.—Dr. Squire showed a series of photographs of the blood of yellow fever patients, taken by Dr. Sternberg. The red corpuscles were natural, but the white were much altered, containing numerous fatty granules, and closely resembling the corpuscles of patients dying from famine in India. There were no microzymes.—Dr. Thin said that he believed that some of the bodies which were described by Dr. Sternberg as fatty granules were in reality organisms allied to micrococci.

Large Pulmonary Cavities.—Dr. Samuel West showed two specimens of this nature. The first was taken from a man who was thought to have localised pneumothorax. He suffered from extreme dyspnœa. There was an almost tympanitic resonance over the left side of the chest, and sounds were produced by succussion. After death, the left lung was found to be converted into an enormous cavity, the wall of which was formed by condensed lung and thickened pleura. There was a singular absence of vascular or bronchial trabeculæ across the cavity. The second specimen was taken from a man who died after profuse hæmoptysis. The lung had much the same appearance as that just described, but was filled with recent clot. At one spot, an aneurism of the pulmonary artery was found, which appeared to have been divided into two parts, one part having been carried away. Large cavities in the lung were not rare, but it was unusual to find one cavity involving the whole lung, from apex to base. The only similar case he had been able to find on record was one described by Rokitansky. In that case also, death had resulted from the rupture of a pulmonary aneurism. In neither case had there been a history of previous illness to account for the cavities.

Acute Atrophy of the Liver.—Dr. Samuel West showed the liver of a child aged six years, who had been taken ill, six days before being seen, with vomiting, delirium at night, and slight œdema. The child, with another, had eaten something they had picked out of a gutter; the other child had been taken ill in a similar way, but had recovered. When first seen, the child appeared to have meningitis; the head was thrown back; knees drawn up; temperature 101°; rapid respiration and pulse. There was great enlargement of the liver. The child became more œdematous, and the liver rapidly decreased in size. Altered blood was passed by the rectum and blood was vomited. *Post mortem*, the lungs were much congested; the heart slightly fatty; the liver weighed sixteen ounces, and was smaller than normal. On section, the outer part of the lobules looked grey and the inner red. Microscopically, the cells near the outer margin of the lobules were granular; the central cells were converted into fat—each cell presenting all the appearance of a fat globule. The fat had disappeared from the most central cells. The case was evidently one of acute fatty degeneration of the liver, but without the production of jaundice.

Congenital Malformation of the Arm.—Dr. Allen Sturge showed a man who presented this condition. The left arm was developed normally as far as about two inches below the elbow-joint, where it ended as a roundish stump. The end of the radius and ulna were pointed, the skin forming a conical projection over the end of the former bone and being umbilicated over that of the latter. On the flexor aspect of the stump were five little nodules, varying in size from a small pea to a pin's head, the largest being situated towards the radial side and the smallest towards the ulnar side of the forearm. On the two nodules nearest the radial side were well developed nails, showing that the five nodules represented the five fingers. The stump could be flexed and extended upon the arm, and pronation and supination could also be effected. This variety of malformation had been described by Sir James Simpson, who looked upon it as due to intra-uterine amputation, with attempted reproduction of the fingers. Dr. Sturge thought that it was quite as likely to be due to arrested development, resulting either from a morbid tendency of growth in the embryo, or from accident leading to destruction of those cells in the blastoderma from which the forearm should have been developed.

Specimens exhibited by Card:

1. Mr. William Adams: Tendo Achillis divided in a case of Pseudo-hypertrophic Paralysis.
2. Dr. Orlebar: Aneurism of Aortic Arch, rupturing into Trachea.
3. The President: Two cases of "cockscomb" Nævus.
4. The President: Drawing showing the result of Osteitis in Congenital Syphilis.
5. The President: Specimen of Osteitis of Fibula in Congenital Syphilis.
6. Dr. Abercrombie: Skull, showing the result of Congenital Syphilis.

PATHOLOGICAL SOCIETY OF DUBLIN.

Saturday, April 24th, 1880.

E. H. Bennett, M.D., President, in the Chair.

Caries of the Tibia, with Fracture and Repair.—Mr. Wheeler presented a specimen of caries of the tibia, with fracture and repair. The patient, a young man aged nineteen, suffered for twelve years from abscesses in the leg, over the shaft of the tibia. During the first year, pieces of bone came away from time to time. The knee-joint at last became entirely deformed, the two femoral condyles overlapping and being anterior to the upper extremities of the tibia and fibula. An accident, a year ago, caused fracture of the upper part of the diseased tibia, fragments of bone protruding through the abscess below the knee. Union subsequently took place in the fractured bone, appearing to terminate the carious inflammation in the line of fracture, which was firm.

Hydrophobia.—Mr. Corley made a communication on a fatal case of hydrophobia, which occurred a year ago. The man, a porter in a public house, was bitten two or three months before the symptoms set in. The most troublesome symptom was gasping respiration. The disease lasted about four days. Dr. Harvey, who made the necropsy, found intense congestion and even hæmorrhage in the posterior portions of the lungs. There was intense hyperæmia of the brain, with evidences of meningitis. The microscopical appearances closely corresponded with those described by Dr. Gowers and others. The blood-vessels were filled to an unusual degree throughout the cord and medulla, and, in the latter position, the perivascular lymphatics were crowded with small round cells. In the examination, no evidence of abscess (miliary) was forthcoming. It is noteworthy that there was marked subpleural emphysema in wavy lines. This was evidently recent.

Hydrophobia.—Dr. Finny reported another case of hydrophobia, in a coal-porter, forty-five years of age. It occurred exactly eleven months after he had been bitten on the right thumb. A choking sensation in the throat was the most distressing symptom. Ultimately, mania set in, followed by passing amaurosis and death. During the last few hours of life, much thick viscid phlegm was expectorated. Death occurred suddenly on the fourth day.

Latent Caries.—Dr. Barton showed the right foot of a lady aged forty-seven years, which he had amputated three days previously. The case originated in a trivial injury sustained in June 1873. Nearly seven years afterwards, the circumference of the ankle of the affected limb was one inch greater than the other. There was a tender spot over the internal cuneiform bone. Syme's amputation was performed. The soft parts of the foot, the astragalus, os calcis, and the scaphoid bone, were all healthy. The joint between the external and middle cuneiform bones was much diseased; the surfaces of these bones were extensively carious. There was no suppuration. The case might be designated one of silent, or latent, or dry caries.

The Society adjourned until next session.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 15TH, 1880.

NEW BRANCHES OF THE ASSOCIATION.

NO better proof could be given of the increasing recognition of the importance of the British Medical Association as a great professional organisation, than the energy which has been exhibited during recent years in the formation of Branches. This has been specially manifest in the last decade, in which thirteen Branches have been recognised by the Committee of Council, against three in the previous decade. The last ten years have seen the formation of three Branches in Scotland and of four in Ireland, besides several in various parts of England, and one in Jamaica; and to-day we have the satisfaction of recording the fact that, in addition to the thirteen already referred to, four other Branches—one in England and three in distant colonies—are in active process of formation, and will doubtless receive at an early date the recognition of the Committee of Council, which, in accordance with the by-laws of the Association, must be obtained before any Branch can have an official existence in the Association.

A propos of this matter, it may be well to state here, for the guidance of any of our members in distant parts who may contemplate the formation of Branches, what steps are necessary to be taken in such a case. According to by-law 49, "Any number of members, not being less than twenty, may form themselves into a Branch of the Association, subject to such Branch being recognised by the Committee of Council". Supposing, then, that in any district where it is proposed to form a Branch, there are already twenty members of the parent Association, all that they have to do is to meet, agree on a code of laws, elect (provisionally) officers and Council if they please, and make an application to the Committee of Council for recognition of the Branch and approval of its rules. If, on the other hand, there be not twenty members of the parent Association in the district (a condition which for the present is very likely to occur in the colonies and dependencies), each gentleman who desires to join the Association (which is a necessary preliminary to membership of a Branch) must apply for admission by filling up and signing the form prescribed by the by-laws (which may be obtained on application to the General Secretary in London), and must be recommended by three members of the Association. The application must then be sent to the Committee of Council, who will proceed (if there be no valid objection) to the election of the candidate. A sufficient number of members of the Association having thus been elected, they may proceed with the formation of a Branch in the manner described above. These formalities will for the present involve more or less delay in dealing with members of the profession in distant parts of the British empire; but, as the Association is an incorporated body, strictly bound by its articles and by-laws, it is absolutely necessary that they should be carried out in their integrity. As soon, however, as the organisation of a Branch is completed by its being recognised by the Committee of Council, and it has thereby acquired for its Council the power of electing members into the Association, the inconvenience arising from delay will cease.

It is a very satisfactory fact to record that, at the present time, no fewer than three new Branches are being formed in the Australian colonies. The first of these to take the necessary steps was the Adelaide and South Australia Branch. As at first there were only six members of the Association in South Australia, the candidates for election had to fill up the usual legal form of application, which, after signature by three members of the Association, recommending the candidate, was transmitted to the General Secretary, in order that it might be laid before the Committee of Council. A sufficient number of gentlemen having made application, were duly elected members of the Association, by the Committee of Council, at the meeting of the 15th October last; and the formal request to be recognised as a Branch has just been received, and will be placed before the next meeting of the Committee of Council. The first general meeting for the proposed formation of this Branch, which commences with thirty members, was held on the 19th June, 1879; and the initiation is due to Dr. Cawley of Adelaide, who visited England in 1878, and attended the annual meeting at Bath.

Melbourne followed; and a preliminary general meeting, for the formation of a Branch for Victoria, was held on November 26th, 1879. About forty members of the medical profession have signified their intention of being members of the Branch. The origination of this Branch was due to Dr. Louis Henry of Melbourne, who has shown much zeal in promoting the welfare of the Association in Australia.

Lastly, advices have just been received from Sydney of a preliminary meeting of the profession, held at the Cambridge Club Hotel in that town, on the 16th February last, at which about sixty gentlemen were present, of whom forty have expressed their desire to form a Branch for New South Wales. Thus, in the three Australian colonies mentioned, there will be, as soon as the necessary formalities as above described are completed, a strong nucleus of about one hundred and twenty members and three Branches. We have no doubt that shortly every detail will be legally and formally arranged, and that there will be then in Australia three as active and useful Branches as any in the Association.

At home, an important and highly interesting event has occurred. A meeting has been held with the object of forming a Branch at Worcester, the birthplace of the Association. The Branch is intended to comprise the counties of Worcester and Hereford. To Dr. Strange, the Association is indebted for presiding over the preliminary meeting; and the new Branch, when formally recognised by the Committee of Council, will start with seventy members. It was in Worcester that, forty-eight years ago, Sir Charles Hastings gathered together that comparatively small body of medical men which has since expanded into the British Medical Association. The proceedings which we chronicle to-day show that his memory is held in reverence by his professional brethren in Worcester, and that the spirit which animated him, though it has been apparently dormant for some years in the city where he resided and practised, has lost none of its vigour.

ANIMAL VACCINATION.

A NOT inconsiderable portion of Dr. Buchanan's recently published report on the work of the Medical Department of the Local Government Board during 1878, is devoted to a discussion of animal vaccination in certain of its aspects. As this is a question which has of late received much attention from the profession, it will be of interest to comment in some detail upon Dr. Buchanan's observations. He commences by stating that the late Dr. Seaton himself made, in his capacity of medical officer, inquiry, in the autumn of 1878, into the use of vaccine lymph cultivated upon calves and employed in human vaccination at certain stations on the Continent. The complete results of Dr. Seaton's inquiry have, unfortunately, not been recorded, and an incomplete memorandum is all that he has left on the subject. But he has definitely admitted that the difficulties, which were at first encountered in the transmission from animal to animal of lymph derived in the first instance from a natural source of cow-pox, have practically ceased. As has been shown in the report of the Chairman of the Parliamentary Bills Committee to the Conference held in December last, this has been the natural result of experience in the working of the system, which was in its infancy when Dr. Seaton made his adverse report of 1868. As to the success of calf-lymph in the vaccination of the human subject, Dr. Seaton was able to observe a considerable number of children upon whom vaccination had been performed with lymph taken direct from the calf after long transmission through the calf system; and he says of them that their vesicles were neither more nor less complete, though somewhat smaller in size, than the vesicles produced by like methods of operating with humanised lymph at the public vaccination stations of England.

According to Dr. Buchanan, "The chief difference between the lymphs was in the degree of certainty with which a desired result could be produced. In the hands of an experienced operator with fresh *humanised* lymph in England, 2,996 children out of 3,000 were successfully vaccinated at the first attempt; and failure to produce a vesicle where it was intended to produce a vesicle occurred so rarely that, with a fair approach to certainty, every child obtained the whole result which the operation was intended to produce. On the other hand, according to Dr. Seaton's observations at Amsterdam and the Hague, vaccination done by very experienced operators, but with fresh *animal* lymph, showed two total failures out of 91 operations, and 20 cases out of the 91 where the number of vesicles had been less than half the number that the operator had endeavoured to produce. At Rotterdam, complete success had been attained in only some 54 per cent. of children operated on. At Berlin, 7 per cent. of total failures were recorded; and of the successful operations, complete success had been attained in much less than half of the children operated on. These failures to obtain complete results had in Berlin led to a large proportion of the children receiving an imperfect degree of protection against small-pox, and at Amsterdam and the Hague had led to the practice of making a much larger number of insertions than were regarded as necessary for protection against small-pox, merely because the operator expected that some of the insertions would fail."

We have quoted this paragraph in full, because, as we shall attempt to show, a considerable source of fallacy underlies it. Dr. Buchanan speaks of *the degree of certainty with which a desired result* can be produced with the two lymphs; but, as has already been several times pointed out in these columns, the continental operators do not desire or expect that all their punctures should rise. On the other hand, Dr. Cory, who would appear, from Dr. Ballard's speech at the Conference, to be the "experienced operator" referred to, makes his four insertions carefully, with the deliberate intention of getting a vesicle at each puncture. Dr. Buchanan is, we think, hardly justified in the assertion that the failure to obtain complete results at Amsterdam and the Hague "had led to the practice of making a much larger number of insertions than were regarded as necessary for protection against small-pox, merely because the operator expected that some of the insertions would fail". The vaccinators in these and other continental cities think it sufficient to get the lymph well absorbed, and do not trouble themselves much about the number of insertions; at any rate, not nearly so much as does Dr. Cory to obtain his complete number of four vesicles. As to the failure "to obtain complete results" having led at Berlin "to a large proportion of children receiving an imperfect degree of protection from small-pox", it would have been more satisfactory if the grounds on which this statement is made had been brought forward. We do not find in Dr. Pissin's recently published account of the fourteen years' work of his animal vaccination station at Berlin any corroboration of this statement, which would appear, indeed, to have been founded on a misapprehension of the facts.

As to the actual figures which are given, we find it impossible to check Dr. Seaton's percentages, as the period to which they relate is not stated. The mixing up of the Amsterdam and Hague cases is somewhat confusing; but, according to Dr. Carsten, at the Geneva Medical Congress in 1877, all the 2,336 animal vaccinations at Amsterdam in the year 1876 were successful, while only two of the 1,936 at the Hague during the same period failed. As to Rotterdam, Dr. Buchanan's statement that complete success had been attained in only 54 per cent. of children operated on is somewhat misleading. At Rotterdam, no fewer than ten punctures are habitually made; and, from the annual report for 1877 of the Society that conducts public vaccination in that town, it appears that, during that year, the average number of resulting pocks was eight and a half—a result which cannot but be regarded as highly satisfactory. At Berlin, the percentages of actual success are given in Dr. Pissin's work as 100 in 1875, 98 in 1876, 95 in 1877, and 97 in 1878. Out of a total of 404 vaccinations, 83 had six pocks, 77 five pocks, 69 four pocks; *i.e.*, 229 had four pocks or more, whilst only 175 had less than four pocks.

It is clearly a mistake to contrast the rapid scarifications of continental vaccinators with the careful incisions of Dr. Cory. Calf-lymph has been shown by ample experience to be quite easily cultivated from animal to animal, and to possess equal "taking" power with ordinary lymph on the human subject. To condemn it, therefore, because of its alleged inferior insertion-success, where the conditions are not similar, is to condemn it unjustly and hastily. We venture to think that further and more extended research than Dr. Seaton was able to give to the subject when on the continent in 1878 would amply show the fallacy of this objection, and make clear the at least equal merits of calf-lymph with that of long humanisation.

It remains to refer to certain extracts from Dr. Seaton's memorandum, quoted in Dr. Buchanan's report. Dr. Seaton adverts to "the difficulty which would be met with in inducing parents to allow their children to be submitted to ten punctures, instead of the four, five, or six which are usually employed in this country, and which, under the use of the current lymph, are quite sufficient to secure the number of vesicles desired". It is not, however, contended that ten punctures are necessary for the proper success of animal lymph. Dr. Pissin is content with six; and doubtless the number of insertions which Dr. Cory makes, viz., four, would if made with the same care as he exercises, be amply sufficient for complete protection. The numerous punctures represent merely a a continental fashion of vaccination, and it is a fallacy to argue as though vaccination with calf-lymph had necessarily to be done with an inordinate number of incisions.

Dr. Seaton then proceeds to say that to admit into our English system, and to stamp with the sanction of Government as one of equal certainty, a plan to which the main objection is its uncertainty, would seem to him to be an inconsistent and retrograde step; and that it is absurd to speak of vaccination from the calf to the arm as the Belgian national system, because, although such vaccination was practised many years ago at Brussels, at the Institut Vaccinal de l'État, this has long since been discontinued, and the vaccination generally in the kingdom is carried on from arm to arm. Of the objection based on the alleged uncertainty of calf-lymph we have already disposed; and as to the Belgian system, it is to be observed that in the letter which was read at the second meeting of the conference in December last (before the date of the report which reproduces these observations by Dr. Seaton), Dr. Warlomont referred in distinct terms to the human vaccinations customarily performed by him from calf to arm at his Institute. Moreover, in the letter from him which we publish to-day, he states specifically that, so far from vaccination from the calf to the arm having ceased at the Institute, "it has been greatly extended and makes daily progress." This, however, is a minor point. The Belgian system is that which we desire to see introduced into England; viz., that the Government should undertake, as the Belgian Government undertakes through Dr. Warlomont, "the cultivation of lymph on the calf, and its distribution gratis, *as seed*, to all the practitioners of the country as frequently as they need to renew their stock". These were Dr. Warlomont's own words (at the Conference), and they well express what has been urged on behalf of the Association upon the Local Government Board. New heads of that department have now been appointed; and, coming to the consideration of the subject uncommitted and untrammelled, may perhaps be found to be more favourable to progress than their predecessors.

ON THE RAPIDITY OF TRANSMISSION OF THE NERVE-CURRENT.

THE question of the rapidity of transmission of a nerve-current, apart from its practical interest in relation to pathology, has always attracted much attention as a physiological problem. Ever since Helmholtz, in 1851, determined the velocity of the nerve-current in a motor nerve, similar inquiries have been carried on by others. Helmholtz's first observations were confined to experiments on nerves and muscles freshly separated from the body in lower animals. Subsequently he, as well as others, extended the inquiry to the human subject during life; and the velocity with which nerve-current travels was examined into, not only in connection with motor and sensory nerves and the spinal cord itself, but also in reference to acts of conscious sensation in man. Of the methods of investigation employed from time to time by these different physiologists, the principle adopted by all has been the same. A muscle is made to contract by stimulating successively two points of a nerve more or less distant from it; while a special apparatus marks down the moment when the contractions are excited, and the time when the stimulus is applied. The delay that occurs in contraction, when the nerve is stimulated at the point most distant from the muscle, indicates exactly the rapidity with which the nerve-current travels along the length of the nerve included between the stimulated points. Speaking generally, the rate of nervous transmission is about twenty-six *mètres* per second in the motor nerves of the frog, while in those of the living man it must be reckoned at thirty-four *mètres*, according to the investigations of Helmholtz and Baxt, who worked independently and by different methods. But it has been found that the velocity of the nervous impulse not only varies at different times in the same nerve, but also travels at different rates in different individuals. Thus the rapidity of cerebral operations is not the same in all: a point clearly illustrated in the recording of astronomical observations, where a considerable variation will often exist in the records made by different observers when noting the exact time of the passage of a star across the thread of a transit-instrument.

M. Chauveau has studied the velocity of nerve-current in the motor nerves of living mammals, and has made it the subject of two communications to the French Academy of Sciences. His investigations have brought out a point of considerable physiological interest. For his experiments, he selected some of the domestic animals of large size and stature, on account of the length of their nerves—a point well exemplified in the laryngeal nerves of the horse; and, to obtain the necessary repose and quiet during the experiments, the animals were brought lightly under the influence of chloral, or artificial respiration was carried on after section of the bulb, it being found that neither of these conditions interfered with the results. Throughout the investigations, the induced current and the single polar method were employed. M. Chauveau attributes great importance to this latter point. In this single polar method, the mode of procedure is to expose the nerve wherever it is intended to stimulate it, without disturbing the surrounding parts. The negative electrode is then applied to the nerve, either directly or by means of a handle which clasps the nerve; while the positive electrode, with its sponge saturated with salt solution, is placed on any point of the body, where the electricity is at once diffused without producing any effect, owing to the great surface which corresponds to the electrode. With a view of obtaining uniformity of stimuli—a point of considerable importance—a special instrument, termed "a self-acting distributor", was employed. It was set in motion by the cylinder used for registering the results, each turn of the cylinder causing the distributor to apply the stimulus at a different point of the nerve. The apparatus used for recording the results, and measuring the intervals of time, in no way differed from that usually employed by other investigators; but it was of a very accurate and sensitive nature, the cylinder for registering being constructed so as to note a period of $\frac{1}{24000}$ of a second.

The results of the experiments showed, among other points, that the health and physical condition of the animals affected the rate of the nerve-current. The average rate of rapidity was sixty-five *mètres* per second; but in some of the strong animals it reached seventy-five *mètres*, while in some of the weak and less robust ones it fell as low as forty *mètres*. Further, it was found that there were differences in the rate of the nerve-current at different points in the same nerve, and that these differences were due to the fact that the stimuli travelled less rapidly the nearer they approached the end of the nerve; in other words, that the power of conductivity decreased from the origin to the termination of the nerve. As this is a state of things the very reverse of what has been ascertained to exist in *post mortem* experiments on nerves, it must be regarded as a point of considerable physiological interest, especially when we consider how little we know of the exact change effected in a nerve-fibre when a stimulus is transmitted along it. Taken, too, in conjunction with Pflüger's discovery, that the farther from the muscle a nerve is irritated, the greater is the excitability of the one and the contraction of the other, it does not seem easy to bring the two facts into harmony. In this latter case, the phenomena are accounted for by some on the supposition that the molecules of the nerve, when set in motion by the influence, give off some of the tonic force they possess, and gather energy in proportion to the distance they have to travel, just as the avalanche increases in force and velocity as it descends the hill; while Chauveau's experiments seem to point to the nerve-current being retarded in its passage, as if it met with some resistance which had to be overcome. Although there seems to be no theory of nervous force, which will include facts so apparently opposed to one another as the above, the point brought out by these investigations of Chauveau seems to have some analogy to the conduct of electricity while passing through a wire. We know that wires offer resistance to the electric current; and that this resistance has been found to follow the general law that, in wires of the same material, the longer the wire the greater the resistance, and the thicker the wire the less the resistance. If it could be shown that the nerve-fibre towards its termination is of less calibre than when it issues from the spinal cord, we might have an explanation of this decrease in conductivity, judging from what is observed in the behaviour of electricity as it passes along a wire; but, whatever be the correct explanation of the fact, it is of importance, both in a physiological aspect and clinically, seeing how much electricity is employed in the present day as a therapeutic agent.

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THE Pharmaceutical Society holds its annual *conversazione* at the South Kensington Museum on Wednesday evening, May 19th, at eight o'clock. The annual dinner will take place on Tuesday, at 6.30 P.M.

TYPHUS and typhoid fevers, last week, caused 126 deaths in St. Petersburg. In Paris, 48 deaths resulted from small-pox, and 34 from typhoid fever.

THE deaths in Calcutta during the week ending March 20th numbered 230, giving a death-rate of 27.9 per 1,000 *per annum*. The same week in Madras there were 308 deaths, giving a rate of 40.3 per 1,000 *per annum*.

MEASLES last week showed a further increase of fatality in Plymouth, and caused 23 deaths, against numbers increasing steadily from 11 to 20 in the six preceding weeks. No fewer than 274 deaths from this disease have been recorded within the borough since the middle of November last.

AT the meeting of the Paris Academy of Medicine on April 27th, Dr. Noël Gueneau de Mussy presented to the Academy a *brochure*, in which he had collected a series of notes published by him in the *Union Médicale*, under the title of "Meeting of the British Medical Association in Cork in 1879: souvenirs and impressions".

OUR provincial as well as metropolitan readers will have seen with satisfaction that Mr. Cadge of Norwich has consented to be put in nomination for one of the vacancies in the Council of the College of Surgeons. It would be difficult to name a Fellow of the College whose professional acquirements and personal character are more likely to command the suffrages of his colleagues. The desirability of the provincial Fellows being represented in the Council has been so generally admitted, that there is very little more to be said about it; and the qualifications of the candidate whom we have named are, as is well known, of the highest character.

Dr. William Ogle, whom we mentioned some time ago as the probable successor of Dr. Farr, and whose formal appointment as Superintendent of Statistics at the General Register Office was one of the expiring acts of the late Ministry, has now assumed his duties at Somerset House.

The last annual report of St. George's Hospital, in an interesting table of the daily consumption of stimulants to which patients on their admission had been accustomed, adds that the largest consumer of spirits, aged 30, took twenty to thirty glasses of gin daily; and that the largest consumer of beer, aged 35, never exceeded twenty-six pints a day. It is added, only one "total abstainer" can be discovered.

During the past five weeks of the current quarter, the death-rate in London has averaged only 20.7 per 1,000, against 25.5 and 25.7 in the corresponding periods of 1878 and 1879. But the fatal cases of scarlet fever, which had been 46 and 35 in the two previous weeks, rose to 67 last week, and exceeded the corrected weekly average by 36; they were more numerous than in any week since the end of January last.

Colonel Sir C. K. Pearson, K.C.M.G., has just been appointed Governor and Commandant of the Hospital at Netley. The military staff now comprises a second colonel (Colonel Farmar), as Assistant-Commandant; and a major (Major Monsell), as Adjutant. One of the strange features in the appointment just made is, that the office of "governor" in army hospitals has been discontinued for the last two years in the official regulations regarding these establishments.

At the last meeting of the Council of the Royal College of Surgeons, it was decided that, as recommended by the Jacksonian Committee, the following be the subject of the next triennial prize, viz., "The relations between the Radicles of the Lymphatic System and the Capillary Vessels"; and that the subject for the Jacksonian Prize for the ensuing year should be "The Pathology and Surgical Treatment of Diseases of the Hip-joint". The following is the subject of this prize for the present year, "The History, Principles, Practice, and Results of Antiseptic Surgery".

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting was held on Friday, May 7th, at 53, Berners Street. The Chair was taken by the President, Sir George Burrows, Bart. The annual report was read by the Secretary. The report showed that the number of members was only 386, the same as in the previous year; ten new members having been elected, whilst five had died and five resigned. During the past year, fifty-nine widows and fourteen orphans had received £2,968 10s. The expenses had been £222 17s. 10d.; the grants showing an increase of £72 10s., the expenses an increase of £41. Three widows in receipt of grants had died, and one had become ineligible through marriage; five fresh widows had been elected. Two children had ceased to be chargeable on the funds, but five fresh cases had been adopted. A present of £5 had been made at Christmas to each widow, £2 to each orphan, and £4 to each of three orphans, from the Copeland Fund. A legacy of £500 Consols had been transferred to the trustees of the Society by the executors of Miss Harriet Hurst, and the funded property had been further increased by the purchase of £814 0s. 9d. Consolidated Metropolitan Stock. The total expenditure of the Society for 1879 had been £3,191 7s. 10d., and the receipts available for payment of grants and expenses were £3,242 5s. 4d., leaving a balance of £50 17s. 6d. in favour of the Society. The following gentlemen were elected directors in the place of the six senior who retired, viz., Thomas Dickinson, Esq., Charles A. Aikin, Esq., Dr. Church, Dr. Day, A. E. Durham, Esq., and Dr. W. A. Brailey; and Dr. Rugg was elected to fill the vacancy caused by the retirement of Mr. W. H. Sheehy. A vote of thanks to the editors of the medical journals for their kind services was carried unanimously. The meeting was then made special, to consider the proposal of Mr. Steet to extend the area of the operations of the Society from its present limits to a radius of twenty miles from Charing Cross. The alteration was approved by the meeting. A vote of thanks to the Chairman, proposed by the acting treasurer, Mr. Fuller, was carried unanimously.

SMALL-POX IN LONDON.

The deaths from small-pox in London, which had been 9, 15, and 18 in the three preceding weeks, were 10 last week, of which 8 were recorded in the Metropolitan Asylum Hospitals at Homerton, Stockwell, and Deptford, and 2 in private dwelling-houses. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 167 to 196 in the five preceding weeks, had declined to 186 on Saturday last; 43 new cases were admitted to these hospitals during last week, as against 49 in the previous week. The Highgate Small-pox Hospital contained 24 patients on Saturday last.

REORGANISATION OF THE MEDICAL DEPARTMENT OF THE GUARDS.

We are informed that a special Royal Warrant, embodying important changes in the position and rates of remuneration of the medical officers of the regiments of Guards, which has been under consideration for some time past, is now completed and on the eve of being issued. The exact terms of the new Warrant are kept strictly secret, and are not likely to be divulged until the document is formally published. A similar privacy was maintained in the instance of the recent Warrant of the Army Medical Department.

THE DREADNOUGHT HOSPITAL.

At a recent annual meeting of this hospital, the President, His Royal Highness the Duke of Edinburgh, drew attention to the fact that on the previous Christmas Day the representatives of between forty and fifty nationalities sat down to dinner at the same table. This statement excited the interest of an artist of promise, Mr. John C. Dollman, who has represented the scene in a picture entitled "Friends in Adversity", No. 471 of the present Royal Academy Exhibition. The figures in this picture are all portraits from life, and the varied assemblage is likely to excite the attention of all who take an interest in anthropology.

A SCOTCH VIEW OF ST. ANDREW'S M.D.'S.

An Edinburgh paper observes that its yesterday morning's news contained what for Edinburgh men is an irritating announcement—a list of new St. Andrew's M.D.'s. St. Andrew's, as we all know, has scarcely the means of teaching medicine; but that is not its grievance. This list, it adds, is a list of English gentlemen who come down and, without attending classes at all—even such classes as St. Andrew's possesses—pay £50, "attend an examination such as it is", and carry off a degree to the South. And henceforth, our contemporary complains, they are members of a Scotch University, and overbear us by their votes.

EDUCATIONAL PRESSURE.

A largely attended meeting in connection with the Social Science Association was held this week at the Caledonian Hotel, Mr. Joseph Brown, Q.C., in the chair. Mrs. Garrett Anderson, M.D., read a paper on "Educational Pressure". Declining to express any opinion on boys' schools, and confining her remarks to the methods of education adopted in secondary schools for girls, Mrs. Garrett Anderson urged the following practical points as a remedy for the complaints made as to overwork in such schools: 1. To get the elements of knowledge well and thoroughly taught at an early age, and not to urge the child to make up for early neglect by taking a very extensive range of subjects as soon as she goes to a good school; 2. To accept two and a half or three hours of class work as long enough at one time for almost all children, and to provide two or three short intervals of rest—*e.g.*, five or ten minutes in each hour—during even this time; 3. To insist upon every girls' school having a playground; 4. To aim at greatly reducing the amount of writing in the home work; 5. To reduce the number of examinations, and especially to make them as unstimulating as possible, and to apply them with great reserve to the children most likely to shine in them; 6. Not to aim at completing the education by the age of eighteen. The main purpose of Girton and Newnham Colleges is to encourage young women to continue their education in an organised manner after they cease to need the restraints imposed upon schoolgirls, and the existence of these colleges renders it more than ever unnecessary to attempt to teach girls everything they ought to know in early adolescence. The discussion was adjourned on the motion of Dr. Farquharson, M.P.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

PROFESSOR H. T. BUTLIN will commence his course of three lectures in the theatre of the Royal College of Surgeons on Wednesday, the 2nd proximo, "On the Relations of Sarcoma to Carcinoma". On the conclusion of these, Mr. B. T. Lowne will deliver three lectures "On the Development of Sensory Organs"; and Professor Jonathan Hutchinson will bring the annual courses of lectures to a close by commencing his course of six lectures on the 14th proximo, when he will deliver four lectures "On some of the surgical bearings of Gout and Rheumatism", and afterwards two lectures "On the Etiology of True Leprosy".

GUY'S HOSPITAL.

WE are requested to announce that it is proposed by some of the past students to hold a meeting at Willis's Rooms on Friday next, the 21st instant, which will take place half an hour before the commencement of the Guy's Hospital Biennial Dinner, in order that the old Guy's men may have an opportunity of expressing their sympathy with the members of the medical and surgical staff of the hospital under present circumstances, and their continued confidence in the conduct by the staff of the affairs of the medical school of Guy's Hospital. All former students of the school are invited to attend.

MEDICO-POLITICAL AFFAIRS IN AFGHANISTAN.

A CORRESPONDENT at Candahar writes to us by the last mail some interesting particulars concerning the recent successful operation on Miriam Jan, the favourite wife of Sirdar Abdul Rehman. The successful result of this operation has had valuable consequences, and has led to the establishment of a medico-political dispensary. The operation was performed under somewhat trying conditions. Miriam Jan had for some years, it appears, suffered from a chronic adenoid tumour of the left breast, which had, however, during the last two years, grown to an enormous size. Prolonged maltreatment by native doctors, including irritative applications and two or three large gashes, had brought matters to a desperate state, the tumour having now assumed a cancerous aspect. The usual Mussulman scruples were at length overcome, and the assistance of British surgeons was asked. After a consultation, it was decided to operate. The tumour was successfully removed under chloroform by Surgeon-Major J. W. Johnston, M.D., of the 3rd Ghoorkas, assisted by Surgeon Tully, of the Bombay Service, and Dr. Moore, Army Medical Department. Those who are aware of Mussulman scruples (in such cases it is nearly always necessary to administer chloroform, and to operate through a rent in a veil or some such obstacle, and to be very careful as to effusion of blood), will understand that the operation was of no ordinary character; and several political considerations were involved in its issue. The result, however, has been brilliant, the general health of the patient having improved greatly with the successful removal of the tumour, of which Surgeon-major Johnston had correctly diagnosed the nature and relations. The political consequences of this success have been such as to lead General Stewart to establish a dispensary at Candahar, of which Surgeon Tully, an able Dublin graduate, has been put in charge. Miriam Jan's father was Sirdar Fakir Mahomed, a nephew of the great Ameer Dost Mahomed; Fakir Mahomed having, according to Mahomedan custom, married the widow of his deceased brother Sirdar Mahomed Shureef Khan. Sirdar Abdul Rehman was the son of Mirafrue Khan, who, again, was the eldest son of Ameer Dost Mahomed, and heir-apparent to the Kabul throne. On Mirafrue's death, Abdul Rehman was defeated at Kabul, and fled to Russian Turkestan. He has never been at enmity with us; but, on the late Amir Shere Ali capturing Kabul, he pounced upon the Hareem of Abdul Rehman, who had recently married the handsome Miriam Jan. For years, all his female relations were kept in captivity until General Stewart's force entered Kandahar, when they were at once released and cared for. Miriam Jan has a retinue of about forty male servants and twenty-five Hazara slave girls; the latter have a Goorkha caste of feature, and seem very happy and content. Abdul Rehman's family live in great refinement. Their conversation would astonish many who have spent half a century in India. Miriam Jan is by right and title the analogue of the Princess of Wales of Afghanistan. Surgeon-Major Johnston, 3rd Goorkhas, has been appointed Brigade-Surgeon to General Hughes' Brigade; and Surgeon-Major Meadows, Brigade-Surgeon to General Barlow's Brigade. Dr. Johnston has also been nominated Botanist and Geologist to the Division.

A NEW REMEDY FOR HYDROPHOBIA.

M. LESSERTEUR has just given publicity to a plant which has a great reputation as a cure for rabies in the kingdom of Annam. This plant, of which the name is hoang-nan, is a kind of liana, closely akin to the false angostura; its effects are similar to those of strychnine and brucine. M. Bouley, in speaking of this new remedy in the *Receuil de Médecine Vétérinaire*, regrets that no facts corroborative of its efficaciousness are given, but is of opinion that the property recently shown to belong to rabbits, of easily contracting hydrophobia by inoculation, should be utilised for making experiments thus so easily performed. In reference to this subject, M. Bouley related an anecdote about garlic, a substance which has always had a great reputation amongst remedies against rabies, and is constantly found as a principal integral portion in a large number of formulæ long kept secret. A young man had been bitten by a mad dog, and symptoms of rabies speedily appeared. His family, in a state of the greatest alarm, scarcely knowing what to do with the sufferer, shut him up in a loft where some garlic had been left to dry. In his delirium, the poor fellow seized the bundles of garlic, ate greedily of them, and soon became exhausted and fell into a deep *sleep*. When he awoke, he was cured, and the symptoms of rabies had disappeared.

FASHION IN DEFORMITY.

PROFESSOR FLOWER, F.R.S., lately delivered a very interesting lecture at the Royal Institution, before a crowded audience, on Fashion in Deformity. He passed in review the various methods adopted by different nations and at different ages of deforming or altering the natural form of some portion of the body, in obedience to the dictates of fashion. The various practices of shaving, cutting, and dressing the hair and beard, and tattooing the skin, were alluded to by him; but more attention was given to the disfigurement of the nose, lips, and ears, by cutting holes and inserting various substances through them—almost identical customs being described among people living in most remote regions of the world. The fantastic methods of filing and chipping the front teeth into different patterns, practised by the Malays and some African Negroes, were then noticed. An account of the mode of altering the form of the head, which prevailed once extensively in Europe, and was almost universally adopted in Peru and on the western coast of North America, was followed by a description of the effects produced upon the feet of civilised races by the unnatural form of the boots commonly worn; the evils of pointed toes and high heels being exemplified by diagrams and specimens. The construction of the waist was next noticed, the figure of the Venus of Milo and one taken from the last Paris fashion-book being compared and contrasted

All these customs were shown to arise from a similar propensity, which manifested itself in the human mind under all conditions of civilisation, to tamper with a form which good sense as well as good taste ought to teach was the most perfect that could be designed. The origin of these fashions was mostly lost in obscurity, all attempts to solve them being little more than guesses. Some of them have become associated with superstitious observances, and have been spread and perpetuated; some have been vaguely thought to be hygienic; most have some relation to conventional standards of improved personal appearance; but, whatever their origin, the desire to conform to common usage, and not to appear singular, is the prevailing motive which leads to their continuance. The vitiation of taste produced by these conventional standards, which shows itself in the Malay in the preference of black teeth to those of the most pearly whiteness; in the Bougs, Negro, and American Botocudos, in liking lips and ears which are enormously and to our eyes hideously enlarged by huge wooden plugs inserted through them; in the Chinook Indian, by contempt of any head which is not flattened like a pancake or elongated life a sugar-loaf—is displayed among ourselves by the admiration of unnaturally pointed toes and contracted waists.

THE PROPAGANDA OF HEALTH.

THE "drawing-room lectures" of the National Health Society this season are by Dr. W. B. Carpenter, F.R.S., on Predisposing Causes of Disease; Dr. Samuel Wilks, F.R.S., on Overwork and Underwork; Professor Ray Lankester, F.R.S., on Germs—our Unseen Enemies; and by Mr. Ernest Hart, on the Doctor in the Kitchen. The lecture of next week is Mr. Lankester's. They are delivered at 23, Hertford Street, Mayfair, kindly lent by Mrs. C. Mathews for the purpose, and commence at four P.M. Delivered by many of the most eminent authorities, and addressed to subjects which are of great public interest, these lectures aim at interesting in the work of sanitary propaganda persons of social influence and cultured intelligence. The kindness of Mrs. Mathews, in lending for the purpose her rooms, adorned with some of the most exquisite gems of modern art, has favoured the success of the enterprise, by creating around it the atmosphere of æsthetic refinement which is often felt to be wanting to a subject which deals with rather prosaic facts and has some unpleasant associations.

AN APOLOGY TO A MEDICAL MAN.

WE see with much satisfaction that the *Mexborough and Swinton Times* makes the following *amende honorable* to Mr. Smith, for publishing the letter of Mr. Bourke, to which we referred in the JOURNAL of May 1st, under the head of "Brotherly Kindness".

> "We greatly regret that we permitted the publication of the letter last week, which alleged that Dr. Smith had not properly attended to the poor woman who received fatal injuries at Parkgate in the previous week. Had we known at the time what we have learnt since, the communication would most certainly have been rejected, as we hear, on most reliable authority, that the doctor did all in his power for the relief of the person in question. This is also confidently asserted by the husband and several others. We, therefore, readily apologise for having been the means of conveying such an erroneous statement to the public, and take the earliest opportunity of doing so."

METROPOLITAN WATER-SUPPLY.

DR. FRANKLAND reports, as the result of his analyses of the waters supplied to the metropolis during April, that, taking the average amount of organic impurity in a given volume of the Kent Company's water during the nine years ending December 1876 to represent unity, the proportional amount of such impurity in a given volume of water supplied by each of the metropolitan water companies and by the Tottenham Local Board was: Tottenham 1.4, Colne Valley 1.4, Kent 1.7, West Middlesex 3.3, Chelsea 3.5, Grand Junction 3.7, New River 4.3, East London 4.5, Lambeth 6.5, and Southwark 6.5. The West Middlesex and Chelsea Companies sent out Thames water of fairly good quality, while the Grand Junction Company's water, derived from the same source, was turbid, and contained moving organisms; and that supplied by the Southwark and Lambeth Companies was of "very objectionable quality". The Lambeth Company's water was also inefficiently filtered. The Lea water, delivered by the New River and East London Companies, was inferior to the better samples of Thames water. The deep-well waters supplied by the Kent and Colne Valley Companies, and by the Tottenham Local Board, were of their usual excellent quality. The Colne Valley Company's water had alone been softened before delivery.

HARVARD UNIVERSITY.

WE are glad to see that the authorities of Harvard University at Boston have taken another step forward in improving both the general and the professional education of medical graduates. Notice has lately been given that all candidates for admission after September 1880, who hold no degree in arts or science, must pass a written examination on entrance to this school in English, Latin, Physics, and any one of the following subjects; French, German, Elements of Algebra or of Plane Geometry, or Botany. Instruction is given by lectures, recitations, clinical teaching, and practical exercises. In the subjects of anatomy, histology, chemistry, and pathological anatomy, laboratory work is largely substituted for, or added to, the usual methods of instruction. The course of study recommended by the Faculty covers four years; but, until further notice, the degree of Doctor of Medicine will continue to be given upon the completion of three years of study, to be as ample and full as heretofore. The degree of Doctor of Medicine *cum laude* will be given to candidates who have pursued a complete four years' course, and obtained an average of 75 per cent. upon all the examinations of this course. In addition to the ordinary degree of Doctor of Medicine as heretofore obtained, a certificate of attendance on the studies of the fourth year will be given to such students desiring it as shall have attended the course, and have passed a satisfactory examination in the studies of the same. The following is the order of studies and examinations for the four years' course. First year: Anatomy, Physiology, and General Chemistry; second year: Practical and Topographical Anatomy, Medical Chemistry, Materia Medica, Pathological Anatomy, Clinical Medicine, Surgery, and Clinical Surgery; third year: Therapeutics, Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery, and Clinical Surgery; fourth year: Ophthalmology, Otology, Dermatology, Syphilis, Laryngology, Mental Diseases, Diseases of the Nervous System, Diseases of Women, Diseases of Children, Obstetrics, Clinical and Operative Obstetrics, Clinical Medicine, Clinical and Operative Surgery, Hygiene, Forensic Medicine. Examinations in the subjects of the year are held at the end of each year. For the three years' course, the subjects for the first and second years are the same as for the four years' course, and those for the third year are nearly the same as are distributed over the third and fourth years in the longer course. The final examinations at the close of the third year are in Therapeutics, Obstetrics, Surgery and Clinical Surgery, Theory and Practice of Medicine, and Clinical Medicine. Every candidate for a degree must be twenty-one years of age; must have studied medicine three or four full years, have spent at least one continuous year at the school, have passed a written examination upon all the prescribed studies of the course, and have presented a thesis.

GROWING-PAINS.

M. BOUILLY, in an article published in the *Revue Mensuelle de Médecine et de Chirurgie* and the *Journal de Médecine et de Chirurgie Pratiques,* December 1879, studies, under the appellation of "The Fever of Growth", the attacks of congestion which occur in the bony tissue of the extremities of long bones, and which may go on to inflammation and coincide with febrile conditions connected or not with some other distant lesion. The phenomena are of various kinds. In a considerable number of cases, on the appearance of any insignificant affection, such as a slight angina or a feverish gastric disturbance, there supervenes in children a very high fever, lasting, at the most, from twenty-four to thirty-six hours, and manifestly connected with the local lesion. In addition, however, the patient shows depression quite out of proportion with the slight malady from which he is suffering; during the febrile attacks, and for the two or three subsequent days, there is, especially on pressure, a very decided sensibility over the epiphyses of the femur, tibia, and humerus; and, if care be taken to measure the child beforehand, after the attack he will be found to have grown four or six-tenths of an inch. In another form, the fever seems to constitute the whole disease. On this point, M. Bouilly cites two cases observed by himself, in which the symptoms consisted in a series of paroxysms of intermittent fever, having in one case a tertian, and in another a quotidian type, commencing with a morning rigor, followed by heat, and terminating early in the night by copious perspiration. At the same time, pressure revealed the presence of decided pain at the level of the great epiphyses, especially at the moment of the attacks, less marked during the intervals. In each of the children, one of whom was thirteen and the other seven years of age, the increase in growth in a week was an inch. The attacks yielded to sulphate of quinine and perfect rest, but convalescence was complicated with a condition of languor and depression, and was much more protracted than might have been expected after a week's illness in children of good constitution. Here we find a type of the fever of growth, probably connected with congestion of the epiphyses. Analogous facts have been pointed out by other medical writers. M. Bouchut has reported the case of a child, twenty-five months old, who grew more than three inches in six weeks, being affected with remittent fever, which the author believed to be connected with this growth. Regnier has also recorded the case of a youth aged 14, who was excessively short for his age, and was seized with extremely acute pains pervading all the joints. In six months, he grew more than twenty inches. The absence of fever prohibits the supposition that the case was one of acute articular rheumatism. It is very probable that the patient had a series of attacks of juxta-epiphysary osteitis, which gave rise in six months to this enormous increase of growth. M. Bouilly, also, in pointing out that these fevers of growth are caused by congestive outbreaks in the vicinity of the joints in the epiphysary zone, considers them as the mildest stage of osteomyelitis of children and adolescents.

BROMIDE OF ETHYL AS AN ANÆSTHETIC.

DR. MARION SIMS, in the *New York Medical Record* for April 3rd, reports a case of death twenty-one hours after the performance of Battey's operation under the influence of bromide of ethyl. The subject was a woman aged 25, who had epilepsy five years. It was given by pouring two drachms upon a napkin folded to about four inches square, placing this against the nose and mouth, and holding it there firmly by a towel folded into a square of ten inches. In two minutes, she was insensible, but the conjunctiva was still sensitive, and the eyeballs rolled about. The breathing was rapid. At the end of five minutes, she was perfectly insensible, but breathed sixty times a minute. This rapid breathing ceased on removing the napkin, and increased whenever fresh bromide was administered. During the first twenty minutes, two ounces of bromide had been used. She then vomited; and vomited again at the end of forty minutes, and strained a good deal. There were attacks of opisthotonos three times, with twitching of the limbs and rolling of the eyes. The operation lasted ninety minutes. Five and a half ounces of the bromide were used. She recovered quickly, but had severe headache and vomiting. One fourth of a grain of morphia was injected under the skin. This was repeated twice at the interval of an hour. In three hours, diarrhœa commenced. The stools were watery, smelling strongly of the bromide. This was followed by hiccough and exhaustion. Death occurred twenty-one hours after the operation. The necropsy showed no peritonitis; there were about two ounces and a half of bloody serum in Douglas's pouch. The ileum and colon were of a dark-brown colour. Dr. Sims thinks that death resulted from the bromide, which caused cholerine. The odour of the bromide was very strong on examining the intestines, twelve hours after they were removed from the body. It would be unfair to condemn the anæsthetic in this case, in which there was probably much difficulty in arresting the hæmorrhage, and considerable manipulation of the bowels. The pulse is stated to have been good during the operation. The bromide stimulates the heart as ether does, and it is only when the anæsthetic is removed that one finds how much the patient is exhausted. Mr. Clover informs us that he has used the bromide of ethyl in several cases, and that he had no difficulty in putting the patients to sleep, but they were flushed and giddy afterwards, and some of them complained of headache, nausea, and vomiting. It is, he says, so liable to decomposition, that it is unlikely to become much used; but the pure bromide kept in small bottles would probably be useful for short operations. His experience with ethidene dichloride has been more satisfactory; the recovery from a moderate dose of it being more like the awaking from natural sleep; but, in large doses, it is certainly depressing to the heart's action.

CULTIVATION OF THE CINCHONA-TREE IN CALIFORNIA.

THE *Pacific Medical and Surgical Journal* advocates the adoption of legislative measures for introducing the growth of the cinchona-tree in the state of California. Mr. Willis Weaver, in a communication to the department of agriculture at Washington, published in the *Scientific American* for February 28th, says:

> "The coasts of Northern California and Oregon would fulfil the conditions as to moisture; the slopes of the mountains would probably furnish hilly ground very similar to that occupied by the tree in its native habitat; while I believe that the temperature would admit of its cultivation even north of the mouth of the Columbia. It is also uncertain as to how far any undue dryness of the atmosphere may be overcome by irrigation. The surprising results already attained in the cultivation of the trees prepare us to expect further advances, and this may be one of them as naturally as anything else. It is well known that the barks produced under cultivation are much superior to the natural bark, as the process of mossing the tree causes a remarkable development of the alkaloids in which their virtue consists; also, that the cultivated trees are not destroyed. A strip is taken off reaching the length of the trunk and one-third its circumference. The wound is then dressed with straw matting, and kept wet until the bark forms anew. The next year another strip is taken, and so on indefinitely. I am told that the harvest begins when the tree is five years old, but am not in a position to verify the statement. I have calculated roughly, according to the prices of land and labour here, that a plantation of a hundred acres might be put in at less than 1,000 dollars an acre, covering all outlay, or, say, 1,500 dollars to cover interest and all contingencies. A yield of 8,000 dollars an acre has been reported from Indian plantations."

SCOTLAND.

WEST OF SCOTLAND CONVALESCENT HOMES.

A WELL attended meeting was held in the Queen's Rooms, Glasgow, last week, to hear a paper read by Miss Beatrice Clugston, descriptive of a visit she had paid to hospitals and homes in England, including homes for incurables, consumptives, epileptics, cancer patients, and convalescents. Miss Clugston, in the course of her address, advocated the extension of the Broomhill Home for Incurables at Kirkintilloch, and stated that she had arranged a plan for the erection of two plain wings; and, when these are completed, one hundred sufferers could be properly accommodated. No one could have done more real good work for convalescent homes than Miss Beatrice Clugston; and she has done it successfully.

AMBULANCE WORK AMONG THE VOLUNTEERS.

IN the prize-list of the West of Scotland Artillery Association, we are glad to note the introduction of a new feature into a volunteer association prize-list, namely, two handsome prizes for ambulance work. It has been decided to throw open this competition to all branches of the Volunteer Service, and no doubt the entries will be numerous. The competition is to consist of practical work in the following details; the first assistance to be rendered to wounded on the field of action; stretcher exercise, and the proper carriage of sick and wounded by this mode of conveyance; and the removal of sick and wounded by improvised methods when no stretchers or regular conveyances are available.

OUTBREAK OF TYPHOID FEVER IN GLASGOW.

FROM the report of the medical officer of health for Glasgow for the fortnight ending Saturday, May 1st, it seems that the most important feature of the fortnight is a great increase in the prevalence of enteric fever. The number of cases of fever registered was 141 in place of 35. Of this number, 123 were enteric. Dr. Russell, the medical officer of health, writes as follows: "I do not intend to report upon the outbreak at present. Its dimensions are great, larger than those of any previous outbreak within my knowledge in Glasgow; its ramifications are intricate, and my mind has been so much engaged with the prime question—to discover the origin and cut short the course of the epidemic—that it has been impossible to collect fully, still less to put in the order of an argument, the facts of the occurrence. I hope by this day fortnight to lay before you an exhaustive report. Meanwhile, I may say the resources of the department have been subjected to considerable pressure. Twenty-eight farms in all parts of the west country have been visited and inspected, 15,000 house-to-house visitations have been made, and 163 persons have been accommodated at Belvidere, of whom the majority were victims of the outbreak. The advantages of an excess of hospital accommodation and of a nursing staff were never better illustrated. At the date of my last report, there were 175 patients in hospital. In the intervening fortnight, 163 were admitted and 61 dismissed, leaving 277 persons now under treatment. No fewer than 116 persons were admitted during last six days."

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending Saturday, May 1st, it appears that the death-rate in the eight principal towns was 23.4 per 1,000 of estimated population. This rate is 1.7 below that for the previous week of the present year, and 0.6 above that for the corresponding week of last year. The lowest mortality was recorded in Aberdeen, viz., 17.1 per 1,000; and the highest in Perth, viz., 50.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 5.0 per 1,000, being 0.4 below the rate for last week. Measles and whooping-cough were the most prevalent epidemics, the latter chiefly in Glasgow and Edinburgh. Diarrhœa was very prevalent in Perth. Acute diseases of the chest caused 118 deaths, being 21 less than the number in the previous week. The mean temperature was 45.8, being 3.0 below that of the week immediately preceding.

GLASGOW UNIVERSITY COURT.

AT a meeting of the University Court, held last week, it was resolved to institute a new grade in Arts, similar to what has been resolved upon by the University Court of Edinburgh University. The new grade is to be that of Literate in Arts, and will likely be of great value to students entering the medical profession, as it will assure a sufficient training and competent examination in Arts, while it would be less exacting than the Mastership of Arts, the prolonged time required to take the M.A. degree having debarred so many from taking it, that it is the exception to find a Master of Arts graduating in medicine.

THE REGISTRAR-GENERAL'S REPORT FOR SCOTLAND FOR 1879.

THE twenty-fifth annual report of the Registrar-General of Scotland, on the births, deaths, and marriages registered during 1879, has just been issued; and annexed to it, as usual, is the annual report on vaccinations for the preceding year. In submitting this latter report to the Home Secretary, the Registrar-General remarks that the fact that the vaccination laws of this country were administered with due efficiency may be inferred from the circumstance that, during last year, only four deaths from small-pox were recorded in the registers for the eight principal towns of Scotland. The population of all Scotland, estimated to the middle of 1879, was 3,627,453. If it be assumed that an annual rate of increase of males and females, deduced from the census enumerations of 1861 and 1871, have, since the latter date, undergone no change, the number of males in 1879 was 1,741,314, and that of females 1,886,139. During the year 1879, there were registered 125,736 births, 73,329 deaths, and 23,462 marriages. From these figures, and from similar data for recent years, it appears that the birth-rate in 1879 was slightly below the average rate of the ten immediately preceding years; that the death-rate was far below the average; and that the marriage-rate was even lower than that of 1878—in fact, lower than that recorded for any year since these reports began to be made. The births recorded were at the rate of 3.47 per cent., or of 347 for every 10,000 of estimated population. The birth-rate of the large towns amounted to 4.30 per cent., and, as usual, considerably exceeded that of the other registration groups. The birth-rate of the small towns (3.70 per cent.) was a trifle higher than that recorded in 1878; that of the principal towns was 3.44 per cent.; that of mainland-rural district 3.14 per cent.; and that of the insular-rural 2.56 per cent.; 64,436 of the children born alive were males and 61,300 females. For every 100 girls, there were consequently 105.1 boys born. In the insular-rural districts, in which the preponderance of the male births has of late been most remarkable, there were born, for every 100 females, 108.7 males. The largest number of births per day were registered in the month of April (370), and the smallest in November (314). The deaths were in the proportion of 202 for every 10,000 of estimated population—the lowest rate recorded during the last twenty-five years. The average number of deaths registered was in February, 260 *per diem*; but only 156 *per diem* in August. The mortality in the large towns amounted to 254 for 10,000 of estimated population, and, although considerably less than that recorded in the general annual report for 1878, was decidedly higher than that of any other of the new registration groups. In the principal towns, the rate was 214 per 10,000, being decidedly less than that of the preceding year; in the small towns 204; in the midland-rural districts 172; and in the insular-rural 169. On referring to the records for 1878, it is found that, in every case, the death-rates for 1879 have been less than those of the former year. The difference observed in the midland-rural group was, however, quite insignificant.

THE WOODILEE LUNATIC ASYLUM.

THE annual report of this institution has just been issued, and the management of the asylum and the condition of the patients continue to be in every respect satisfactory. The number of patients in the asylum on December 31st, 1879, was 448, 237 being males, and 211 females. This is an increase of 28 on the number of last year. The average weekly cost of maintenance, including the necessary repairs to buildings and all improvements during the year ended, has been 10s. 1d. per week for each patient, being 7d. less than the average rate during the previous financial year. From the report of Dr. Rutherford, the medical superintendent, it appears that the asylum is completely furnished for 500 patients and the requisite staff, that it possesses 200 acres of land around it suitable for affording a great amount of personal liberty to the inmates, and that all the men who are physically able are taken out every day, and employed at the various occupations which only an extensive possession of land can afford.

THE EDINBURGH ROYAL INFIRMARY.

WE understand that Dr. Byrom Bramwell is at present a candidate for the post of Assistant-Physician to the Royal Infirmary of Edinburgh. This gentleman's distinguished and brilliant career must give him very high claims for the position. As a student, most of his supporters will not forget his almost unequalled success; and, as a matured medical man, the profession generally will recognise that the seed then sown has since borne fruit. For many years at Newcastle, Dr. Bramwell occupied the position of Physician and Pathologist to the Infirmary, having thus excellent opportunities of study and experience. That he has fully availed himself of these advantages, is shown by the various researches and practical memoirs which he has from time to time published, which bear the mark of a highly cultivated mind and matured powers of observation. We consider that the managers of the Royal Infirmary of Edinburgh will be fortunate if they secure the services of Dr. Byrom Bramwell as Assistant-Physician.

IRELAND.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual general meeting of the College, for the election of its officers and Council, will be held on Monday, the 7th proximo. A resolution, in favour of voting for the election of members of the Council by proxy papers, will be brought forward on the occasion. Following the usual course, Dr. Alfred McClintock, the Vice-President of the College, will succeed Dr. Mapother as President for the ensuing year; and, for the Vice-Presidency thus vacated, it is stated that Dr. Chaplin of Kildare will be an unopposed candidate. There will be several candidates for seats on the Council, one being Dr. H. Macnaughton Jones, Professor of Midwifery in Queen's College, Cork, and well known to the majority of our associates as the organiser of the last most successful annual meeting in Ireland. Mr. F. A. Nixon, Surgeon to Mercer's Hospital, and Lecturer in the Peter Street School of Medicine, will also be a candidate. Both of the institutions with which he is connected have been unrepresented on the Council of the College since Mr. Ledwich's death.

IRISH MEDICAL ASSOCIATION.

THE annual meeting of the Association will be held, as usual, on the same day as that on which the above-mentioned College of Surgeons' similar meeting takes place. Dr. Chapman, the most efficient Honorary Secretary of the Association, has been nominated by the Committee of Council, and the nomination has been ratified by the Council of the Association, for the Presidency of the Association during the ensuing year. No one living has done more than Dr. Chapman for the Irish Medical Association. Putting every other consideration aside, his election as President will be a fitting acknowledgment on the part of its members of their appreciation of his invaluable services.

HEALTH OF DUNDALK.

DURING the week ending May 1st, the death-rate in Dundalk was equal to an annual rate of 51.2 per 1,000. These figures refer, however, to the dispensary district more especially, and not to the town. There were sixteen deaths in the district; and of these, six took place in the rural portions of the district, and three in the workhouse, leaving seven as occurring within the town.

SAMARITAN HOSPITAL FOR DISEASES OF WOMEN, BELFAST.

AT a quarterly meeting of the Ladies' Committee of this institution held on the 6th instant, it was reported that the twenty-four beds were all occupied, and that several paying patients were waiting for admission. It was resolved that as many additional beds as the hospital building could accommodate should be at once provided, and that one of the two unfurnished wards should be papered and painted. The Ladies' Committee have undertaken the responsibility of providing the necessary funds for both these objects.

PROFESSIONAL ADVERTISING.

OUR attention has often been called to the frequent appearance of the names of certain members of the profession in the Dublin daily papers, coupled with announcements of their "skilful" attendance on persons suffering from accidents, or in connection with some other more or less unimportant matter. The Council of the Royal College of Surgeons in Ireland, recognising, apparently, that past and present members of its body were most to blame in this respect, passed the following resolution last week: "That the practice of indirectly advertising through the medium of sensational articles inserted in the public papers, being contrary to the dignity of the profession, is repudiated and condemned by this College." Very injudiciously, we think, a copy of this resolution was sent to the newspapers, with a request to the editor of each that he would "aid in putting a stop to the foregoing objectionable practice". This naturally elicited a sharp rebuke from the respective editors, with a polite intimation to the Council, from more than one of them, to attend to its own affairs. Certainly the Council of the College has not added to its dignity by the course it has pursued in this instance, although its object in doing so was praiseworthy. There is much cause to fear that the announcements referred to are furnished to the press by the surgeon himself, or with his full cognisance. And it is to be regretted that gentlemen who think to keep themselves before the public in this way, have so little regard to the dignity of their profession, and so little confidence in their own or their professional reputation. We much lament to see that a gentleman who has recently been placed in an honourable public position has so far forgotten the respect due to his profession, as to publicly cause an announcement to appear in a medical journal and in one of the "society" journals (from which it was copied into the daily press), that he would see patients at certain hours at his temporary residence in the metropolis.

ADULTERATION IN BELFAST.

DURING the past quarter, Dr. Hodges, Borough Analyst for Belfast, examined sixty-one articles of food, drink, and drugs, which included two samples of quinine wine, one of farina, five of flour, seven of butter-milk, and forty of sweet milk. The two samples of quinine wine contained merely a trace of quinine. During the quarter, eight parties were fined £22 5s. for selling adulterated milk.

ZYMOTIC DISEASES IN PROVINCIAL TOWN DISTRICTS.

DURING the past quarter, small-pox caused two deaths in Belfast, and one each in Londonderry and Sligo, but none in any other district. Twenty-one deaths from measles were recorded in Belfast, 31 in Cork, and 15 in Drogheda. Scarlatina, which was very prevalent in Cork, caused 100 deaths in that town, 16 in Drogheda, 6 in Dundalk, and 4 in Belfast. Whooping-cough was very fatal in Belfast, causing 72 deaths, in Cork 7, Waterford 6, and Queenstown 5. To diarrhœa, 42 deaths were attributed in Belfast, 13 in Cork, 11 in Limerick, 8 in Derry, 5 each in Waterford, Newry, Clonmel, and Dundalk; while in Lurgan 14 deaths took place from this affection.

CORK OPHTHALMIC AND AURAL HOSPITAL.

THE twelfth annual meeting of the friends of this institution was held on the 7th instant, presided over by the Mayor of Cork. During the past year, 1,523 individual cases were treated at the hospital, of which number 245 were admitted to the wards. Forty patients occupied free beds during 1879, and a very considerable number were admitted at a merely nominal sum; but, the charge of seven shillings and sevenpence per week made for each intern patient having been found insufficient, the committee have determined for the future to raise it to ten shillings, except in the case of persons being admitted from industrial schools and other charitable institutions. An additional nurse has been appointed, further assistance having been found necessary. During the previous year, certain improvements made in the hospital left the institution indebted in a sum of £40; and last year new beds and bedding had to be obtained, which expenditure has further increased the debt; but the committee trust that they will receive the necessary amount (about £70) to enable them to defray their liabilities. From the surgical report, read by Dr. Macnaughton Jones, we learn that, of the 245 intern patients admitted under his care, 241 were cured or greatly benefited: results which must be considered as most satisfactory, only four remaining incurable. He adds that it will be utterly impossible to continue to relieve all who seek assistance, unless the resources of the hospital are improved. Mr. John Daly, M.P., in proposing the adoption of the report, spoke of the large amount of good done by the hospital; and, as regarded the deficiency of funds, he was confident that, when it became known that such a state of things existed, the citizens would come forward and enable those having charge of the institution to carry out the good work in which they were engaged. On the suggestion of Dr. Jones, a resolution was unanimously adopted, appointing Dr. T. Gelston Atkins assistant-physician to the hospital. A vote of thanks to the medical officers for their services terminated the proceedings.

PROPOSED FORMATION OF A BRANCH OF THE ASSOCIATION AT WORCESTER.

ON Saturday, May 1st, a meeting was held at the Guildhall, Worcester, for the purpose of establishing a Branch of the British Medical Association for the counties of Worcester and Hereford. Dr. STRANGE was in the chair; and there were also present Drs. Crowe, Swete, Woodward, Messrs. Everett, Budd, Wilson, Wilding, Bates, and Busigny (Worcester), Drs. Fernie and Pike (Malvern), Dr. Roden (Droitwich), Dr. Smith (Pershore), Mr. Hughes (Ombersley), Mr. Greensill (Great Witley), Mr. Blyth (Martley), Mr. Wood (Ledbury), Dr. Chapman (Burghill), and Mr. H. C. Moore (Hereford).

Dr. CROWE stated that on April 9th a meeting was held at the house of Dr. Strange, when a resolution was adopted that an endeavour should be made to form a Branch of the British Medical Association in Worcestershire and Herefordshire. Two hundred circulars had been sent out to practitioners in the two counties, and one hundred and twenty replies had been received. Seventy—of whom thirty-six were already members of the Association—had promised to join. Of these, forty-six resided in Worcestershire, and thirty-four in Herefordshire.

The CHAIRMAN, after expressing his pleasure at seeing so many members of the profession present, referred briefly to the history of the British Medical Association. In July, it would be forty-eight years since Sir Charles Hastings, then Dr. Hastings, called together a meeting in the board-room of the infirmary. He had been looking over a report of those proceedings, and he found that Sir Charles Hastings delivered a long address, giving the reasons which had induced him to move in the matter. The meeting was attended by about fifty representatives of the profession from Worcester and adjoining towns. The little Association then formed, like a stone rolling down the mountain-side, had acquired strength and force, until now it had overspread the whole kingdom, and had extended itself even far beyond—to Australia, Canada, and India. That most pleasant evidence of success, imitation, had also been given to it. Societies had been established in the United States, and he believed in France, not perhaps exactly on the same footing, but still with the same objects in view. The present position of the British Medical Association was wonderful, when they remembered how scattered the members of the profession were, and how, to a certain extent, many of them were isolated in their own localities. The Association also exercised an influence outside the profession. It had an influence upon the legislature in sanitary matters and matters connected with the profession. The Association had not been without its effect in raising medical men in the estimation of the public. One chief object of the Association was, that the members should have opportunities of comparing notes, taking mutual counsel, and conveying to one another any special information. Before many years had passed away, the members of the profession in the metropolis felt that they were left out of this great provincial Association, and were desirous of being included. About twenty-five years ago, there was a great struggle between the provincial and the national elements. The national element conquered the provincial, and the Association became a national association, under the name of the British Medical Association. Branches of the central Association had from time to time sprung up in almost every populous centre; and at the present time there was scarcely a county which was not embraced in some Branch. The Branches had the same elements of progress, and to a great extent the advantages, which the parent Association had. They formed little centres for communicating information and healing up sores. They tended to the harmony and well-being of the profession. It was rather remarkable that for many years the counties of Worcester and Hereford had been left out in the cold. It was odd that in the county where the parent Association had its birth there should have been no Branch of the Association. One reason was, that Birmingham was a great centre of population, having within its grip a large part of the county; and at Birmingham there was a large Branch of the Association. There were also Branches in Gloucestershire and Shropshire. Another reason was the formation of local medical societies. Fourteen years ago, an excellent medical society was established in Worcester, upon the generous gift of the library of the late Sir Charles Hastings by his son and daughter to the medical profession of Worcestershire. He (the Chairman) and others founded that society. They accepted the library, and had continued ever since to increase it by purchase and donation. The satisfaction which they had felt in the progress of this society had in some measure kept them from moving in the matter of forming a Branch of the British Medical Association. He believed that there was also a medical society at Hereford. The time had now come when they should go beyond this. Local medical societies, however useful, did not place them in exactly the position which they ought to occupy. Being isolated, the local members of the profession, although they might attend the annual meetings of the British Medical Association, had nothing to do with its governing body. Without any injury to the medical societies, there was room for a good local Branch of the Association. The responses had been more numerous than he had expected. The Chairman concluded by proposing that a Branch be constituted under the name of the Worcestershire and Herefordshire Branch of the British Medical Association.

Mr. D. EVERETT, in seconding the motion, mentioned that for nearly forty years he had been a member of the Association, and said that it was strange no local Branch had hitherto been established.—The resolution was adopted.

Some business having been transacted, the meeting adjourned. We are informed that a meeting for the further consideration of the subject will be held at an early date.

A BRANCH IN NEW SOUTH WALES.

WE learn with much pleasure that meetings of the medical profession have been held in Sydney for the purpose of forming in the colony of New South Wales a Branch of the British Medical Association, subject to the approval, in accordance with the by-laws, of the Committee of Council.

The first meeting was held on Monday, February 9th, eight gentlemen being present. Mr. A. Moffitt was called to the Chair, and Dr. F. Milford acted as Honorary Secretary.

The following resolutions were adopted unanimously.

"That it is desirable that a Branch of the British Medical Association be formed in New South Wales; and that this meeting hereby pledges itself to use every effort to assist in forming such Branch, and to advance its interests and the interests of the British Medical Association."

"That a meeting of the Branch take place at the Cambridge Club Hotel on next Monday evening at half-past eight o'clock, to which members of the medical profession registered in New South Wales be invited."

"That Drs. Renwick and Milford be appointed a Committee to draw up by-laws for the Branch."

A vote of thanks to the Chairman terminated the meeting.

At the second meeting, held on Monday, February 16th, about sixty gentlemen were present. The Chair was taken by Mr. Moffitt. The acting Honorary Secretary read the draft by-laws; and, after discussion, they were adopted. The meeting then adjourned.

On March 1st, an adjourned meeting was held, and the following officers and Council were elected:—*President:* Arthur Renwick, M.D. *Vice-President:* A. Moffitt, Esq. *Treasurer:* H. G. A. Wright, Esq. *Honorary Secretary;* F. Milford, M.D. *Other Members of Council:* G. Fortescue, M.B.; C. K. Mackellar, M.B.; H. N. Maclaurin, M.D.; G. Marshall, M.D.; W. O'Reilly, M.D.; R. B. Schuetté, M.D.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held at the College on Thursday, the 13th instant.

Mr. G. A. Woods of Stockport was presented with the collegiate triennial prize for his essay "On the Anatomy and Physiology of the Third, Fourth, and Sixth Nerves as illustrated by observation and experiment in health, and by reference to the effects of Injury and Disease". Mr. Woods elected to take the large gold medal, which is a very handsome one, of the value of fifty guineas, having on the obverse in bold relief the bust of Hunter, with the simple inscription "John Hunter"; on the reverse is a shield surrounded with a wreath of laurels, with the name of the recipient and the prize for which it was awarded.

The Council then determined on the usual arrangements for the election of Fellows into the Council at the annual meeting on the first Thursday in July, when four vacancies will be declared, caused by the death of Mr. Hancock, and the resignation of their seats by Mr. George Busk, F.R.S., Mr. T. B. Curling, F.R.S., and Mr. John Simon, F.R.S., all of whom have served the office of President. At present, the following are reported to us as the names of probable candidates. They are placed according to seniority of fellowship: Messrs. W. Cadge of Norwich, date of fellowship, August 10th, 1848; J. Lister, F.R.S., of King's College Hospital, December 9th, 1852; T. Bryant, of Guy's Hospital, May 12th, 1853; J. W. Hulke, F.R.S., of the Middlesex Hospital, May 23rd, 1857; T. Smith, of St. Bartholomew's Hospital, June 10th, 1858; and M. Berkeley Hill, of University College Hospital, November 24th, 1859. These gentlemen are all Fellows of the College by examination.

The Council then proceeded to the consideration of the following motion by Mr. Holmes: "That Clause 7, Section 7, of the By-Laws be abrogated and annulled, viz.: '7. Every Member present from the commencement until the termination of any meeting of the Council shall be entitled to one guinea'." This was not carried.

The following series of proposals by Mr. Marshall were then taken into consideration, and adopted. "1. That, under the powers given by Section 14 of the by-laws, the Council do proceed, as soon as is practicable, to institute an examination in Elementary Anatomy and Physiology, and in such other subjects as the Council shall from time to time determine, to be passed by candidates for the membership of the College, at or after the expiration of their first year of study. 2. That it be referred to the "Committee on Examinations in Anatomy and Physiology" to prepare, and submit to the Council for approval, the necessary regulations for defining and conducting such examination. 3. That it be referred to the Committee on By-Laws to prepare the revised or new formulæ which will be required for the rearrangement of the payment of fees, by the institution of such examination."

The following recommendation of the committee appointed November 13th, 1879, to consider and to report to the Council on "the necessary arrangements to be made for the institution of examinations in Chemistry, Materia Medica, Pharmacy, and Midwifery, to be passed by all candidates (not otherwise qualified in these subjects) for the Membership and Fellowship of the College", was presented and adopted, subject to confirmation at the next meeting of Council: "That, in view of the uncertainty which prevails as to the compulsory establishment of a conjoint scheme in each division of the United Kingdom, and of the desirability of some combination being effected amongst the English medical corporations for the purposes of a complete examination in medicine, surgery, and midwifery, the Council should give notice to the several medical authorities concerned in 'the conjoint scheme' of the intention of this College to withdraw from that scheme, so that the independent action of the College may be thereby secured."

THE "NON-COMBATANT" SERVICE.

We are indebted to Mr. Jabez Hogg for the following particulars of a gallant action, led by an old and valued friend and former pupil of his, towards the end of last year, on the march to Cabul. It exhibits the usual spirit and dash of the officers of the Medical Service in the field, who, although described as *non*-combatants, are, as is well known, fully equal to any emergency, whether it be in leading an attack or attending on the wounded.

"On the last day of July, I applied to the Surgeon-General for employment in a cavalry regiment, and got a most favourable and flattering reply from him; and, within a month, was gazetted to the 12th Bengal Cavalry. So, in September, off I went, *viâ* Kohat Kurrum, to join my regiment, then with the advanced force at Cabul.......We were stopped at Kurrum by an attack of the Munguls, and finally got to Ali Kheyl, where we were surrounded by the enemy. I was, therefore, not in time to be present at the action of Charasiab; but, at the siege of Ali Kheyl, or rather the attacks on that cantonment, we had lots of doctors there, but not a single cavalry officer; so the general put me in command of the cavalry details (eighteen recruits and twenty-five old soldiers rejoining from leave of my own regiment, five of the 13th Bengal Lancers, and forty-nine of the 5th Punjab Cavalry). When the chief attack was at its fiercest (October 14th), a band of over one thousand Ghilzais were seen crossing the broad bed of the river to help the enemy; then General Gordon gave me command of all the mounted men, and told me to go at the lot, catching them in flank, and promised to back me with the 29th Punjab Infantry. We slipped down a ravine, the forty-three men of the 12th Bengal with me, and fifty-four of the others a little to the right (these men got stuck in a ravine and never joined me after all). When we got in sight, there were about six hundred crossing in detached parties of twelve, twenty, and thirty. I got our fellows into as good a line as possible, and we went at them and through them with a crash. Such a row! Their war-cry: 'Chavé-Chavé Ul-Ul-Ul-Ullah' (Attack, attack for God), and our fellows' answer: 'Sir Kav Ki jai, Siri atral ki jai' (Victory for the great immortal, Victory for the Government); the rattle of the swords against their pikes and knives, and the shot from jezails, made up the most awful turmoil. I never knew before what battle was like. On the far side, we reformed, and in less than five minutes were again in the middle of them, long before they had time to load their jezails. We came through again with a smash, and they broke and fled in every direction, half going back, and about one hundred falling straight on to the 29th Punjab Infantry, who killed them nearly all. Thirty-five bodies were left on the spot; wounded not known. The attacks on the Shaturgardan having also failed, the road was open again to Cabul; so on we went, over the Shaturgardan and on to Cabul, arriving there on November 1st. I went with all the different expeditions sent about, and was at the fight at Tagao, when one company of the 67th Regiment was hammered by the Safis. At Ali Kheyl, I had one man severely wounded—his hand was cut off by one blow with a knife; two wounded by sword-cuts; one by a pike-thrust; one horse shot dead, one stabbed to the heart, and six or seven cut with knives. No man killed. The 12th Bengal Cavalry was left to garrison Butkhak; but, when the outbreak took place and Shepur was surrounded, we made a night march and cut our way on to help and defend the cantonments, and for twelve days were night and day on duty; by day on patrol reconnaissance, and by night in the trenches on the East Birnaver ridge; and, on December 22nd, two hundred and fifty of the best mounted were picked out to cut a way through the enemy's brigade on the Liak Ferry ridge, and open a way for General Charles Gough's brigade. We did as we were ordered, losing in the action four men killed and wounded and twenty-four horses. This finished the fighting round about Cabul; and, on January 2nd, we were sent back to India to refit, recruit, and remount, and prepare for another forward movement."

CHOLERA IN INDIA.

In the just published fifteenth report of the Sanitary Commissioner with the Government of India, Dr. Cuningham discusses at some length the distribution of cholera in that empire during 1878; and in view of the international interest possessed by the fluctuating prevalence of cholera in its home, it may be well that we should give as briefly as possible a sketch of the facts which Dr. Cuningham records. It appears that in Bengal proper, Assam, the north-west provinces and Oudh, in Bombay, Hyderabad, Madras, and British Burmah, the disease was less prevalent than it had been the year previous. In some of these provinces, the diminution was not great; but in others, and more particularly in Madras, it was most marked. In the Punjaub, there was an increase, though the actual number of deaths was not large (215); but in the central provinces, in Berar, in Rajputana, and in Central India, the increase was very great, and the mortality indicative of a very formidable epidemic over those portions of the country.

In Bengal proper, a total of 95,192 cholera deaths was recorded, against 155,305 in 1877. In Calcutta, the total mortality (1,338) was slightly less than it had been in 1877 (1,418), and still less than it had been in 1876 or 1875, but the results compare unfavourably with those of the four previous years. In Assam, 6,732 deaths were recorded, but doubtless many more occurred, since the registration of deaths in this province is still in a most backward state. The disease was more or less prevalent in every district, rising to a first maximum in the hot months, subsiding as the rains fell, and regaining fresh force in the later months of the year. In this respect, the returns from the north-western provinces and Oudh present a very remarkable contrast, for here, as a rule, the early months were almost entirely free from the disease. In April and May, there was a decided increase, especially in some districts; but, instead of declining with the rains, the disease then became more prevalent. As a whole, 1878 was not a year of great cholera prevalence in these provinces; and, although a total of 22,221 deaths were recorded, many of the districts were singularly free from the disease.

A great cholera epidemic covered nearly the whole of the central provinces, and the total mortality (40,985) was greater than it had been since the great epidemic of 1869. To the 34,306 deaths in Berar, we have already adverted on page 549 of the last volume. The returns from the native states of Rajputana and Central India, imperfect as they are, give ample and consistent evidence of a widespread epidemic. The deaths recorded in the year were 10,442: in 1877, they had numbered only 986, and in 1874 only 4. In the Hyderabad country, cholera was slightly less prevalent than it had been in the year previous, the deaths in 1878 and 1877 being 6,696 and 7,414 respectively. In 1874, not a single death from cholera was registered in this part of the country. As in 1877, the returns for Bombay show that in 1878, with the exception of a very few cases during March and April, Scinde was free from cholera. In Kanara, only a few deaths were recorded; but in other parts of the presidency the disease was prevalent. The total mortality from cholera, though high (46,743), fell considerably short of what it had been in 1877 (57,228). The distribution of cholera over Madras presidency was very unequal. The most northern districts suffered most, in common with the neighbouring Bengal districts, and the heaviest mortality occurred in all of them about the same time, in the months of June, July, and August. The total mortality of 1878, high as it is (47,167), presents a striking contrast to the terrible experience of 1877, when, aided by famine in some districts and general distress in all, the cholera deaths reached the unprecedented figure of 357,430. In Mysore and Coorg also, there was a very satisfactory diminution of the disease; whilst in British Burma the results were slightly more favourable than in 1877. The number of cholera deaths in these three provinces were 723, 49, and 6,759 respectively.

With this enormous total mortality (318,228 deaths in all the districts), it is disappointing to learn that the reports on the outbreaks throw no new light on the disease. Dr. Cuningham observes, however, that the great epidemic of 1879 will afford a large mass of evidence on which the many interesting and important points brought out in the reports may again be considered with advantage. This latter epidemic has covered a very wide area, and has caused a very lamentable loss of life, both among Europeans and natives. Information is being collected by which it may be possible to test the popular belief that it has been due to the Hurdwar fair. Great difference of opinion prevails as to whether such a gathering ought to be prohibited, and whether such a prohibition would materially alter the course of the disease or benefit the health of any portion of the community except the pilgrims themselves. On all other practical points, there can be no real difference of opinion, however much theoretical views may vary. Quarantine has been prohibited, because, even if the benefit which is expected from it could be demonstrated in theory, it is impossible in practice. It involves grievous oppression, and has been universally condemned by all sanitary authorities of any weight. The unfortunate loss of life from cholera which characterised last year, especially among the troops returning from Afghanistan, Dr. Cuningham regards as evidence only that measures devised as far as practicable to meet the belief in contagion as the cause of the disease, and carried out by medical officers with the greatest care, have singularly failed; and he thinks that the time and trouble often devoted by medical officers in endeavouring to find out the source of supposed importation or infection might be spent to better purpose in furthering sanitary improvements.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of this Branch will be held at the Bristol Museum and Library, on Wednesday evening, May 19th, at half-past seven o'clock; J. BEDDOE, M.D., President.

Clifton, May 1880. E. C. BOARD, *Honorary Secretary.*

NORTH OF IRELAND BRANCH.

THE annual meeting of this Branch will be held in the Belfast Royal Hospital, on Thursday, the 20th May, at 4 P.M. The members will afterwards dine together.

Members wishing to read any papers, or intending to be present at the dinner, will please communicate with

JOHN MOORE, M.D., *Honorary Secretary.*

2, Carlisle Terrace, Belfast, April 26th, 1880.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE next meeting of this district will be held at the London Hospital Medical College on Thursday, May 20th, at 9 P.M.; FREDK. WALLACE, L.R.C.P.Lond., in the Chair.

Business.—Arrangements for annual meeting of the district.

Paper.—I. B. Berkart, M.D.: On Chronic Synovitis of the Knee-Joint—its origin, symptoms, and consequences.

A. GRANT, M.D., *Honorary Secretary.*

370, Commercial Road, E., May 10th, 1880.

EAST YORK AND NORTH LINCOLN BRANCH.

THE annual meeting of this Branch will be held at the Hull Infirmary on Wednesday, May 26th, at 1.30 P.M.

Gentlemen who desire to make any communication, or to propose any resolution, are requested to inform the Secretary on or before May 15th. It has been decided that the time allotted to each communication shall be limited to fifteen minutes.

E. P. HARDEY, *Honorary Secretary.*

Regent Terrace, Hull, April 29th, 1880.

EAST AND WEST KENT DISTRICTS: CONJOINT MEETING.

A CONJOINT meeting of the above districts will be held at St. Bartholomew's Hospital, Rochester, on Thursday, May 27th, at 2 P.M. The chair will be taken by Dr. BOWLES of Folkestone, President of the South-Eastern Branch.

SOUTH MIDLAND BRANCH.

THE annual meeting of the above branch will be held in the Board Room of the Northampton General Infirmary, on Thursday, May 27th, at half-past two o'clock, under the Presidency of FRANK BUSZARD, M.D.

The following papers have been kindly promised.

1. D. J. T. Francis, M.D.: A Few Words on Effects of Change of Air on Health.
2. W. Newman, M.D.: Scarlet Fever, in Special Reference to its Sequelæ.
3. G. P. Goldsmith, M.D.: Notes on an Interesting Case of Heart-Disease.
4. H. Veasey, Esq.: Cases in Surgery.
5. A. Haviland, Esq.: The Principles of Climatology in reference to Health-Resorts.
6. R. H. Kinsey, Esq.: Some Notes on Surgical Cases.
7. G. H. Percival, M.B.: Case of Extra-Uterine Fœtation.
8. W. H. Bull, Esq.: Notes on Carbolic Acid Poisoning.
9. C. J. Evans, Esq.: Case of Abdominal Tumour.
10. A. H. Jones, M.B.: Case of Pelvic Hæmatocele.

G. F. KIRBY SMITH, *Honorary Secretary.*

Northampton, May 10th, 1879.

P.S.—The President requests the pleasure of the company of the members of the Branch to luncheon at his residence, 43, Abington Street, at a quarter past one o'clock.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

THE next meeting of this district will be held at the New Kentish Hotel, Tunbridge Wells, on Friday, May 21st, at 3.30 P.M.; Dr. W. FAIRLIE CLARKE in the Chair.

Dinner will be provided at the hotel at 5.30 P.M.; charge, 6s., exclusive of wine.

Papers, etc., are promised by Dr. Milner Barry, Dr. Ranking, Mr. Manser, Mr. Stamford, and the Chairman.

Further communications will be acceptable, and notice thereof is requested at once by the Secretary.

THOS. TROLLOPE, M.D., *Honorary District Secretary.*

9, Maze Hill, St. Leonard's-on-Sea, May 11th, 1880.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

A MEETING of the above district will be held at Worthing on Monday, May 31st. Members wishing to bring forward any communication, or desirous of reading papers, etc., are requested to give notice to the Honorary Secretary without delay.

WM. J. HARRIS, *Honorary Secretary.*

13, Marine Parade, Worthing, May 10th, 1880.

GLOUCESTERSHIRE BRANCH.

THE next meeting will be held under the presidency of T. S. ELLIS, Esq., of Gloucester, at 4.30 P.M., on Tuesday next, the 18th May, in the Board Room of the General Hospital, Cheltenham.

Business of the Meeting.—1. To receive the Report of Council with regard to the mode of Election of Officers. 2. Mr. T. S. Ellis: The President's Address. 3. Dr. Inglis: On the use of the Sphygmograph. 4. Dr. Ferguson and Mr. Bennett: Empyema, and its Treatment by Free Incision. 5. Mr. Bubb: Precarcinomatous Eczema of the Breast; and a Remarkable Case of Renal Calculi. 6. Dr. Askwith: Abnormal Growth of Nails. 7. Mr. E. D. Bower: A Common Surgical Affection frequently overlooked. 8. Dr. Wilson: Hysterical Cough. 9. Mr. Cardew: Ulcers of the Leg, and their Treatment by Martin's Bandage.

The dinner will be at the Plough Hotel, at half-past seven.

RAYNER W. BATTEN, *Honorary Secretary.*

Gloucester, May 1880.

SOUTH OF IRELAND BRANCH.

THE quarterly meeting of the Branch will be held in the Royal Cork Institution on Saturday, May 29th, at 4 P.M.

Members intending to read papers or send communications will kindly intimate their intention to the honorary secretaries as early as possible.

P. J. CREMEN, M.D.,
T. G. ATKINS, M.D., } *Honorary Secretaries.*

Cork, May 12th, 1880.

SOUTHERN BRANCH: DORSET DISTRICT.

A MEETING was held at Blandford on April 28th, under the Presidency of Mr. G. WILLIAMSON DANIELL.

New Members.—Mr. Thomas P. Daniel of Beaminster, Dr. Fraser of Bournemouth, Dr. Humble of Corfe Castle, and Mr. Lamson of Bournemouth, were elected.

Papers.—The following were read :—1. On Typhoid Fever, by the President ; 2. A Case of Distoma Hepaticum (Liver Fluke) in Man, by Drs. Humble and Lush.

A New Fillet was exhibited by the inventor, Dr. Philpot.

Next Meeting.—It was resolved that the October meeting be held at Sherborne.

Dinner.—The members (twenty in number) dined together at the Crown Hotel.

YORKSHIRE BRANCH : SPRING MEETING.

THE spring meeting of this Branch was held at the New Hospital and Dispensary, Wakefield, on April 28th; the President (Mr. ARTHUR JACKSON) in the Chair. About fifty members were present.

New Members.—Three new members were elected to the Association and Branch—viz., Mr. F. Shand, York ; Mr. George W. Wigin, Methley ; Mr. Richard Favell, Sheffield.

Papers.—The following papers were read and discussed.

1. Dr. Rabagliati : The Classification and Nomenclature of Disease.
2. Mr. Fowler : The Conservative Surgery of the Hand.
3. Dr. Tibbits : The Modern Theory of the Action of Digitalis.
4. Dr. H. C. Major : Observations on the Histology of the Brain in Senile Atrophy.
5. Dr. Holdsworth showed a patient with Progressive Muscular Atrophy, and related short notes of the case.

Dinner.—Thirty-six members dined together at the Stafford Arms Hotel.

CORRESPONDENCE.

ANIMAL VACCINATION.

SIR,—Allow me to have recourse to the publicity afforded by your JOURNAL to make the two following corrections.

1. The late Dr. Seaton in a memorandum published in the Annual Report of the Medical Officer of the Local Government Board for the year 1878 says: "The practice of vaccination in Belgium does not, as might have been supposed from the statements often made, afford to the observer much opportunity of seeing for himself the direct action of animal lymph on the human subject, and of noting for himself its relative degree of success. Vaccination from the calf to the human subject was practised many years ago at Brussels at the Institut Vaccinal de l'État, as stated by me in my report for 1869 [12th Report of Medical Officer of Privy Council] ; but this has long been discontinued, and the vaccination generally in the kingdom is carried on by vaccinators, public and private, from arm to arm. It is absurd therefore to speak, as is sometimes done, of vaccination from the calf to the arm as the Belgian National System."

This statement is entirely inaccurate. Vaccination with calf-lymph at the Institut Vaccinal de l'État continues to be practised on a very large scale. One thousand four hundred medical practitioners out of the whole number of two thousand five hundred in the country had recourse to it in 1879, to renew their stock ; this renewed, they have for the most part gone on with their vaccination by the arm-to-arm process. The institute, however, independently of this vaccinal seed furnished to vaccinators, has disposed of more than five thousand tubes or points for private vaccinations. It may therefore be stated that at least eight thousand vaccinations have been made with animal lymph provided by the institute, every medical man having asked for it twice or thrice. To this must be added a thousand vaccinations performed every year at the establishment itself from the calf to the arm by the director himself, which makes at the lowest computation nine thousand vaccinations in Belgium in 1879 by animal vaccine, either fresh or preserved. I pass by without notice, not having precise data on that point, inoculations performed by means of animal vaccine from other sources, *e.g.*, the Bureau d'Hygiène at Brussels, the depôts at Antwerp, Schurbeck, etc.

The ideal state of things would be that there should be during the vaccinal period, from May to October, vaccinated calves in all the great centres, so that vaccinations and revaccinations might be performed *en masse* with living vaccine. We are pursuing this aim, and we shall realise it one day; but it is not as yet attained. When, however, the late Dr. Seaton, in his report of 1878, declared that vaccination with calf-lymph, as practised at Brussels for many years by the Vaccinal Institute, had ceased for a long time, he made a great mistake. Not only has it never ceased, but it has been greatly extended and makes daily progress.

2. Mr. Benjamin Bell, in his article on animal vaccination, in the *Edinburgh Medical Journal* for May 1880, p. 977, falls into a no less singular error when he says : "Dr. Warlomont is permitted to call his institution 'L'Institut Vaccinal de l'État', but he continues to carry it on at his own expense, although the Government, for certain services rendered to the public, grants him a moderate annual subsidy." This is by no means the case. L'Institut Vaccinal de l'État is an official institution of which I am the director, of which the State bears the expense, and pays my salary. Should, however, the calls from private individuals abroad exceed a certain amount, the director is obliged to provide supplementary calves at his own expense.

In order to ensure accuracy, I subjoin the copy of the royal decree of July 11th, 1868, founding the institution.

"Leopold II, King of the Belgians, to all present and to come, greeting. In relation to the reports made to the Royal Academy of Medicine on the opportunity of renewing vaccine lymph by the inoculation of natural cow-pox on calves, as well as the conclusions adopted by the Academy, in its sitting of March 30th, 1867, conclusions formulated as follows.

"1. The Academy has already recognised the utility, and even the necessity, of renewing and rejuvenating vaccine, and has not changed its opinion in this respect. 2. A really practical means of obtaining this renewal would consist in a large application of animal vaccination, founded on the inoculation of spontaneous cow-pox in calves, in which the products of this inoculation would be continually kept up by the scientific processes recently introduced. In view of the similar opinion expressed by the Conseil Supérieur d'Hygiène Publique on April 26th, 1865, on the report of our Minister of the Interior, we have decreed and do decree.

"Art. 1. The arrangements of the royal decree of April 18th, 1818, concerning the medals of which Article 9 of said decree speaks are reported.

"Art. 2. By aid of the funds appropriated for the above-mentioned medals, our Minister of the Interior will be charged with the duty of creating a special service for the following purposes :

"1. The renewal of the vaccine actually in use, by means of animal vaccination started by the inoculation of calves with natural small-pox, the product of this inoculation being constantly kept up by the scientific processes recently introduced.

"2. The gratuitous distribution to all the medical practitioners of the country and to the communal authorities of localities where there are no medical men, who make application for it in writing, of the vaccinal matter thus obtained, as well as of humanised vaccine, produced by vaccination from the calf to the arm.

"Art. 3. The head of this service shall have the title of Directeur de l'Institut Vaccinal.

"Art. 4. The Directeur de l'Institut Vaccinal de l'État is charged :

"*a.* To take care that there is constantly in the locality appropriated to the purpose at least one calf vaccinated under his care, either by means of the products of natural cow-pox discovered at Beaugency in 1866 and kept up since that time at Dr. Warlomont's vaccine depôt at Brussels, or by natural cow-pox that chance or investigation may bring to light in Belgium or abroad.

"*b.* To collect the cow-pox furnished by the calves according to the most approved methods and to distribute it gratis, under the restrictions which will presently be indicated.

"*c.* To vaccinate infants from the calf to the arm, so as to be able, as far as possible, to distribute, also gratuitously, humanised lymph of the first transmission, which certain vaccinators may prefer to the cow-pox derived directly from the calf.

"*d.* To prevent any interruption in the successive inoculations of the calves.

"Art. 5. The gratuitous distribution of the vaccine collected at the Institut Vaccinal de l'État is limited, both for vaccinators and for the communal authorities, to two tubes or two points of vaccine-lymph *per annum*. The Director of the Institut Vaccinal de l'État will always be expected to satisfy as much as possible all the demands for vaccine made upon him ; but he may require from communal authorities a fee of one *franc*, and from medical practitioners of two *francs*, per tube or point of animal lymph, for every package exceeding the limits above indicated. He is likewise authorised to supply vaccine at a charge of two *francs* per tube or point to private persons asking for it. By royal decree of July 11th, 1868, Dr. Warlomont, titular member of the Royal Academy of Medicine, is named Director of the Institut Vaccinal de l'État."—I am, sir, sincerely yours,

May 1880. E. WARLOMONT.

PROVIDENT DISPENSARIES.

SIR,—One of the fashionable schemes of the present day is the provident dispensary as a remedy for some of the abuses of the out-patient departments of hospitals, and as a means of supplying ready medical aid to a class of persons too low in the social scale to be able to pay the smallest fees of a medical man, and yet a grade above what we should call paupers. Now, in reforming one abuse, it behoves us to be very careful that we do not create half a dozen others. Is there not a danger of carrying this provident principle too far? I grant that a provident dispensary must be a great boon to a certain class of persons, but is this the class of persons who most largely avail themselves of its privileges? You speak of bad debts in the books of medical men who practise much amongst the poor, and leave it to be inferred that these people who do not pay the doctor, whatever the reason may be, would join a provident dispensary. I doubt it very much; but of this I am certain, that those who do pay him would join. I speak here of a class to whom the provident dispensary would be fairly applicable.

My experience teaches me that, if a provident dispensary is to work the largest amount of good with the smallest amount of evil, its application must be limited to a comparatively small number of people. Speaking generally, there are the very poor and the improvident; the poor-law should provide for them. There are those who, earning above a certain rate of wages, may be fairly considered to be in a position to pay ordinary medical fees. Then there is a class between these two, to whom the provident dispensary principle may be fairly applicable. I contend that this class is a comparatively small one, and I would argue, therefore, that, where we find a provident dispensary numbering as its members one-tenth to one-fifteenth of the entire population of a town, as we do in many instances, there must be serious wrong done to the general practitioner, and that very many of those who should be his legitimate private patients are enrolled in the books of the provident dispensary. This seems to me to be only a large extension of the present bad points about clubs, where members, who are in a position to pay the ordinary fees of a medical man, claim medical attendance at the ridiculously small fees of from 2s. 6d. to five shillings *per annum*. The most successful provident dispensaries base their success on the large number of members enrolled. There are certainly two sides to this question, and the one at which I have hinted is worthy of more consideration than it has hitherto received.

I note that, at the recent meeting at the Cannon Street Hotel, there were several representatives of the friendly societies. What is the meaning of this? Is it intended to invite the co-operation of these societies, *i.e.*, to induce them to join the provident dispensaries so far as medical relief is concerned? Why, one of the greatest evils of the club system is the fact that one is compelled to attend all members, irrespectively of their ability to pay ordinary medical fees. If the friendly societies are invited to co-operate with the provident dispensary movement, with the application of a strict wages limit, well and good; if otherwise, we shall only be adding another burthen to the many which the medical profession is called upon, or rather submits, to bear.

Finally, in the establishment of provident dispensaries, I submit that the following guiding and guarding principles should be paramount.

1. The benefits should be confined to those in receipt of weekly wages.
2. There should be a strict wages limit.
3. This limit should, I think, be not higher than twenty-five shillings a-week for single persons, and thirty shillings a-week for married ones.

—Yours, etc., ALFRED SHEEN, M.D.

Cardiff, April 26th, 1880.

SIR,—In your article on the proposed provident dispensaries for the metropolis, you were good enough to invite criticism. I can very readily show the grievous injury the establishment of these institutions will inflict on the private practitioner. It is well known that, in every working neighbourhood, there are plenty of medical men who, for a small fee or subscription of one shilling per week, paid during illness only, will see patients at the surgery daily if necessary, and will visit the patient at home for a weekly subscription of three shillings. These charges include medicine; and, as cash down is the rule, patient and doctor are satisfied.

Three classes of patients crowd the out-department of an hospital; 1. The very poor, who cannot pay a fee, however small; 2. The improvident or mean, who, although able to pay small fees, like to get advice and medicine for nothing; 3. The rather well-to-do, who have perhaps their own family doctor, but wish to see some celebrated physician or surgeon without fee.

Now, where are the subscribers to the proposed dispensaries to come from? I have no hesitation in saying that they will be drawn from the classes who are now supporting the general practitioner. These people now pay their small fees readily enough, but if they find they can get their medicine and advice in a cheaper market, without the taint of charity, they will deal in that market, and who can blame them?

I will give two instances, out of hundreds I could mention and vouch for, to show the way these institutions crush out and ruin the struggling medical man. A provident dispensary is established in a London district. Not far from it resides a medical man who is attending the daughter of a very well-to-do tradesman. One morning, my medical friend receives a note from the tradesman: "Sir, you need not trouble to call any more, as I have joined the 'providential' dispensary." This wealthy tradesman had gone to the dispensary, paid twopence, and immediately obtained the services of a medical officer, who attended the daughter till she died. In this same neighbourhood, the women used formerly to pay their medical man a guinea for attendance in their confinement. They now increase the population with equal facility at a cost of seven and sixpence paid to the dispensary.

In a large northern town, a provident dispensary was established. The local medical men were attached to it, but soon resigned, and two youths were imported from London. What was the consequence? The medical men were impoverished, and some who were doing a fair practice had to leave the town, as they could not pay expenses.

The general practitioner is most apathetic, and is inclined to fold his hands and say "kismet", when he ought to be uniting with his fellows for the protection of their common interests.—I am, etc. G. F.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

AT a recent meeting of the Cork Board of Guardians, a communication was received from the Local Government Board, authorising the appointment of a second medical officer for the Carrigaline Dispensary District.

VACCINATION.—Mr. Cecil Webster, public vaccinator to the Bewdley District of the Kidderminster Union, has been awarded a Government grant of £14 5s. for efficient vaccination in his district. This is the second grant which Mr. Webster has received.

THE Mallow Board of Guardians last week increased the salary of Dr. Sandiford, Medical Officer of the Kilshannig Dispensary District, from £120 to £130 *per annum*, in consequence of extra duties imposed on him by the opening of a medical depôt at Bween.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BURY ST. EDMUND'S.—Mr. Clarke's report for 1879 is at once useful and readable, discussing the various events of the year with care and perspicuity. Unfortunately, the medical officer has a high death-rate to record for the borough (21.2 per 1,000), though it is in a measure satisfactory to find that this has not been caused by undue fatality from zymotic diseases. The only disease of this class that was to any considerable extent prevalent was scarlatina, which caused 16 deaths, and was most severe in the first half of the year. Tubercular diseases caused 31 deaths, and diseases of the respiratory organs 66. The large number of 13 deaths were recorded under the head of premature birth. The mortality of children under five years of age contrasts favourably with the previous year—the deaths amounting to 98 only, against 130 in 1878. An outbreak of small-pox and another of scarlatina were stamped out by the timely removal of the first cases to the authority's hospital, which, with the recently established disinfecting-chamber, seems to have been of great service. The undertaking of the scavenging by the authority is a desideratum for the town.

HEXHAM.—Although this town enjoyed last year a comparative immunity from zymotic diseases, the death-rate was excessive for a place with the natural advantages of Hexham (21.45 per 1,000 of the estimated population). Nearly a third of the deaths occurred from diseases of the respiratory organs alone. Dr. Jackson ascribes part of this fatality to the damp and slovenly condition of the yards in the town generally, and especially in the older parts. The infantile mortality was excessive, and all but two of the deaths of children under five years of age occurred in houses badly situated and badly ventilated, and lying in the lowest parts of the town. Forty-eight deaths occurred in persons over sixty years of age, one person being ninety-nine at death. The great sanitary want of the district is undoubtedly an increased supply of water, as the inhabitants are greatly exposed at times to the risks of a water famine, and the sewers are very insufficiently flushed with the present supply.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 8th and 10th inst., and, when eligible, will be admitted to the pass examination.

Messrs. Arthur W. Wheatly, Charles E. F. Biggs, Charles F. Rumball, William C. G. Collins, David John, Alfred J. Weakley, and Nicholas P. Marsh, students of St. Bartholomew's Hospital; Edgar R. S. Lipscomb, John H. Cox, Reginald J. Wylde, James H. Targett, George H. Kinch, William E. Audland, Walter T. Harris, John G. Milnes, Daniel T. Edmunds, and Arthur J. Dalton, of Guy's Hospital; William A. Foxwell, B.A.Cantab., and Alfred Barber, of St. Thomas's Hospital; Harry L. Smith, John Humphreys, and Herbert W. White, of the Glasgow School; Frank L. Phillips, and Sidney C. Lawrence, of the Birmingham School; Benjamin Poulton, of the Melbourne School; Robert S. Jefferson, of the Leeds School; Herbert H. Knowles, of the Liverpool School; Henry T. Rudge, of the Bristol School; and Michael H. Feeney, of the Cork School.

Nineteen candidates were rejected.

The following gentlemen passed on the 11th instant.

Messrs. Henry P. Keatinge, Robert A. Baillie, Hubert T. Sells, Francis A. A. Bush, William R. Etches, Edward T. Trevor, Matthew Carnelley, John B. Berry, and John H. Gibson, of Guy's Hospital; John A. Waring, John L. Wright, William H. George, E. H. M. Gavey, Edward T. Carlyon, Frederick Spicer, and Herbert C. Coopland, of St. Bartholomew's Hospital; Herbert G. H. Clarkson and Thomas J. R. Clarkson, of the Leeds School; William A. Ellison, B.A.Oxon., of St. George's Hospital; and Albert B. Clarke, of Charing Cross Hospital.

Four candidates were rejected.

The following gentlemen passed on the 12th instant.

Messrs. Frank N. Shillingford, Benjamin M. Moorhouse, William J. C. Tomalin, Henry A. B. Davies, George R. Green, and Michael A. Muirhead, of Guy's Hospital; Arthur S. Nance, Alfred B. Trinder, Rupert W. Newton, Roger de la H. Williams, and Herbert C. Simmons, of St. Bartholomew's Hospital; John R. Rygate and Hugh S. Robinson, of the London Hospital; Robert W. Shelley, of the Charing Cross Hospital; William F. Marjoribanks, of St. Mary s Hospital; and Bassett C. E. F. Gunn, of University College.

Eight candidates were rejected.

The following gentlemen passed on the 13th instant.

Messrs. William H. Moore, Henry G. Plimmer, Walter C. Spiller, John V. Salvage, Holland H. Wright, and Langford McE. Anderson, of Guy's Hospital; William G. Ellis and Alfred Haward, of St. Bartholomew's Hospital; Milward E. Dovaston, of University College; and John C. Kershaw, of the Leeds School and Middlesex Hospital.

Ten candidates were rejected.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 6th, 1880.

Johnston, Edward Cocks, Birmingham.
Jones, William Clay, Llyswen, Breconshire.
Routh, Armand Jules McConnel, Montagu Square.
Savill, Thomas Dixon, St. Thomas's Hospital.

The following gentleman also on the same day passed his primary professional examination.

Thomas, John Lloyd, Queen's College, Birmingham.

Royal Colleges of Physicians and Surgeons of Edinburgh: Double Qualification.—The following gentlemen passed their first professional examination during the April sittings of the examiners.

David Robert Paul, Vizagpatam; Wilton Mills, Whitworth; John Murray, Alyth; John Paulin, Isle of Man; James Dobb, Ince; William Gunn, Sutherlandshire; James Thomas Carter, Midlothian; William Johnson, Durham; George Sinclair, Orkney; James Patrick Andrew Wilson, Edinburgh; Thomas Aitchison, Northumberland; Joseph Holmes, Leeds; William Richard Parry Jones, Anglesea; Robert Main, Newcastle-on-Tyne; Robert Wotherspoon Lindsay, Glasgow; James Gray, Ross-shire; Edward Joseph Freeman, County Clare; Edward Tenison Collins, Birmingham; Alfred William Greenleaf, Ipswich; James Loughlin Nevin, County Antrim; Hugh Charles Goold, Norwich; Isaac Kiddle, Surrey; Thomas Ernest Gee, Nottinghamshire; James Hargreave Mawson, Hambleton; William John Harvey Fletcher, Staffordshire; William Montagu Venables Williams, Denbighshire; Arthur Edward Blacker, Somersetshire; John Jordan Skinner, Redditch; William Bradshaw Paulin, Halifax, Nova Scotia; Henry Dobson Osborne, Dungiven, County Derry; John Nagle Jeffries, Kinsale; Alexander Maclaren, Edinburgh; William Frederick Hamilton, Londonderry; Matthew Steel Aitken, Glasgow, and John Oliver Chisholm, Jedburgh.

The following gentlemen passed their final examination in April and May, and were admitted L.R.C.P.Edinburgh, and L.R.C.S.Edinburgh.

Charles Frederick Pollock, Dumbartonshire; Guthrie Rankin, Kilmarnock; Wm. Thomas Waterson, Northumberland; John Thomas Jones, Aberganolwyn; James Dobb, Ince; Philip Henry William Boon, Madras; Walter Flewitt, Birmingham; William Babtie, Dumbarton; James Gray, Ross-shire; Henry Johnston Boyd, Hillsboro'; John Alexander Kennison, Melbourne; John Moore Tweed, Ballymoney; Wm. Jones, Aberystwith; John Crawhall Nichol, County Durham; Leonard King Havelock Hackman, London; Edwd. John Hadderton Hoskyns, Derby; Wm. George Morgenrood, Cape of Good Hope; Edwd. Brady, Cork; Mervanji Pestanji Kharegat, Bombay; George Richard Edletsone Bonsall, Aberystwith; Wm. Mackay, Woburn; Robert Gravenor Strong, South Australia; Geo. Cuthbert Clarke, Middlesex; Harry Callander Oakley, Hornsey; Arthur Neve, Brighton; Marcus Calder, Glasgow; Edwd. Joseph Freeman, County Clare; Archibald Henry Fraser, Umballah; Charles Samuel Gibbons, Lincolnshire; Thomas Brodrick Albert Tuckey, Cork; John McGavin, Renfrewshire; Abercromby McBeath, Banffshire; James Bennett Hayes, Cork; James Keating, County Limerick; Robert Duncan Cameron, Liverpool; Alfred Ernest Bartrum, Bath; Edmund McDonnell, County Antrim.

Royal College of Surgeons of Edinburgh.—The following gentlemen passed their first professional examination during the recent sittings of the examiners.

Norman Henry Lawrence, Cape of Good Hope; Frederick Rutherford Harris, Mongolore, India; and John Bremridge, North Devon.

The following gentlemen passed their final examination, and were admitted Licentiates of the College.

William Collier, Cambridgeshire; Samuel George Levis, County Cork; John Eadie, Alloa; Robert Jonathan Baylor, Fermoy; Frederick Rutherford Harris, Mongolore, India; and Thomas Clements, Glasgow.

The following gentlemen passed their first professional examination for the Licence in Dental Surgery of the College.

James Stewart, Perth; and James Stewart Durward, Edinburgh.

University of Glasgow.—The following candidates have been successful at the recent examinations in April.

First Professional Examination (New Regulations) in *Chemistry*, *Botany*, and *Zoology*: Thomas G. Alexander, Robert Beith, Andrew Lees Bell, Benjamin Blaine, John G. Burns, Wm. Campbell, Joseph Carroll, Fergus Casswell, Norman McLeod Clerk, Robert Davidson, Thomas Spence Dunn, Alexander Galbraith, Jas. Gardner, John M. H. Gill, Jas. F. Gemmell, Wm. Gibb, Thos. J. Grime, Francis Johnstone, Isaac C. Hodgson, Alexander Jarvie Hooel, Robert Horn, Robert R. Hunter, Creighton Hutchinson, Matthew Killoch, William Little, James D. Macdonald, Neil C. Macdonald, Thomas F. Macdonald, John Francis M'Gregor, H. Malcolm Mackintosh, John Macintyre, Peter Maclean, James McNish, Matthew Martin, James Maxwell, Henry Mason, William C. Muir, William Patulls, William G. Pretsell, Richard A. D. Robb, William T. G. Robinson, Andrew Semple, Dugald Sinclair, John Sinclair, Alexander J. F. Skottowe, William Anderson Soga, Robert Stewart, William C. Taylor, Edward T. Turnbull, William Waddell, Henry Pelham Webb, John C. Wilson, David Gardner, and James Jardone.

First Professional Examination (Old Regulations) in *Chemistry*, *Botany*, and *Elementary Anatomy*: Robert M. G. Binnie, George V. Fourquemin, John Logan, John Ferguson McGregor, John Mathie, William H. Hay-Robertson, Patrick A. Smith, and C. B. Hunter.

Second Professional Examination (Old Regulations) in *Zoology*, *Physiology*, and *Advanced Anatomy*: John Bond, John T. Brown, James Donald, John Goff, Oliphant Hamilton, C. Buchanan Hunter, Jno. H. Low, Robert Miller, Donald Morison, Alexander McIndoe, David R. Oswald, James Rae, William Russell, Donald Simpson, John Stevenson, Thomas Stewart, Robert G. Taylor, and Henry Frazer.

Second Professional Examination (New Regulations) in *Descriptive Anatomy* and *Physiology*: Roland Blaney, John Brown, John Buchanan, John Carruthers, David Durran, H. E. N. Dobie, David Gardner, James W. Grange, George Haddon, John M. Hunt, Chas. Jamieson, John Johnstone, John Keary, Geo. G. Kenny, David Laurie, Dugald McPhee, Jno. Morris, Wm. Morrison, M.A., Alexander F. Reid, James C. Robertson, Edward Williams, William M. Williams, Frank Wilson, George Wolstenholme, and J. M. Robertson.

The following gentlemen have received the degree of M.D.

James Campbell, M.B., Scotland; Robert Ferguson, M.B.. Scotland; William James Fleming, M.B., Scotland; David Lime, M.B., Scotland; James Thomson, M.B., Ireland; John W. Macdonald, M.B., Scotland; Thomas Oliver, M.B., Scotland.

The degree of LL.D. has been conferred during the past year on the following members of the medical profession.

John Hutton Balfour, M.D., Emeritus Professor of Botany, University of Edinburgh, and formerly Professor of Botany in the University of Glasgow; Joseph Lister, M.B., Professor of Clinical Surgery, King's College, London, and formerly Professor of Surgery in the University of Glasgow; John B. Cowan, M.D., Emeritus Professor of Materia Medica, University of Glasgow; Michael Foster, M.D., Prelector on Physiology, Trinity College, Cambridge.

University of Aberdeen.—At the April graduation term, the following candidates, having passed the usual examinations, received degrees in Medicine and Surgery.

Doctor of Medicine: James Allan, M.B., C.M., New Wandsworth; Algernon D. Brenchley, M.B., C.M., Camberwell; William Ford Edgelow, M.B., C.M., Torquay; Heber D. Ellis, M.B., C.M., Eastbourne; William Henry, M.B., C.M., Dunfermline; John MacMunn, M.B., C.M., Long Eaton; Adam F. J. Mickle, M.B., C.M., Grantham; Robert Milne, M.B., C.M., Cluny; Leonard Rudd, M.B., C.M., Upper Norwood; William J. R. Simpson, M.B., C.M., Dover; Francis W. Smith, M.B., C.M., Westbury; William A. Walker, M.B., C.M., Chesterfield; William R. White, M.B., C.M., Southampton; William H. Williamson, M.B., C.M., Aberdeen; Julius J. Eardley Wilmot, M.B., C.M , Weston-super-Mare.

Bachelor of Medicine and Master in Surgery: James Aymer, Laurencekirk William Beddie, M.A., Strichen; Harry A. Benham, Bristol; William H. Brodie, Aberdeen; William Deans, Kintore: Alexander D. Diack, Aberdeen; John Durno, M.A., Fyvie; James G. Fleming, Grantown; John Glaister, Wooler; George H. Harvey, Colchester; Fife Jamieson, M.A., Aberdeen; Joshua Law Kerr, Crawshawbooth, Manchester; Herman J. Liebstein, Highbury; Adam C. Lyon, Peterculter; Coll Reginald Macdonald, Argyleshire; Alexander Milne, M.A., Mintlaw; Satish Chandra Mukhopadhyáy, Calcutta; Alexander A. W. P. Murison, Macduff; Arthur L. Patch, Madras; Peter Rough, M.A., Daviot; Thomas A. Sellar, Lhanbryd, Morayshire; Robert Soutar, Kirriemuir; Alexander J. Struthers, Aberdeen; Charles H.

Welford, Sunderland; Percy R. Wilde, Weston-super-Mare; Christopher St. John Wright, Priors Marston.

Bachelor of Medicine: Alexander Boswell, London; Algernon A. Cohen, Clarence River, New South Wales.

Of the above-named candidates, Alexander Milne, M.A., received his degrees in Medicine and Surgery with highest Academical Honours; John Durno, M.A., Fife Jamieson, M.A., and Joshua Law Kerr received their degrees in Medicine and Surgery with Honourable Distinction.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen, having passed the required examinations, had the degree of Doctor of Medicine conferred upon them on April 29th.

Alderson, Frederick H., M.R.C.S., L.S.A., L.M., Hammersmith.
Bride, John, M.R.C.S., L.S.A., Wilmslow, Cheshire.
Condon, James H., M.R.C.S.L., L.M., Cawnpore.
Lyons, Richard T., M.R.C.S., 364, Rue St. Honoré, Paris.
Mann, John D., L.K.Q.C.P.I., M.R.C.S., Manchester.
May, Harry, L.R.C.P.L., M.R.C.S., L.S.A., Ware.
Murray, James, L.K.Q.C.P.I., M.R.C.S., London.
Threadgale, Robt. E., L.R.C.P.Edin., L.F.P.S.G., L.S.A., Upper Norwood.
Whishaw, John Charles, M.R.C.S.L., Earl's Court.
Wood, Richard, L.R.C.P.L. & Edin., M.R.C.S., L.S.A., Bromsgrove.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

ALNWICK INFIRMARY—House-Surgeon. Salary, £120 per annum, with furnished apartments, attendance, coals, and gas. Applications, with testimonials not later than May 20th.

BATTLE UNION—Medical Officer for the Second District. Salary, £25 per annum.

BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications to the Honorary Secretary on or before May 30th.

BELGRAVE HOSPITAL FOR SICK CHILDREN—House-Surgeon. Stipend, £30 per annum, with board and lodging in the hospital. Applications, with testimonials, to the Honorary Secretary on or before May 30th.

BOYLE UNION—Medical Officer for the Gurteen Dispensary District. Salary, £100 per annum, with free residence; also, £10 yearly as medical officer of health, registration and vaccination fees. Election on the 19th instant.

CENTRAL LONDON SICK ASYLUM DISTRICT—Principal Medical Officer. Salary, £300 per annum, with furnished house, coals, and gas. Applications, with testimonials, not later than May 22nd.

*DUDLEY DISPENSARY—Resident Medical Officer. Salary, £120 per annum, with apartments, coals, and gas. Applications, with testimonials, to the Honorary Secretary before May 22nd.

DUNFANAGHY UNION—Medical Officer for Gweedore portion of Dispensary District. Salary, £100 per annum, £10 as medical officer of health, with registration and vaccination fees. Election on the 21st inst.

ETON UNION—Medical Officer for the Burnham District. Salary, £90 per ann.

HAILSHAM UNION—Medical Officer for the Fourth District. Salary, £60 per annum.

HASTINGS UNION—Medical Officer to No. 3 District. Salary, £115 per annum. Applications, with testimonials, on or before May 19th.

*LEEDS AMALGAMATED FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Assistant-Surgeon. Salary, £140 per annum. Applications, with testimonials, on or before May 25th.

LIVERPOOL INFIRMARY FOR CHILDREN—Assistant House-Surgeon. Remuneration, £50 per annum.

LONDON HOSPITAL, Whitechapel—Sixth Assistant Physician. Applications, with testimonials, on or before May 24th.

*MANCHESTER ROYAL INFIRMARY—Pathological Registrar. Salary, £100 per annum. Applications to the Secretary on or before May 27th.

*NEWCASTLE-ON-TYNE INFIRMARY—Senior House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications, with testimonials, before May 19th.

NOTTING HILL PROVIDENT DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished apartments, firing, lighting, and attendance. Applications, with testimonials, to the honorary secretary on or before May 25th.

*PAISLEY INFIRMARY—House-Surgeon. Salary, £80 per annum, with board and residence. Applications, with testimonials, on or before May 19th.

*ROYAL FREE HOSPITAL—Senior Resident Medical Officer. Salary, £104 per annum, with board and residence in the hospital. Applications, with testimonials, to the Secretary on or before May 26th.

*ROYAL FREE HOSPITAL, Gray's Inn Road—Junior Resident Medical Officer. Applications, with testimonials, to the Secretary on or before May 19th.

ROYAL ISLE OF WIGHT INFIRMARY, Ryde—House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications, with testimonials, not later than May 18th.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY OF WIGAN—Junior House-Surgeon. Salary, £80 per annum. Applications, with testimonials, on or before May 26th.

SAFFRON WALDEN UNION—Medical Officer for the 1st District. Salary, £80 per annum.

ST. PETER'S HOSPITAL FOR STONE, 54, Berners Street, W.—House-Surgeon. Remuneration, £26 5s. for six months, with board, etc. Applications, with testimonials, on or before May 18th.

*SHEFFIELD GENERAL INFIRMARY—House-Surgeon. Salary, £120 per annum, with board, lodging, and washing. Applications, with testimonials, on or before May 29th.

SPILSLEY UNION—Medical Officer for the Stockney District.

SUNDERLAND UNION—Medical Officer for Bishopwearmouth East District.

TORBAY HOSPITAL HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications, with testimonials, to the Honorary Secretary not later than May 22nd.

UNIVERSITY COLLEGE HOSPITAL—Resident Medical Officer. Applications, with testimonials, not later than May 18th.

WALLINGFORD UNION—Medical Officer for the Dorchester District. Salary, £100. Applications on or before May 17th.

WHITBY UNION—Medical Officer for the Fylingdales District. Salary, £15 per annum. Applications before May 22nd.

*WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum, with residence in the Infirmary. Applications, with testimonials, to the Secretary, before June 25th.

*WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter.—Assistant Medical Officer. Salary, £100 per annum, to be increased to £120 the second year. Applications, with testimonials, not later than June 1st.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

CLARK, Annie E., M.D., appointed Resident Medical Officer to the Children's Hospital, Birmingham, *vice* W. Rhodes, L.R.C.P.Ed.

THURSTON, Edgar, L.R.C.P., appointed House-Surgeon to the Portland Town Dispensary, *vice* H. G. Taylor, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

HARGREAVES—EAMES.—On the 15th April, at St. Mary's Shandon, Cork, by the Rev. T. B. Warren, assisted by the Rev. Dacre Powell, Charles Hargreaves, The Height, Bolton-le-Moors, Lancashire, son of the late Charles Duckit Hargreaves, Esq., Bridgemont, Bolton-le-Moors, to Florence Nightingale, eldest daughter of James Alexander Eames, Esq., M.D., Eglinton Asylum, Cork.

DEATHS.

BRACEY.—On the 8th instant, at 46, Bristol Street, Birmingham, aged 38, William Arthur Bracey, M.R.C.S.

RUSSELL.—On April 19th, at his residence, Lurgan, fondly beloved and deeply regretted, Philip Crampton Russell, M.D., aged 70.

AMONGST many presents made to Miss Eames, the eldest daughter of Dr. James Alexander Eames, Medical Superintendent of the Eglinton Asylum, on her marriage to Charles Hargreaves, Esq., Bolton-le-Moors, was one which shows the friendly feeling which exists in that large institution. The present was a massive silver fruit-basket, which bore the following inscription: "Presented to Miss Eames, on the occasion of her marriage, by the officers and attendants, Eglinton Asylum, Cork, April 15th, 1880."

PUBLIC HEALTH.—During last week, being the eighteenth week of this year, 3,673 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 22 deaths annually in every 1,000 persons living. The annual death-rate was 22 in Edinburgh, 27 in Glasgow, and 36 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Hull 16, Oldham 16, Portsmouth 17, Newcastle-upon-Tyne 17, Leicester 18, Brighton 18, Leeds 19, Birmingham 19, London 20, Bristol 21, Sunderland 21, Norwich 21, Bradford 22, Nottingham 23, Wolverhampton 23, Liverpool 25, Sheffield 25, Manchester 28, Salford 30, and again the highest rate 38 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.1 per 1,000 in the twenty towns, and ranged from 0.3 both in Hull and Newcastle-upon-Tyne, to 5.3 and 18.1 in Salford and Plymouth. In London, 1,416 deaths were registered, which were 133 below the average, and gave an annual death-rate of 20.2 per 1,000. The 1,416 deaths included 10 from small-pox, 22 from measles, 67 from scarlet fever, 15 from diphtheria, 67 from whooping-cough, 21 from different forms of fever, and 13 from diarrhœa—being altogether 215 zymotic deaths, which were 26 below the average, and were equal to an annual rate of 3.1 per 1,000. The deaths referred to diseases of the respiratory organs, which had declined from 395 to 260 in the five preceding weeks, were 280 last week, and 28 below the corrected average; 161 resulted from bronchitis, and 80 from pneumonia. Different forms of violence caused 62 deaths; 52 were the result of negligence or accident, including 22 from fractures and contusions, 5 from burns and scalds, 2 from drowning, 3 from poison, and 13 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 47.1°, and 2.6° below the average. The general direction of the wind was north-easterly, and the horizontal movement of the air averaged 10.5 miles per hour, which was 0.10 below the average. Rain fell on Monday and Wednesday, to the aggregate amount of 0.17 of an inch. The duration of registered bright sunshine in the week was equal to 26 per cent. of its possible duration. The recorded amount of ozone was below the average on each of the days, except Sunday, 2nd inst.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ...... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY...... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........ Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Thin, Specimens illustrating the Development of Cancer; Dr. Hoggan, Specimens illustrating the Histology of Painful Subcutaneous Tumour; Mr. Gay, "Recurrent Mammary Tumour"; Dr. Norman Moore, "Aortic Aneurism opening into Right Auricle"; Dr. F. Taylor, "Cirrhosis of Liver in a Child"; Dr. H. Port, "Dermoid Tumour from the Rectum"; Mr. Shattock, "Mixed Cystic Oxide and Lime Oxalate Calculus"; Mr. Walsham, "Left Persistent Vena Cava"; Dr. Pye-Smith, "Aneurism of the Abdominal Aorta and Right Common Iliac Artery, communicating with the Inferior Vena Cava"; Mr. Eve, "Kidneys showing the Cystic Degeneration of Adults"; Dr. Barlow, "Congenital Syphilitic Ulceration of the Tongue"; Dr. Abercrombie, "Three Cases of Sarcomatous Growths in both Kidneys"; Dr. Stephen Mackenzie, "Congenital Malformation of the Heart"; Mr. MacCarthy, "Tumour of the Face"; Dr. Ralfe, "Remarkable Renal Concretion"; Mr. J. T. MacMahon, 1. "Cancer surrounding the Colon"; 2. "A Double Kidney".

WEDNESDAY.—Association of Surgeons practising Dental Surgery. Council, 7.30 P.M. 8.30 P.M.: Casual Communications from the President and others. Mr. W. D. Napier will exhibit the Polyscope for illuminating the mouth by electric light, and also a new apparatus for the administration of nitrous oxide without the risk of the gas running short.

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. G. P. Field, "An Analysis of Five Hundred Cases of Perforation of the Membrana Tympani"; Dr. Mahomed, "Bronchitis".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Treatment of Ranula.

Dr. C. Lovegrove (Hythe) has found the following plan most efficacious. Pass a tenaculum through the base of the tumour, and draw the part somewhat forward. After withdrawing the thicker part of the tenaculum a little, pass a plain gold ring, such as is used when the ears are first pierced, by the side of the tenaculum through both holes: then clasp it securely, and leave *in situ* for three or four weeks, then remove. A permanent exit for the mucus, etc., will then remain, and all trouble will cease.

J. E. G. has found the following plan very successful on several occasions. Thread an ordinary curved needle with common silk suture; make a double thread; pass the needle through the cyst, tie the thread sufficiently short, so that the loop lies within the teeth and will not be bitten through when eating; move the thread to and fro every other day. If this be kept in for about a week, the cyst will have evacuated itself by means of this small seton: when the patient says that it no longer discharges, remove the thread (seton), and let it granulate up. The last case he treated in this way (about six months ago) is still quite free from the ranula. Since that case, he had another ranula in an old woman about seventy; it involved the whole extent of her teethless lower jaw, and pushed her tongue up against the roof of her mouth; she could not speak nor swallow. The treatment adopted in this case was to make several punctures, at least half-a-dozen, through the cyst with a sharp-pointed bistoury. He gave a concentrated solution of chlorate of potash as a lotion to wash the mouth with, and also gave her a mixture of chlorate of potash. This case is still relieved by the above treatment.

Dr. C. D. F. Phillips recommends gradual dilatation of the salivary duct by laminaria tents. After incising and clearing out the ranula, the duct should be sought for and a piece of laminaria (which may require to be as fine as a needle, and should be very smooth) be inserted as far as possible, and left in for one or two hours every morning and evening. The size of the tent should be increased but very gradually, so as to avoid over much irritation. The patient himself can learn to pass it after a little instruction, and cure should result in two or three weeks. In some cases, it may be necessary to leave in the tent longer, and then a perforated one should be used. Some years ago, Dr. Phillips came across several cases in which the duct, as well as the ranula, had been cut away, and much suffering and serious swelling of the gland had resulted. These cases were cured by simple incision and keeping open the artificial duct by laminaria.

Mr. W. J. Tivy suggests the use of a seton composed of three or four threads of coarse ligature silk, which he has found invariably successful.

The Brussels Examination.

Sir,—As an intending candidate for the Brussels M.D. at the forthcoming examination in June, I would wish to learn, from one who has lately passed, what is the nature of the examination on Mental Diseases. Although doubly qualified, I have never been examined on the subject, and have had no special experience in general practice. A word of advice might allay apprehensions, where the range of subjects is already so very varied and extensive.—Your obedient servant, Aspirant.

May 11th, 1880.

The Nursing at Guy's Hospital.

Sir,—I am not myself a member of the medical profession, and therefore feel that some apology is due to you for troubling you with this communication, but the facts which I here relate may be interesting to your readers, being, as they are, *à propos* of the Guy's Hospital nursing question.

A brother of a gentleman with whom I am well acquainted became an in-patient at Guy's about a year ago, suffering from a large tumour at the top of his head, which necessitated the removal of several pieces of bone. The pillows on his bed were, to use his own expression, "as hard as wood", and naturally very uncomfortable. His wife brought him an eider-down cushion to lay his head upon; but as soon as the nurse saw it, she at once informed him that it was contrary to the rules to use it, and peremptorily forbade him to do so. On the next visit of the surgeon, he appealed to him and begged of him to allow him the eider-down pillow; the surgeon was more humane than the nurse, but seemed timid as to countermanding her orders; however, after a little palaver with her, she condescended to allow it. On another occasion, the nurse harshly forbade the gentleman of whom I am writing to read anything on the Sunday but the Bible; but, after a good deal of argument, she was made to confess that a religious biography was not altogether unfit reading for the Sabbath. This said nurse, moreover, was anything but one of those soft gentle creatures who are the delight of a sick man's bedside; she was harsh, unfeeling, and boisterous; she would speak in a loud, shrill, discordant voice—almost shout, in fact. Every kindness and attention were received from the surgeons; but this un-nurse-like nurse was a very agony to the pain-racked patients in the ward. She was, I understand, one of the new school. I enclose my card.—I have the honour to be, yours obediently, H. L. H.

A Member of the Association.—The Fellows' Festival will take place on the day of the annual election into the Council in July next, when Sir James Paget, Bart., will take the chair.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Midwifery Engagements.

SIR,—In reply to L.R.C.P.Edin., I understand him that the case is thus. A. is engaged by a lady to attend her in her confinement; but, before the time arrives for the attendance, A. disposes of his practice to B. Now B. wishes to know whether he can compel the lady to employ him or demand his fee.

To the last question there can be but one answer: No. A. may dispose of his practice, but cannot sell his patients, to B., or compel them to have him, unless under a deed of agreement. The lady did not agree to have B. (I presume), so that claim is out of the question. The question has often been asked, Can a medical man claim for midwifery attendance on a lady if she either do without him or get some one else in his place? Several trials have taken place on this point, to recover damages for breach of agreement. In one or two cases, the surgeon recovered his fee and costs, and in others he failed; so that it appears to be a question of taste, rather than one of law, with the county court judges.

I believe I am correct in saying that one cannot recover (legally) for any midwifery engagement unless there is a written agreement between doctor and patient; and, as this is out of the question, we must fall back on the moral obligation for our fee.—I am, etc., WM. HENRY BROWNE.

The Laurels, Aldbro', Hull, May 3rd, 1880.

Royal College of Surgeons of England.

THE following were the questions submitted to the one hundred and fifty-four candidates at the primary examination for the diploma of membership of the Royal College of Surgeons on the 23rd April, when they were required to answer four, and not more than that number, out of the following six questions on Anatomy, between one and three o'clock. 1. Describe the First Rib, naming the structures in immediate relation with it. 2. Describe the Ligaments connecting the Skull with the Spinal Column. 3. Describe the coverings and coats of the Testicle. 4. Give the dissection necessary to expose the Posterior Tibial Artery; describe its course and relations, and name its branches and their anastomoses. 5. Describe the Pelvic Fascia in the Male, its attachments, arrangement, and relations. 6. Describe the course, relations, and distribution of the Musculo-Spiral Nerve.

The following were the questions on Physiology submitted with the same conditions and to be answered between four and six o'clock. 1. Describe an act of Deglutition, mentioning in the order of their action the muscles engaged and their nervous supply. 2. Describe the structure of a Lobule of the Lung. State the changes which the air and blood respectively undergo in Respiration. 3. Describe the conditions requisite for the performance of a simple reflex Act. Give examples of reflex acts occurring without sensation, and of others associated with sensation; in each case specifying the several parts concerned. 4. Give the physical characters of Urine. What are its normal constituents? State the circumstances which cause variations in them within the limits of health. 5. Describe the structure of a Graafian Follicle, and give the changes that take place in it after the discharge of an ovum. 6. How may the function of a Nerve be determined? What are the functions of the first four Cerebral Nerves?

THE following were the questions in Anatomy and Physiology submitted to the candidates at the primary examination for the membership of the Royal College of Surgeons, on the 7th instant, when, in pursuance of a recent regulation on that subject, they were required to answer only four questions.

Anatomy.—1. Describe the Inferior Maxilla, and state the changes it undergoes from infancy to old age. 2. Describe the Inferior Radio-ulnar and the Radio-carpal Articulations; state the movements of which they are capable, and name the muscles by which these movements are effected. 3. Describe the course, relations, and anastomoses of the External Circumflex Artery, and give the dissection necessary to expose it. 4. Describe the entire Lacrymal Apparatus. 5. Describe the Membranes of the Spinal Cord, and mention the points of difference between them and the membranes of the brain. 6. Describe the course and relations of the Inferior Vena Cava, and name its tributaries.

Physiology.—Describe the structure of the Mucous Membrane of the Stomach. Give the composition and action of the Gastric Juice. 2. What are the essential parts of a Secreting Gland? What circumstances modify secretion? Illustrate your statements by reference to the salivary and sudoriparous glands. 3. Describe the structure of the Urinary Bladder. What muscles and nerves are engaged in the act of Micturition? 4. Describe the structure and functions of the Vocal Cords. Enumerate the intrinsic muscles of the larynx, giving the nerve-supply and action of each. 5. Give the structure and connections of the Valves of the Heart. What are their functions? 6. Describe the structure of Striated Muscle. Give the physical and chemical changes which accompany the act of contraction.

Advertisements.

THE following advertisements appeared in the *Aberdeen Journal* for April 30th.

"Dr. Robert Milne, in thanking his friends in the districts of Midmar, Cluny, and Monymusk, for their kind and liberal patronage during the past few years, embraces the present opportunity of informing them that Dr. Donald Macrae, whom he can most highly recommend, will be associated with him until he leaves the district."

"With reference to the above, Dr. Donald Macrae, in thanking the Parochial Board of Monymusk for appointing him their Medical Officer, trusts, by a faithful and conscientious discharge of any duties devolving upon him, to merit the trust of those who may favour him with their patronage.

"Kebbaty House, Cluny, April 29th, 1880."

A correspondent sends us the subjoined copy of a notice which, he says, is written on a piece of cardboard, and pushed under the doors and down the areas in Pimlico.

"*Notice.*—Dr. Wm. Folwell, 55, Gloucester Street, S.W. Patients are seen gratuitously every morning from 10 to 11.30. A small charge for medicine only. J. J. Bamber, Assistant."

Ethidene Bichloride and Nitrous Oxide.

SIR,—A combination of ethidene bichloride and nitrous oxide gas can hardly be called a new anæsthetic. Mr. Clover has used it most extensively; and I in about one hundred cases. In operations about the mouth and eyes, it is exceedingly valuable; but for use as a general anæsthetic, I still have a leaning to the older mixture of nitrous oxide and ether.—Yours faithfully, GEO. H. BAILEY.

9, Cavendish Place, W.

Opium-Smoking in China.

IN one of the Blue Books recently published, containing the commercial reports of Her Majesty's consuls abroad, some very interesting remarks are made by Mr. Gardner, the Consul at Chefoo, on the subject of the opium traffic between India and China, and on the effect of opium-eating upon the constitution. These latter are of so much interest to the medical profession, that we are glad to be able to give a summary of what Mr. Gardner says on the subject. He observes that opium-smokers are of three classes: 1st, occasional smokers; 2nd, habitual smokers, who smoke in moderation but have not got a craving; 3rd, habitual smokers, who smoke in excess, and have the craving. When it is said of a Chinaman that he smokes opium, it is meant that he belongs to the third class, just as with us the expression 'a man drinks' means he drinks too much. The average amount of foreign opium consumed in China is about 12,000,000 pounds per annum; probably 5,000,000 pounds more of native opium are produced. In smoking, only a portion of the opium is consumed; the ash is reprepared, and yields 50 per cent. of opium. Deducting the unconsumed opium, few moderate smokers consume more than one pound and a half a-year, while occasional smokers do not consume more than an ounce or so. The most immoderate smoker does not consume more than four pounds; and it would be about correct to reckon half-a-pound as the average annual consumption of all classes of smokers. This would make the smokers half the adult population.

The question arises, If opium smoking be the great evil it is represented, how is it that after so many years no inherited ill effects are visible? In China, the population live almost entirely on vegetables. According to Mr. Gardner, opium-smoking renders the processes of digestion slow, and consequently is highly beneficial. Again, the Chinese live in undrained grounds and in conditions favourable to ague and low types of fever. Under similar circumstances, the inhabitants of the lowlands of Lincolnshire took to laudanum, and it is not therefore surprising that Chinese should take opium in another form. "Every resident in China is struck with the comparative immunity of the population from the diseases of the bronchial tubes and lungs. That this immunity is not due to climatic influences is clearly proved by the fact that Europeans and Americans are not more free from the scourge here than they are in their own countries. Morphia is known to be an anæsthetic. It is probably, also, in the rarefied form of smoke, an antiseptic. In this form, its action would tend to arrest the suppuration of the lungs that takes place in consumption."

"The effect of bad habits often brings on a tendency to consumption acquired personally or inherited. Early marriages in China cause bad habits to be less rife there than in England or America. Now, a fair test of the above theories would be supplied by a class of natives who married late and were debarred from opium-smoking. The Protestant Christians supply this test exactly. No opium-smokers are allowed the privilege of members of the Church, and early marriages among the latter are greatly discouraged. The out-door games and occupations, which impart a healthy tone to the minds and bodies of our youths of both sexes, are not availed of by the Chinese. Bad habits would consequently be more prevalent among those that married late, and the result is precisely what might be expected. An enormous percentage of the deaths of native Protestant Christians is due to consumption."

During Mr. Gardner's residence in China, he has spent much time in visiting the opium-shops of the large towns and small villages in many parts of the empire, and in conversation with the customers, he was surprised at the large numbers who told him that their first motive for smoking was to check the spitting of blood to which they had become subject. At the end of 1865, being attacked with a severe fever, which left him so weak that he gave up hopes of recovery, he felt justified in trying upon himself the experiment of immoderate opium-smoking. The following were the results: 1. Temptation to excess greater than in the case of alcohol; 2. Excessive stimulation of the memory; 3. Utter indifference to cares and anxieties; 4. He only had one opium vision, and that was after ten hours' hard smoking without intermission; 5. A few months' excessive smoking produced the craving, or opiomania; 6. He suddenly gave up the habit, and suffered severe physical pain for three days, and discomfort recurring at irregular periods for over two years. The pain and discomfort were not accompanied by mental depression. Some of these effects may have been due to individual idiosyncrasies; but, from the study of his own and other cases, Mr. Gardner is inclined to believe that the temptation to excess is greater in the case of opium than in that of alcohol. But here he remarks that opium-smoking is, necessarily, a solitary enjoyment, and drinking a social one, and that a man cannot, therefore, be surprised into an excess of opium as he can into an excess of alcohol. It is possible that a long-continued course of excessive opium-smoking might impair the intellectual faculties and blunt the moral sensibilities. It is probable that excessive smoking impairs fertility, but the numerous cases Mr. Gardner has known of immoderate smokers having large families does not confirm this view. It is undeniable that many families are reduced from comfort to penury by their bread-winners spending an undue portion of their earnings in opium; also, that in a few isolated cases, poor smokers resort to theft to enable them to indulge in the pleasure. But the same may be said of any other habit of self-indulgence. That many individuals suffer in health from excess is incontrovertible, but the number of these is not so great as is imagined. On the other hand, it is equally incontrovertible that thousands of hard-working people are indebted to opium-smoking for the continuance of lives agreeable to themselves and useful to society. The physical difficulty in breaking-off the habit is greater, and the moral difficulty less in opiomania than in dipsomania. The argument that those who use a commodity as a medicine and harmless luxury should not be deprived of it because weaker brethren abuse, Mr. Gardner thinks, is stronger in the case of opium than in that of alcohol. No one is maddened by smoking opium to crimes of violence, nor does the habit of smoking increase the criminal returns or swell the number of prison inmates.

It will be observed, from these remarks, that Mr. Gardner does not consider the habit of opium-smoking as so baneful a vice as it is commonly regarded. As to the morality of India's deriving a considerable part of her revenue from the trade in the drug, there can be no two opinions; but it is interesting to observe that, in Mr. Gardner's opinion, the abolition of the monopoly in India would swell rather than diminish the consumption in China. The attempt to prohibit the importation of the foreign drug, or to raise a prohibitive tax on it, would, with regard to an article so easy to smuggle, be followed by a state of affairs like that existing before 1840. The real remedy for the excess of opium-smoking lies, he thinks, in the development of the resources of the country, whereby the people would be enriched sufficiently to inhabit healthy houses and partake of wholesome food, in which case the abuse of opium would die out in China, as the abuse of laudanum has died out in Lincolnshire after the draining of the fens.

MR. R. PARAMORE.—We cannot inform our correspondent where the East London Dispensary is. It is not in the list of Hospitals and Dispensaries in the *Medical Directory*.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. Fowke, not later than *Thursday*, Twelve o'clock.

Epsom College.

Sir,—I am almost ashamed to write that I celebrated the first of May by a *first* visit to the Medical College at Epsom. I was received, as everyone who knows the head master will believe, most courteously, and by him conducted over the whole building. The recent trying circumstances induce me to write these few lines as an expression of my sympathy with Dr. and Mrs. West, and Mr. Jones, and as an independent observer of the present condition of the College in all its features. I need not occupy your space by descanting on the school and class-rooms, the chapel, and such like, all being in the ordinary condition. The dormitories were in first-rate order in every respect, and the cubic space allotted to each bed was ample. Better dormitories I never saw; and the lavatory arrangements (baths included) were better by far than in most large establishments of a like character. The kitchen, larder, and servants' apartments were equally good; and I there saw most excellent prime joints of beef being prepared for the supper of the pupils—a supper prepared for consumption after the athletic sports of the year, of which I was fortunate to be a spectator, being enabled to see, under most favourable circumstances, the pupils of the College, whose conduct and demeanour were those of gentlemen.

I now come to the chief point of my communication, and which has been the main cause of my addressing you—the "sanatorium", which of late has been much maligned in a public court, and has, I daresay, somewhat terrified some nervous mothers and perhaps irritable fathers. Everyone must, of course, sympathise with parents who lose a beloved child; but one cannot approve of the course pursued to vindicate, as it were, such death, and to be revenged, because God has seen fit to remove such child from the dangers of this world. Oh, that a better spirit had entered the heart of the bereaved parents! I visited the room in which the child first lay, and which, with attendants, whether one or more, was far too small for a case of fever and too near to other dormitories to justify any father or mother, or doctor, in keeping a patient thus placed. The sanatorium, in all its arrangements, is most satisfactory, excepting the "bath", which is certainly most inappropriately placed, as it can only be reached by passing through the day-room, which is a spacious airy apartment. The wards for ordinary cases of sickness could not be better; and I can conscientiously say the same of those appropriated for fever cases. The ward in which lay the poor child, the cause of the late legal action, is in every respect most admirably arranged. Until I had personally inspected these premises, I had pictured to myself, from the account given at the trial before alluded to, small, unventilated, almost uninhabitable, chambers; the contrary, as I have endeavoured to show, being the case.

I trust you will excuse me for occupying so much of your space, but having, unsolicited by anyone, inspected carefully and critically the whole of this institution, so admirably adapted for the education of the sons of our profession, I felt that I owed a debt, not only to the head master, but to the parents of the children now under his care and supervision, whose fears for the health of their offspring might be awakened by recent events. I can assure them that there is no ground for fear; and that, both in respect to recreation-grounds and dormitories, their children have as great security and comfort as others now pursuing their studies at the many large institutions in which, happily, our country abounds. If anyone think I have overdrawn the healthful picture, let him do as I have done—make an independent inspection, and then make his report. This, I need scarcely say, I have done without the knowledge of the head master or of anyone connected with the College.—I am, sir, yours faithfully, B. Barrow.

Southlands, Ryde, Isle of Wight, May 1880.

A Member.—Mr. Holden, the present President of the Royal College of Surgeons of England, will deliver the Hunterian Oration in February next.

Sir,—I would be glad to know the opinion of some members of the Association as to which kind of tricycle they consider the best and most suitable for country work. —Yours truly, An Irish Surgeon.

May 8th, 1880.

The Treatment of Epistaxis.

Sir,—May a medico-clerical reader of the Journal venture to suggest yet another plan for the treatment of epistaxis? This plan first occurred to me at an important Church meeting, whose members were thrown into a state of no little panic by the entrance of a well-known clerical dignity with the strange adornment of a bloody nose. The case was at first treated by the simple application of pocket-handkerchiefs, till soon the dignitary's own and every handkerchief in the board-room were drenched with "the best blood of the Church". Next the beadle was summoned to produce his keys, which by apostolic hands were solemnly laid on the very reverend nape of the sufferer's neck. After that came Sir Oracle, in the person of a rich bustling layman, who protested that holding up the right hand in the attitude of oath-taking was an infallible cure. When all these failed to control in the least the stream of florid blood, and consternation brought a pause to the Babel of worse than wasted energy, I thought it was time to apply the resources of my old medical studies. Taking from off a bundle of papers on the table a pretty strong elastic band, I laid it first on the patient's upper lip, and, stretching the India-rubber circlet from that point, I carried it over his head, and placed it well down the back of the neck. Then, satisfying myself that the brain-circulation inwards and outwards was unimpeded, I so adjusted my simple tourniquet as to compress the superior coronary arteries, and also, as well as I could, the facial arteries where they cross the rami of the lower jaw. The large branch of the facial going to form the lateralis nasi was also more or less effectually compressed. The effect of this simple apparatus was magical. The bleeding ceased at once and entirely; the very reverend face—washed, and after a short time freed from its encumbrance—beamed on us with its old benignity; the energetic layman, whose benefactions to the church will doubtless be none the less liberal from believing that his is the credit of saving a life so precious, murmured, with restored complacency, "Well, it took a long time, but never yet has it failed—holding up the right arm in the attitude of swearing"; the brethren settled down to business, anxious only to redeem lost time; and, barring the small but most undignified discomfort of a general want of pocket-handkerchiefs, what remained of our meeting was pleasant and edifying.

I do not forget the anastomoses of the blood-vessels of the nares with sources of supply other than the facial artery; but the stoppage of that supply was in this case sufficient effectually to turn the balance in favour of the *vis medicatrix naturæ*. May I venture to submit that it might be found equally effectual in many a case where at present plugging of the posterior nares is resorted to? Nor do I forget that attempting by digital compression to stop the blood-supply of the nares from the facial artery is an old idea in medical literature.—I am, etc.,

Edinburgh, May 10th, 1880. D. T. Masson, M.A., M.D.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

*** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. C. S. W. Cobbold, Colney Hatch; Mr. A. Jackson, Tunbridge Wells; Dr. R. K. Eales, Dublin; Mr. Chauncey Puzey, Liverpool; Dr. T. Trollope, St. Leonard's-on-Sea; Dr. J. Main, Manchester; Dr. Eastwood, Darlington; Mr. W. T. Tivy, Clifton; Dr. A. Grant, London; Mr. G. M. King, Preston; Dr. B. Squire, London; Mr. W. S. Saunders, Manchester; Mr. J. E. Pinkington, Manchester; Our Glasgow Correspondent; Mr. B. H. Mumby, Ryde; Dr. G. Cordwent, Milverton; Our Edinburgh Correspondent; Mr. J. Fagan, Belfast; Dr. D. W. Knox, Glasgow; Dr. R. Saundby, Birmingham; Mr. H. L. Hudson, Derby; Dr. Phillips, London; Mr. Bowen, Liverpool; Dr. A. Napier Kidd, Caledon; Dr. C. J. Dana, New York; Mr. R. Atkinson, Halifax; Dr. R. W. Batten, Gloucester; Mr. J. E. Games, Preston; Mr. W. Buchanan, Chatham; Mr. E. Thompson, Omagh; Our Dublin Correspondent; Mr. W. J. Harris, Worthing; Dr. J. C. Reid, Newbiggin-by-Sea; Mrs. Cookson, Cambridge; Dr. Henry Tomkins, Manchester; Mr. W. Donovan, Whitwick; Dr. Rabagliati, Bradford; Dr. D. T. Masson, Edinburgh; Dr. C. Lovegrove, Hythe; Dr. J. P. Oates, Brompton; Mr. A. Nixon, London; Mr. T. W. Crosse, Norwich; Mr. C. Webster, Bewdley; Mr. C. E. Glass, Melbourne; Mr. C. E. Steele, Liverpool; Mr. H. Cullimore, London; Dr. J. Batty Tuke, Edinburgh; Mr. A. H. Benson, Dublin; Dr. C. Parsons, Dover; Dr. F. R. Strathy, Birmingham; Dr. Gardner, Glasgow; Dr. F. H. Edmonds, Demerara; Dr. C. Creighton, Cambridge; Mr. S. J. Noake, Halton; Mr. G. Eastes, London; Dr. Gelston Atkins, Cork; Mr. J. Ffrench Blake, London; Mr. J. Nicholls, Croydon; Dr. J. Althaus, London; Dr. Fancourt Barnes, London; etc.

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REMARKS

ON

COLLES' FRACTURE AND THE FRACTURES OF THE SAME PART OF THE LOWER END OF THE RADIUS.*

By EDWARD H. BENNETT, M.D., M.Ch., F.R.C.S.I.,
Professor of Surgery in the University of Dublin; Surgeon to Sir Patrick Dun's Hospital.

THE examination of a large collection of specimens of fractures of the lower end of the radius affords me the opportunity of discussing these injuries, with a fair prospect of being able to answer some at least of the undecided questions relating to them. I propose to deal only with fractures of the cancellated extremity of the bone; Colles's fracture and the lesions involving the same part, omitting even the fracture just above this region, usually discussed in connection with it.

I submit, as the basis of this study, sixty specimens of these injuries from the collection under my charge in Trinity College, and, by the kindness of the Council of the Royal College of Surgeons, I am able to show two most important recent specimens. Every surgeon admits, I believe, the value of the researches of Professor R. W. Smith and of Voillemier in the pathology of these injuries, which have served to correct and complete the descriptions of Colles and of Dupuytren.

Since their views have been published, we find authorities ranging themselves on opposite sides, according as they adopt the non-impaction theory of Smith, or the opposing doctrine of Voillemier, that all these injuries are fractures by penetration. Of late, the number of recent dissections have forced most writers to admit the occurrence of each form. We have ample proof that the simple transverse fracture without impaction, the impacted, and the fracture *par écrasement* with a shattered lower fragment, are all possibilities. Intimately connected with the theory of impaction is the explanation of the variability of the symptom so much relied on in the diagnosis: crepitus. Yet anyone who will take the trouble to investigate the statements contained in the accounts of recent cases which have been submitted to dissection, may find that this symptom has been absent in each form of the injury. We cannot, therefore, rely on its absence as the proof of the existence of impaction in any given case, nor are we for the same reason to abstain from attempting reduction of the deformity for fear of undoing the impaction, or again rely on it as a safeguard against displacement, and so adopt a lax treatment. I will notice here that, valuable as recent dissections are in guiding our examination of united specimens, too high an importance has been attached to them by some. Certainly I cannot agree with Mr. Callender, that the dissection of three cases where the fracture was caused by exceptionally great violence are sufficient "to remove all doubt on this subject". I cannot agree with him even when he makes the following remark: "There can be no question but that impaction is the cause of the displacement." This surely is to mistake the effect for the cause. The following passage from Voillemier shows that, however fully impressed he was in favour of the theory of impaction, he avoided the error of committing himself to its absolute adoption. "Mais il faut être prévenu que dans certains cas de pénétration peu marquée, de fractures par arrachement, il peut n'y avoir aucun changement dans les axes du membre, pas de raccourcissement, pas de mobilité des fragments, pas de crépitation et seulement de la douleur du gonflement autour du poignet, enfin tous les symptômes d'une entorse, et ces cas ne sont pas très-rares."

Here the author admits a group of injuries sufficiently common, in which impaction is absent or inappreciable; in which, too, crepitus and deformity are absent. If such cases be overlooked, as they too commonly are, the most extreme deformity establishes itself in a short time, as I have more than once observed. These facts are certainly inconsistent with the theory that deformity, the result of displacement, is solely due to impaction, and that muscular action takes no part in its production.

In opposing Voillemier's views, Smith falls into the opposite error, in almost absolutely denying the occurrence of impaction. He says, "I am inclined to believe that the doctrine of fracture with penetration is untenable". He says, indeed, in another passage, "Until, therefore, the result of the examination of recent specimens can be adduced in support of the theory, I shall be inclined to believe that impaction is only apparent". I have the good fortune to be able to exhibit here the specimen, the recent dissection of which seems to have so strongly influenced his opinion, a specimen familiar to the readers of his book, which the College of Surgeons have kindly exhibited here. This specimen, with many others since recorded, obtained by *post mortem* examination and by experiment, establish the existence of the simple fracture, no matter how many cases of the impacted variety may be found. The circumstance which seems to have confirmed him in his opinion is expressed in the following passage in that part of his paper in which he discusses the opinion of Voillemier on the value of the constancy of the third line of compact tissue seen imbedded in the cancelli of the lower fragment of united specimens. "If it indicated the forcible impaction of the upper into the lower fragment, we should expect to find the latter split into two or more pieces, but this form of fracture of the lower end of the radius is comparatively rare."

I can prove from the collection before me, a collection made without any reference to this question, and certainly representative of the general features of the injury, that the opinion that comminuted fractures of the lower fragment are comparatively rare, is incorrect.

I think, too, that I can show proof that Voillemier's opinion as to the relative frequency of the forms of impaction is not correct. He describes four possible varieties of impaction: 1. The penetration of both walls of the upper fragment into the tissue of the lower without its being burst asunder; 2. The same mode of penetration, with crushing of the lower fragment.—Dupuytren's fracture *par écrasement;* 3. The bending or hinging, so to speak, of the anterior walls, with impaction of the upper into the lower fragment posteriorly; 4. The reciprocal penetration of the fragments, the upper into the lower behind, and the lower into the upper in front. Of these possible forms of impaction, be believes the third to be the most common, founding his opinion apparently on the observation "that the impacted line is never double"; an observation in which Smith agrees.

I am able to show, among the specimens before the meeting, that exceptions occur to this rule; further, that comminution is more common than Smith has estimated it to be, and that the paths of the fractures which occur in the lower fragment present a remarkable constancy in position. If I rightly interpret these appearances, the conclusion must be arrived at that, in comminuted fractures, reciprocal impaction is the most common form of the accident.

The number of specimens which I submit is in all sixty-two. Of these, fifty-four are true Colles's fractures, transverse in the general direction of the fracture, the lower fragment displaced backwards, with more or less distortion in the direction of the inferior articular surface, the most constant element of which is dependent on the elevation of the styloid process. Four specimens are examples of the rare injury in which the lower fragment is displaced forwards; three are epiphysary separations; and in one a fracture has occurred, detaching the styloid process of the radius, with a small portion of the articular surface adjoining it.

In estimating the frequency of comminution of the lower fragment, I have included under this head only such specimens as exhibit distinct evidence of fracture having passed completely through the carpal articular surface; many specimens present evidences of splintering of the non-articular surface of the lower fragment, and some of the upper also, but I think such should be excluded in the present discussion. Applying this test, we find, of the specimens before us, thirty-one are simple, twenty-three comminuted, a fact that is inconsistent with Smith's statement "that this form of fracture is comparatively rare".

Before stating the remaining facts exhibited by these comminuted specimens, I may delay a moment to consider the mechanism of the injury. Arguing *à priori*, as the path of Colles's fracture is generally transverse with regard to the long axis of the radius, and the displacement of the hand tends constantly in the direction of abduction, we should expect that the upper fragment acting as a wedge, if this be the cause of the commination, should split the lower first and most constantly at that border of the lower fragment next the ulna, against which the force is directed, and where the lower fragment is thinnest. This is exactly what the specimens before us prove to be the case. Among those of the simple fractures which border on the comminuted in their characters, we find a crack first appearing on the ulnar facette, reaching just to the carpal surface, placed at the centre of the curve of the facette.

In ten of the twenty-three comminuted, a fissure, starting from the same point in the ulnar facette, runs into the carpal articular cartilage along its posterior edge, breaking out into the dorsal surface of the bone, either, in the least extensive injuries, at the outer side of the common extensor groove, or in others running along as far as the groove for the radial extensors, and, in a few breaking out at each of these points. The frequency of this position of fracture has been already noticed by Packard.

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* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cork, August 1879

Its frequency appears to have led Rhea Barton into the error that there was a form of fracture limited to this region of the bone, requiring to be distinguished in practice from Colles's fracture. His idea of the mechanism of the injury is quite the reverse of what we see in action here; for he supposed that pressure of the carpus in over-extension detached the fragment. In the eleventh specimen of the series, a branch is traced passing off from the first fissure towards the anterior depression in the scaphoid facette; this fissure is seen in the bone, but as we often find in such, has left the cartilage intact. In the twelfth specimen, the fissure starting as before, passes along the route indicated in the preceding, but without any posterior branch. In the next five specimens, the primary fissure exists with its anterior and posterior branches. In three of the four remaining specimens, the features of the comminutions are the same, but chronic rheumatic arthritis has masked their exact details, so that it is difficult to follow them. In one specimen only are the features of the lines of the fracture entirely different; in it an oblique line seems to have detached the styloid process, passing from in front backwards and inwards across the scaphoid facette.

There appears then sufficient ground for the assertion that the mode of comminution is constant, and that it results from the impaction of the upper into the lower fragment, taking effect first and chiefly on the side of the fragment next the ulna.

A further examination of these specimens shows that, where the fractures remain sufficiently distinct in outline to trace their details exactly, the impaction of the fragments is reciprocal; that while the posterior surface of the upper pierces the lower, the anterior of the lower penetrates the upper, it may even lead to its splintering. This conclusion is at variance with the opinion of Voillemier; but I believe the explanation of the discrepancy between us is, that hitherto the examination of comminuted specimens has not been made with sufficient care. I believe that in many simple fractures no impaction whatever occurs, and again that in many injuries, Voillemier's third variety, the bending of the anterior wall with posterior impaction, occurs. I cannot resist the conclusion to which this collection leads, that in comminuted fractures, which occur in proportion to simple injuries almost in the ratio 2.3, the characters are constant and the result of reciprocal impaction of the fragments.

The limit of time forces me to deal very briefly with the complications of Colles's fracture presented by the series before the meeting, viz.:—

1. Necrosis of the lower fragment in the simple fracture.
2. Fracture of the shaft of the radius higher up.
3. Fracture of both bones of the fore arm, also higher up.
4. Fracture of the styloid process of the ulna.

1. The fracture in which necrosis occurred is entirely exceptional; the injury was in all respects of the ordinary type, without excessive deformity or any wound. On the patient, of 35 years of age, resuming work at the close of the treatment, which lasted about five weeks, the limb suddenly swelled and abscesses formed, leading finally to amputation.

2. The fractures of the radius alone, higher up, are seen in two instances where the usual distortions of such injuries are absent, or at least very slightly marked; phenomena which I have myself noticed in this complication occurring in the living, the Colles's fracture, so to speak, taking precedence in establishing its deformity, while the fracture of the shaft was discoverable chiefly by its pain and local crepitus.

3. In another specimen, where both bones are broken, the radius very high up, the features of the fracture suggest its having occurred independently of the Colles's fracture.

4. In the instances of fracture of the ulnar styloid, the characters of this complication are well seen. These specimens were more numerous than the collection shows, for I have, in dissecting some now not characteristic specimens, noticed this lesion, but the little fragment of bone is lost in maceration or after the specimens dry. I am confident that in all the fracture occurs as in the examples preserved—a fracture of the styloid caused by traction on the lateral ligament of the wrist, free of direct relation to the attachment of the sacciform ligament; that this fracture unites in the majority by ligament only with very insignificant deformity. I notice these points merely to give expression to the opinion I hold as to this complication, that it is of practical importance only as explaining the occasionally severe pain observed at the position of the ulnar styloid, that it is quite unimportant in regard to the deformity or other leading phenomena of Colles's fracture.

Of the rare injury, fracture of lower end of the radius, with displacement of the lower fragment forwards, the collection contains four specimens; of these, two agree with the description given by Professor Gordon; two, on the other hand, agree with the figure published by Voillemier. The relative number of these specimens proves the inapplicability of the name applied by Professor Gordon to this fracture, "articular", for we see here the fractures as remote from the joint as in ordinary Colles's fractures.

The next group of our series includes two specimens of epiphysary separation, with which I have the good fortune to be able to exhibit also the casts of the limbs of the patient. The third specimen I place in this group with less confidence, but I will presently state my reason.

The two recent specimens are taken from the limbs of a boy who died a few days after a fall from a height on his head, the head injury proving fatal.

The casts in these cases contrast, as many similar casts in our collection do, with the representations of the deformity in Colles's fracture, in the transverse features of their dorsal and palmar projections, and in the folding of the skin in the palmar depression, and again in the absence of abduction of the hand. If we add to these the easy reduction of the fracture, and the facility of obtaining crepitus, and, still more remarkable, the facility of maintaining the reduced fracture in place, phenomena all long since pointed out by Smith, which I may state I have frequently observed and verified myself, there are, I think, ample grounds for questioning the recent statement of Professor Macleod, that "there are no distinctive signs by which a separation of it (the radial epiphysis) can be differentiated from an ordinary Colles's fracture." The united fracture I place in this group is remarkable when compared with all or any specimen of the collection of Colles's fractures, for, while there has been clearly a fracture at the usual seat, it alone presents the feature of a styloid process bearing its normal relation to the ulnar styloid, and a carpal surface almost without maldirection. There are faint traces of an ulnar fracture just above its epiphysis, as often occurs with the radial detachment. The recent specimens, I should note, present fractures confined to the radius. On one side, the lower fragment is comminuted; on the opposite, simple; a little scale of bone is detached from the diaphysis on the side which shows the comminution.

The remaining specimen is interesting for its rarity; the radial styloid has been detached by a fracture passing sheer across through its base into the scaphoid facette; the fracture in its union suggests that the limb was held during treatment in adduction, for the normal obliquity of the carpal surface is increased in this direction.

NOTES ON DISEASE OF THE WRIST:

WITH REPORT OF A SUCCESSFUL CASE OF EXCISION OF THAT JOINT IN A CHILD SIX YEARS OLD.*

By JOHN FAGAN, F.R.C.S.I.,
Surgeon to the Belfast Royal Hospital and the Belfast Hospital for Sick Children

ACUTE inflammation of the wrist, like that of any other joint, whether depending on traumatic or on specific causes, is a condition that requires a certain stereotyped method of treatment with which all are familiar, and would not require more than a passing notice, but that I feel there is one feature in it that is not sufficiently attended to, the neglect of which may lead to a chronic or subacute inflammation, frequently ending in complete disorganisation of the joint; this feature in the treatment, and the one I consider of most importance in this, as in all joint-affections, is rest.

Rest for a joint, but especially for the wrist, means more than placing it on a splint and securing it by a bandage; by this means you may render the forearm and hand motionless, but rest in the true sense of the word is not obtained. To be effectual, it must be both comfortable and continuous. By *comfortable*, I mean that all causes of irritation, both extra- and interarticular, must be avoided. There is to be no strapping, blistering, painting with iodine, etc.; while the interarticular pressure produced by the tonic contraction of the muscles surrounding the joint must be relieved by an extending and counterextending force properly applied. That the rest be continuous is also of importance, and it should be prolonged till the joint can be freely moved without causing any pain. The mode I have lately adopted for carrying out this principle of treatment in cases of wrist-affections I will explain further on.

We frequently meet with wrist-joints that have been diseased for a considerable time, in which the structures entering into their formation are more or less disorganised; this condition we designate chronic arthritis; it may be the result of traumatic causes, or, if you will, of the scrofulous diathesis. To know what is the best line of treatment to follow in such cases, is often a very puzzling question; and it is in reference to this, I believe, that surgeons are most likely to differ as to the mode of treatment to be adopted.

It is not an uncommon thing to find one practitioner, who has great faith in the unaided powers of nature, recommending the expectant method, by that meaning all recognised forms of treatment short of excision or amputation; another performs excision of the joint, thus assisting, by a timely operative procedure, to get rid of the disease and save the member; whilst a third, having given nature what he considers a fair trial to eradicate the disease, and seeing no improvement, loses confidence in her powers and lops off by amputation the offending member, looking on it not alone as a painful incumbrance, but a possible source of mischief to the rest of the body.

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* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cork, August 1879.

The surgeon who practises indiscriminately any one of these methods, may benefit some of his patients, whilst others are sure to suffer by it. That each line of treatment, if properly carried out in appropriate cases, is the best course to follow, is, I believe, at the present time a pretty well established doctrine among surgeons; the difficult point being to decide what cases are suitable for one, what for another method.

It was principally with the view of eliciting the opinions of those who have large experience in this branch of surgery, as well as to place before you a few facts bearing on those points observed by me in the course of my practice, that I have been induced to bring this subject under the notice of the Section.

As illustrating the line of treatment I adopt, I will give briefly the leading points in the histories of three cases of diseased wrist, each typical of different conditions to be met with in disease of this joint.

CASE I.—Marianne McC., aged 11, was admitted to the Belfast Hospital for Sick Children in March last, suffering from disease of her right wrist. She was in good health, and the child of healthy parents. The hand was flexed and abducted, presenting the appearance of wrist-drop. The joint was much swollen, and its outlines obliterated from about half an inch above the radio-carpal articulation to near the centre of the metacarpus; there was an irregular ulcer, about the size of a sixpence, on the palmar aspect of the joint, from which there came an unhealthy discharge. She could neither supinate nor extend the hand. She suffered considerable pain; and, when it was not supported on a splint, she carried it resting on the sound hand.

Seven months previously, while engaged in a handkerchief-factory, a fellow-worker threw a bundle of handkerchiefs at her, and, to prevent it from passing over her head, she put up her hand to stop it, when it struck her on the fingers, causing forcible extension of the wrist; she suffered sharp pain at the time, but resumed her work. Two months after the accident, she had to give up work, owing to the pain of the joint, and was under medical treatment till she came to the hospital under my care.

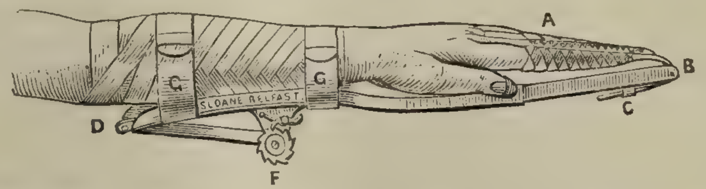
I noticed, whenever the sore was being dressed, that, after the anterior splint was removed, she grasped the fingers with the sound hand and forcibly extended them. I took her hand in mine and did the same with greater force; she said she experienced great relief from it, and the more forcibly it was done, the greater the ease to her. It occurred to me, then, that if I could construct a means whereby somewhat forcible extension and counterextension could be continuously applied, it would relieve the pain and consequently the interarticular pressure, one of the most important factors, I believe, in the progressive disorganisation of the joint. I believe this splint which I have constructed, and which I now show you, meets all the requirements of the case. It produces extension and counterextension with any degree of force you may wish to apply. It serves as an easy support for the arm and hand. It does not cause the slightest pressure on the diseased joint, both extra- and interarticular irritation being avoided, while the parts are quite accessible for dressing purposes. To sum up, by means of this splint, relief for the joint, both comfortable and continuous, is secured. (See figure.)

From the time of its application, the pain abated and the condition of the joint improved, and she can now flex and extend with scarcely any pain. The rest of the treatment consisted in keeping up her strength by proper food and occasional tonics, while the sore was dressed with lint soaked in a spirit-and-lead lotion.

Among the surgical works I have consulted, in only one do I find the principle of extension and counter-extension recommended in the treatment of wrist-joint disease—viz., Dr. Sayre's book on *Deformities and Diseases of Joints*. His mode of carrying out the principle, by means of a piece of sole-leather moulded to the arm and hand, and retained in position by means of adhesive plaister, is not to my mind an effectual one, and not at all in keeping with the many other ingenious appliances figured in his excellent work.

CASE II.—W. H. W., aged 7, came under my care on May 1st. He had a delicate appearance, and was affected with chronic osteitis of the metatarsal bone of the great toe and great enlargement of the glands on both sides of the neck. His family history bad; his father and mother were delicate; two sisters and a brother died of phthisis.

On May 27th, after improving his general health, I removed the metatarsal bone; the wound looked well for about a week, and then took on very unhealthy action. Towards the end of June, the bases of two of the metacarpal bones of the right hand and the left wrist began to swell, and soon assumed the typical aspect of strumous osteitis and arthritis. The treatment employed in his case has been nourishment of a suitable kind, to the extent compatible with his assimilating powers. I am also administering stimulants, and a preparation that I believe to be good in such cases, "Kepler's malt-extract with cod-liver oil". The local treatment of the wrist consists in keeping on a plain anterior splint, and applying the spirit and lead lotion. Extension in this case is unnecessary at present, as he suffers no pain. Although there is an abscess on the dorsal aspect, with very thin covering, I have abstained from opening it, finding, from experience, that to deal with such by the knife is a mistake.



The accompanying woodcut represents the forearm and hand placed in position on the splint, which extends from the elbow to about four inches beyond the tips of the fingers. The splint is shaped to fit the outline of the arm and hand. Extension is produced by securing on each of the four fingers the toy known as the "Chinese link" (A), to the ends of which are attached vulcanised rubber cords: these play over a grooved roller (B) in the end of the splint, and are made fast by being passed through slits in a block (C). This block plays in a slide six inches in length, on the under surface of the splint, and is adjustable by a rack set in the border of the hand-piece. The slide is deficient for about an inch at the end of the splint: this allows the block to be removed without disturbing the cords. If the wrist require dressing, it is not necessary to remove the splint: all that is required is to take the block from its slide, when the hand can be raised and the part dressed; after which the block is replaced and the requisite degree of extension again produced. Tension on any of the fingers can be modified by lengthening or shortening its cord, where it passes through the block: this can be done by stretching it till its calibre becomes less than the groove through which it passes.

Counter-extension is produced by securing to the anterior aspect of the forearm, by means of a bandage, a broad piece of strong adhesive plaster, reaching from a little above the radio-carpal articulation to within two inches of the inner condyle of the humerus. To its upper end is stitched a piece of webbing, one or one and a half inches wide, which plays over the roller (D) in the upper end of the splint, and then, passing over the winch-fashioned roller (F), can be wound up by means of a key to any requisite degree of tightness. The splint can be secured to the arm by a bandage or the straps (G G).

Sometimes the "links" cause a good deal of irritation if the fingers be not protected by a glove, or, better still, by a fold of lint evenly applied: even with this protection, some tender skins cannot tolerate them for more than a few days. In such cases, I adopt the following method. I place the hand on a double piece of strong adhesive plaster, with the non-adhesive surfaces in contact, and mark its outline, as well as that of the fingers, with the point of a scissors. I then cut the plaster, so as to fit accurately the palmar and dorsal aspects of the hand and fingers; and, after heating and applying it, it may be securely fixed by passing a narrow bandage round each finger, and then round the hand. Pieces of tape are stitched to the finger-ends of the plaster. The rubber-cords, instead of the "links", have small buckles" (those used in hatbands) securely stitched to them; the tapes are fastened to these, when extension can be produced as before, by bringing the cords over the roller and passing them through the grooves in the block. If properly applied, the plaster should hold for several weeks, and without causing the slightest irritation.

By a very simple and inexpensive means, the same principle may be carried out without the aid of an instrument-maker, but not so effectually as by the method already described. Take a light board from half to three-quarters of an inch thick, sufficiently broad to support the arm and hand, and extending from the elbow to three or four inches beyond the tips of the fingers. Let each of the ends be rounded off, so as to form a single broad groove. To the under surface of the splint, at its centre, a piece of webbing two inches long, with a buckle at each end, is firmly tacked on. The adhesive plaster is attached to the arm and hand as before described, and pieces of webbing are stitched to it at the elbow and fingers and carried over the ends of the splint, when they are passed through the buckles, and the necessary degree of extension and counter-extension produced.

CASE III.—Lizzie T., aged 6, was placed under my care in May 1876. Both parents were healthy. She was a very healthy child before she met with this accident. About two years previously, she fell down stairs, injuring the right wrist somewhat severely. The medical man who saw it said it was a bad sprain, and treated it accordingly. It remained in a stationary condition for a considerable time; not well, yet not painful. It then gradually became worse, and, about six or eight months before I saw her, she suffered intensely from the pain of it; and, according to the mother's statement, scarcely ever got a good night's rest, while her health was becoming seriously impaired.

When I first saw her, the wrist was very much swollen, measuring six and a quarter inches, whilst the sound one measured but four and a half in circumference. The whole joint was exceedingly painful on manipulation, but especially so over the lower end of the radius, or when the ends of the radius and ulna were pressed together. She was unable to grasp anything, and all the motions of the joint caused her pain. She was under the care of several medical men; and the expectant method, in its various aspects, was tried without avail in her case. Amputation was suggested a short time before she was placed under my care.

I employed the expectant method of treatment for a period of three months; but, seeing no improvement, resolved on excising the joint. With the child fully under the influence of ether and an Esmarch's band applied, I removed the joint according to Professor Lister's method, following as closely as possible the very graphic and exhaustive instructions laid down by him for the guidance of those undertaking it. The operation lasted one hour and a quarter; one artery (the metacarpal) required torsion. I introduced into the lower part of the wound a thick roll of carbolised tow, to serve for drainage as well as a support for the tendons.

For the first four days, she experienced the usual inconveniences following serious operations. In four weeks, the wounds were almost healed, and she began to do some knitting; and, in seven weeks from the date of the operation, she left the hospital greatly restored in health, the wounds being quite healed, and both fingers and hand possessing considerable range of motion.

It is now three years since the operation was done. She has nearly as much power in it as in the other, and she experiences scarcely any inconvenience in the discharge of her ordinary duties.

There are a few points in connection with the operation that I think worthy of brief consideration.

Various methods have been practised, all of them having for their object the removal of the diseased parts with the least possible injury to the important structures surrounding the joint. Sir W. Fergusson and Dubled employed lateral incisions; Roux and Velpeau a quadrilateral dorsal flap; Mr. Stanley and Mr. Butcher semilunar dorsal flaps; Mr. Simon a dorsal and a palmar vertical incision; and Mr. Spence a single dorsal incision. But few practised complete extirpation of the joint, leaving one or more bones of the carpus or bases of metacarpus behind.

To Mr. Lister is due, I believe, the credit of bringing this operation to the *ne plus ultra* stage of perfection, whether anatomically or physiologically considered. I heard some time ago that he was practising the single dorsal incision; and, in reply to my letter asking him if such were true and what his reasons were for altering his mode of operating, he says: "It is true, I was induced to give a trial some time ago to the single dorsal incision; but I was quite satisfied that, whether we regard facility of access to the diseased bones, good drainage of the wound, or ultimate usefulness of the hand, the radial and ulnar incisions of my own method are much to be preferred." This statement briefly sums up the advantages of this mode of operating, which I closely followed in going through the steps of the operation in my case. However, owing to its peculiarity, I observed certain precautions that are, I think, worthy of notice.

Before making the radial incision, I got an assistant to place his thumb-nail against the outer side of the base of the second metacarpal bone; in this way serving the double purpose of a trustworthy landmark, as well as a safeguard against wounding the radial artery, which lay in such close proximity. I made the first part of my incision merely a skin-wound, sinking the knife deeper as I approached the base of the metacarpal bone. At this point, the tendon of the "extensor secundi internodii pollicis" showed itself at the outer border of the wound; then, taking it as a guide, I carefully divided the tissues lying on the bones as far as the angle between it and the common extensor.

Attention to these two points will be found useful to the surgeon who does the operation for the first time, and especially in the case of a child, where, owing to the small size and yielding character of the tissues, the deviation of his knife a line out of the proper course may wound the radial artery or divide the tendon of the second extensor: two things to be carefully avoided.

Professor Lister very properly states that the tendons should not be exposed, if possible; and, in dealing with the tendon of the extensor carpi ulnaris, he says: "It should be dissected up from its groove in the ulna, care being taken to avoid isolating it from the integuments, which would endanger its vitality." And, again, when about removing the end of the radius, he says: "It is scarcely needful to disturb the tendons in their grooves on the back of the bone, the bevelled ungrooved part being enough to remove; and thus the tendon of the extensor secundi internodii pollicis may never appear at all." I cannot say what might occur in the case of an adult, or where the tissues were much matted from inflammatory infiltration; but the following was the condition in my case. Although I proceeded with great caution and very slowly, after making the two incisions, the skin retracted very much, laying bare the tendons in the immediate neighbourhood; and, as I proceeded with the steps of the operation, all the extensors were more or less exposed as they were drawn from one side or the other. The tendon of the extensor carpi ulnaris, after its division, hung out of the wound quite bare to the extent of an inch and a half; and it as well as the other tendons were subjected to a great amount of unavoidable rough usage while the carpus and the end of the long bones were being removed. Notwithstanding this, they preserved their vitality and formed adhesions about the new joint.

Another important consideration in the performance of this operation, is the extent to which the tissues entering into the formation of the joint ought to be removed. When the whole of the carpus is diseased, there can be no question that it should be removed, together with the articular ends of the long bones; but when the disease is limited to the ends of the radius or ulna, or to the first row of the carpus, surgeons hold different views as to the method of dealing with it. In my case, the disease was confined to the end of the radius and upper surfaces of the scaphoid and semilunar bones. I required to gouge a considerable amount of carious bone from the radius; the rest of the joint seemed healthy. Notwithstanding, I removed the entire carpus, with the bases of all the metacarpal bones.

Some surgeons would have been satisfied with the removal of the diseased portions alone. Mr. West of Birmingham, in a report of two successful cases, speaking on this point, says: "It is sufficient for the purpose of the surgeon to remove whatever portions of bone are affected by caries at the time of the operation." In contrast to this, Professor Lister says: "Parts which may appear sound in a carious joint seem apt to be affected in an insidious incipient degree, and, if left behind, may lead to recurrence of the complaint." And, again: "If the whole of the structures thus liable to morbid action were cleared out, there seemed good reason to hope that success in excision of the wrist for caries might become the rule instead of the exception." I have always held the same opinion, looking on partial excision of chronically diseased joints as mischievous practice. In my case, although the disease was apparently limited to a small portion of the joint, I yet removed the whole; and I believe the result has been more satisfactory than if I had performed partial operation.

As one of the steps of the operation, after dividing the ligamentous attachments of the carpus, I tried to remove it entire by means of a sequestrum-forceps, as recommended by Professor Lister. This I could not do with a justifiable amount of force, and had to remove each bone separately. This instrument I found of the greatest service. It is an ordinary incisor-tooth forceps, and held with a powerful grasp each small bone while I severed its attachments. It is a question if this method of removing the carpus, although somewhat tedious, would not be a better one than its removal *en masse*, which must always be attended with considerable risk to the surrounding important structures.

I have now considered two modes of treatment of diseased wrist-joint—that known as the expectant method, and excision. I have not seen a case that I would consider suitable for the third method—amputation. In the first two cases, the notes of which I have read, I am carrying out the expectant method, but applied differently, owing to their altered conditions.

You may perhaps say, why not have persevered with it in the third case, instead of subjecting your patient to so serious an operation as that of excision? Well, I did in that case what I do in most other chronic joint-diseases similar to it. I place the case under the most favourable conditions possible as regards general health and the local affection. If, after a reasonable time, there be no sign of improvement in the joint, and if, together with this, the health begin to break down, I recommend excision. If I see a more marked local and constitutional retrograde tendency, I urge it. The principle of dallying with chronically diseased joints, when they arrive at a certain stage, is, I believe, a bad one; and the surgeon who recommends timely operative interference is to my mind a greater benefactor to his kind than the surgeon who temporises. The one gets rid of the disease by a short and decisive operation, attended with comparatively little suffering and risk, and very soon places his patient in a condition to enjoy life; while the other is little better than a passive witness of his patient's tortures while undergoing an indefinite period of suffering, and very often in the end, to save the life, has to lop off the limb, leaving his patient a crippled object for the rest of his existence.

In my case—the first, I believe, recorded in which excision of the wrist has been practised at so early an age—the patient's youth and good family history would have induced some surgeons to continue the expectant method indefinitely; but, holding the views I do, when I saw the length of time the disease had lasted in her case, the condition of the joint becoming worse, and her health beginning to break down, I felt that the disease had come to that critical stage when some decisive steps should be taken to preserve both health and hand, and accordingly I performed excision. This was soon followed by relief from suffering, restoration to a very great degree of the functions of the hand, improved health, and a capability of enjoying life.

The successful result that I am able to record to-day, three years after the operation, is, I believe, ample justification for any little risk incurred in its performance.

ON THE FINAL RESULT OF A CASE IN WHICH THE SHOULDER AND ELBOW-JOINTS OF THE RIGHT ARM WERE EXCISED FOR GUN-SHOT INJURY.[*]

By WILLIAM MAC CORMAC, F.R.C.S.I.,
Surgeon to St. Thomas's Hospital.

As a contribution to the question under discussion, the resection of joints, I desire to bring before you the final result of a case which I treated during the war of 1870-71. This case has already been recorded in the BRITISH MEDICAL JOURNAL and *Medico-Chirurgical Transactions;* and the reader of the surgical address, at the meeting of this Association last year, was good enough to refer to it in flattering terms. But the final result has not been made public, and I trust it may prove interesting if I now communicate it to the members of this Association.

The subject of my remarks was a French chasseur d'Afrique named St. Aubin; he was twice wounded during the memorable day of September 1st, at Sedan, the severer injury being one which extensively involved both shoulder-and elbow-joints of his right arm. It was caused by a shell explosion. The bones were much comminuted, and the soft parts lacerated. Twelve days after the injury, when I first saw the patient, I excised the shattered head of the humerus and the fractured elbow-joint; and I show you the portions of bone then removed, which are faithfully rendered in the drawing (Fig. 1). Owing to the unfavourable circumstances in which the patient was placed, he made a slow recovery, and narrowly escaped death by septicæmic poisoning. Presently, I returned home, and so did the chasseur; but I kept up relations with him, and with Professor Sarazin, lately of Strasburg, under whose able care he was fortunate enough to fall. This distinguished surgeon removed from the humerus a piece of necrosed bone, evidently a central necrosis of the shaft, which I also show you. It is, however, much reduced in size, and without the bony spicula which it had at first, as St. Aubin kept it in his own possession as a kind of fetish; and here is the upper extremity of the bone, comprising the entire thickness of the shaft, on which may be seen the marks of the saw. This was removed by Dr. Goede of Bourbon Lancy, in February 1872; while the other piece, originally eleven *centimètres* long, was extracted by Professor Sarazin in November 1875, a description of the operation being given in the BRITISH MEDICAL JOURNAL (January 22nd, 1876). The presence of these pieces of necrosed bone had, of course, retarded the healing of the shoulder wound, and maintained a continuous suppuration from several sinuses in this region. The elbow wound healed well in the first instance, and with very complete reproduction of bone, so that the external configuration of the joint is but little changed, as the photographs plainly show, and the power of movement is excellent (Figs. 2 and 3).

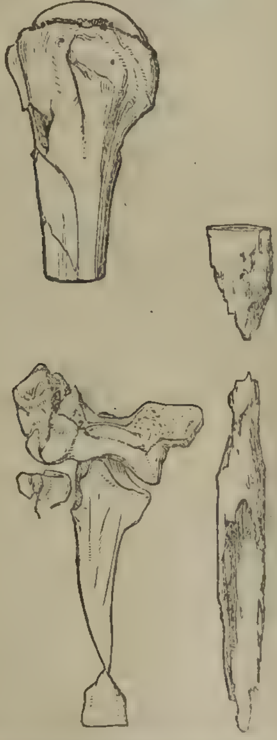


Fig. 1.—Portions of Shoulder- and Elbow-Joints removed in the first instance, and the Dequestra subsequently extracted.

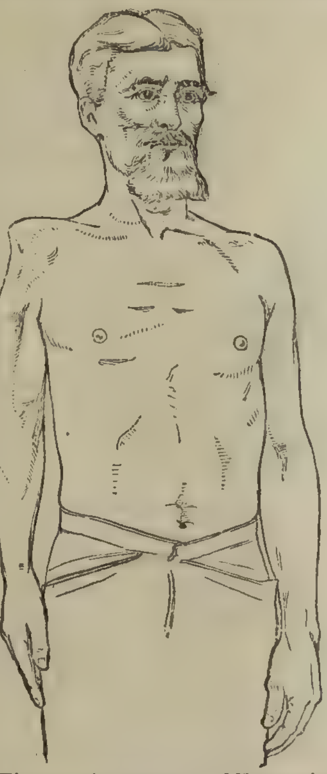


Fig. 2.—Appearance of Extremity when passive.

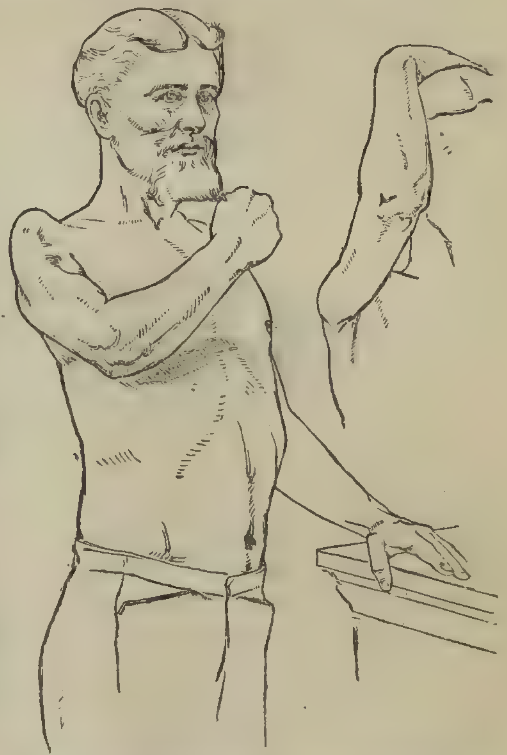


Fig. 3.—Appearances of Arm and Elbow-Joint during Active Movement.

Every new year, St. Aubin writes to me a letter full of cheerfulness and gratitude, and gives flourishing accounts of his injured arm. I consider that the interesting and unique character of the case justifies me in rendering an account of what this man can do with his arm, now that a sufficient time has elapsed for it to gain strength, and also to establish the definitive character of the cure. I wrote to ask him, therefore, for the information, and received a reply in January last. He also sent me three photographs, which were taken at the same time; and I am able to give measurements, taken at my request by Dr. Goede, who lives at Bourbon Lancy, where St. Aubin resides. These are, first, from the posterior angle of the acromion to the styloid process of the radius, which measures on the right side, 45 *centimètres;* on the left side, 54½ *centimètres;* so that the total shortening is 9½ *centimètres:* from the acromion to the external epicondyle of the humerus measures, on the right side, 24 *centimètres;* on the left side, 28 *centimètres;* the shortening being 4 *centimètres.* ("This measurement", Dr. Goede says, "was difficult to take", but he guarantees its accuracy. Dr. Goede thus gives an unconscious testimony to the actuality of the reproduction of the bones and form of the elbow.) The comparative length of the forearms is, on the right side, 21 *centimètres;* on the left side, 26 *centimètres;* the shortening is consequently 5 *centimètres.* The circumference of the arm, taking the average of six measurements, is upon the right side, 24.6 *centimètres;* and on the left side, 28 *centimètres.* The right hand is somewhat atrophied. The circumference of the forearm is not given. The power of abduction is extremely limited.

"I now tell you", writes St. Aubin himself, "what I am able to do with my arm. Although I am no great player, I play at billiards from time to time with one of my friends, and I play very well with my right arm. I dig and hoe in my garden without difficulty. I occupy myself in leisure hours at a carpenter's bench; and I can use the trying-plane, the jack-plane, and even the German saw with my right arm perfectly well; the trying-plane fatigues me the most. I hunt, and shoot birds as well as any other sportsman, but not like a soldier, as I cannot raise my elbow to the level of the shoulder. A young fellow here has a lathe, and I often go to amuse myself with it, turning boxes and such things. I can easily carry a large pailful of water; and, in short, I do not feel any inconvenience, or even that I have been wounded at all, as I can do everything I require to do with my arm; and, were you to see me, you would scarcely believe it was the chasseur d'Afrique on whom you operated at Sedan."

This statement requires no comment. In previous letters, similar accounts were given.' St. Aubin is clearly well satisfied and contented with the result, and we surgeons may, I think, be the same.

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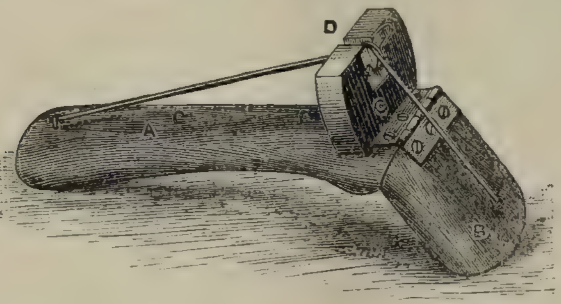
[*] Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cork, August 1879.

A SIMPLE AND CHEAP SPLINT FOR THE EXTENSION OF CONTRACTED WRIST AND FINGERS.

By CHAUNCY PUZEY, M.R.C.S.,
Surgeon to the Northern Hospital, Liverpool.

Two years ago, I showed, at the Liverpool Medical Institution, a form of wooden splint which I had made for me, and had used with most satisfactory results in the treatment of contraction of the wrist or fingers. Without going into the question of originality, I think I may recommend its use on the three grounds of simplicity, utility, and cheapness.

A glance at the woodcut will prevent the necessity for much in the way of description; the essential parts being an arm-piece (A), which should tolerably fit the back of the forearm; a hand- or finger-piece (B), broad enough to somewhat overlap the hand or fingers (to avoid too great compression); a hinge to connect these two portions; a wooden bridge (C) with pulley (D) at the wrist, or, in case of contraction of the fingers, at the metacarpus; and an elastic cord or cords passing over the pulley and attached by hooks to rings in the two portions of the splint. By this means, gradual extension is kept up, at the same time that voluntary flexion is allowed. It is hardly necessary to point out that the extension power may be varied to any extent by the thickness of the elastic, by the number of the cords, and by the position of the rings. To illustrate its practical utility, I will mention two cases, one of which was that for which the splint was first made for me.



A boy, aged 12, was admitted into the Northern Hospital with his right hand flexed at a right angle with the forearm. This resulted from severe thecal inflammation, for which he had been treated six months before at another hospital. That the case had been a serious one, was shown by the cicatrices of various incisions in the hand and along the forearm. Under chloroform, attempts were made by myself and one of my colleagues to straighten the wrist; but not the slightest effect was produced. I then divided subcutaneously the palmaris longus and the flexor carpi ulnaris, which stood out most prominently. By this means, a little more extension was obtained, but not much. The tenotomy-wounds were dressed in the usual method, and after three or four days the splint was adapted. The effect exceeded my most sanguine expectations. Even in twenty-four hours, slight improvement was showing itself, and, in the course of three or four weeks, the hand was straight with the forearm.

This case occurred in July 1875; and after that I had two similar cases, but not of such an extreme degree; I need not allude to them, but will pass on to the second case, which occurred in 1878, and illustrates the treatment of flexed fingers. It was that of a girl aged 7, who had been under treatment about twelve months before in a country hospital for extensive disease of the radius. Apparently, the greater portion of the shaft had been removed, and a new radius formed, containing, however, a few sequestra of the old bone. In this case, all the fingers and the thumb were bent on the palm. Under chloroform, when the hand was placed in a straight line with the forearm, the fingers could not, without risk of breaking them, be forced out beyond the position of a right angle with the palm. The sinuses in the arm having been laid open, and the cloacæ in the new bone enlarged sufficiently, the sequestra were removed. The splint depicted (in this case with the fulcrum or bridge opposite the metacarpo-phalangeal articulations) was adopted; the flexed thumb being supported by a pad of lint adapted over the bandage.

This case, although somewhat more tedious than the last, had a like satisfactory termination. The girl left the hospital six weeks after the operation, with the power of completely straightening the fingers; but, as the extensor muscles were much wasted, she was directed to wear the splint for some time longer.

In this last case especially, it was found necessary to watch every few hours for the first few days, to avoid the chance of gangrene. The extension force in this instance being applied to fingers somewhat wasted, there was a tendency to blueness of the finger-tips even though cotton-wool padding was freely used, and though the hand-piece well overlapped the fingers, it was found on several occasions necessary to relax the elastic extension.

[Years ago, when I was house-surgeon to the Liverpool Royal Infirmary, the same principle, adapted in a somewhat converse direction, was found most useful in overcoming that tendency to pointing of the toes which sometimes occurs after long treatment of fractured leg. A hinged splint, with slightly hollowed out leg- and foot-pieces, hinged in front of the ankle, was carefully adapted and fixed to the anterior or extensor surface of the limb, and elastic cords attached by rings to the foot-piece and to the leg-piece just below the knee. This was found most useful in cases where the ordinary stirrup and elastic generally used for this purpose could not be borne.]

It has struck me that such a splint as I have depicted might be of service in cases of lead-palsy, and of infantile paralysis. The late Dr. Inman, formerly physician to the Liverpool Royal Infirmary, used to have the hands of his lead-poisoned patients supported by anterior splints; and great relief they appeared to derive thereby. But as in such cases support, not fixation, is required, it appears to me that a splint by which extension is constantly made, while voluntary flexion is possible, must be much more serviceable, by allowing and even encouraging a sort of gymnastic exercise of the affected muscles. This applies especially in the case of children, who, I have found, derive some amusement from working the hinge and elastic. I have not had the opportunity myself of trying it in such cases; but my friend Dr. Rawdon, surgeon to the Children's Infirmary, used one of these splints last year in a case of paralysis occurring in a child, and informs me that it has decidedly proved of service.

N.B.—A light and well hollowed out *anterior* splint for the forearm will be found an additional assistance in some cases, for the purpose of diffusing the pressure of the bandage, and thus allowing a firm application of the apparatus without hindrance to the circulation in the limb.

THE CONSERVATIVE SURGERY OF THE HAND.*

By JAMES FOWLER, M.R.C.S.Eng.,
Surgeon to the Clayton Hospital and General Dispensary, Wakefield.

I feel it an act of great presumption to speak on a subject which, in comparison with the rest of those upon the list, must seem to many a very trite and simple one, and should certainly not have thought of doing so had it not been that accidents to the hand are of common occurrence in these large towns of the West Riding of Yorkshire, and that some most trite and simple subjects are really most important and valuable, on account of the interests they involve—interests, at any rate, to the unfortunate persons who meet with these dreadful accidents, if not equally so to ourselves.

I shall not mention injuries to the fingers, further than to say that in cases of smashing of soft parts only, we rarely operate at all (and it is astonishing how well many of these cases do with only simple dressings, the great vascularity of the hand assisting the repair of injuries which elsewhere would be very intractable); but that, if the bone be extensively smashed as well, and we are obliged to operate, we do not amputate at a joint unless it comes naturally in the way, preferring to save even the smallest fragment of a phalanx if sound; we trim off the fractured ends of bone with bone-forceps, and get our covering as we can. We frequently have, however, very severe crushes and smashes, involving not only the phalanges, but also both the bones and soft parts of the palm; and several of these cases, with the fingers in an almost hopeless condition, have also recovered without any operation, a good useful hand being saved entire. There may have been extensive inflammation, perhaps sloughing, and subsequent gluing together of tendons; but the flexors and extensors have preserved a certain amount of mobility, and the crippled hand, even in that state, has been of infinitely greater value than any artificial substitute; not to mention that, with use, a considerable amount of liberation of the tendons takes place in such cases. In other instances, it is impossible to save the hand entire, and our course lies between an amputation of the entire hand and some partial amputation. I need hardly say that we invariably aim at the latter, and my colleague (Mr. Walker) and I have been very successful in a number of extremely unpromising cases. What we have had to consider, in each of these cases, has been how, on the one hand, to save every particle that could be saved with utility, and especially how to retain to the fullest extent the strength and breadth of the hand

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* Read before the Yorkshire Branch.

and grip of the fingers, and make what is called a good stump, with adequate covering; and on the other, to avoid risking a life for the sake of a limb, or spending valuable time and strength in the endeavour to save a severely injured finger, which, when ultimately healed, would be permanently stiff and deformed, and instead of being a help in work would be a hindrance; and this in the face of the following considerations: 1. That it was impossible, perhaps, to make out, until it was discovered in the course of the operation, exactly what was and what was not injured; and 2. That it was impossible either to lay down or follow any rule in operating, the amount removed and the form and situation of the flaps for covering being different in every case, and only to be decided by the nature and extent of injury, the injury not being adapted or adaptable to any special operation, but the operation having to be adapted to the injury.

It would take up too much time to give notes of special cases; but I may exhibit photographs of one case of very severe compound smash of the metacarpal and phalangeal bones and laceration of soft parts, caused by the hand being locked in the cogged wheels of machinery, where we were able to save the last three fingers entire, the three metacarpal bones belonging to them, the proximal third of the second metacarpal bone, and the whole of the carpus; a good useful hand remaining. Another man shall exhibit himself in person. He was feeding a circular large-toothed steam-saw, when his hand slipped, and the saw instantly tore through the fingers and palm into the carpus, lacerating the soft parts of the radial half of the hand most severely, and splintering the bones to fragments. The thumb and first two fingers were hopelessly mangled, and the saw had grazed down the radial side of the third, so that it was a question whether even that finger could be saved. We ventured, however, to leave it, removing the first two fingers and the thumb, portions of the trapezium and trapezoid bones, with the whole of the second and distal half of the third metacarpal bones. The covering we had to get as we could, and it was rather tight at first, but the case did extremely well, and after leaving the hospital, the man went back to the same work, under the same master, at the same wage as he earned before the accident; and his master tells me that for his work, as far as he can see, the hand is quite as good as ever it was.

I may mention that in this and similar operations involving the carpus, the dorsal, palmar, and interosseous ligaments have to be freely divided, and the carpo-metacarpal synovial membrane opened; but that this is a matter of little importance, and does not perceptibly affect the subsequent motion of the wrist-joint, provided the radio-carpal articulation be uninterfered with and its synovial membrane be left entire. Where it is not a question of disarticulation, but of dividing bone, we always use the bone-forceps, greatly preferring it to the metacarpal saw, though the latter is the newer instrument, advocated by some most eminent and august authorities, while the latter is at least three hundred years old. Ambroise Paré gives an engraving of what he calls "Cutting Mallets neatly made for the cutting off of superfluous fingers", though, in another place, he says, when we come to the bone, we may, if we choose, "nimbly divide it with a little saw".

ON THE TREATMENT OF GENU VALGUM WITHOUT DIVISION OF BONE.*

By HENRY F. BAKER, F.R.C.S.Ed.,
House-Surgeon to the Royal Orthopædic Hospital; late House-Surgeon to St. Bartholomew's Hospital.

It is not my intention to enter into the respective merits of the several operations for the cure of genu valgum. Whatever opinion may be held as to the risk of cutting into the knee-joint or producing a compound fracture in its immediate neighbourhood, I think all surgeons will agree that, in many of the cases that come under their notice, especially in private practice, the deformity is not of so serious a nature that the proposal to perform a severe operation would be entertained by them, or consented to by the friends of the patient. It is a matter of great importance, however, that the treatment of these cases should not be neglected, more especially because, if they be not entirely cured, tilting of the pelvis must take place, and this is necessarily followed by lateral curvature of the spine.

I shall be forgiven, probably, for going somewhat into detail with regard to the treatment of these cases, and mentioning what must appear to be very obvious directions to many of the Fellows of this Society. My excuse must be, that I am convinced by practical experience that the neglect of very trifling points in the manufacture and adjustment of instruments in the treatment of all orthopædic cases has been the frequent cause of disappointment and failure.

Cases of genu valgum may be conveniently divided into two classes, viz.: (1) those that can be cured by gradual extension alone; and (2) those that can be cured by gradual extension after the subcutaneous division of tendon or ligament. The tendons or ligaments that may require division are the biceps femoris, the ilio-tibial band, and the external lateral ligament. Through the kindness of Mr. Eve, the Curator of the Museum at St. Bartholomew's Hospital, I am able to show to-night a knee-joint carefully dissected by my friend Mr. Bowlby, which shows the tendons and ligaments around the joint. The long external lateral ligament is well shown between the two points of insertion of the tendon of the biceps; and it is at this point that it can be readily divided, either with or without the tendon, according to the severity of the case. With reference to the decision as to the necessity of tenotomy, an examination should be made of the deformed limb, and an attempt be made to straighten it. While this is being done, the structures above mentioned should be felt for; and, if little or no contraction can be detected, the case is one for treatment by gradual extension without operation. If, on the other hand, either the tendon of the biceps or any band of fascia or ligament can be felt holding the limb in its deformed position and preventing its being straightened, one or all of them must be divided according to the severity of the deformity. I think the reason why many surgeons consider that the treatment of genu valgum by these simple means is unsatisfactory, is that they have not made use of a properly constructed instrument, or have, in some cases, allowed the patient to walk about during the treatment.

To carry out this mode of treatment satisfactorily, it is in the first place absolutely essential that the patient be kept off his feet; and the important points to attain in the construction of a proper instrument are that it should keep the knee in the *extended* position, and prevent the leg from *rotating*, at the same time that, by its means, the knee-joint can be acted upon in the *lateral* direction, with sufficient force to gradually overcome the deformity. No instrument fitted to a boot and used while the patient walks about can do this.

The instrument here shown (Fig. 1) has been constructed at my suggestion, and, I believe, carries out these conditions efficiently. It will be seen to consist of a trough (A) for the thigh, which takes its bearing on the great trochanter of the femur, and is connected with the leg-splint by a stem on the outer side of the leg, which is provided with a cog-wheel (B) opposite the knee-joint. A band (C) encircles the knee. The special points in which it differs from the trough-instruments in common use are, that it has a wing hinged to the back part of the leg-splint, on the inner side of the leg and ankle, which, together with an ankle-strap (D) and an inside toe-strap (H), keeps the heel and leg from rotating

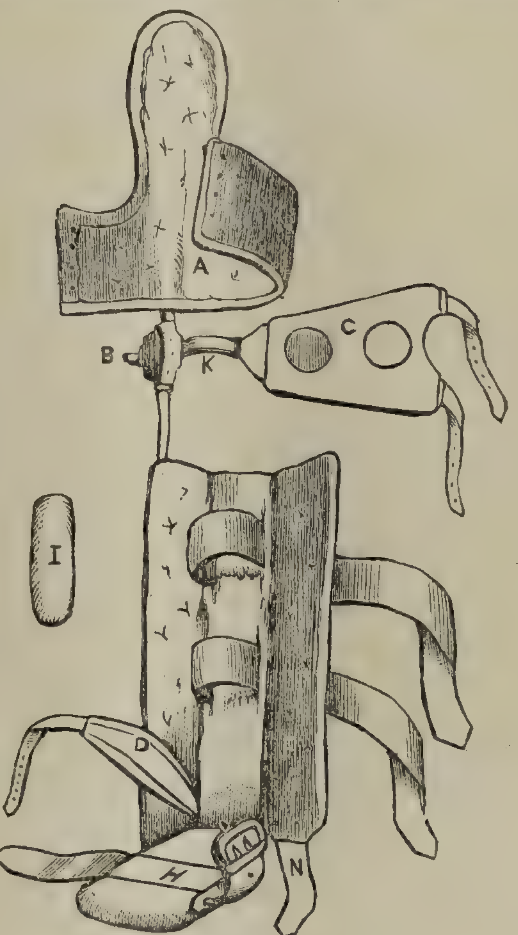

Fig. 1.

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* Read before the Medical Society of London.

inwards, a pad (I) being introduced within the wing at F, to press on the internal tubercle of the os calcis, and the wing being kept in its place by the straps M and N. There is also a rigid bar (K) at the back of the knee, and its action is to keep the joint in a perfectly extended position, whatever amount of force is used *laterally*. To this bar is attached a carefully made leather strap (C), formed in such a way as to cause the least possible amount of pressure on the patella, and also to diffuse the pressure over the inner condyle when the cog-wheel (B) at the knee is acted upon. The instrument is also made in such a manner that, in drawing the limb straight, it adapts itself to its altered position, and fits the straightened limb as well as it before fitted the deformed one. Figure 2 shews the apparatus applied.

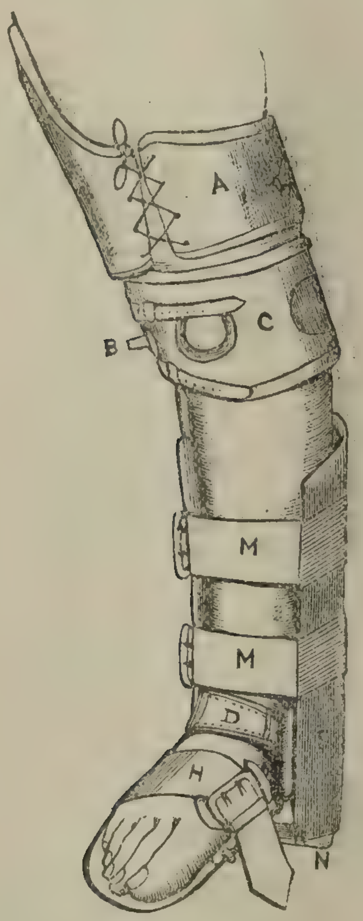

Fig. 2.

Before the application of the instrument, a soft woollen stocking should be put on the deformed limb, and a bandage carefully applied over it from the foot upwards. The instrument is then made to exactly correspond to the angle of the deformed leg by means of the screw (B) at the knee-joint, and is to be then applied and the straps adjusted, and the wing and pad fixed in their place. The cog-wheel (B) opposite the knee-joint is then acted on so as to slightly straighten the leg until pain is complained of, when the screw must be a little reversed, and the patient made quite easy. In this manner, the leg must be slightly stretched every day, when the resistance will be found to gradually give way, and the limb will be brought into the straight position. Great caution must be used in the application of pressure; for, if a sore be allowed to form on the skin on the inner condyle of the femur, all treatment must for a time be abandoned, and much time will be lost.

It is advisable that the instrument should be removed occasionally, and more frequently at first, before the skin has become accustomed to its pressure; and the leg should then be washed and powdered, and the knee flexed and extended to prevent its becoming stiff. This treatment must be continued until the limb is quite straight; and, as there is danger of relapse in this, as in all other deformities, it is necessary that, when the patient begins to walk, steel supports, fixed to the boots and extending to the hips, should be worn during the day.

In those cases in which it is necessary to subcutaneously divide any tendon or ligament, a piece of folded lint is to be put on the puncture, and the leg kept at rest until the wound is healed, which takes place in four or five days. The instrument is then to be applied, and the limb brought into the straight position as before described.

The instrument here shown has been made for me by Mr. Gumpel of Leicester Square, and many of the details are the result of his ingenuity.

EXCISION OF THE KNEE-JOINT FOR SYNOVIAL DISEASE OF FOURTEEN YEARS' DURATION;

WITH DISLOCATION OF THE TIBIA BACKWARDS, AND RETRACTION OF THE LEG TO A RIGHT ANGLE.*

By FREDERICK J. GANT, F.R.C.S.,
Surgeon to the Royal Free Hospital.

THE conditions of disease which may be appropriate for excision of the knee-joint, almost exclusively have reference to the probability of ankylosis taking place, as the natural mode of cure, without such surgical interference. Formerly, the question of joint-excision was viewed in relation to amputation of the limb, as if the two were alternative operations. But the comparatively early period proper for excision, namely, before the supervention of marked constitutional disturbance or perhaps hectic and exhaustion, is too early to justify amputation; and the later period, when any such constitutional condition co-exists, is too late for excision, as implying the loss of the vital reserve power requisite for the prolonged process of union after this operation. When, therefore, either operation becomes justifiable for disease, the other should not be entertained. But while I have long held this rule—at variance with the preconceived estimate of excision *versus* amputation—there are exceptional cases in which (ankylosis having failed) the question as to the choice of these operations may be discussed. Thus, in chronic joint-disease, whether synovitis or caries, when the patient has perchance retained or regained sufficient constitutional vigour to undergo an operation entailing a long process of repair, the condition of the joint may, even under extreme circumstances, permit excision, with the probability of restoring an useful limb, instead of sacrificing it by amputation. Destruction of the articular surfaces, and perhaps of the ligaments—in short, irreparable destruction of the whole articulation—having long since occurred, this condition has been accompanied by dislocation and flexion of the limb, proceeding slowly until the latter change has resulted in extreme malposition. Eventually, the limb becoming fixed, it cannot be straightened by extension or by tenotomy combined, with the view to the bare chance of ankylosis; and as the limb wastes from functional inactivity, the atrophied state of this useless appendage would seem to further preclude the hope of recovery by removal of the joint.

The following case falls within these conditions, and illustrates the local as well as the constitutional states under which I should deem excision to be preferable to amputation; reserving the latter operation as the last resource after a fair trial of the former.

A man, aged 24, was kicked accidentally on the left knee, fourteen years ago. From his description of the immediate symptoms, this injury appears to have caused acute synovitis; and, as the patient's general health bore no evidence of scrofula or other constitutional taint, the synovial inflammation seems to have been purely traumatic. Suppuration ensued within the capsule, and the abscess broke. The boy, an orphan, was sent from Islington Workhouse to the sea-side, where he remained for more than three years; and then he returned to the Union for two years. During the whole of this period, there was copious discharge from the knee-joint through two or three fistulous openings, which never permanently closed. Soon afterwards, he was drafted into the Shoe-Black Brigade, and remained in this employment ever since. Two years ago, he went into one of the metropolitan hospitals; a cast of his leg was taken, but no operation seemed advisable, and he left the hospital in a week. Last winter, a severe fall on the pavement renewed the synovitis; and the fistulous tracks, which had dried up for a month, again discharged. Then he was sent from the union infirmary to the Royal Free Hospital, and admitted under my care.

Although this was apparently a hopeless case for excision, viewing the state of the joint and of the limb, as already noticed, and considering that this condition had resulted from destructive changes of many years' duration, yet the circumstances were not, in my experience, beyond the reach of conservative surgery; while the synovial character and purely traumatic origin of the joint-disease, coupled with my estimate of the patient's remaining health, encouraged me to subject him to the issue of this operation. Accordingly, on May 10th, I excised the articular ends of bone, quite parallel, and carefully removed the whole of the thickened synovial membrane, leaving only the semilunar flap of healthy integument. The limb was brought down with difficulty; and having placed the femur and tibia in exact apposition, the splints which I am accustomed to use—a long back splint from the buttock to just above the heel and an external interrupted splint with foot-piece—were applied, each being secured by broad strips of adhesive plaster and roller-bandage.

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* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cork, August 1879.

Lastly, the wound was thoroughly cleansed of blood and seen to be dry; then the flap was laid down and accurately closed with wire sutures. A pad of lint and oil silk covering were used, and bandaged round the joint to exclude the air, and prevent any collection of blood beneath the flap. I never have recourse to antiseptic precautions in the operation or in dressing the wound; and in after-dressings, I trust entirely and with confidence to the pre-septicism of cleanliness and general hygienic arrangements. Under this system, I have never yet known pyæmia or septicæmia to follow any joint-excision in now an unusually large number of cases. In the present case, the ordinary amount of swelling followed the operation, but which gradually subsided; and the joint was not uncovered for some days. Then primary union had taken place throughout the whole length of the incision, although generally the angles remain open and ooze for some time. Two or three of the sutures were picked out, the others remaining until the adhesion had become firm—in the course of another week or two. Three sinuses, existing before the operation, afterwards served to drain away a small quantity of adhesive serous fluid.

Two months after operation, on July 4th, the splints were removed for the first time, when the bones were found to have firmly united, and the patient could raise the limb a little from the bed. The splints were reapplied. The man's general health had much improved; and, instead of presenting a withered and prematurely old appearance, his rejuvenescence was a matter of general comment in the hospital.

NOTES OF AN EASTER HOLIDAY TRIP TO MADEIRA.

By T. SPENCER WELLS, F.R.C.S.

SINCE the publication of Sir John Forbes's *Physician's Holiday*, a month's ramble in the autumn has become part of the life of busy men in our profession. At one time, Sir H. Holland was almost a solitary example of a man who regularly every year made some long voyage; and even now, when six weeks in Scotland, or a long continental tour, is by no means uncommon, a month at the seaside or in Switzerland is as much as can be spared for health and recreation, even by the more fortunate of our brethren. Latterly, some who, for various reasons, wish to remain in or near London in the autumn and avoid part of a long winter or a cold spring, have gone to the South of Europe, to Algiers, or to Egypt, in December, January, or February, returning to London when Parliament meets, or soon after. An Easter holiday of more than a few days is only just becoming a thing to look forward to. When Easter is late, a few days may be spent pleasantly in Normandy, or in Belgium and Holland. It is often too cold for Paris, and the weather is not, when Easter is early, very encouraging for a trip by sea. Easter was early this year; but, never having seen Madeira, having been prevented from leaving home in the winter, and last autumn's holiday having been much shortened, I determined to give up three weeks to the voyage to Madeira and back, and to pass about ten or twelve days on the island. Accompanied by two of my daughters, we left Southampton on the afternoon of the 25th of March, and Plymouth on the 26th, in the Union Company's steamer *German*, and arrived at Madeira on the 30th, exactly four days from Plymouth, a distance of 1200 miles. We had what was considered to be rather a rough passage, and several ladies on board suffered a good deal from sea-sickness; but the French Empress Eugénie, who was the most distinguished passenger, appeared at every meal, was on deck a great part of each day, and enjoyed the moonlight nights.

We remained at Madeira until Friday, the 9th of April, and left on the evening of that day in Donald Currie's steamer the *Warwick Castle*, arriving at Plymouth on the afternoon of the 14th, sleeping at Exeter, and, after visiting the cathedral on the morning of the 15th, arriving in London in the afternoon, exactly three weeks from the day of departure.

It may interest many of our Associates to know something of what may be gained by three weeks so spent. In the first place, nine days on the open sea is a great gain. Supposing sea-sickness to be trifling, or altogether out of consideration, there can be no doubt that the rest, quiet, and thorough change of a life at sea is beyond all question far more exhilarating than any change which can be obtained by railway travelling. And a few days' voyage at the end of March, when cutting east winds are prevalent in London, may take us into delightful weather—to Bordeaux, for example, or to Lisbon, or Cadiz, or Gibraltar and the North African coast. None of these would have been new to me; I therefore chose Madeira, though the Azores would also have been new and almost equally within reach. I cannot too strongly advise any one thinking either of a spring or an autumn holiday to go to Madeira. Except in the hottest of the summer months, the climate is most enjoyable. The hotels in Funchal are excellent, and the excursions near the town numerous and interesting; while longer excursions to the north of the island open up some of the finest mountain and coast scenery in the world. Excellent saddle-horses or ponies are to be had for those who are not strong walkers; and a hammock carried by two men for those who do not ride and for invalids is the easiest and safest mode of conveyance I have ever seen or tried, far more so than the *chaise à porteur* known to tourists in Switzerland.

It may perhaps interest some readers if I give a short account of an excursion of five days which I and my daughters made from Funchal to the north of the island. Starting at 8.15 on the morning of the 1st of April, I and one daughter on horseback, the other daughter in a hammock, we at once began to ascend the mountain at the back of Funchal. The hammock is carried by two men, and a third man goes on all long journeys, so that one man may rest at intervals. A man also goes with each horse, and we took an additional man to carry provisions and a change of clothes. We reached the top of the pass soon after noon, began to descend on the north side of the mountain, rested about an hour, and arrived at Santa Anna about five. Here we found comfortable quarters in the house of a landowner, who acts as an hotel-keeper, remained there that night and the next, spending the 2nd of April in a lovely excursion to what is called the Levada de Fayal—a watercourse carried along the mountain-side up narrow gorges. We should have given another day to the ascent of the Pico Ruivo, the highest point on the island, but the day, though delightful in the lowlands, was not favourable for mountain views. So, on the 3rd, we took the coast-line for San Vicente, starting at eight and arriving at four, by horse and hammock as before, along some of the grandest rock and coast scenery in the world. A small inn at San Vicente afforded clean beds and other accommodation, rough but sufficient. The 4th we spent in a coast ramble on foot to Seixal; the 5th, in returning by a magnificent mountain-ride to Funchal, starting at 7.30 and arriving at 5. The 6th was spent in Funchal, seeing sugar-mills, wine-stores, the Consumption Hospital, and gardens. On the 7th, we made another coasting excursion, this time by boat, to what are called the fossil-beds, returning to Santa Cruz, and then going by hammock to Dr. Grabham's mountain residence at Camacha, where we dined and slept, returning on the 8th to Funchal. On the 9th, we spent the early part of the day seeing a great establishment where pineapples are grown by the thousand for Covent Garden, the working of the submarine telegraph, and other objects of interest, under the kind guidance of Dr. Grabham; and, the return steamer having been signalled just before sunset, we left for Plymouth at night.

Beside this hasty sketch of a delightful holiday, I may allude to some matters of professional interest. Of course, the chief interest of Madeira to us all is its use as a winter residence for invalids. On this point, I need only say that I saw several residents who had gone out apparently in a hopeless condition years ago, but were still enjoying life at Funchal in the winter, and up in the mountains in the summer, invariably suffering if they returned to England even in the summer. I heard of others who had gained so much by two or three winters in the island as to be able to remain afterwards in Europe. But those interested in this matter should read Dr. Grabham's work on *The Climate and Resources of Madeira, as regarding chiefly the Necessities of Consumption and the Welfare of Invalids*. Dr. Grabham has been engaged lately on some novel observations on the effect of light and elevation, the results of which I hope he will be able to bring before the Association at the Cambridge meeting in August.

The Hospital for Consumptive Patients, founded by the Princess Maria Amelia in 1853, is now a large airy building, with small wards of six, four, two, and one bed, surrounded by a lovely garden; and is under the care of Dr. Pitta, who has published a series of valuable annual reports of his experience. In the four years 1875-78, he treated one hundred and ninety-one patients—one hundred and forty-three of whom were cases of phthisis. In forty-four of these, there was evidence of hereditary influence. In the others, it was traced to hard sedentary work, in unhealthy cottages, with insufficient food. A very large proportion of the females is furnished by the young women who work at embroidery sixteen or eighteen hours a day, sitting on the ground in a cramped position, with the thorax bent towards the knees; eating meat only two or three times a year; and having very scanty food, on any but great festival days, of bread or maize, potatoes, or a little salt fish. This is a sufficient answer to those who ask: Why send consumptive patients to Madeira, when phthisis is so prevalent among the native population?

On the day I left, I was asked to see a native lady, between sixty and seventy years of age, who had cataract in both eyes. I was told that all such patients were sent to Lisbon or Paris for operation, and that it was doubtful if the operation of extraction had ever been performed in the island, but that it certainly had not been done during the last thirty years. The surgeon who brought the lady to me had a very good case of instruments, and as he undertook, with Dr. Grabham, the charge of the patient after operation, I was able (although I had not extracted a cataract for about twenty years) to remove both lenses, and thus save this old lady the voyage to Lisbon; and I have lately heard from Dr. Grabham that the result of the operation has been quite successful.

CASE OF RUPTURE OF THE HEART FROM EXTERNAL VIOLENCE, WITHOUT PENETRATING WOUND.

By HENRY HANDFORD, M.B.Edin., M.R.C.S.Eng.,
Assistant House-Surgeon to the General Hospital, Nottingham.

On Saturday, November 1st, a man, A. B., aged about 35, was brought to the General Hospital, Nottingham. A wheel of a light cart (empty) had passed over his chest. According to the statements of the men who witnessed the accident, he never spoke or moved after the receipt of the injury, but continued to make a moaning noise for a few minutes. When he was brought to the hospital, about ten minutes later, he was quite dead.

Post Mortem Examination, forty hours after death.—The body was well nourished; height about 5 feet 8 inches; muscular. Rigor mortis was very strongly marked. There was an incised wound about an inch long on the back of the head, and numerous syphilitic sores and scars on the penis, scrotum, and thighs. (He had been an in-patient of the hospital some months previously for syphilis.) *There was no trace of any wound or contusion on the chest, nor were any of the ribs broken.* On examination of the thorax, the pericardium was found much distended; and, on opening it, about eight or ten ounces of serum and imperfectly coagulated blood escaped. While examining the heart *in situ*, a rupture about three-fourths of an inch long was discovered on the posterior wall of the left auricle. The aorta was distinctly atheromatous; and there was thickening of the mitral, and less so of the aortic and tricuspid valves. The endocardium lining the left auricle was markedly thickened in irregular patches, and of an opaque yellowish colour. The muscular fibres of the left auricle, taken from the immediate neighbourhood of the rupture, showed, under the microscope, well-marked pigmentary degeneration; *i.e.*, an accumulation of pigment-granules arranged more or less in rows in the region of the nucleus; but no distinct trace of fatty degeneration, though the fibres were not well striated. The weight of the heart was eleven ounces and three-quarters. The lungs were engorged. The spleen was soft and large, and weighed eight ounces. The other organs were healthy. On examining the brain, a patch of yellow softening was discovered at the apex of the temporo-sphenoidal lobe. The contents showed, under the microscope, numerous oil-globules, compound granular corpuscles, and a quantity of amorphous granular pigment. There was no trace of injury to the brain or membranes corresponding to the scalp-wound in the occipital region.

Remarks.—Wounds of the heart, arising from any cause, are not common; but, of all injuries, rupture from mechanical violence is the least common, as may be seen from the table given by Herr George Fischer (*Archiv für Klinische Chirurgie*, Band ix, Heft 3) in which, out of 452 cases, there were wounds from pointed instruments, 44; from pointed and cutting instruments, 260; from firearms, 72; *injuries from crushing*, 7; (spontaneous?) rupture, 69.

The cause of the rupture in this case was evidently compression of the chest-wall and of the contents of the thorax by the wheel of the cart; the heart giving way at its weakest part—viz., the left auricle; that part being actually one of the weakest spots, and relatively the weakest, because it is the part of the heart which would be least supported by surrounding structures in the case of compression. The right auricle is more nearly in contact with the chest-wall, and would gain support from it; and, besides, it has an important safety-valve in the openings of the two great veins—the venæ cavæ—into it. When the distended auricle felt the effects of the pressure on the chest-wall, the contained blood would be unable to flow onwards into the ventricle, as the cavity of that would be kept closed by the same pressure; but it would have comparatively little difficulty in passing back again into the vena cava inferior, and so into the abdomen, which was free from pressure. In the case of the left auricle, it gains little support from the adjacent inner surface and root of the lung; and it has no safety-valve, inasmuch as the blood cannot escape into the ventricle, for the same reason as before; neither can it pass back into the pulmonary veins, because the lungs themselves are equally exposed to the pressure which would tend to drive the blood in the pulmonary veins onward into the auricle, and so further distend it.

I have taken no account of the muscular action of the heart itself, because it would be quite inconsiderable, when compared with the immense external force which must be exerted to cause such a lesion as the above.

The above theories may, perhaps, serve to explain the observed fact that, in ruptures from violence, the left auricle is most frequently affected; whereas in spontaneous rupture the left ventricle is by far the most common seat of injury. Thus, in five cases mentioned by Dr. Payne (Jones and Sieveking's *Pathological Anatomy*, p. 332), in which there was rupture of the heart from mechanical injury without penetrating wound, the left auricle was affected in three cases, the left ventricle in one, and the right ventricle in one. In spontaneous rupture, on the contrary, in one hundred cases tabulated by Dr. Quain (*Lancet*, April 6th, 1872), the left ventricle was ruptured seventy-six times; the right ventricle thirteen times; the right auricle seven times; the *left auricle twice:* the septum four times.

In spontaneous rupture, the coexistence of fatty degeneration of the muscular fibres is almost a *sine quâ non*. In rupture from violence, this is not necessary, and, indeed, it is usually not present; but, undoubtedly, the production of a rupture would be facilitated by it; and in the present case, I think, both from the appearance of the muscular fibres under the microscope and from the general state of the valves and endocardium, as well as from the consideration that the man was saturated with syphilis and had a patch of softening in the brain, that the muscular substance of the heart was far from being in a high state of nutrition and tone, and that the rupture was much facilitated thereby.

Death probably took place from compression of the heart by the blood effused into the pericardial sac; and the extreme rapidity of the death may, perhaps, account for the absence of marks of bruising on the skin of the chest.

A case somewhat similar to the above has been recorded, where a boy sustained a rupture of the septum ventriculorum from a kick from a horse, without apparent injury to the chest-wall.

A CASE OF ACUTE PHTHISIS FROM DIRECT CONTAGION IN A DOG.

By D. H. CULLIMORE, M.K.Q.C.P.

Having read with great interest the remarks on Tuberculosis as a Contagious Disease in the Journal of May 8th, I send the following case, which contains many points bearing on this subject.

About six years ago, when I was acting as Residency Surgeon at Mandalay, a Bengalee servant, suffering from advanced pulmonary consumption, with copious expectoration, came under my notice. One of my dogs—a pariah—developing his natural talents as a scavenger, was, as I afterwards learned, in the habit of frequently visiting the house of the sick man, and lapping up the expectorated matter. How long this had been going on I cannot with certainty say; but a few days after the death of the man the dog appeared out of sorts, refused his food, rapidly emaciated, had a cough which increased quickly in severity, and was attended later on with a tenacious and glairy discharge from the mouth and nose. The stethoscope detected moist *râles* with rhonchus and sibilus over a greater part of the chest. These symptoms continued to grow worse for a week or ten days, when convulsive fits of about five minutes' duration, and occurring several times in the course of the day, made their appearance. These fits were of an epileptiform or tetanic character. The poor animal moaned a good deal and appeared in great pain, as he lay on his back reeling and kicking about. On the second day from the commencement of the fits, and about the twelfth from the beginning of the disease, there being but little hope of recovery, a large dose of prussic acid was given, which speedily proved fatal.

The *post mortem* inspection was limited to the contents of the skull and the chest, as these were the parts supposed to be more prominently diseased, and in both were found lesions to account for the symptoms during life, and their probable cause. Both pleuræ were adherent, the adhesions being recent; and the lungs were studded with softened patches, in varying stages of caseous degeneration, many of them containing muco-purulent matter, with which the minute and larger bronchi were also clogged. I did not notice the state of the bronchial glands. The brain did not show much signs of disease, and nothing similar to what existed in the lung. The membranes appeared thickened and congested, and on cutting them a good deal of serum exuded; there were no tubercular or cheesy deposits; the whole mass was uniform, and appeared softish, but I had no previous experience of the canine brain, and cannot speak with certainty.

REMARKS.—This case shows that the lung of the dog is rapidly susceptible to the influence of the *materies morbi* of tubercular lung-disease, even when introduced into the system *viâ* the stomach, which, according to von Cohnheim, is the slowest and least effectual mode of introduction; and it is the more worthy of notice, as he also states that dogs show little susceptibility, while rabbits and guinea-pigs have it in a remarkable degree. As European dogs are liable to degenerate in the tropics, and become an easy prey to disease, I may say that this dog was a native, had previously enjoyed good health, and, as the weather was not cold, I have no reason to believe that this acute affection was due to any other cause than contagion—the tubercular virus being fresh, and therefore in the state of greatest activity or supposed vitality. I regret that I failed to examine the contents of the abdominal cavity, as it would have helped to elucidate the order of organs attacked. The rapid emaciation is suggestive of mesenteric deposit and disease of the abdominal glands, and that such disease, if not of an earlier date, as the experiments of Cohnheim would lead us to believe, was at all events cotemporaneous with that of the lung and pleura, and that both were long antecedent to lesion of the brain.

I am myself inclined to think that if the lungs were not the organs to suffer first, they were, judging from the extent of the disease, at all events the organs to suffer very early and most severely, which may be due to the greater facility for arrest and exposure which the anatomical formation of their capillaries affords. Be this as it may, this case is somewhat exceptional, from the shortness of the stage of incubation, the comparative less susceptibility of the animal infected, the mode of of introduction, and the rapidity of the disease set up, with the probable sequence of the parts attacked: all of which must be set down to the somewhat prolonged introduction of fresh tubercular poison from the lungs of a person in the last, and presumedly most contagious, period of phthisis. As it is open to say that the virus may also have been inhaled, I do not think this could have been so to an extent sufficient to account for the early severity of the lung-affection; for the other members of the family escaped *in toto*, and everybody knows that people are exposed to such risks every day without any immediate injurious results.

INTUSSUSCEPTION IN AN INFANT FOUR MONTHS OLD.

ON May 1st, whilst paying a visit to Mrs. C., I was told casually by her that her baby had been vomiting first milk, then curds with a greenish tint; the motions were green. The first attack of vomiting occurred very early on the morning of the 1st, the child being perfectly well when put to bed the previous evening. As the child had not quite recovered from vaccination, and as the anterior fontanelle was rapidly closing, I thought it was simply a little stomach-derangement due to the vaccination, or possibly teething, and advised a teaspoonful of castor-oil to be given. At twelve o'clock noon, on the 2nd, I was again asked to see the child, and found him considerably worse, with pinched expression and crying, being evidently in great pain, and with a quick pulse. He had soiled three napkins with blood and mucus, straining a good deal each time. He had vomited the oil ordered the previous day instantly, as well as his mother's milk, also some magnesia which was given him on the morning of the 2nd, before my arrival. On examining the abdomen, I discovered a hard lump to the left of the umbilicus, oblong in shape, measuring about two inches by an inch. The lump could also be felt *per rectum*, and gave one the kind of impression the os uteri gives to touch. I diagnosed intussusception, and ordered a grain of Dover's powder immediately, with warm outward applications to the abdomen. At 4 P.M., assisted by Mr. Roberts, I administered chloroform to complete anæsthesia, and, with a Higginson's syringe, injected slowly fully half a pint of thin gruel, at the same time elevating the hips. The greater part of the large bowel, well distended, could be now felt externally, but no distinct trace of the lump. At 9 P.M., the child was easier; the gruel had been passed, but the lump could be felt in the right inguinal region, though less distinctly than at first; nothing could be felt *per rectum*. No more blood had come away, and there had been no vomiting; but, with the hope of entirely getting rid of the lump, a second injection was given during this visit, under chloroform as before. A grain of Dover's powder twice a day, brandy and water, and milk and lime-water, were ordered, all of which he took with difficulty. He vomited occasionally during the 3rd and 4th, but passed nothing after the injection *per anum*. He gradually sank, and died at 4 P.M. on the 4th. At the *post mortem* examination on the 5th, twenty-four hours after death, I found intussusception of the ileum into the cæcum, a couple of inches in length, the part being deeply congested. The jejunum and ileum were greatly distended with flatus. The stomach and duodenum were small, contracted, and empty. Some of the coils of intestines were coated with lymph.

O. BOWEN, M.R.C.S.Eng., etc., Liverpool.

ABSTRACT REPORT OF LECTURES
ON THE
COMPARATIVE ANATOMY OF MAN.

Delivered at the Royal College of Surgeons of England.

BY W. H. FLOWER, LL.D., F.R.S.,

Conservator of the Museum, and Hunterian Professor of Comparative Anatomy in the College.

LECTURE VIII.—THE RACES OF NORTH AFRICA.

THE whole of the various populations inhabiting the portion of Africa north of the Sahara Desert, from the Atlantic coasts, as far south as the river Senegal on the west, to the Red Sea on the east, belong to a completely different type of mankind from that which we have been last considering; and, as before mentioned, the boundaries between the two types coincide remarkably with those of geological regions, as indicated by distinct characters of the fauna. As must naturally have happened, during the vast length of time during which the people of Southern Africa and the Negroes have occupied contiguous regions with (since the drying up of the Sahara Sea) absolutely no physical barrier between them, considerable intermixture has taken place along the frontier line, and even for some distance into the territories of each at certain points. In the last especially, the superior northern race has encroached far southwards; and the practice, which has existed from the most ancient times, of importing the Negroes into the northern country as slaves and soldiers, has given rise to a considerable modification of the type in certain districts. Besides the Negro element, which has thus partially and locally modified the character of the inhabitants of Northern Africa, at least two other adventitious elements, although with differences small compared with those last-named, appear to have come into the district and assisted to diversify the physical type. The evidence on which the first of these rests is rather slender; but, to account for the considerable number of individuals, especially in Morocco, who depart at least in colour from the prevailing North African type, and have fair complexions, eyes, and hair, an immigration of some Northern people is supposed. As all such immigrations within the strictly historic period, such as that of the Vandals (A.D. 500), have been on too small a scale, or too temporary, to effect such a permanent change in a considerable portion of the population; and as there is evidence from Egyptian monuments of fair people (the Tamahou) inhabiting North Africa, to the west of Egypt, at least 1,500 years B.C.; they have been associated with the builders of the megalithic monuments found scattered over the west of Europe and the north-west of Africa and Tangier, who probably invaded Africa by way of Spain. The invasion of the country by Semitic races from the East, the Phœnicians and Carthaginians, and, more recently, the Arabs, who overspread North Africa by way of the isthmus of Suez in the seventh and tenth centuries, and impressed the Mahomedan religion upon all these regions, rests upon surer historical evidence. The basis of the population of Morocco, Algiers, and Tunis are the Berbers, descendants of the Libyans or *Lebou* of the ancient Egyptians. An important section of these are the Kabyles of the French. They are mostly a settled and pastoral people. The Moors are mixed descendants of Arabs and Berbers, residing in towns. The Bedouins are the Arabs who still lead a nomadic life in the desert. There is much in common in the physical characters of all these people, and with the inhabitants of the south of Europe and south-west of Asia. They belong mainly to the group called Melanochroi by Professor Huxley.

The Berber type, which perhaps forms the basis of the population of all this region, as well as of Spain and the South of France, is thus described by Topinard, by whom it has been carefully studied. The height is about 1.5 *centimètres* above the mean—that is, they measure, on an average, 123.5 *centimètres*. The skin is white in infancy, but quickly becomes brown by constant exposure to the sun; the hair black, straight, and abundant; the eyes dark-brown; the skull dolichocephalic, having an index of 74.4; the nose leptorrhine, with an average index of 44.3; and the projection of the jaws moderately orthognathous. The face is less elongated, and of a less regular oval contour, than in the Arabs. The straight forehead presents at the base a transverse depression; the superciliary prominences are well developed; the nose is sunken at the base, often arched without being aquiline. The moral and social qualities of the Berbers are contrasted by Topinard with those of the Arabs, considerably to the disadvantage of the latter.

The enterprising and commercial spirit of the Arabs has led to their extension over a very considerable part of Africa, along the north as far as Morocco, and down the east coast beyond Zanzibar; and once, in association with Berbers and under the name of Moors, they effected a lodgment for a considerable period in Spain and the South of France. Physically, they are a fine race. Their skull, seen from above, forms a perfectly regular oval. Their face, long and thin, forms another oval, with an equally regular contour, pointed below. Their colour is perfectly white until subjected to the action of the air, when it becomes very soon bronze-coloured. The hair and beard are smooth, and black as jet, and the limits of their implantation are clearly marked; the eyes black, the palpebral openings elongated, almond-shaped, and bordered with long black eyelashes; the forehead not much elevated; the curve of the nose and retreating chin gave to the profile a form rather rounded than straight. The superciliary arches and glabella are little developed. The root of the nose is little hollowed, so that the forehead and the dorsum of the nose are almost in a straight line. The nose is aquiline, and its extremity detaches itself from the alæ and descends downwards, recurved like the beak of an eagle. The cheek-bones do not project; the mouth is small; the teeth are white and vertical; the ears are well made and rather small, and close to the head. The skull is dolichocephalic, the index being 74.0; and the nose leptorrhine, with an index of 45.5.

A branch of the North African people, which has received much attention from anthropologists, is that called the Guanche, which formerly inhabited the Canary Islands; and which, previously to the discovery and conquest of the islands by the Spaniards, in the fourteenth century, had long been isolated from all other people, and had attained to a peculiar civilisation of their own, and had preserved somewhat of the purity of type generally found under such circumstances. The custom of embalming their dead, in a mummified condition, in rock sepulchres, has materially assisted us in becoming acquainted with their physical characters. They were of somewhat small stature, and resembled the Berbers of the adjoining coast rather than any of the Negro races. Their skull was of the mesaticephalic form, having an average cephalic index of 76.5, and was considerably lower than it was high; the face was not prognathous; the nose was leptorrhine; and at least those inhabiting the island of Teneriffe, who are best known to us, are remarkable for their low and elongated orbits, having, according to Broca, the lowest index (77) of any race. In this respect, and some others, they resemble the ancient skulls of the Reindeer period, found in the caves of Cro-Magnon in the south of France; and it has been thought that they may be related to these latter. It should be mentioned, however, that the Guanche skulls from Teneriffe, in the collection of Dr. Barnard Davis, do not altogether bear out this idea, as they have a considerably higher orbital index than those measured at Paris.

LECTURE IX.—THE EGYPTIANS.

OF all the people of North Africa, the Egyptians are undoubtedly the most interesting. "When history begins to dawn, the first object the light strikes upon, and which for a long time alone rears its form above the general gloom, is the civilisation of ancient Egypt. On inquiry, we find that this thoroughly organised civilisation, fully supplied with all the necessaries and many of the embellishments of life, and which is alone visible in the dawning light, must have existed through ages long prior to the dawn. It recedes into the unfathomable depths of time, far beyond the monuments and traditions." The Valley of the Nile has been for thousands of years the scene of many events, which have affected the ethnological characters of its population. Invasions more or less complete from the east, the north, the west, and the south; importations to its interior, from all regions around, of slaves and prisoners in enormous numbers, many of whom have become permanent settlers and integral parts of the population; yet, through all the lapse of years since the period from which the first evidence of civilisation of man in that region has come down to us to the present day, the mass of the population, through all the political vicissitudes which they have undergone, have presented the same general physical types. Notwithstanding the mixture of Semitic or Syro-Arabic nations, as in the Hyksos who ruled in the Delta for nearly five hundred years, and the Arabs of later times; the less important Phœnician, Jewish, and Greek immigrations in the north; that of the Persians from the east and Libyans from the west, and of the Ethiopians on the south,—the Copts and Fellahs of modern Egypt are little changed lineal descendants of the subjects of the Pharaohs of the early empire. The physical characters of these are fortunately preserved to us by artistic representations, graphic and sculptural, and by the still more trustworthy evidence of mummified bodies. Although there are considerable traces, as might be expected, of admixture with other races here and there, the general uniformity is striking, especially as it extends through so long a period of time. If variations appear at any particular epochs, the original type constantly reasserts itself, almost, if not quite, in its primitive purity.

In stature, the Egyptians were not large, but rather delicately built. Their hair was long, soft, and straight or wavy and black; their cranium oval in form, and the average cephalic index on the borders between mesaticephaly and dolichocephaly, and tolerably uniform in different series collected and measured by different observers. Thus Morton gives the average of forty-three specimens in American museums as nearly 75; Broca, that of eighty-one crania in Paris as 75.58; while the average of thirty-three in the College museum is 75.4. Of the latter, but one is as high as 80.7, and one as low as 69.6. Of the others, twenty are above 75.0, or belonging to the mesaticephalic class; and eleven below 75.0, or dolichocephalic. The average altitudinal index is below that of the latitudinal; namely, 73.1. The average cranial capacity of the males is 1,454 cubic *centimètres*. They are almost as orthognathous as Europeans, and have teeth of the same corresponding small size; the dental index being, in seven male skulls, 40.8; and in eight females, 41.2. The nasal index of eighty-one measured by Broca was 47.88, and this was found to be tolerably constant in mummies of different historical periods. The average nasal index of twenty-five skulls in the College collection is rather higher, being 48.7. The orbital index of the same crania is 86.2. The lips are a little prominent, but thin. Of modern Copts, unfortunately, but few crania have been hitherto available for examination; but Broca gives the latitudinal index of twelve in Paris as 76.39, and the nasal index as 47.15.

The cranial and other characters of the Egyptians correspond in the main with those of the Berbers and other inhabitants of North Africa, and they must be placed in the same general category in any classification of the human race founded on anatomical characters. They have no affinities with the Negroes, except such as may easily be accounted for by the occasional admixture of Negro blood. Indeed, it is almost remarkable that there are not more traces of this having taken place. Some authors have supposed a Turanian origin for the Egyptians; but, if this term is to be taken in any sense as equivalent to Mongolian, there is absolutely no support to it in their osteological characters. All the characteristics of the Mongolian races are entirely absent in the Egyptian skull. Still less can any resemblance be seen to the Australian, whose skull, compared with that of an Egyptian, presents almost as great a contrast as can be found within the limits of variation of the human cranium. The angular form, limited capacity, wide zygomata, projecting supraorbital edges, short flattened nasals, wide nasal aperture with rounded inferior border, great alveolar prognathism, retreating chin, and immense teeth, characteristic of the Australian, are all wanting in the Egyptian. In fact, the Egyptian belongs, by all his anatomical characters, to the type called by Blumenbach Caucasian. The much vexed questions—Who were the Egyptians, and whence did they come? receive no answer from anatomical investigations, beyond the very simple one that they are one of several modifications of the great group of races which inhabit all the land surrounding the Mediterranean Sea; that they have lived on their own land far beyond all periods of time measured by historical events; and that, in all probability, it was there that they gradually developed that marvellous civilisation which has exercised such a powerful influence over the arts, the sciences, and the religion of the whole of the western world.

QUEEN'S COLLEGE, BELFAST.—The following is a list of prizemen for the past session. *Anatomy and Physiology.*—Third year: Thomas Sinclair; Second year: Thomas Cromie, H. C. Cooke, T. G. Bell, J. J. Austin, C. B. St. George, S. Swan; First year: Isaac Crawford, William White, James Meek, Henry Adamson, R. Carter. *Practical Anatomy.*—Third year: Thomas Sinclair, Samuel Stronge, John S. Logan, David Forsyth, C. B. St. George; Second year: S. Swan, J. J. Austin, J. W. Speer, T. G. Bell, H. C. Cooke, Thomas Cromie; First year: William White, Isaac Crawford, James Meek, William Waddell, Barnett Wilson, R. J. Purdon, G. B. Crawford, R. Carter. *Practice of Medicine.*—Second year: J. P. McGeagh, L. R. T. McGeagh: First year: Thomas Sinclair, W. H. Lendrum, James Pinkerton, J. S. Collins. *Surgery.*—Thomas Sinclair, J. S. Collins, Robert Stewart, James Pinkerton, Samuel Connor, R. McCormac and J. S. Logan, equal. *Materia Medica.*—J. J. Austin, J. G. Bell, H. C. Cooke, Thomas Lamont. *Chemistry.*—James Meek, Isaac Crawford, J. M. Davidson, W. J. Mehany.

CLINICAL MEMORANDA.

PSEUDO-HYPERTROPHIC PARALYSIS.

IN his note in the JOURNAL of May 15th, on Duchenne's Palsy and the Patellar Tendon-Reflex, Dr. Donkin points out that, although I have stated that in pseudo-hypertrophic paralysis this reflex is present early in the disease, I have quoted no individual case in support of the assertion. I should be glad to supply the omission. In Cases 3 and 4 (pp. 5 and 6 in the republished lecture), the reflex was distinct, although in Case 5, an older brother of the same family, it was lost.

Dr. Donkin will, I hope, excuse me if I point out an illustration, which his paper affords, of the practical inconvenience of calling diseases after the names of those who have described them. The term "Duchenne's palsy" is commonly applied to glosso-labial paralysis; the affection now under discussion being distinguished as "Duchenne's disease". The confusion of the two terms is frequent. The increasing number of diseases and structures called after men's names constitutes a serious difficulty to the student, and a frequent source of confusion in medical writings, especially abroad. I would ask those who prefer these terms to consider the difficulties which would arise were all diseases thus designated. The inconvenience, which would then be obtrusive, is not the less an inconvenience because of less extent.

W. R. GOWERS, M.D.

GROWING PAINS.

As the paper which I recently read at the Harveian Society on the subject of growth in children has not yet been published, I will make some remarks on the paragraph on "growing pains", which appeared in the BRITISH MEDICAL JOURNAL on May 15th.

While anthropologists rarely measure and weigh the same children more than once, it has been my habit for more than ten years frequently to weigh and measure the same children; consequently I have collected much matter which could not be got by any other method. The rate of growth is one of the points about which I feel myself particularly able to speak.

At the present time, I am attending a child aged 12½ years, suffering precisely as described by M. Bouilly. She was supposed by her mother to have caught cold, and to have an attack of rheumatism, as she had much pain about the hip-joints. Though alternately warm and perspiring or decidedly chilly, her temperature taken with the thermometer was rather below the normal, and the other symptoms were those of extreme and painful languor and depression. I assured the mother that it was a case of over-growth, and that the articular pain was caused by the vascular activity at the head of the thigh-bones.

As to the enormous rates of growth recorded by M. Bouchut and M. Regnier I can only say that, although I have paid much attention to the subject, nothing of the kind has ever come under my notice. Indeed in the very marked cases, such as I have named, I have never met with a growth of one inch in a month; so that three inches in six weeks, and twenty inches in six months pass my comprehension, and are probably misprints. Most people are taller after rest in the recumbent posture; and the younger the person and the more lax their ligaments, the greater the difference between height after prolonged rest in bed, and the same after twelve hours in the erect posture. I am quite certain that the cases where the growth is more than three inches in a year are quite exceptional; and I find that anything over a quarter of an inch of growth in a month is sufficient to cause languor and "growing pains" in any but exceptionally strong children.

In conclusion, I should exceedingly like to meet with an accurately recorded case of a child measured in stockings, under a proper standard, each observation being made at *(e.g.)* twelve at noon, and recorded on paper, that has grown one inch in a month.

6, Seymour Street, Portman Sq., W. PERCY BOULTON, M.D.

OBSTETRIC MEMORANDA.

THE APPLICATION OF THE FORCEPS.

IN the BRITISH MEDICAL JOURNAL for May 8th, Dr. Duke speaks highly of a novel invention of his own, which he uses for the purpose of preventing his foot from slipping when delivering by forceps. If Dr. Duke would adopt, I believe, the continental practitioners' plan, of applying the forceps to his patients *lying upon their backs*, instead of in the usual obstetric position, there would be no need for carrying other than the usual obstetric instruments; moreover, there would be less chance of rupturing the perinæum; and the degree of traction would undoubtedly be greater.

J. FFRENCH BLAKE,
Formerly Resident Accoucheur to Charing Cross Hospital.

SURGICAL MEMORANDA.

EXTRACTION OF FOREIGN BODY FROM THE PROSTATIC PORTION OF THE URETHRA.

F. A. SENT for me on June 29th, 1879, "to extricate a piece of wire from the penis". On my arrival, I ascertained that, for some obscure reason, the patient had passed half a hair-pin down the urethra, and, being unable to remove it, had introduced a gum-elastic bougie, which had the effect of pushing it still further back. A metallic bougie passed with ease as far as the prostatic portion of the urethra, where it was obstructed, and grated evidently against the end of the wire, which seemed to lie obliquely across the urethra. The distal end of the wire could not be felt through the rectum, and, judging from its firmly fixed position, it must have been partially imbedded in the prostate. After two or three unsuccessful attempts with bladder-forceps, a lithotrite proved effectual in extracting it. The wire measured three and a half inches in length, and was so firmly imbedded as to require a little force in dislodging it when grasped by the instrument. As the foreign body had remained in the urethra over twenty-four hours, and the patient was slightly feverish, I prescribed five-minim doses of Fleming's tincture of aconite every four hours, and, after two or three days' complete rest, he was well enough to resume his business.

CHARLES E. STEELE, M.R.C.S., Liverpool.

REMOVAL OF FIBROUS TUMOUR BY CAUSTIC: GROWTH OF NAIL ON THE CICATRIX.

ON February 8th, 1878, S. A. consulted me for a swelling by the side of the nail of one of her great toes. The nail had been partly removed, and a red mass projected at the corner. It was treated at first with nitric acid, afterwards with chloride of zinc paste, until the whole of the tumour, which was evidently fibrous, with the lamella of bone from which it sprang, had been removed. This was accomplished in about a week. The wound was allowed to heal by granulation. The nail, which had not been removed from the unaffected part of the matrix, grew forward over the wound, and evidently carried young nail-producing cells with it, which were grafted on the granulations; for now the nail is quite adherent and healthy looking, and there is nothing to indicate that any part of the toe has been removed.

I think that, if the root can be saved in operations on the points of the fingers or toes, so as to secure forward growth, we need not despair of securing a serviceable nail by this grafting process, which, in the fingers especially, is a great advantage.

DUNCAN J. MACKENZIE, M.D., Glossop.

THE SURGICAL TREATMENT OF EPISTAXIS.

I WOULD suggest that, before resorting to the nasty operation of plugging the posterior nares, no matter by what plan, surgeons should try the spray from a solution of perchloride of iron. In the last five years, I have several times used a solution of two drachms of the strong liquor ferri perchloridi to a four-ounce bottle of water, spraying it freely into the nostrils with an ordinary nasal spray apparatus, and never without arresting the bleeding after its use for a few minutes. I alway cleanse the nostrils of any blood-clot, pus, snuff, or other foreign matter, with hot water and the spray instrument, before using the iron; and the comfort of ridding the patients of such hindrances to breathing, besides the removal of fœtid matter, needs to be witnessed to be thoroughly appreciated. It is impossible in most cases to localise the bleeding point: hence my adoption of a styptic spray that will reach every part of the cavities of the nose. I have used it in traumatic cases, and in old subjects with degenerate vessels, and have not needed to increase the strength of the solution. Its easy application, either by patient or nurse, in the absence of the doctor, is also a recommendation.

F. M. CORNER, Poplar.

THE VENTNOR CONSUMPTION HOSPITAL.—The Earl of Rosebery presided, on Friday, April 30th, at the Biennial Dinner held at Willis's Rooms in aid of this hospital, which was founded in 1868 by Dr. Arthur Hassall. There was an influential company of ladies and gentlemen. In proposing the principal toast, Lord Rosebery referred to the distinctive features of this hospital, and to the success which had attended the founding of this hospital in the Undercliff. Last year, the mortality was reduced to only 2½ per cent., by restricting the admission of cases to those to whom benefit would accrue by treatment while in the incipient stage of consumption. The maintenance of the hospital cost nearly £7,000 a-year, and only £1,000 was invested. During the evening, subscriptions, etc., including a donation of fifty guineas from the Chairman, amounting to upwards of £1,400, were announced by the Secretary, Mr. Ernest Morgan.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

BIRMINGHAM GENERAL HOSPITAL.

TWO CASES OF OÖPHORECTOMY.

BY EDWARD MALINS, M.D., C.M., Obstretric Physician to the Hospital.

CASE I.—Mrs. E. J., aged 33, married thirteen years, and having had one child eleven years ago, was admitted into the General Hospital on July 19th, 1879, with the following history. She stated that, about three years and a half since, while making some beds which were heavy, she felt a sudden pain in her back and left side of the bowels; this gradually became worse, was considerably aggravated at the menstrual periods, and at last completely prevented her from following any business or attending to her domestic duties. She was for a long time under medical treatment, but without any benefit. She subsequently became a patient at the Samaritan Hospital in London, where she had "supports" applied to the womb, and general treatment, but without any marked improvement. The pain became constant; was of a severe, dragging character, and always worse when she was "unwell". She was unable to walk a short distance without increasing the pain, and generally suffered much distress and impairment of health. In 1878, she was an inmate of the General Hospital, under my care, for five months, but with no decided amelioration of her symptoms. She was then sent back into the country, but could not occupy herself with any kind of work, nor could she get about except with pain. At her request, she was readmitted on July 19th, 1879, complaining of pain in the lower part of the back and left iliac region. She stated that she was utterly incapacitated from any employment, and that she was extremely anxious to have anything done which would afford a prospect of relief, as her life was most miserable and wretched. On examination, the uterus was found perpendicular in position, very mobile, the uterine supports were lax; posteriorly, an ovary could be felt, prolapsed but not enlarged; pressure upon it caused much pain, and was referred to the localities above-mentioned. There was some endocervical catarrh. Much pain was felt before the bowels were moved, and the condition was markedly worse at the menstrual epochs; these were somewhat irregular, lasting four or five days, and not excessive in quantity. On examination in the upright position, the state of the uterus and ovary was much more evident. Standing for any length of time always gave pain in the left iliac region. The general health was enfeebled, but there was no sign of any other affection; the urine contained no albumen. The uterine catarrh was treated by the application of equal parts of glycerine and carbolic acid, every four or five days, and glycerine tampons. The Hodge's pessary was exchanged for a larger one, while a mixture of iron and strychnine was given twice a day, with a dose of fig and senna confection at bedtime. She did not improve, and continued to suffer from the same symptoms as badly as ever—being easier when quiet in bed, and again worse on rising from it.

After consultation with the staff, and a full explanation to the patient of the nature and consequences of the operation proposed, she elected to have the ovaries removed; indeed, she plainly stated that she was willing to undergo any operation that held out the smallest chance of ultimate cure. Accordingly, on August 20th, I proceeded to remove both ovaries. The patient was placed under ether, and the operation conducted under strict antiseptic precautions. An incision, four inches long, was made in the median line of the abdomen, and, after all bleeding had been stopped, the peritoneum was opened. The left hand was passed into the pelvis, and the left ovary (lying in Douglas's pouch) was brought to the opening, tied with a double ligature of thick carbolised silk, and cut away beyond with scissors. Passing to the left side of the patient, the right ovary was readily reached by the right hand, and similarly treated. It was noticed that, when the ovary was severed and traction made upon it, in each instance the face of the patient became pale, the pulse flickered, and the breathing became slower and interrupted. The wound was brought together with fine carbolic silk sutures, and dressed antiseptically. No fingers but those of the operator were allowed in the abdomen. A morphia suppository was placed in the rectum. The after-progress was in every respect satisfactory; she had a fair night after the operation, sleeping as much as three hours at a time; there was no sickness. A catheter was passed every eight hours. The highest temperature was reached on the 23rd, when it was 101°, and the pulse 104; this was temporary, and was soon brought down by the application of an ice-cap to the head for a couple of hours. Once again it reached 101°, on the 26th; at the same time, the body and limbs were covered with a copious rash of minute spots, which lasted about twenty-four hours, and then disappeared. The dressings were changed for the first time on the 25th, and the bowels were moved on the following day. On September 10th, she walked into another ward, and could sit in a chair and bend forwards without pain—movements she could not previously go through without suffering. From the first return of consciousness after the operation, she remarked that "the" pain had gone, and she never after complained of it. She was kept in the hospital until October 3rd, when she left materially improved in health and spirits. A Hodge's pessary was placed to support the uterus. A fortnight after leaving, she wrote to say that she had gained in strength daily, and that she felt better than she had done for years past. There has been no attempt since at any menstrual molimen.

On examination of the ovaries, carefully made by Mr. H. G. Lowe, the pathologist to the hospital, he reports that they were found of normal, or perhaps slightly increased, size, firm, and elastic, with several slight projections of softer feel. On section, the stroma was pinkish grey and of normal consistence. Their further appearance differed somewhat: one contained eight or nine small cysts, the average size of which was about that of a pea; these were all situated near the surface, most of them giving rise to the projections of the capsule before noticed. They contained a clear limpid serous fluid; in two of them, however, the fluid was stained of a deep purple colour by admixture with blood, and around one of these latter the tissues were stained of an orange-yellow colour for a short distance. The other ovary also contained cysts, but they were not quite so numerous; in two of them (larger than the rest) the fluid was mixed with blood. The total weight of both, after being ten days in spirit, was 141 grains.

CASE II.—Mrs. H., aged 36, admitted into the General Hospital on December 5th, 1879, with the following history. She stated that she had never been strong since she began to menstruate, at thirteen years of age. When eighteen years old, she was kept in the recumbent position for six months, on account of supposed spinal disease. At twenty-five, she had a return of this, which lasted for two and a half years, when she wore a spinal support for a length of time. She had been under the care of medical men in London and at hydropathic establishments. She had had a seton at the bottom of her back, and had undergone many and various forms of uterine and constitutional treatment. She had been married seven years, and had had two children; the first was a protracted labour, terminated by forceps and followed by inflammation, for which she was kept in bed three months. The child died at four years old of cerebral disease. The second confinement was in May 1879, and was more rapid (this child was born anencephalous); but she was unable to do anything for several months beforehand, and had never been able to get about since or attend to her household duties.

On admission, she complained of fixed pain at the bottom of the back, over the sacrum; of pain in the left iliac fossa and pelvis generally; of inability to walk any distance; and of complete prostration at the menstrual epochs, with aggravation of the pain. There was always pain preceding and during the movement of the bowels—so much so as to make her delay this as long as possible, and to dread the process. There was occasional frequency of micturition, with dysuria; always dyspareunia. On examination, the whole abdomen was found hyperæsthetic, especially at the lower part. The uterus was normal in position; the os slightly eroded; the sound passed two and a half inches, and gave much pain on movement. Posteriorly, an ovary could be felt, very tender and sensitive. Examination *per rectum* caused considerable pain; the ovary could be plainly felt, and was very tender and not movable. The patient was of an emotional temperament; she was thin and careworn in appearance. She described her life as a combination of perpetual pain and misery, with hitherto no apparent prospect of relief.

On December 20th, after previous consultation with the staff, and an eager consent on the part of the patient, she was placed under bichloride of methylene, and the operation conducted as in the previous case. The left ovary was adherent by part of its surface in Douglas's pouch, but was readily detached with a little care. The same phenomena were noticed when the ovaries were drawn upon and separated, though not in so marked a degree as in the former case. The after-progress was all that could be wished; once only the temperature rose to 100.4° on the third day, when some metrorrhagic discharge appeared, and continued for some days. The dressings were first changed on the sixth day. A bedsore subsequently retarded her movements, and she was kept until this healed, being discharged on January 31st.

Ten weeks after the operation, I saw her again; she said that she had been able to walk further than she had done for twelve months previous to the operation. She had gained manifestly in health and strength, and felt herself improving daily. She had no pain whatever, and was exceedingly cheerful and confident of her complete restoration.

The ovaries were examined by Mr. Lowe, who reported thus: "I find no appearances that I can call pathological; the arteries are much thickened in places, as in other ovaries I have examined."

This result is a significant one; for, obtained after a patient comparison with healthy ovaries by an eminently accurate and experienced observer, it affords no manifest explanation of the clinical features of the case. It points to the fact that derangements in function may be the cause of particular forms of ill health, and that no structural disease is necessary to explain a condition of almost constant pain, combined with physical and mental incapacity, such as to make life a burden. The anatomical structure of the ovary, and the function of ovulation, give sufficient grounds for belief in the influence exerted on the cerebro-spinal centres. Increased nerve-irritability and heightened vascular tension are met with in the ordinary development of the Graafian follicles; and, under certain conditions, become so much intensified as to lead to numberless disorders, near and remote.

It is noted, by the second of these two patients, that the sexual appetite has been in no way interfered with by the removal of the ovaries—a fact of some interest from a physiological point of view, and one upon which additional evidence is required in connection with this operation. She has menstruated regularly since the operation.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 5TH, 1880.

W. S. PLAYFAIR, M.D., President, in the Chair.

Encephalocele.—Dr. GODSON showed photographs and a cast of the head of an infant, the subject of a large encephalocele. Nearly half of the brain was contained in a sac outside the cranium; a very narrow peduncle, passing through the anterior fontanelle, connecting it with the portion within the skull. The head with the tumour resembled an hour-glass. The child lived a month, and had never cried; it had no convulsions till just before death.

On Recording the Fœtal Movements by means of a Gastrograph.—Dr. BRAXTON HICKS called attention to two notes published in the *Proceedings of the Royal Society* for March 1879, entitled, "On the Auxiliary Forces concerned in the Circulation of the Pregnant Uterus in Woman", and "Note on the Supplementary Forces concerned in the Circulation of the Abdomen in Man". In the present paper, tracings were brought forward, taken from the abdomen by means of an instrument like a cardiograph and a polygraphic cylinder. Fœtal movements of two sorts were shown: 1. Sudden kicks, shown by sharp marks indistinguishable from movements of the maternal limbs; 2. Slow turning about *in utero*, shown by a gradual elevation of the line of wave for some distance. Both kinds of marks were superposed upon the respiratory waves.—Remarks were made by Dr. EDIS, Dr. J. WILLIAMS, and Dr. R. BARNES; and Dr. HICKS replied.

Extra-uterine Fœtation about the Seventh Month of Pregnancy: Sudden Urgent Symptoms: Removal of Fœtus by Abdominal Section: Death.—Dr. BRAXTON HICKS showed this case. The patient, aged 29, married ten years, had had two children, one seven years, the other four years since; no miscarriages. In April 1879, she was taken with severe vomiting and abdominal pain, for which she was kept in bed a month. After getting up, she said that her womb came down. In July, she was admitted into Guy's Hospital under Dr. Galabin, and then thought herself about six months pregnant. Only the fact of pregnancy, together with a swelling behind the cervix, was then made out, and she shortly left the hospital. In the first week of August, she was readmitted under Dr. Hicks, in the absence of his colleague. A tense enlargement then extended on the right side three inches from the middle line up as high as the umbilicus, whence it rose nearly to the left ribs, towards the flank, and extended downwards, filling the whole left hypogastric region. This evidently contained a living fœtus. A so-called "placental bruit" was heard over the centre of the abdomen below the umbilicus. The cervix protruded through the vulva; the external os was patulous, so that the finger could reach the internal os, which was closed. The sound could not be carried into the uterus beyond the unimpregnated length. For greater assurance, he had a sponge-tent introduced into the uterus, but nothing was found within but some fragments of decidua. At the end of a week, she was suddenly taken with increased pain and distension of the lower abdomen, shortly followed by collapse and pallor; pulse rising to 140, thready; temperature normal. She said that, while sitting by the side of the bed, she felt something give way in her lower abdomen, upon which the fœtus kicked violently; and then she became faint, and shortly afterwards the movements ceased entirely. Three hours later, the author found her in great distress from the tension; he saw that evidently blood had been effused internally, and decided to operate, as the only chance for her life. This was done under carbolic spray, the incision being made in the median line, which had now become the most prominent part. A cavity was opened, containing a large quantity of dark watery blood, which had evidently been effused within the placental area, and had been the cause of the symptoms. After its escape, the chorion was ruptured, and the lifeless fœtus, about the size of a large six months' normal fœtus, extracted. Not much more blood flowed, and the wound was closed, except an opening one inch and a half long. The patient, however, began to show signs of sinking, and died shortly afterwards. At the necropsy, it was found that the placenta extended up the abdominal wall in front almost to the umbilicus, and was not attached to the uterus or to the bladder. The sac was adherent in all directions to the intestines and other parts; its lowest portion was attached in front of the uterus and behind the bladder. On the anterior surface of the uterus was a pedunculated fibroid, as large as a walnut. The right Fallopian tube, firmly bound by adhesions, crossed the anterior surface of the uterus, and was attached to the lower surface of the fibroid, terminating in some loose tissue under the placenta. The right ovary was adherent to the right side of the amnial sac, and contained a large corpus luteum. The author remarked that the case was the analogue of concealed accidental hæmorrhage in normal pregnancy, and that it was a clear case of true ventral pregnancy. He asked the opinion of the Society how the hæmorrhage should be stopped, if the operation were performed during active fœtal life, and the placenta were found situated as in this instance. He thought that carbolised sponges might be kept within for a time, and a compress maintained, since rigid antiseptic treatment would be impossible.—Dr. WILTSHIRE thought that there was no doubt that abdominal pregnancy did occur, and instanced a case of Kœberlé's in which, after ablation of an inverted uterus, pregnancy ensued by means of a fistulous opening at the top of the vagina; also one in which the roof of the vagina was ruptured by forcible coitus. He thought that, in the present case, as an exception to the general rule, it might have been preferable to remove the placenta.—Dr. ROUTH thought that, if the position of the placenta had been made out by auscultation, the incision might have been made away from the median line, and wounding the placenta avoided. He also asked why Dr. Hicks did not, in preference to performing gastrotomy at all, aspirate the sac, or kill the fœtus by injecting morphia into the amnial cavity. The separation of the placenta seemed to have been caused by the fœtal movements.—Dr. GERVIS mentioned a case in which he had performed primary gastrotomy for extra-uterine fœtation. Not much difficulty was met with, and but trifling hæmorrhage, the position of the placenta being mostly in the pelvis. But the patient died in about three days, as the result of a continuous hæmorrhagic loss through the drainage-tube. The necropsy showed no sign of peritonitis, but separation of the placental margin. Could any treatment diminish this danger?—The PRESIDENT was surprised to hear Dr. Hicks say that perfect antiseptic treatment was impossible, and thought that the chief hope of progress in such cases lay in carrying it out completely, however difficult it might be.—Dr. J. WILLIAMS thought that the insertion of a tent into the cervix was superfluous for diagnosis, and that it possibly had something to do with the sudden accession of severe symptoms.—Dr. EDIS called attention to the monograph of the late Dr. Parry of Philadelphia, who was led, by his statistics, to condemn the puncture of the cyst, and to recommend either removing the fœtus entire, or allowing the cyst to remain uninjured.—Dr. BARNES was inclined to think that the present might be reckoned among a few exceptional cases, in which removal of the placenta might be justifiable; the hæmorrhage being afterwards stopped by compressing the abdominal walls together.—Dr. BRAXTON HICKS said that most of the speakers had mistaken the state of the case. Urgent symptoms suddenly came on while he was waiting for a short time to consider the best line of treatment. The tension was then so great as to obliterate the previous outline, but he did not think that the position of a souffle would always absolutely determine the site of the placenta. He differed from Dr. Routh, and regarded the violent saltation of the fœtus as evidence of its impending death from asphyxia. No great amount of recent blood was lost during the operation, but the question he had asked was—What the treatment should be if the placenta were cut, the fœtus being still alive? He could not agree with Dr. Barnes that the placenta might be removed without too great risk of hæmorrhage. In answer to the President, he thought that it would be extremely difficult to carry out the antiseptic treatment perfectly, though it might be possible under advantageous circumstances.

Two Cases of Extra-uterine Fœtation.— Dr. G. F. FULCHER described two cases. Case I. On July 10th, 1872, he was called to the wife of a cottager, who was suffering from intense abdominal pain, and showed signs of violent internal hæmorrhage. There was no vaginal discharge; the uterus was moderately enlarged, the fundus tilted backward. Extra-uterine fœtation, with rupture of the sac, was diagnosed, and the patient died in a few hours. At the necropsy, a fœtus of about five months was found in the abdomen, together with a detached placenta, whose attachment had been parietal. Both tubes were intact. The final attack came on while the patient was drawing water from a well. There had been frequent uterine hæmorrhage previously. She was thirty-two years old, and this was her third pregnancy. Case II. A woman, thirty-two years old, pregnant for the second time, was expecting her confinement in November or December, 1879. On December 6th, the author was summoned on account of paroxysmal pain with sickness. He found the uterus only moderately enlarged, retroverted, the os pointing forwards and upwards towards the symphysis. The fœtal heart was heard over the right side of the abdomen. Next day, in consultation with Dr. J. B. Maurice, the uterus was ascertained to be empty. It was decided to remove the patient into the Savernake Hospital, there to perform gastrotomy, but some inevitable delay occurred. Reference was also made to an eminent authority in town, who said that it was better, *cæteris paribus*, to wait till the death of the fœtus and then to operate. The fœtal heart was heard up to the 12th, and movement continued until the 14th. She was removed on the 16th, at which time the violent paroxysmal pains had ceased. On December 18th, peritonitis having set in, operative measures were abandoned, and she died on the 26th. The necropsy revealed a large child, weighing nine pounds and a half; the placenta was attached over the left iliac fossa, broad ligament, and abdominal wall, up to the linea alba. The cavity contained grumous fœtid fluid.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 29TH, 1880.

Sir JOSEPH FAYRER, K.C.S.I., M.D., F.R.S., President, in the Chair.

Certain Views regarding Fevers in India.—Surgeon-General C. A. GORDON, M.D., C.B., read a paper on this subject. He began by observing that the views he was about to express were those held by eminent authorities—that only the deductions from a comparison of these views were his. He alluded to what he considered to be a description by ancient Hindoo writers of what, in recent times, had been in India called synonymously typhoid or enteric fever. He enumerated several standards or definitions of what was, by different observers, held to constitute the disease so-called, and noticed that such standards differed among themselves. The synonymous use of the terms typhoid and enteric had led to much confusion in description, and to the grouping together of conditions and complications which had no necessary connection with each other. The term "typhoid", in former times, was used to denote a condition; "enteric", a complication; but neither as pointing to a specific form of fever the result of a specific cause, namely, filth in air, food, or water. With regard to age, not alone specific enteric fever was particularly fatal among the young, but so also were other forms of fever and of other diseases; and cases of enteric fever were recorded as recurring in persons of advanced age, and in whom the presence of Peyer's glands had long ceased to exist. Early residence in India and youth were usually coincident in the same individual. All young persons, going from a temperate to a tropical or semi-tropical climate, must undergo a process to which the term seasoning used to be applied in the West Indies and on the West Coast of Africa. When this process occurred violently, it was by an attack of fever, in the course of which low adynamic or typhoid symptoms might occur, as also various complications—cerebral, pulmonic, hepatic, intestinal or enteric, and so on. When the process took place gradually, it was by a period of more or less impaired health, but without actual "cataclysm". But not alone was one form of fever especially fatal among new arrivals; so were all endemic forms of disease, and in a ratio little different from so-called typhoid or enteric fever. He enumerated the symptoms by which specific typhoid or enteric fever was said to be characterised; and in reference to them observed that, while in their entirety they had never been recorded in any one case of the disease so-called, one or more were present in other forms of fever, and of other diseases—such as tympanites, diarrhœa, abdominal tenderness, hæmorrhages, and so on. Cutaneous eruption was not always present in all cases of typhoid occurring in Europe. In India, cutaneous eruptions, papular in character, were of frequent occurrence, during the hot and damp seasons, in all forms of fever, in various other forms of disease, and also in the absence of all disease. He gave a series of statistical observations to show that, in the cases to which they referred, no connection whatever existed between the presence or absence of a cutaneous eruption, and the presence or absence of ulceration of Peyer's glands; also, that various kinds of eruption were noted in connection with cases said to have been of "enteric" fever. Temperature charts showed no uniformity among themselves, either as respected those given as typical in typhoid fever, as it was said to occur in Europe, or in those appended to reports of individual cases so designated in India: hence such charts were untrustworthy in diagnosis. The causation of the disease was variously given by different observers; pythogenic influences, by late reports, were considered as not always effective, as they did not necessarily give rise to specific fever, but were productive of other forms of illness; also, as a train of phenomena and pathological conditions precisely similar to those that might, under certain circumstances, arise from filth-causes, were also produced by fatigue, exposure, and other non-specific causes, the application to them of a name signifying one kind of causation only, specific in its nature, was inappropriate and misleading. No case, related in reports before the meeting, had been actually traced to pythogenic causation. On the subject of season, in relation to enteric fever, the opinion of certain writers was quoted that, in Britain, typhoid or enteric fever had taken the place of what, during the last century, was called autumnal fever—if, indeed, it were not the same disease. In India, ardent fevers prevailed during the hot dry period of the year; those with intestinal complications during the rainy and moist season. Climate also exerted a modifying influence upon disease as upon the *fauna* and *flora* of particular countries; in India, certain organs manifested a special liability to infraction, as a result of such influences, and among them the liver and the aggregated glands of the ileum. The pathological appearances said to be distinctive of enteric fever were not invariably recorded in fatal cases of the form of fever so designated; similar appearances were recorded in connection with other diseases—more especially dysentery, yellow fever, and protracted cholera; in malarial fevers they had been observed to an extent greater than in specific enteric or typhoid fever, and also as results of certain poisons. The views expressed in regard to his reports on the table were next referred to by him, with the result that those views differed among themselves. In summarising the whole, he indicated that, with regard not only to the forms of fever so designated in India, but also with regard to that observed in Europe, views were expressed of a nature absolutely different from each other; while, in regard to not one circumstance in connection with etiology, phenomena, or pathology, were opinions in accord.—Dr. A. P. STEWART observed a singular want of uniformity among Indian observers, and compared the opinions which prevailed in India to those which existed in England before cases were studied in detail.—Dr. EWART took exception to many of the statements of the author, especially to the argument against filth producing typhoid fever; the filthy condition of all the villages in the Madras Presidency being well known.—Dr. NORMAN CHEVERS preferred the term enteric to typhoid fever. He pointed out that the author's disbelief in enteric fever, because the fevers he had met with differed in type, applied to all the fevers. He denied the absence of pythogenic conditions in India.—The PRESIDENT agreed to a great extent with Dr. Gordon, that the same enteric fever found in England also existed in India; but many cases of what appears to be enteric fever also existed, which were not due to so-called conditions of drain-poisoning.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

MARCH 25TH, 1880.

Pneumonia.—Dr. BOWLES (Folkestone) related three cases of pneumonia occurring in children, about twelve years of age, who were already the subjects of emphysema and asthma. In all these cases, the symptoms were singularly obscure; for, with the exception of a high temperature (106°), and a rapid pulse (150 to 160), there was nothing to direct attention to the chest; the breathing was calm and quiet, and the cough rather less than usual. The absence of any other disease, with the height of the temperature and the suddenness of the onset, caused grave suspicions of chest-mischief; and a most careful investigation of the chest was made twice daily without, in either case, any certain physical symptoms being discovered until the fifth and sixth days. There was, it is true, in each case at first a small spot, where, it was thought, a relative dulness existed—*i. e.*, although not duller than a normal lung, it was more so than that of an emphysematous lung. A case was also related of a lady who, at the time of her period, was seized with violent pain in the left loin and shoulder and down both legs, with fever and great nervous distress. Here, again, the lungs were emphysematous, and for twenty-four hours the diagnosis was quite uncertain; then pleurisy was detected, and, four days later, pneumonia.—In the discussion which followed, Mr. TYSON related a case of pneumonia, in which he could not detect physical symptoms for four days.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

Wednesday, April 21st, 1880.

W. A. N. Cattlin, F.R.C.S., President, in the Chair.

Cystic Disease of Lower Jaw.—Mr. Christopher Heath showed a patient (a woman), aged 44, who had been under his care, for cystic disease of the lower jaw, in University College Hospital, in 1875.

Thirty-five Years' History of a Maxillary Tumour.—Mr. Christopher Heath related this case. The patient, aged 67, when he first came under notice in 1877, was a healthy country gentleman, who said that, as long as he could remember, there had been some enlargement of the right side of the lower jaw. In 1845, this enlargement increased considerably and very rapidly; and, in 1847, Sir William Fergusson removed a tumour of the right side, sawing through the ramus horizontally, and the body of the jaw close to the right canine tooth. The tumour was apparently fibroid, having a large cyst developed in it. He continued in good health for fifteen years, and then noticed the formation of a cyst in the incisor region, which had frequently been tapped by Sir William Fergusson. In July 1877, Mr. Heath found cystic disease of the left side of the body of the jaw, extending to the molar region, and operated by extracting all the teeth, opening up the cysts freely, and clearing out some solid growth with the gouge. From this, the patient made a good recovery, with considerable consolidation of the bone; but, in the November following, one cyst was found to have developed anew in the incisor region, and this was treated in a similar manner. A year later, a fresh development of cysts had taken place, and the operation was repeated with a good result; so that, in February 1879, the jaw was completely consolidated, and the patient was advised to have some artificial teeth fitted. In November 1879, the patient reappeared with a large solid tumour, involving the left side of the body of the jaw, which (noticed first in June) had grown rapidly of late, and now involved the skin for an area of a square inch. On December 2nd, Mr. Heath removed the tumour by sawing through the bone immediately in front of the left masseter, and also removed a piece of infiltrated skin from the left of the median line. The wound was brought together with hare-lip pins and sutures, and only one artery (facial) was ligatured. The patient made an uninterruptedly good recovery, and soon gave up the use of a feeder and took food with a spoon, and was able to talk intelligibly after the first week, although deprived now of the entire body of the jaw. The lower end of the wound being left open, afforded a thorough drain for discharge; and the mouth was, moreover, easily kept clean. The parts rapidly contracted, and he was able to leave London the first week in January 1880. The patient returned early in February, when the skin near the wound was found to be increasingly infiltrated, and a tumour, of the size of an orange, was found beneath the right deltoid. He had strained his right arm in getting into a hip-bath, but was quite clear that the humerus had not been struck. The tumour was painful, but the bone was sound, the head moving with the shaft. A week later, the patient was found to have a tumour in the pelvis, pressing upon the rectum, and springing from the interior of the right innominate bone. From this time, he gradually lost strength, and died at the end of March. The second tumour was pronounced by Mr. Doran to be a round-celled sarcoma, and the same growth was found in the piece of skin which was removed. The earlier tumour (which had been preserved in King's College Museum) was too much altered by long immersion in spirit to allow minute examination, but appeared to be a fibroid or a spindle-celled sarcoma. No *post mortem* examination of the internal growths could be obtained. Mr. Heath remarked upon the great interest of the case, and its important bearing on the treatment of cystic disease of the lower jaw. Hitherto, cystic disease of the lower jaw had been regarded as a local ailment; and the treatment, by clearing out the cysts and crushing in their walls, had given good results. In this case, more than thirty years had elapsed between the formation of the two growths, and in the interval cystic disease had been largely developed. Mr. Heath alluded to the female patient he had previously shown, who had been under his care for the last five years, and on whom he had twice operated, by breaking down the cysts, with good results; but in whom there was now considerable thickening of the jaw, but no distinct tumour. He concluded by contrasting cancerous with sarcomatous tumours, showing that the former invaded the lymphatic, and the latter the venous system, and hence the secondary tumours in various parts of the body.—The President said that he thought that the case described by Mr. Heath was an example of specific disease. There were three distinct cysts and considerable deposit of solid matter, and its malignant character was shown and proved by metastasis to the pelvis. The patient shown appeared to him to be suffering from disease, which was following a similar course. With the exception of dentigerous cysts, the most common form of disease of the lower jaw was a single cyst, which expanded the walls and produced absorption. Such growths were generally innocent.—Mr. S. Cartwright was inclined to think that cystic tumours more often had their origin in the teeth than was generally supposed, the peculiar connection of the teeth with the jaw favouring this hypothesis. In many cases, the cysts were probably congenital, and formed in connection with the primitive sac of the tooth.—Mr. Hamilton Cartwright said that the tumour which Mr. Heath had just described was evidently not of the odontomatous or dentigerous kind, although a cyst existed in the sarcous elements of the tumour. He believed that such growths were of dental origin—subacute, not acute; inflammation of the root being the first origin of the evil. As a result, lymph was thrown out around the fang, or even beneath the external periosteum of the maxilla. This lymph, if not absorbed, became organised, and a tumour—sarcomatous, osseous, or of the two structures combined—was the result. Dentists should have a good surgical knowledge, and know when it would be more dangerous to save a tooth than to remove it

Irregular Upper Incisor.—Mr. Napier brought forward the models of an irregularity in the position of the right upper central incisor, in a child aged six and a half years, and asked the opinion of the members respecting the advisability of torsion at so early an age.

Epulis.—Dr. McOscar showed the casts of a case of epulis, which was virtually cured after a few weeks' treatment by electrolysis, although continued occasionally for months.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

Tuesday, April 20th, 1880.

Alexander Robertson, M.D., President, in the Chair.

Retinitis Albuminurica.—Dr. Foulis showed the posterior halves of both eyeballs from a case in which there had been uræmic convulsions and loss of sight during the last ten days of life. In both retinæ, there were numerous punctiform hæmorrhages, and one or two small yellowish patches; on the choroid were several pale irregular patches. The kidneys were slightly larger than normal; their capsules rather adherent; their surfaces granular, very pale, and here and there dotted with venous stars; the cortex was thickened (on section) and very pale; the pyramids pale purple. The left ventricle of the heart was much hypertrophied, but there was no valvular disease.

Union of Anterior Segments of Aortic Valve.—Dr. Foulis showed the arch of the aorta, with its valves, from a case in which no symptoms of aortic disease had been noticed during life. The two anterior aortic segments were united into one broad valve, and the edges, both of it and of the remaining segment, were slightly thickened. The central part of the anterior valve had a tendinous aspect, and, on the upper surface, there was an indication of the division of the pouch of Valsalva. The condition was probably congenital. The aorta had been injected with wax for another purpose, and thus the valve had been brought into play and the completeness of its action demonstrated.

Multiple Embolisms.—Dr. Perry showed specimens from a case of heart-disease following rheumatic fever. The patient, a female aged 24, was admitted to the hospital with a loud mitral systolic murmur, but the rheumatic symptoms were almost gone. Soon after admission, her right arm became suddenly powerless, intensely painful, and pulseless. The temperature in the right axilla fell to 90° Fahr. The loss of motion continued for two hours, and was then gradually restored. Two days after the disappearance of the pulse, it was again detected, although very feeble, at the wrist, for about forty-eight hours, after which it could never again be felt. On the fourth day after the obstruction to the circulation, the temperature of the right arm became about 2° higher than that of the left, and continued so for three days, after which it fell slightly below that of the left. A month after admission, the patient was seized with acute pain in the left popliteal space, attended with coldness of the leg, partial loss of sensation, but no loss of motor power; arterial pulsation was also lessened. After an interval of a week, the patient began to suffer from obstinate diarrhœa and vomiting. She then became semicomatose, and passed urine and fæces involuntarily. The urine, when drawn off, was of a deep blood-red colour, slightly acid, and contained large quantities of albumen, blood-corpuscles, and pus-cells. Before death, several convulsions came on, with coma vigil and contraction of pupils. On *post mortem* examination by Dr. Foulis, the following lesions were found. In the pia mater over the left hemisphere was a slight hæmorrhagic effusion, but no disease of the vessels could be detected; on the mitral valve, there were masses of soft yellowish granular vegetations, which covered also some of the chordæ tendineæ, and extended towards the aortic valves; over the posterior face of the epiglottis, on the interior of the larynx and trachea, and at the upper end of the gullet, there were numerous punctiform hæmorrhages; in both brachial arteries were adherent pale thrombi, each enclosing a small mottled white and red embolon; in both common iliac arteries, at their bifurcation, were similar plugs, with red blood-clot above and below them; in one of the larger divisions of the superior mesenteric artery, supplying the ileum, was a pale oval plug, and on it a little loose red clot, but the vessel above and below was not choked with thrombus, with the exception of one small side branch, in which was a red clot; the lining of the bowel supplied by the artery in which the embolon lay was purple and sloughy, its valvulæ conniventes thick, firm, and greyish-brown in colour; the Peyer's patches in one instance thickened, in others entirely sloughed away, leaving the muscular tissue bare. In the kidneys and spleen were yellow or shrivelled blocks of older date. To compare with this case, Dr. Foulis showed the bowel and mesentery of a soldier, who, six years before death, had been kicked in the belly by a horse, and had then sustained a lacerated wound of the mesentery. The edges of this wound had healed, leaving a large gap in the mesentery, on one side of which was the bowel bare and free from mesentery, like an isolated tube, for a distance of four inches. In spite of this isolation, the bowel had lived and was well nourished, the death of the patient being caused by the strangulation of another part of the bowel in the open gap in the mesentery. He quoted also Professor Nussbaum's case, in which, during an operation, the bowel had been isolated from the mesentery for sixteen or seventeen inches, and yet the patient had made a good recovery. Now, in the face of the recovery of the bowel after such interference with its vascular supply, it was difficult to see why the plugging of a single loop of the superior mesenteric artery (which was not an end artery) should involve so constant and grave changes as it did. Professor Cohnheim had said that it was explained by the great vulnerability of the vascular supply of the bowel; but that was merely another way of stating the fact of its occurrence, and was not at all an explanation of why it occurred. Besides, the cases of isolation of the bowel clearly pointed to extreme tenacity of vitality, rather than to vulnerability, in this region. Dr. Foulis held that a satisfactory solution of the question was yet to be sought.

Scirrhus of Male Breast.—Dr. MACPHAIL showed the left mamma of a man, aged 77, which had been removed by Dr. Macleod for a tumour of eight months' duration. The tumour was first noticed as a small hard nodule, involving the nipple, which had grown slowly and almost painlessly. Before removal, it was from two to three inches in diameter, hard, irregular, and nodular; the nipple was retracted slightly; and the skin over the growth was purplish, firmly adherent, and unbroken. The tumour slid freely on the subjacent tissues, and there was no affection of the axillary glands. After removal, it presented the usual appearance of scirrhus. In August last, Dr. Macleod removed a similar tumour from the left breast of a man aged 51. A small nodule, like a pea, had existed near the nipple for four years, and had only grown rapidly for six months before admission to hospital. In both cases, recovery was rapid.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS OF IRELAND.

WEDNESDAY, APRIL 7TH, 1880.

SAMUEL GORDON, M.D., in the Chair.

Neurosal Palpitation.—Drs. W. BERNARD and HAYDEN introduced a patient, the subject of neurosal palpitation. The man's habits were regular, and he was very studious. The pulse was extremely rapid. There were traces of exophthalmia, and some enlargement of the middle lobe of the thyroid gland existed. There was no renal affection. Some loss of power was noticed in the lower extremities. Neither excessive smoking nor masturbation could be assigned as a cause of the disease in the present case. Digitalis, quinine, and bromide of potassium had all quickened the heart's action.—Dr. JAMES LITTLE, on examining the patient, noticed that elevation of the arm made a very material difference in the pulse. He found, also, that the man, when a child, had been greatly afflicted with worms, and of late there had been attacks of bleeding from the nose.

The Symptoms of Treatment of Diphtheria.—Dr. WALTER BERNARD detailed a series of cases illustrating this subject. He said that it was held by some very high authorities that in diphtheria the constitutional disturbance, as in small-pox, was in proportion to the extent of the disease. In Dr. Bernard's experience, this relation between the extent of the membrane and the constitutional disturbance had very frequently been found wanting. The constitutional symptoms might be almost absent, and yet there might be extensive deposit on the back of the pharynx, the tonsils, and soft palate. Albuminuria was a symptom to which too much importance must not be attached in forming a diagnosis. He had observed aphthous ulceration on the inside of the lips and on the tongue, before the exudation on the pharynx appeared. He mentioned the case of a boy aged 7, whose body became covered with nettle-rash apparently coincidently with the appearance of the diphtheritic membrane. In another instance, diphtheria followed and coexisted with a purpuric eruption. With regard to diagnosis, Dr. Bernard considered that the presence of a membrane was essential. A retrospective diagnosis, however, might be formed from the occurrence of paralysis as a sequela of a doubtful throat-affection. Difficulty in diagnosis sometimes occurred in mild cases. It was often hard to distinguish between a diphtheritic membrane and a follicular secretion. The practised eye could, as a rule, see a difference. A secretion was seen to dip down into a follicular depression, and could be more easily removed than a membrane. He thought there were many exceptions to that rule, that "if the layer be thrown off within twenty-four or thirty-six hours, this is a proof of its having been a secretion, not an exudation". Two cases were recorded in the BRITISH MEDICAL JOURNAL for January 25th, 1879, by Dr. Eigenbrodt, in which the membrane disappeared within twenty-four hours after it was seen. In one of these cases it re-formed, in the other it probably did not. There were, probably, many cases of mild diphtheria in which the membrane was thrown off within thirty-six hours, and in many others intercurrent results tend to fortify this conclusion. Dr. Bernard drew attention to what he called the prospective treatment of diphtheria, by which he meant the careful and energetic local and constitutional treatment of all acute and chronic affections of the throat. The question as to the relative importance of the constitutional and of the local treatment altogether depended on the views of the pathology of the disease. Diphtheria must be regarded as primarily a constitutional affection, but we should not attach too little importance to the local process. Dr. Bernard, as a rule, ordered a nutritious easily digested diet along with stimulants. Children suffering from diphtheria bore well a large amount of alcohol. As medicines, he prescribed benzoate of soda, sulphurous acid, chlorate of potassium, and tincture of the perchloride of iron. If fever ran high, he used quinine or salicylate of soda. As local treatment, he persevered in frequent application of antiseptics and solvents to the diseased parts. Carbolic acid was the best antiseptic, lime-water the best solvent. The inhalation of carbolised steam was of much service in promoting the separation of membranes. After the membranes had separated, the application of borax, glycerine, and carbolic acid had proved serviceable in restoring the mucous membrane to its normal state. When he found a false membrane in the larynx, with slight laryngeal symptoms, he held himself ready to perform tracheotomy. Sometimes the lymphatics between the hyoid bone and the thyroid cartilage became enlarged, when the diphtheritic process spread from the pharynx to the upper part of the larynx. Retraction of the soft parts during inspiration was a sure indication of the necessity of operative proceedings. He regarded tracheotomy, not as curative, but as a means to prevent death from suffocation. He regarded the high operation as possessing all the advantages of the lower more difficult and dangerous one. Much harm had been done by postponement of the operation.—The CHAIRMAN agreed with Dr. Bernard as to the importance of the double line of treatment, local and constitutional. As to the local treatment, the point of greatest importance was to prevent the spread of the disease downward. He instanced the case of a lady whose life was probably saved by almost cruel treatment. She was never allowed to rest for half an hour without having the patches of membrane removed from the throat.—Dr. JAMES LITTLE alluded to the unfrequency of true diphtheria in Dublin. He considered the statistics of the Registrar-General quite misleading. Dr. Bernard had said, very properly, that the patient should not be allowed to die of diphtheria if tracheotomy could possibly give relief. He knew of some cases in hospitals that died some time ago, where the question of performing the operation was discussed, but it was abandoned; and after death they were glad they had abandoned it, for the false membrane occupied a position far beyond the reach of the surgeon. He knew a case, too, in which both Dr. Walter Smith and himself believed nothing but tracheotomy would save the child. It was not, however, performed, and the child recovered. He had found the local application of iodoform to the false membrane over the throat beneficial.—Dr. J. W. MOORE had been attached to one of the largest epidemic hospitals in Dublin since 1872, yet he could not recall a single instance in which true diphtheria came under his observation during the past eight years. He did, however, know of cases of so-called diphtheria having been sent in, and those cases were simply cases of pultaceous exudation on the fauces in scarlatina. That diphtheria occasionally prevailed in Dublin was a fact; but there was good reason to believe that most of the deaths returned by the Registrar-General as due to diphtheria were really caused by scarlatina anginosa or maligna, in which the sore-throat has been exceedingly severe.—Dr. FITZPATRICK believed that diphtheria very often followed scarlatina.—Dr. W. G. SMITH pointed out the necessity of very great caution in making diagnoses. Some time ago, a school-teacher in Dublin came under his notice for what was represented as common sore-throat. She had been in the habit of singing a good deal, and latterly had found her voice becoming nasal, and fluids regurgitated through the nares. She recovered, however, under electrical treatment.—Dr. HENRY KENNEDY advised caution in saying a case was not one of diphtheria, and instanced two cases in which a mistaken diagnosis would have resulted from any but the most searching care and acquaintance with all the surroundings. He did not agree in the identity of croup and diphtheria.—Dr. C. F. MOORE said that, as to the frequency of cases of diphtheria, he might mention that in three years in London he saw several cases of it, whereas in Dublin his experience was that it was very rare.—Dr. CORLEY said the discussion had narrowed itself to two points—the efficacy of tracheotomy, and the rarity or comparative frequency with which diphtheria was seen. As to the question of operation, the surgeon was bound to try to prevent the child dying of stenosis of the larynx, although in all probability the child would die of the original disease that produced the stenosis.—Dr. BENNETT held with Dr. Little that diphtheria in Dublin was rare. He did not think he had seen a *bonâ fide* case of diphtheria—excluding membranous croup for the present. As to whether the operation of tracheotomy was advisable or not, in such cases interference was essential. Professor Spence laid down an opinion in favour of the low method of opening the trachea, if any. Dr. Bennett never operated save by the high method.—Dr. BERNARD, in reply to a question, said that in cases of diphtheria he had, in a family of five members affected, seen the local symptoms different in each case.

REVIEWS AND NOTICES.

THE STUDENTS' GUIDE TO DISEASES OF THE EYE. By EDWARD NETTLESHIP, F.R.C.S., Ophthalmic Surgeon to St. Thomas's Hospital. London: J. and A. Churchill. 1879.

THE author's object in the compilation of this manual has been to supply students with the information they most need on diseases of the eye during their hospital course. In this, we think, he has been fairly successful. He has compressed a great deal of information into a comparatively small space. The arrangement of the matter is lucid and practical, while the style is remarkably clear and vigorous.

The first part of the work is devoted to the means of diagnosis, and treats generally of the more purely scientific portion of ophthalmology. This is a subject in which English teaching is, as a rule, distinctly behind that of the continent. It is, however, a portion of ophthalmology which no student can venture to neglect, and which is of great importance from a practical point of view. It is also a subject which is distasteful and difficult to most beginners, and which for these very reasons should, we think, have been dealt with more at length. More stress should have been laid on the careful external examination of the eye, on the angular measurement of squint, on the systematic use of the perimeter, on the examination of the colour-sense, with its bearing on various diseased conditions. The theory of the ophthalmoscope is clearly and accurately given so far as it goes; but something surely might have been said about the size of ophthalmoscopic images generally, and the measurements of intra-ocular objects, such as a glaucomatous cup. No doubt, a great deal of the more purely scientific part of ophthalmology belongs of right to physiology rather than to clinical medicine. Nevertheless, applied physiology can never be out of place in a work intended mainly for students; and this, perhaps, is more true of ophthalmology than of any other subject.

The second and by far the largest portion of the work is devoted exclusively to the clinical aspect of eye-diseases. Here the author is thoroughly at home, and has succeeded in giving a very excellent epitome of the subject. Each affection is clearly and succinctly described, and its pathology and treatment laid down in accordance with the latest views. The differential diagnosis is always carefully insisted upon, and, wherever they have appeared likely to facilitate a clear understanding of the text, engravings have been added. The chapters on Disease of the Conjunctiva, Cornea, and Iris, are all excellent, and indeed, as specimens of clinical teaching, will not easily be surpassed. The classification of ophthalmiæ which the author adopts is simple and practical, and we are glad to see that he discards the old-fashioned notion of various forms of iritis clinically distinct from each other. The account he gives of sympathetic irritation and sympathetic ophthalmia is extremely good, and no student who reads it carefully is likely in after-life to enucleate an eye which by any possibility could have been saved. Refraction and accommodation are treated with ample fulness, and many practical hints are interspersed among more purely scientific teaching. The chapter on Astigmatism is very carefully written, and the subject is, we imagine, rendered thoroughly intelligible to the least experienced reader. It is, however, a matter of regret that the author did not use the metric system exclusively in the numeration of glasses. It might also have been well to have given Donders' table of the amplitude of accommodation at various ages, as illustrating the gradual onset of presbyopia.

The operations practised on the eye are relegated to a chapter by themselves, and are thus severed from the subjects to which they respectively belong. They are dealt with in a very brief manner, little save directions for the mechanical performance of any particular operation being given. The indications for or against a particular procedure, or the dangers or difficulties especially appertaining to it, are in most cases passed over in silence. These blemishes are, however, more than counterbalanced by the general excellence of the book as a whole. As a students' manual, it is one of the best with which we are acquainted. It is clear, concise, and thoroughly scientific, and is likely to have a much larger circle of readers than those to whom the author professedly addresses himself.

NOTES ON THE ANATOMICAL RELATIONS OF UTERINE STRUCTURES; WITH SURGICAL REMARKS AND THERAPEUTICAL SUGGESTIONS. By T. H. BUCKLER, M.D., Baltimore.

THE mechanism of parturition and the spasmodic nature of a common form of dysmenorrhœa have long turned the attention of gynæcologists to the muscular structure of the uterus. In a recent number of the *Obstetrical Journal*, Dr. Champneys has unearthed a monograph by Reil, published seventy-three years ago, where it is shown that in pregnancy and other active conditions of the uterus there is a constant antagonism between its expansive and contractile forces. In pregnancy, the expansive force is in the ascendant, first at the fundus, then extending downwards so as to drive the contractile force back, till this latter once more gains upon the former and insures the expulsion of the fœtus. But this "uterine polarity", as Reil terms it, may be disturbed; hence certain irregularities in pregnancy, parturition, and even menstruation, such as the pain in spasmodic dysmenorrhœa, depending on some irregular contractions of part of the muscular mechanism of the uterus. Later researches on this subject are familiar to all interested in uterine disorders. With a certain amount of verbosity and want of method—from which Reil himself was not altogether free—Dr. BUCKLER describes at length his opinions on the muscular mechanism of the uterus and their relations to uterine therapeutics. These opinions are not altogether new. He lays great stress on the presence of a band of fibres, which he terms the "constrictor cervicis" muscle, and which is brought into play during coition and other processes; this "muscle" acts sympathetically with other muscular portions of the genital tract; in short, we have here another way of expressing Reil's views. This muscle is liable to contract under morbid influences, so as to impede or obstruct entirely the return of blood through large branches of veins running between its fibres. Hence occur uterine congestion, flexions, menorrhagia, dysmenorrhœa, etc., all the result of strangulation of the uterine veins. The treatment consists in removing the cause of this strangulation, that is to say, in fatiguing the muscular fibres which compress the veins, by means of bougies. This, again, is an accepted practice with many British authorities, especially Dr. Matthews Duncan, but here expressed and explained in a new manner.

Dr. Buckler's pamphlet is reprinted from the *Boston Medical and Surgical Journal*, and it well deserved reprinting, as much in it deserves perusal. We must remind him that the discovery of the Graafian vesicles took place in 1672; and therefore, when he states that this was the only great discovery in pelvic anatomy since Dr. William Hunter's time, he must have been thinking of the ovum. But this may be a slip of the pen; verbosity, too, may as little injure a doctor as a certain great statesman; and in spite of these defects, Dr. Buckler's little paper is of great interest and importance.

NOTES ON BOOKS.

DR. J. WICKHAM LEGG has recently brought out a fifth edition of his *Guide to the Examination of the Urine* (London: H. K. Lewis). It is designed chiefly for the use of clinical clerks and students, and contains plain and simple instructions for examining the urine. Useful notes on the clinical import of albumen, sugar, etc., in the urine, are given; and at the end of the work is an epitome of the quantitative analysis of urine. Not only those for whom the work is professedly intended, but the busy practitioner also, will find it valuable.

SELECTIONS FROM JOURNALS.

SURGERY.

Dislocation of the Ulna in connection with Colles's Fracture.—In a paper read before the Medical Society of the State of New York and published in the *New York Medical Record* for March 20th, Dr. E. M. Moore of Rochester describes five cases in which he has found dislocation of the ulna in connection with Colles's fracture of the radius. He first described the lesion ten years ago, having met with it in the necropsy of a woman who was killed by throwing herself, while in a state of mania, from a window. He says that he has since that time taught the following doctrine. The fall comes upon the palm of the hand; and the radius, which sustains the full force of the strain, gives way at a point near the wrist. The line of fracture is usually oblique, starting from a point on the anterior aspect of the radius, near the articulation, and running backward and upward. It is seldom more than an inch from the joint, and seldom so far. But the line of fracture is very various, sometimes simple and nearly transverse, but often comminuted. The luxation of the ulna exists in more than half of the cases. The force of the fall may be just balanced by the strength of the radius, but in the nature of such accidents this would not be often the case. In most, there would be some force still to be borne. The radius instantly on fracture ceases to afford resistance; the hand is carried still further back, and then comes the strain on the attachments at the end of the ulna. As the hand with its broken fragment of the radius is forced backward, the strain is often sufficient to rupture the connection between the two bones or to break the ulna near the head. Dr. Moore has seen this double fracture twice only. The rupture takes place at the weakest point, which is its insertion in the pit at the root of the styloid process. But this is not the only resistance. The styloid is held to the carpus by the internal lateral ligament, which takes a very firm hold upon the end and radial surface of the styloid. This also gives way, and usually does so by pulling off the surface of the bone, which proves to be weaker than the ligament. Thus the remaining styloid is brought to an edge like a gouge-chisel, and is shortened about one-half. When these resisting forces are disposed of, the end of the ulna, now laid bare, is pressed against the posterior annular ligament, and is apt to become engaged upon it either by a fold, or, what is more likely, by splitting its fibres and hooking upon it. If very great violence have been used, the head of the ulna will be driven forward through the annular ligament and skin, thus producing a compound luxation. Dr. Moore feels sure of having described a luxation that has been overlooked. Referring to the diagnosis, he calls attention to a difference of the form of the wrist in different cases of Colles's fracture. Some are curved backward; others have the hand carried more laterally. He believes that those that present the wrist well curved back are more apt to be those of luxation of the ulna with fracture; but the lateral bend implies generally shortening of the radius from fracture without luxation of the ulna. In the treatment, he employs traction and circumduction to disentangle the ulna and carry it up in its place between the tendons of the extensor carpi ulnaris and extensor minimi digiti. With the thumb under the ulna, and the hand beneath, and the fingers upon the back of the wrist holding with great firmness, he applies his dressing. This consists of a simple roller from half to three-quarters of an inch in diameter and two inches long. This is to be carefully placed under the ulna, abutting against the pisiform bone and slowly displacing the thumb. Then a strip of adhesive plaister of the same width is drawn with as much force as it will bear around the wrist, and pinned to prevent relaxation. The band of plaistered cloth is carefully adjusted so that the distal edge is brought around on a line with the end of the radius. This bandage will grasp the broken fragment, and hold it to the end of the ulna. The dressing is complete by the use of a sling which must not be more than three inches wide. This is placed over the roller, and is made of this width to cause the whole bearing to come on the roller, which is both compress and splint. The hand is brought down and allowed to hang naturally. After six hours, he cuts the bandage through by thrusting one blade of a pair of scissors under it on the back of the wrist. The few hours of such retention seem to be sufficient. He says that if great pains be taken to restore the parts, the flexed position of the hand will have a tendency to keep the restóred ulna in place, especially if suitable compresses be used. These can be well adjusted in Bond's and Levis's splints. Moreover, in those cases in which there is no luxation, the results are apt to be good in the fixed position, for the full length is obtained because the ulna is not disturbed. Where luxation occurs, the muscles have a constant tendency to displace the ulnar head, and when slipped downward the least, it is apt to remain. He therefore prefers gravity to any fixed splint. Moreover, by simple dressing, the parts are under view without its derangement.

Extraction of Metal from the Vitreous Body by the Magnet.—Dr. J. Hirschberg brought the following case before the Berlin Medical Society on the 15th of October last. A lad sixteen years of age, when working in the smithy with his father, on the 11th September, at 8 A.M., suddenly felt that his right eye had been hurt and its sight dimmed. Having travelled six and a half hours by road and rail, he was seen by Dr. Hirschberg at half-past 3 P.M. There was a wound in the sclera, two and a half *millimètres* in length and one *millimètre* and a half above the top of the cornea, presenting some clear vitreous humour between its lips. The cornea was plaited vertically. It was at once presumed that a foreign body had penetrated into the eye. The eye having been bandaged, thorough rest in a darkened room was prescribed. In the evening, the sight was said to be much improved; the wound was closed; the cornea was clear; the aqueous humour transparent; the iris free; the pupil moderately dilated, and egg-shaped, with the point upwards: the iris was evidently dragged up to the wound, or adherent to the inner aperture of it; no prolapse, and normal reflexion from the pupil. A dark thread was seen in the vitreous body, tapering straight downwards from the wound. On the patient being made to look down, a pretty large piece of iron came into view, some distance behind the lens, in the lower part of the vitreous body, black, irregular in shape, sharp-edged. The optic nerve and retina were normal. The state of things being unaltered the next morning, and not only the eye itself, but even its fellow, being thought to be in danger, the following operation was resorted to. Thorough anæsthesia having been induced, a semicircular conjunctival flap was formed inwards from the intended line of incision, and reflected back over its base towards the temple. The retractor was now inserted, and the eye, by an assistant with forceps, turned inwards as far as possible. A meridional incision four *millimètres* in length was made through the whole of the membranes by slow sawing movements with von Gräfe's cataract-knife behind the ciliary body in the direction of the equator, the edge of the knife being turned towards the latter. Vitreous humour showed in the wound, but did not escape. Gentle pressure on the inner lip of the wound having proved unavailing, an electro-magnet, resembling in shape the arm of a curved iris-forceps without teeth, was inserted in the wound, with its point turned towards the nose, and the concavity towards the sclera. As no effect was obtained, the magnet was withdrawn and the incision lengthened to seven or eight *millimètres* with scissors. The magnet was inserted as before, only a little more deeply, and so twined as to bring its point nearer to the lower vertex of the equator of the bulb. On cautiously withdrawing the magnet, it was now found to have caught hold of a black splinter of metal, which issued with it from the eye. A pad of cotton was gently pressed upon the eye, the fading anæsthesia fully re-established, the conjunctival flap re-turned over the incision and fixed by two sutures. Both eyes were properly bandaged, and the patient was lifted into his bed. The fragment of metal was three *millimètres* by two by one *millimètre* in thickness, free from rust, with sharp and irregular edges, one side somewhat convex, the other plain, and weight twenty *milligrammes*. The next day, the eye was free from irritation, T – 2, the cornea slightly plaited, the pupil contracted. On the second day, a drop of atropin solution was applied; but it was not before the evening of the third day, when the eye was able to make out the time on an ordinary watch, that the pupil became dilated. The refracting media were now found clear, and the scleral cicatrix left from the operation could be clearly distinguished. On the fourth day, the sutures were removed, and a clear bead of vitreous humour was still to be seen at the point of the sclera where the metal had entered. About a fortnight after the operation, the cicatrix was complete, the conjunctiva still a trifle swelled over the incision. The small thread in the vitreous body then still observable gave way in another fortnight, when the patient was discharged. The author goes on to indicate the exact details of the appearance of the fundus, and the visual field, which are both represented by figures, surveys the literature on the subject, in which Dr. McKeown of Belfast is assigned the place of honour, and winds up with a description of the magnet employed by himself.—*Berlin. Klin. Wochenschrift*, 1879, No. 46.

At the recent meeting of the Rural Sanitary Authority of the Darlington Union, Dr. Eastwood was again elected unanimously to the office of Chairman, this being the seventh year. At the same meeting, Mr. James Mackie of Heighington was re-elected, for the eighth year, Medical Officer of Health. On account of the smaller amount of work required, the salary was reduced faom £120 to £100 *per annum*, whilst the greatest confidence was expressed in Mr. Mackie personally.

EDUCATIONAL PRESSURE.

THE discussion on the paper by Mrs. Garrett-Anderson, M.D., will be resumed on Monday evening next, May 24th, in the Hall of the Society of Arts, John Street, Adelphi. The proceedings will commence with a short paper by Miss Frances M. Buss, of the North London Collegiate School; after which the discussion will be re-opened by Dr. Farquharson, M.P. The chair will be taken, at eight o'clock, by Mr. J. H. Gladstone, F.R.S. Copies of Mrs. Garrett-Anderson's paper and the discussion on Monday evening, May 10th, can be had on application at the office of the Association for the Promotion of Social Science.

HOSPITAL SUNDAY IN LIVERPOOL.

THE Committee of the Hospital Sunday Fund have apportioned their available sum of £9,250 among the various medical charities of Liverpool in the following amounts: Royal Infirmary, £2,775; Royal Southern Hospital, £1,480; Northern Hospital, £1,295; Dispensaries, £740; District Nursing Society, £647 10s.; Ladies' Charity and Lying-in Hospital, £555; Infirmary for Children, £462 10s.; Eye and Ear Infirmary, £555; Homœopathic Dispensary, £185; Stanley Hospital, £185; Hospital for Infectious Diseases, £138 15s.; Consumption Hospital, £92 10s.; St. Paul's Eye and Ear Hospital, £46 5s.; Cancer Hospital, £46 5s.; Dental Hospital, £23 2s. 6d.; St. George's Hospital for Skin-Diseases, £23 2s. 6d.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

WE are informed that Mr. William Adams intends to offer himself as a candidate for one of the four vacancies, which will have to be filled at the forthcoming election into the Council of the Royal College of Surgeons of England. Few British surgeons have connected their names with more numerous and ingenious additions to the science and art of surgery than Mr. Adams. His name will always be connected with subcutaneous surgery, as having, more perhaps than any other surgeon since Stromeyer, contributed to the scientific study of the physio-pathology of the subcutaneous operations on the tendons. His studies of pathological rotation of the spine, and of the processes of repair of tendons subcutaneously divided; of the pathological anatomy of vertebral deformities; and of the varieties of talipes, have a permanent place in science. Operations which he designed for the subcutaneous division of the neck of the femur in ankylosis with deformity, marked a new progress in surgery, which has since been followed by other improvements; and his last contribution to the pathological study and successful treatment of contractions of the palm and the fingers is recognised at home and abroad as a solid addition to knowledge and surgical resource in the treatment of a very intractable affection. On a former occasion, Mr. Adams received within ten votes of the number required to place him in the Council; he subsequently declined to be nominated in opposition to the senior claims of his colleague Mr. John Gay. These circumstances, combined with his senior standing and the merit which his contributions to knowledge and operative methods have reflected on British surgery at home and abroad, may be held to give to Mr. Adams a very strong claim to the suffrages of the Fellows on this occasion.

INFANT MORTALITY AT GREAT YARMOUTH.

THE infantile mortality of Great Yarmouth is always an unsatisfactory feature in the local returns, and, though somewhat less in 1879 than in 1878, nevertheless still continues high. The percentage of deaths of infants under one year of age to the registered births was, in 1879, 13.5, against 19.6 in 1878. To this excessive infantile mortality, Mr. Bately, the health-officer of the district, has devoted much care and attention. He finds that a number of conditions conspire to produce it, but that the principal cause lies in improper feeding and careless nursing. Infants of the tenderest age are often deprived of their natural food, and the most innutritious indigestible messes are resorted to, milk forming no part of the diet. Common foods are, sour milk out of dirty bottles; bread and water; arrowroot, sometimes with milk, but often with water only; corn-flour, starch, and other similar substances containing no real nourishment whatever. The result of the use of these artificial foods is what might have been expected. Flatulence, pain, diarrhœa, and other disorders arise, and the child becomes weary and fretful. Recourse is then had to Godfrey's cordial and other opiate soothing syrups, which, as Mr. Bately observes, "certainly have the effect of allaying pain and forcing sleep, but only to aggravate the evil and hasten the death of the child". The mothers of Yarmouth have yet to learn how to feed their children, many of them being so ignorant that they have no idea of what is proper, and believe that anything eaten or drunk by an adult may be given to an infant. Mr. Bately says there can be no doubt that the majority of infants dying under one year old are sacrificed to the ignorance of their parents. All this is very sad; and it would be a great work of charity if the ladies of the town would band themselves together, as has been done with much advantage at other places, to visit the poor and give them instruction as to the best methods of feeding and nursing children. The liberal distribution of the National Health Society's "Plain Rules for the Management of Infants" would also be an important aid in this direction. Amongst other causes of the disastrous mortality amongst infants, Mr. Bately refers to the practice of infant life-assurance, which, he thinks ought to be put a stop to by the Government. He says that he has often been surprised at the exceeding soothing influence the "insurance money" has had upon the "distracted feelings" of the "bereaved parents". Another cause is the prevalence of enthetic diseases at Yarmouth, and the consequent large mortality from tabes, marasmus, atrophy, debility, etc., which largely owe their origin to constitutional taint. Mr. Bately says that he firmly believes that the operation of the Contagious Diseases Acts, if applied to the town, would do a great deal, in the course of a few years, towards abating the prevalent scourge. Yarmouth is a sea and fishing port of considerable importance, as well as a military depôt, and thus would no doubt benefit considerably by the operation of these Acts.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE proposal which we sometime since brought forward, and which was made at the College of Physicians on the 13th instant, to admit retired medical officers to the privileges of the library and reading-room, deserves favourable notice, and encourages us to hope that it is an indication of a desire on the part of the College to do something more in various directions towards the practical benefit of the profession. We regard the three courses of lectures given annually as hardly sufficient proof of activity in the promotion of scientific knowledge on the part of so important a body of the profession. They are the legacies of a bygone time, and require to be supplemented by other means. With regard to the library and reading-room, we may express the hope that, at the same time with the extension of the privilege of their use to retired medical officers, some steps may be taken to make them more worthy of the College than at present, and that the reading-room may be furnished with some additions to the morning papers and the medical journals, now forming almost the only attraction to visitors. It was only a few years ago that the Harveian Oration was delivered in Latin; and now that the language in which it is given is familiar and intelligible to everyone, the occasion is regarded with pleasure and interest by a large number of persons both in and out of the profession. We should like to see some further evidence of the public spirit which distinguished the founders of the College.

SEA-WATER BATHS FOR LONDON.

THE problem of supplying sea-water to the inhabitants of the metropolis appears likely to be practically solved. It is announced, without incurring the outlay proposed by the promoters of a company who unsuccessfully sought powers, during the recent session of Parliament, to lay pipes from Brighton to London, and without any disturbance of the streets and consequent interruption of traffic, the Great Eastern Railway Company undertake to supply sea-water to any part of London within their ordinary delivery at the rate of sixpence for three gallons. The water is brought from Lowestoft, and delivered at any address in air-tight cans for the price named; and an additional convenience to the purchaser is that the cans will, if required, be left until the following day, when the company's vans will call for them, without any extra charge. If the scheme be found to be remunerative, it will probably be adopted also by other railway companies who have sea-side stations; and probably inland provincial towns will ultimately be included in the service. It will, at all events, show whether a demand for sea-water really exists.

THE PHARMACEUTICAL SOCIETY.

THE ninth annual dinner of the Pharmaceutical Society of Great Britain was held this week in Willis's Rooms; the President (Mr. G. W. Sandford) taking the chair. About one hundred and twenty members of the society and their friends sat down to table, among those present being Dr. B. W. Richardson, Professor Roscoe, Mr. Schacht (Vice-President), Professor Redwood, Professor Frankland, Mr. Gant (President of the Medical Society), Professor Bentley, Professor Attfield, Dr. Greenhow, Dr. Buchanan, Mr. Ernest Hart, Mr. T. H. Hills, Dr. Paul, Dr. Silver, Dr. Meredyth, Mr. Wyndham Cottle, Mr. Carteighe, Mr. Casson, Mr. F. Mason, and Dr. Godson. The toast of "The Medical Profession", proposed by the Chairman, was responded to by Mr. Gant, President of the Medical Society of London. Dr. B. W. Richardson, in proposing "The Prosperity of the Pharmaceutical Society and the Health of the President", dwelt on the importance of the services that members of this society had rendered to those physicians who were trying to place therapeutics on a true scientific basis. Next, touching on the changes which were being made in the practice of medicine, he said that pharmacy now formed the fourth estate of modern medical science; and expressed a hope that the day was not far off when, by a friendly amalgamation of the Pharmaceutical Society with the last of the great and useful organisations of medicine which most closely coordinated with it, the pharmaceutist might enter the pale of medicine altogether, become professional in the strictest sense of the word, and feel that each member had an opportunity of rising to the highest positions in a united and common profession. The annual *soirée* of the Society was held at the South Kensington Museum on Wednesday evening last, and was attended by a large number of visitors. Many members of the medical profession availed themselves of the hospitality of the Pharmaceutical Society as an opportunity of visiting the museum in the evening. The new fresco painting by Leighton attracted much attention, as a specimen of art worthy of revival. The whole of the building was open to the visitors. One of the large halls was beautifully illuminated by electric lamps. The band of the Grenadier Guards, under the direction of Mr. Dan Godfrey, performed selections of instrumental music, and glees and madrigals were sung during the evening in the lecture-theatre. Over two thousand visitors were present.

VIOLENT DEATHS.

THE deaths referred last quarter in England and Wales to different forms of violence were 4,104, and were 223 less than the number returned in the preceding quarter; they were equal to an annual rate of 0.65 per 1,000, and to 2.8 per cent. of the total deaths, almost corresponding with the average proportion in the ten preceding corresponding quarters. In the mainly agricultural counties of the Eastern division, the death-rate from violence did not exceed 0.41 per 1,000; whereas it was equal to 0.78 in the Metropolitan and North-western, and 0.88 in the Welsh divisions. In the twenty large towns, the deaths from violence were equal to an average annual rate of 0.79 per 1,000; the rates in the several towns ranged from 0.37 and 0.43 in Plymouth and Leicester to 0.98 in Norwich, 1.13 in Birmingham, and 1.25 in Liverpool.

DEATHS IN PUBLIC INSTITUTIONS.

IN workhouse establishments, hospitals, and public lunatic asylums in England and Wales, 14,479, or 9.9 per cent., of the deaths were registered last quarter; in the corresponding periods of the ten years 1870-79, the proportion of institution deaths was 9.5 per cent. In the twenty large towns, 7,214, or 15.1 per cent., of the deaths occurred in public institutions; the proportions in the several towns ranged from 4.1 and 6.5 in Plymouth and Nottingham, to 17.5 and 18.5 in London and Manchester. Excluding the twenty large towns, the proportion of institution deaths in the rest of England and Wales did not exceed 7.4 per cent.

INQUESTS.

DURING the three months ending March last, 6,934 inquest cases were registered in England and Wales, equal to 4.8 per cent. of the total deaths. The percentage of inquest cases was rather below the average proportion in the first quarter of the ten preceding years. In the twenty large towns, the proportion of inquest cases averaged 5.9 per cent., and ranged from 2.8 and 3.2 in Oldham and Sheffield, to 9.1 and 9.2 in Manchester and Birmingham.

GUY'S HOSPITAL.

WE are happy to be able to state that the wards which it was proposed to close at Guy's, for want of funds, will be kept open. This much to be desired consummation is due to the prompt and effectual steps initiated by the medical and surgical staff of the hospital, who, sooner than see the school or hospital so damaged, determined to provide the necessary funds themselves. As a result of the movement so initiated, the treasurer has issued a circular to the staff and governors, in which it is stated that a sum of £2,500, provided by the liberality of the staff and some of the governors, will eke out the splendid income of the hospital for a year. It is, however, more than probable that another similar sum will be required next year, and again the year after that. How is it that this ancient institution, with an income, we believe, of £40,000 a-year, has come to such a pass? It was only a few years ago that sufficient money was saved by the late treasurer, Mr. Turner, to build, open, and maintain in operation, new wards. On the treasurer's circular, it is declared that the agricultural depression is the cause of this unsatisfactory state of things.

RECENT CENTENARIANS.

IN the Registrar-General's last quarterly return, the deaths of two alleged centenarians are recorded—one at Tunbridge Wells and one at Hertford—the latter death being that of a female, whose age was said to be 103 years. Since the end of the quarter, a case of undoubted centenarianism has been recorded by Dr. G. M. Bacon of the Cambridge County Asylum, who has taken pains to investigate the matter fully. Dr. Bacon states that, on the 10th ultimo, a man named James Disborough completed his hundredth year. He is in fair health still, and of good memory and understanding, and states that he was born in 1780, and baptised when about a year old. Dr. Bacon has obtained from the Rector of Ashen, Essex, a copy of the entry in the parish register of the baptism on May 20th, 1781. The other evidence is the tradition of the family as to the year of his birth, and his frequent statement that he was twenty in the year 1800, and twenty-nine when he married in 1809. He had seven children, thirty-two grandchildren, and fifty-nine great-grandchildren, and his eldest child is now nearly seventy. Dr. Bacon states that: "On his hundredth anniversary, the four generations assembled in the old man's home, at Bradley, near Newmarket, to celebrate the event; and among several persons who called with a word of kindly congratulation on the occasion was the doctor, whose visit was at first resented by the old man, who considered himself far too well and hearty to require any medical attention."

FOWL-CHOLERA.

AT a recent meeting of the Paris Académie de Médecine, M. Pasteur made a fresh communication on this subject, in which he showed that vaccination by mild virus prevents the propagation of the disease. He took eighty young fowls which had not had fowl-cholera, and inoculated twenty of them with highly virulent virus; these twenty died. Of the sixty which remained, he took twenty, and inoculated them with greatly diluted virus; not one of them died. If these inoculated fowls be again inoculated with the strongest virus, they do not all die; six or eight of them will survive. He then took twenty untouched fowls, and exposed them to two vaccinations; twelve to fifteen of them resisted the most virulent form of virus. Finally, he inoculated these last twenty fowls three or four times, and found them entirely uninfluenced by the most powerful virus.

LOCAL GOVERNMENT IN JAPAN.

THE Japanese are a little ahead of our Local Government Board. Dr. P. Fitzsimmons, writing recently from Yokohama, says that the Japanese Government, which is vigorous in enforcing vaccination, has a farm at Tokio where bovine virus can be obtained. This is precisely the measure which the recent deputation of the Parliamentary Committee of the British Medical Association urged upon Mr. Sclater-Booth, and which has not yet emerged from the shadow of the "best consideration" of the Board.

MOURNERS' CLOAKS.

WE are glad to hear that, for sanitary reasons adduced in the Report of the United Synagogue of British Jews, the Council have resolved that the use of mourners' cloaks at funerals be discontinued. It is to be hoped that the palls will shortly also be abolished. We earnestly recommend the general community to follow an example dictated by sound common sense and justified by the teachings of sanitary science.

"Public attention has lately been called to some of the probable means by which contagion is diffused. The Committee are of opinion that the palls and mourners' cloaks afford such a means for spreading infection. These appurtenances are of course used indiscriminately in cases of death from infectious and non-infectious disease, and almost necessarily carry with them from house to house the insidious germs of the most fatal maladies. The mischief which may be propagated by contact with these paraphernalia is incalculable. The Committee recommend the Council to resolve that they be discontinued at or in connection with the funerals of the United Synagogue. The simplicity with which funerals should be conducted has been generally recognised both within and without the community. The solemnity of a funeral can receive no augmentation from the use of a pall, nor can the feelings of the mourners be affected in any degree by the employment of a black cloak. The first was introduced to hide from public view the white deal of which coffins for Jewish use are, in the majority of instances, made; and the latter originated in the desire to cover the garments of poorer mourners, who might feel ashamed to attend the funerals of their relatives, or the synagogue on the Sabbath during the week of mourning, in their usual attire. The Committee believe that, with the spread of intelligence, these reasons have ceased to be operative. Educated public opinion sees nothing disrespectful, but, on the contrary, something commendable, in the absence of decorative appliances which distinguishes a Jewish funeral; and the sympathy and condolence extended to all who mourn must render the use of a black cloak to conceal the mourner's attire superfluous. There may be some in the congregation who will object to relinquishing a custom which time has consecrated to them; but the Committee trust that the Council will take this opportunity of teaching and leading the minds of the congregants in such grave circumstances and considerations as are involved in the possible introduction and spread of contagious diseases in their households."

THE GENERAL LYING-IN HOSPITAL.

THE resident house-physician, the two physicians in charge of in-patients, and the physician in charge of the out-patients at the General Lying-in Hospital, York Road, Lambeth, have, it is announced, all resigned, in rapid succession, in consequence of "faulty administration of the hospital and the unsatisfactory organisation of the nursing". Fundamentally, the cause of these resignations is stated to be similar to that at the Pendlebury and Guy's Hospitals—viz., the difficulty which the physicians have found in carrying out their responsible duties, in consequence of undue interference with them in the performance of these. They had desired to carry out a rigidly antiseptic system, and the authority essential to the safety of the patients under such a system has, it is alleged, been denied to them. The dangers of a lying-in hospital being always imminent and considerable, it is, of course, peculiarly necessary that, in all that relates to the care of their patients and the mode of nursing them, the word of the physician-accoucheur must be law. An inquiry is to be held into all the circumstances; meantime, Drs. Hayes, Fancourt Barnes, and Moullin appear thus far to have discharged a public duty, at the cost of no small personal annoyance and self-sacrifice. An effort was made to induce Dr. Cory, by a money offer, to accept temporarily the position which his three distinguished professional brethren had, from a sense of duty, declined to continue to hold. With a just sense of what was due to the public and the profession in such a case, and with proper delicacy, Dr. Cory informed himself in the first instance, by communication with the gentlemen who had retired, of the causes of their resignation, and honourably declined to accept the post and the fee offered for payment.

REVACCINATION IN FRANCE.

THE *projet de loi* which Dr. Liouville has introduced into the French Chamber of Deputies, providing for compulsory vaccination (see page 563), appears to be meeting with medical criticism in France. It seems to be regarded as unnecessarily stringent, and certainly in one respect it appears to us to be open to this objection. By Article 3 of the Bill, it is proposed to make revaccination obligatory every ten years, in the course of the tenth, twentieth, thirtieth, fortieth, and fiftieth years. It is difficult to understand on what grounds this repeated performance of the operation is regarded as necessary. Certainly the documents with which Dr. Liouville was supplied at his request by Mr. Ernest Hart, when he was contemplating the introduction of a vaccination Bill into the Chamber, contained nothing that could lead him to the belief that such repetition was necessary or desirable. Of the prophylactic importance of revaccination it is unnecessary to speak; and its compulsory performance has our warmest advocacy. But, if it be properly and successfully done, it is not necessary to perform it more than once in a lifetime, and that when the age of puberty is approached. To attempt to make its performance compulsory every ten years, is to obtain in advance for the Bill a large amount of opposition which it is at once unnecessary and inexpedient to excite. We have the high authority of the late Dr. Seaton, for the dictum that revaccination, once properly and successfully performed, does not appear ever to require repetition. The well-known immunity from small-pox of the once-vaccinated nurses at the Highgate Small-pox Hospital need not here be quoted, as it is too well known to need reproduction. But even were there the least reason for impugning the accuracy of Mr. Marson's statement on this subject, as has of late been unjustifiably attempted to be done, there is enough evidence elsewhere to prove the virtually complete protection which one revaccination gives. Thus, in a report on the late epidemic of small-pox in London, recently presented to the Local Government Board by Dr. J. H. Bridges, we find the following instructive cases. Dr. McCombie, writing from the Deptford Hospital, says: "Since the hospital was reopened in April 1878, no officer or servant has contracted small-pox in the discharge of his duties here. One servant showed symptoms of small-pox a few days after entering the service; but as she was evidently incubating small-pox at the date of entering on duty here, I do not consider that she contracted small-pox in the discharge of her duty in this hospital. I am informed that, during the time the hospital was open in 1877, none of the staff contracted small-pox." Mr. Gayton writes from Homerton, after an experience of seven years, in which more than six thousand patients have been treated for small-pox, that "One only amongst the large number of nurses and others who have been occupied here has contracted the disease. In her case, the operation of revaccination was accidentally neglected." Mr. Bingham writes from Hampstead, after an experience of more than three thousand cases: "One man, a ground labourer, caught small-pox in the early part of the epidemic. By some means, he escaped being revaccinated, and, during a pressure of work, was sent into the laundry to assist in removing soiled clothes. He then contracted small-pox in a modified form, and recovered." The experience of our army and navy, from which small-pox has been virtually stamped out by universal revaccination, might also be quoted; but in this respect Dr. Liouville has an example nearer home. At a time when small-pox was causing three hundred deaths a month in Paris, a recent number of the *Progrès Médical* contained the announcement that, in the military hospitals of that city, there were fewer than twenty cases of small-pox, the majority of them being of a very slight nature, and none of them being fatal. Our contemporary rightly ascribed this favourable result to the measures taken for the revaccination of the troops. By a decree of the War Minister dated March 8th, 1875, revaccination of every soldier was ordered immediately on his enlistment. Seeing the very favourable results that have followed the enforcement of this rule, both in the French and in the English army, Dr. Liouville might well be content in asking for the compulsory performance of *one* revaccination at the age of puberty. If his principle is to be admitted, there would seem no reason for stopping at fifty years; for M. Toledano recently communicated to the French Société d'Hygiène the results obtained by him from nearly five hundred revaccinations performed at the Hôtel des Invalides, in which he had achieved 68 per cent. of successes in men from 60 to 70 years old, 84 per cent. of successes in those from 70 to 90 years, and had succeeded perfectly in revaccinating a hoary veteran 91 years old!

THE MURDERER VELI MEHMED.

OUR own correspondent writes to us, under date, Constantinople, May 7th, 1880:

In continuation of what I wrote to you lately (April 15th) about Veli Mehmed, I now beg to inform you that, last Saturday (May 1st), the medical areopagus sitting on this trial received the French translation of the "dossier judiciare", or minutes of the evidence taken down at different times relating to the case. My previous letter to you gave, in a few words, the substance of this evidence; but I must here add that that evidence was marked throughout by endeavours to impress the reader with the idea that Veli Mehmed was positively suffering from mental alienation; and, in order to help the imagination to arrive at this conclusion, it went so far as to substitute the word *Deli* (mad) for his first name *Veli* (holy, beloved of God). Veli Mehmed himself has said more than once that he was out of his mind when he fired at the Russian colonel. A circumstance, however, which I omitted to state in my previous letter to you is that Veli Mehmed, in his examinations, always pleaded ignorance of the Turkish language; but, in order to test the truth of this plea, his interpreter would purposely make occasionally erroneous interpretations into Turkish of what had been said by him in the Bosnian language, and in every instance Veli Mehmed corrected these mistakes; thus showing not only his knowledge of Turkish, but also the correct perceptions of his mental faculties. The day before yesterday, the Committee, composed of the five doctors, viz., Servicien, Emin Pasha, Mongeri, Omer Bey, and Mordtmann, appointed to report on the mental condition of Veli Mehmed, presented their report to the huge areopagus of doctors called together to help the court-martial. The report was drawn up by Dr. Mongeri (Superintendent of the Lunatic Asylum of Top-tash, at Scutari), and showed in clear and forcible terms the sanity of Veli Mehmed's mind; but it ended with a most extraordinary appeal, recommending his sentence to the merciful consideration of the Emperor of Russia! Thirty-one doctors were present at this sitting; twenty-two of them (twelve Christians, eight Mussulmans, and two Jews) declared that Veli Mehmed is, and has always been, in the full enjoyment of his mental faculties; five doctors (four Mussulmans, and one Christian) declared him to be insane; two doctors (a Mussulman and a Christian) asked for more time, so as to complete their inquiries and give their opinion; and two doctors (a Mussulman and a Jew) declined to assume any responsibility, or to give any opinion on the case. On such materials, therefore, will the court-martial have to deliver its judgment. In the meanwhile, I hear that M. Onou, the Russian *chargé d'affaires*, has addressed a note to the Porte requesting to be informed by what principles Ottoman subjects are governed in their relations with foreigners; for in the murder committed by Hassan, the Circassian, upon Hussein Avni and Rashid Pashas, he was tried and executed within twenty-four hours after committing the crime; and in the case of the recent murder of the Grand Sheriff of Mecca, his assassin was executed forty-eight hours after the deed; while in the case of this murder of Colonel Kummerau by Veli Mehmed, which occurred on February 29th, the question is still in suspense.

FRAUDULENT DIPLOMAS.

AMONGST the latest reports of the issue of fraudulent diplomas by so-called institutions of learning in America is one from Mr. White, United States Minister at Berlin, relating that there had been brought to his office a diploma, handsomely engrossed on parchment, issued by "the American University of Philadelphia", and conferring the degree of Doctor of Medicine upon one Christopher Schuetz, living at Leipzic. It appeared that the diploma was offered to Schuetz on condition of payment of a certain sum. It is signed by the "faculty" of the institution, headed by the name of John Buchanan, M.D. Schuetz desired of Mr. White a certificate of genuineness of the diploma, which was refused. The diploma, though evidently new, was dated 1872. Soon after this case, the judicial authorities at Prenzlau forwarded a copy of a diploma issued by the same institution, over the signature of Dr. Buchanan and others, to Paul Christoph Erdmann Volland. The authorities desired information as to the genuineness of the diploma and the standing of the institution, before admitting Volland to practice. Mr. White observes, with great truth, that America has gained an unenviable reputation in Europe for the sale of unmerited diplomas by irregular institutions. The matter is rendered more serious by the fact that the last mentioned diploma was duly certified by Philip A. Cregar, notary public, and by William B. Mann, prothonotary, stating that the "Eclectic Medical College and American University of Philadelphia" is a regularly incorporated institution of good standing.

SUICIDE BY DECAPITATION.

THE *Boston Medical and Surgical Journal* for April 29th gives an account of a curious case of suicide by decapitation, which bears a strong general resemblance to a case reported in the *American Practitioner* for August 1876, an abstract of which was given in the BRITISH MEDICAL JOURNAL for September 23rd of that year. In the present case, a young man, who, with his father, worked a small farm, slept with his father in an old barn on the place one Saturday night; and on Sunday morning, the father started to go to their home, which was at a distance, remarking to his son, who had not risen from the hay where he was lying, that he should come back on Monday morning, and that in the meantime he too had better go home to the house. On Monday, when the father returned, about midday, he found his son lying dead on the floor of the barn, with his head completely severed from his body, or attached only by a portion of the skin at the front of the neck. The decapitation had been performed by a rough sort of guillotine, which the self-ordained victim must have spent the whole Sunday in constructing. There was reason for thinking that the deed was consummated between seven and eight o'clock on Monday morning. The young man must have been unconscious, if not dead, from the effects of ether at the moment when the blade descended. The *Boston Herald* gives the following description of the guillotine as constructed.

"This machine was improvised from material found in the barn, and its plan of operation was as follows. Two uprights, three by four joist, twelve feet in length, extended from the floor of the lower storey to the ceiling, to which they were securely spiked. The lower ends of the uprights were mortised in a solid piece of hard wood, about eight by twelve inches in size, and some three and a half feet in length. In the centre of this bed-piece was chiselled out, apparently with a very dull implement, a groove sufficiently deep and wide to admit the entrance of a man's neck. Fitting between the uprights, in an easy sliding position, was a square piece of two-inch plank, to the lower edge of which was securely fastened the blade of a carpenter's ordinary broad axe, sharpened to a keen edge. The bottom of this slider rested upon a lever fifteen inches in length, working upon a pin secured in the left upright, and from the end of which, suspended by a cord three feet in length, was a watering-pot, which had been filled with water. On the top of the slider was a box containing fifty pounds of stone. The bottom of the watering-pot, which was an ordinary twelve or fourteen quart vessel, such as is commonly used on a farm, had been perforated with holes, so that the water might leak out and release the lever, thereby allowing the sliding block with the axe attached to fall. The axe, after being released, had a fall of six and a half feet. In order to render the uprights more firm and prevent any lateral motion, a piece of scantling was mortised in between them at about eighteen inches from the top. At the base of the uprights were two holes, through which was thrust a broom-handle, which effectually imprisoned the neck of the victim and prevented any attempt to remove it. In front of the machine, on the floor, was a small piece of timber, about two feet long, six or seven inches wide, and four inches thick. In the end, next to the bed-piece of the guillotine, was gouged a cavity large enough to hold about two quarts, and in it was found about a pint of ether. This ether came directly under the nose of the victim, which rested upon the floating lid of a cigar-box. On each side of this, with the ends firmly braced against the bed-piece in order to steady it, was a large box filled with stones and dirt."

DEATH OF PROFESSOR MULDER.

THE death of the eminent chemist, Gerard Johannes Mulder, is announced as having taken place at Utrecht on April 18th. Mulder was born at Utrecht on December 27th, 1802, and was therefore in the seventy-eighth year of his age. He graduated as Doctor in Medicine and Doctor in Pharmacy at the University of his native city in 1825, and commenced practice at Amsterdam; but, in the next year, he removed to Rotterdam, where he was appointed lecturer on botany and chemistry in the newly established medical school. In 1841, he was elected professor of chemistry in the University of Utrecht. He was the author of several works on physiological chemistry, the chemistry of urine, food, etc.; but is perhaps best known to the English reader by his researches on the protein compounds.

MEDICAL SCIENCE IN CHINA.

THE eleventh annual report of the directors of the hospital for Chinese attached to the American episcopal mission at Shanghai shows, we read, that medical science is making rapid advances among the natives of China. In the outset, the institution was regarded with mistrust and suspicion. On the first day, it was totally unattended; on the second, an old woman plucked up courage, and was prescribed for; and by the end of a week patients began to flock in. Dr. Parker, the physician in charge, now states that on most mornings there is a long line of sedans extending far in every direction. During the year 1878, 20,260 persons, including 103 foreigners, were treated in the refuge, thus demonstrating, in the language of the report, "how widely spread is the impression of the beneficial effects of the hospital". The authorities of the hospital distribute a vast amount of practical charity with very moderate means. The management now announces that it needs more ample buildings to continue its work efficiently, in view of the increasing demands which are made upon its resources. Local subscriptions are already promised in support of the undertaking.

THE ACTION OF HYDRATE OF CHLORAL.

DR. H. H. KANE of New York has issued the following questions regarding the action of hydrate of chloral, and invites members of the profession who have had experience in the use of the drug to answer them, and also to give him any information they may possess with reference to the literature of the subject.

1. What is your usual commencing dose? 2. What is the largest amount you have administered at one dose, and the largest amount in twenty-four hours? 3. In what diseases have you used it (by the mouth, rectum, or hypodermically), and with what results? 4. Have you known it to affect the sight? 5. Have you ever seen cutaneous eruptions produced by it? 6. Have you known it to affect the sexual organs? If so, how? 7. Do you know of any instances where death resulted from or was attributed to its use? If so, please give full particulars as to disease for which given; condition of pulse, pupils, respiration, and temperature; manner of death; condition of heart, lungs, and kidneys; general condition, age, temperament, employment, etc. If a necropsy were held, please state the condition there found. 8. Have you seen any peculiar manifestations from chloral, as tetanus, convulsions, or delirium? 9. Do you know of any cases of the chloral habit? If so, please state the amount used, the disease for which the drug was originally administered, the person's temperament, and the present condition of the patient, with reference to the state of body and mind in general, and of the various organs and systems in particular.

Medical practitioners are earnestly requested to answer the above questions fully, especially 7 and 9, in order that the resulting statistics may be as valuable as possible. All communications will be considered strictly confidential, the writer's name not being used when a request to that effect is made. Letters should be addressed to Dr. H. H. Kane, 191, West Tenth Street, New York City.

SCOTLAND.

SIR ROBERT CHRISTISON has, at the request of the Edinburgh University Conservative Association, consented to be nominated for the Lord Rectorship of the Edinburgh University, vacant in November next.

UNIVERSITY OF ABERDEEN.

THE Aberdeen University Court met last week; the Earl of Rosebery, Lord Rector, presided. Professor Charles Niven of Cork was elected Professor of Natural Philosophy. Mr. Fife Jamieson, M.B., was appointed Assistant to Professor Struthers till the end of the year, in place of Dr. Needham, resigned.

ROYAL INFIRMARY, EDINBURGH.

FOR the appointment of third assistant-physician (recently established by the managers of the Royal Infirmary, Edinburgh), there are at present five candidates. These are: Dr. Alexander James, Lecturer on Physiology in Surgeons' Hall, and Clinical Medicine Tutor in the extramural School; Dr. Byrom Bramwell, lately of Newcastle-upon-Tyne, and of the Medical School of Durham University, now Lecturer on Practical Medicine, Edinburgh; Dr. Allan Jamieson, Lecturer on Skin-Diseases, Edinburgh; Dr. F. W. Moinet, Lecturer on Materia Medica, Edinburgh; and Dr. Andrew Smart, lately Lecturer on Institutes of Medicine, College of Surgeons, Edinburgh. Opinion is divided as to the claims of the various candidates. The appointment is in the hands of the managers of the Royal Infirmary, and it is intended to proceed to fill it up at the meeting to be held on Monday, May 31st.

THE DRAINAGE OF PAISLEY.

IT is satisfactory to note that a motion, in favour of draining the new town of Paisley, was carried by a majority at the last meeting of the Police Commissioners. The town has enjoyed such an unenviable notoriety of late for a high death-rate that it was time some steps should be taken to meet the evil; and, indeed, it was suggested at the meeting in question that the whole town ought to be drained; and that, if the work were not speedily undertaken, the Board of Supervision would step in and order it to be done.

PROPOSED AURAL HOSPITAL FOR GLASGOW.

AT an influentially attended meeting of gentlemen interested in the formation of a Glasgow Hospital and Dispensary for Diseases of the Ear, held on the 13th instant, under the presidency of Dr. Andrew Buchanan, President of the Faculty of Physicians and Surgeons, it was agreed to take steps for the foundation of such a hospital. A constitution was adopted, and office-bearers were appointed.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS FOR APRIL.

ACCORDING to the report of the Registrar-General for April, there were registered, in the eight principal Scotch towns, the deaths of 2,616 persons, of whom 1,338 were males and 1,278 females. This is 149 below the average of the same month during the preceding ten years. The annual mortality of these towns would be, per 1,000 of the population: Greenock, 18; Aberdeen, 20; Glasgow and Edinburgh, 24; Dundee, 27; Leith, 30; Paisley and Perth, 32. Forty-eight per cent. of all the deaths (amounting to 1,253) were of children under five years of age—the lowest death-rate being in Paisley, 35, and the highest being in Edinburgh, 54 per cent. Zymotic diseases caused fully 20 per cent. of the total mortality, measles and whooping-cough having been very fatal in some towns. Whooping-cough caused 6.8 per cent. and measles 6.1 per cent. of all the deaths. Of 42 deaths due to fever, 12 were registered as typhus, 24 as enteric, and 6 as simple continued fever. Diseases of the heart caused 140 deaths, apoplexy 58, paralysis 56, hydrocephalus 69, and premature birth debility 76 deaths. Phthisis pulmonalis caused 318 deaths, equal to 12.2 per cent. of the total; and other inflammatory affections of the respiratory organs caused 606, or 23.2 per cent. of the total deaths. Two males and two females were over ninety years of age—two of them being, each, ninety-six years of age. During the month, there were 3,870 births registered, of whom 1,953 were males and 1,917 females. The mean barometric pressure was less by 0.059 inch; the mean temperature greater by 0.5°; the mean humidity less by 1; the rain-depth greater by 1.04 inch; and the wind-pressure less by 0.18 lb., than the average of the same month during the preceding twenty-three years. The highest mean temperature was at Glasgow, the lowest at Perth and Aberdeen. The mean temperature for April 1880 was 4.3° above that of April 1879.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General, for the week ending Saturday, May 8th, it appears that the death-rate in the eight principal towns during the week was 25.4 per 1,000 of estimated population. This rate is 2.9 above that for the corresponding week of last year, and 2.0 above that for the previous week of the present year. The lowest mortality was recorded in Greenock, viz., 16.4 per 1,000; and the highest in Perth, viz., 40.9 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 5.8 per 1,000, being 0.8 above that for last week. Whooping-cough continues to be the most prevalent of these diseases. An increase of deaths from fever occurred in Glasgow, owing to the present epidemic of typhoid; and in Perth diarrhœa was again rather prevalent. Acute diseases of the chest caused 131 deaths, being 13 more than the number recorded for the previous week. The mean temperature was 47.0°, being 1.2° above that of the week immediately preceding.

THE OUTBREAK OF TYPHOID FEVER IN GLASGOW.

THE officials of the Sanitary Department and School Board of Glasgow are co-operating to stamp out the typhoid fever which is now epidemic, in the northern district especially, of the town. Between eight hundred and nine hundred boys and girls have been prevented attending the schools, in consequence of the fever being found to be prevalent in their homes. As yet, the authorities have made no statement as to the supposed cause of the outbreak.

THE LORD RECTORSHIP OF THE UNIVERSITY OF GLASGOW.

MR. TENNYSON has recently written, declining to allow himself to be nominated for this office, although at first he consented to be brought forward. His grounds for now withdrawing are that he fears, by standing as the nominee of the Conservative Club, he may appear to be a party candidate; and he adds that he would only accept nomination, on a future occasion, if it can be carried out by a body of students bearing no political party name.

IRELAND.

VICE-REGAL MEDICAL APPOINTMENTS.

HIS Excellency the new Lord-Lieutenant of Ireland, Earl Cowper, has appointed Dr. George W. Hatchill, Dr. Thomas Nedley, and Dr. Christopher J. F. Nixon to be his Physicians in Ordinary; and Dr. Edward D. Mapother (President of the Royal College of Surgeons in Ireland), and Dr. Robert McDonnell, F.R.S. (Vice-President of the Royal College of Surgeons, and President of the Dublin Branch of the British Medical Association), as his Surgeons in Ordinary. Mr. Daniel Corbett has been appointed Dentist in Ordinary.

TRINITY COLLEGE, DUBLIN.

THE following resolutions have been adopted by the University Council:

1. That the medical scholarships be separated into two—one being for anatomy and physiology, the other for physics, chemistry, botany, and materia medica. 2. That no student be allowed to compete for the medical scholarship in anatomy and physiology after the completion of his third year, nor for the medical scholarships in physics, chemistry, botany, and materia medica after the completion of his second year. 3. That no student shall hold both scholarships together. 4. That sixty per cent. of the marks for the scholarships in physics, chemistry, botany, and materia medica be allotted to physics and chemistry, and forty per cent. to botany and materia medica. 5. That the course in ophthalmic surgery shall consist of three months' clinical instruction in ophthalmic surgery, and a systematic course of lectures delivered twice a week. [It is added, as a proviso, that there shall not be less than ten full ophthalmic beds in use during the three months' course.]

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

THE Fellows of this College have lately made several important regulations with a view to secure the *bonâ fide* practical instruction of candidates for their licences. At present, the College requires a nine months' attendance on a clinical hospital which contains wards for the treatment of infectious fevers, said nine months being included in the total period of twenty-seven months' hospital attendance required from candidates for the Licentiateship in Medicine. With the object, however, of obtaining a more accurate knowledge of fever on the part of students, the following resolution has just been adopted, viz.: "On and after January 1st, 1881, every candidate for the Licence in Medicine of this College shall be required to produce evidence that he has, for not less than three months, studied fever in a recognised clinical hospital, containing fever wards, and recorded, from daily personal observation, at least five cases of fever, to the satisfaction of the attending clinical physician, as attested by his signature." We are glad to hear, also, that the large field of instruction at Cork Street Fever Hospital, hitherto lying dormant, is now about to be utilised; as certificates of attendance on that institution will in future be recognised under the new regulation.

SOCIETY FOR PROVIDING NURSES FOR THE SICK POOR, BELFAST.

THE annual meeting of this estimable Society was held on last Monday, the 17th instant, presided over by the Mayor of Belfast. The chairman, in some introductory remarks, stated that he thought the public would appreciate more the merits of the Society if they knew exactly what its objects were. According to Rule 2, one of the objects was to visit the industrious poor in their own houses, and supply such ministrations as their cases might require. When sickness entered a house, it was necessary to attend to the bodily wants of the sufferer; and the nurses of the Society, who were trained and educated, were not only prepared to give physic for the body, but to instruct the poor in cooking, cleanliness, and frugality. Another rule was to carry out the medical attendant's directions in cases which were not suitable for, and could not be reached by, hospitals. The fourth rule was that the action of the Society should be thoroughly unsectarian, the sick poor to be provided for irrespective of creed; so that the Society has a broad platform, on which persons of all denominations can meet for the mutual object of doing good for the poor. During the twelve months ended 1st March last, 693 sick persons were attended to by the nurses, of whom 143 died and a similar number recovered, while 69 were sufficiently restored to health to enable them to resume work. Of the cases attended, 149 were phthisical, 21 were accident cases, and 77 were burns or wounds of various kinds. Upwards of 340 loans of various articles—such as stretcher-beds, air-cushions, water-beds, easy chairs—were made during the year; and a very large number of articles of clothing, both new and old, were given away. Of the patients attended, 370 were recommended by the dispensary medical officers, who in many instances expressed their gratification with the manner in which their instructions were carried out, and the improvement in the condition of the patients. An additional nurse was employed during the year, but there is ample work for twice the number engaged. The aim of the Society is to save life; to teach the needy whom they are assisting self-reliance and to help themselves; to show what cleanliness and simple sanitary precautions will do to save suffering and promote recovery; and, in many cases, where those who are discharged incurable from the hospitals live often neglected in their own homes, to instruct the relatives how to nurse and care for the sufferers, and to make their condition as tolerable as possible. For objects such as these, there is plenty of scope for the operation of a Society of this kind; and we trust it will receive increased sympathy and support from the community.

THE ANNUAL MEETING OF THE ASSOCIATION.

In the Section of Medicine, two special topics have been selected for discussion. Dr. Bristowe has kindly consented to open a debate on Hysterical Anæsthesia, and Dr. Andrew Clark to introduce the subject of Asthma.

We are requested to state that any communications which members of the Association may desire to bring before the Section should be forwarded to the Secretaries (Dr. Cheadle, 2, Hyde Park Place, Cumberland Gate, W., and Dr. David B. Lees, 2, Thurloe Houses, South Kensington, W.) The titles of all such papers and notice of intention to join in the debates on the special subjects above-named should be sent in *not later than the 15th of June.* It is necessary also that abstracts of all papers to be read in the Section should be sent to the Secretaries *before the 15th July.*

In the Section of Physiology, there will be two discussions: one on the question, "Is Urea formed in the Liver", to be opened by Professor Gamgee of Owens College, Manchester; and another on "Sleep and Hypnotism", to be opened by Professor W. Preyer of Jena.

THE ORIGIN OF THE BLOOD-CORPUSCLES.

Of all the scientific monographs produced during the past year, few can rival in interest a paper by Professor Rindfleisch, entitled "Ueber Knochenmark und Blutbildung", and published in a recent number of the *Archiv für Mikroskopische Anatomie.* In this monograph, the red marrow of the cancellous tissue of bone is considered to be the chief source of red blood-corpuscles. We will summarise as follows the arguments by which the author supports this bold theory.

In red marrow are found certain cells, with reddish-yellow homogeneous protoplasm, and distinct nuclei—cells resembling in every respect the nucleated red corpuscles of fœtal blood. The spleen bears similar corpuscular structures, and is recognised as a seat of blood-formation. The red marrow, then, has the same function. In different morbid conditions, the blood has been explored, but with any significant results only in anæmia and leukæmia. Smaller and larger forms of nucleated red corpuscles have been detected under these and other circumstances. But what is the connection between them? This question has particularly occupied the author's attention. Firstly, he explored the vascular relations of red marrow. No structure is so difficult to inject; for the periosteal and Haversian arterioles and capillaries, generally empty after death, are easily injected, but the vessels of the marrow are then full of blood. By certain precautions, Rindfleisch succeeded in making satisfactory injections of the marrow in the cancellous tissue of the ribs of guinea-pigs; by these same precautions, too, he found that the red marrow is red through its blood-forming cells, and not through the colouring matter of the blood within or escaping from its vessels.

The afferent arteries of the narrow-meshed capillary plexus of the marrow are slender; they penetrate to the middle of the medullary canal, and end as thin twigs running almost parallel to the axis of the bone, and, branching frequently at acute angles, they join the capillaries at a few points near the surface. These arteries hold hardly one-twentieth of the injection necessary to fill the veins and capillaries together. The veins, relatively thick, unite in every medullary cavity into at least one main trunk, which appears beset on all sides by its short secondary venules, the recipients of groups of true capillaries. At distinct points, emissary vessels leave the trunk for the surface of the bone. Hence red marrow has a very complete vascular system, hitherto unrecognised owing to the difficulty of injecting that structure.

Professor Rindfleisch then enters into a disquisition on the variations of blood-pressure, and on the mechanism by which such variations are almost nullified in parts where they would do mischief. He refers, at some length, to the well-known nature of the cerebral circulation. The brain is encased in an unyielding capsule. Pressure from within and from without the cerebral vessels is counteracted by this arrangement; the thin walls of the arteries of the brain show how the duty of resisting pressure is taken from them. Diminution or increase of blood-pressure rather aids the exit of blood from the cranium than induces anæmia or congestion of its contents. Yet the brain is, to a certain extent, amenable to slight accommodations of pressure through another mechanism: the cerebro-spinal fluid. Not so the bone-marrow; for it contains no similar fluid, and is enclosed in an absolutely unyielding capsule. Hence, says Rindfleisch, there is no question of any variations of pressure affecting the blood within the medullary vessels and the medullary structures outside them. The marrow, to carry on its important functions, is thus shielded from a source of disturbance. If blood-pressure increase towards the bones, the blood-current in the medullary vessels cannot distend them, since the bone without makes them unyielding, so it has simply to go on faster. This happens when there is any improvement in the volume of blood during convalescence; and the result is the more rapid washing away of certain solid blood-elements, which are, under these circumstances, much needed to repair loss.

What influence has this mechanism of the circulation in the marrow on the structure of the walls of its vessels? The thickness of the walls of a vessel bears a direct relation to the amount of pressure it has to resist; this is proved by the vascular changes in hypertrophy of the heart, by the increasing thickness of capillaries towards their arteries and veins, and by the extreme thinness of the walls of the cerebral arteries. After consideration of the above conditions, why should we not demand a minimum of wall for the capillaries of the marrow? Why should they possess any wall at all? Hoyer maintained, in 1869, that the veins of marrow have no walls. Rindfleisch authenticates this assertion. The veins of the red marrow, as well as the greater part of the capillaries, possess no special wall; whilst the arteries possess an extremely delicate membranous coat, completely disappearing at the commencement of the capillary system. A thin cellular tunica adventitia invests the artery at its entrance into the medullary foramen, but is soon lost further on. Nothing remains but a single muscular coat, and a simple epithelial tube within it. The capillaries are sharply divided into an arterial and a venous set. The arterial are given out at acute angles from the ends of their arteries; they are spread regularly, but not abundantly, over the whole marrow. They still possess a membrane, with long rod-shaped nuclei. Towards the venous capillaries these nuclei become longer and thinner, crossing each other and forming a kind of trellis-work, which probably represents not so much a wall as the dissolution of the closed walls of the vessels into the surrounding parenchyma. In torn fragments of medullary tissue, the arterial capillaries may readily be distinguished from the venous by their lesser calibre and straight course, and especially by the presence of a nucleated membrane on the surface of the blue mass of injection which fills their lumen after preparation.

The venous capillaries, having no walls, are difficult to study. Their calibre is twice or three times as great as that of the arterial capillaries. Their surfaces, or rather the limits of the injected medium, possess numerous offsets, which throw out thin straight tertiary branches, running in opposite directions, parallel to the axis of the vessels. Plastered all over the injection, filling these twigs, and projecting into their lumen, are large cells identical with those of the rest of the red marrow—a striking proof of the indefinite limitation of these vessels. The venous capillaries curve considerably as they enter the trunk veins. After the most careful experiments, Rindfleisch came to the conclusion that the veins are widely dilated sinuses, without walls, and running through the midst of the blood-corpuscle-forming medullary tissue. Through this arrangement, the productions of that tissue are readily abstracted and carried into the circulation.

To find the component parts of the medullary parenchyma, the vessels must be first thoroughly washed out with a weak solution of chloride of sodium. Then the observer may be sure he has only the parenchyma to deal with. First are seen the reddish-yellow nucleated cells. There is not one hair's difference between them and the nucleated red-corpuscles of fœtal blood. In the uterus of a guinea-pig, Rindfleisch found fœtuses in remarkably different stages of development at the same time. In the blood of a fœtus, five *millimètres* long, the nucleated were still in great majority over the non-nucleated corpuscles. The resemblance of the nucleated form to cells of red marrow was evident. As to their nuclei, no well-defined nucleoli could be detected, not probably from their being absent, but because their substance passes insensibly into the substance of the nucleus, as in all young rapidly proliferating cells. The nucleus is never in the middle of the red marrow cells. This is their great distinction from the permanently nucleated red corpuscles of the lower vertebrata. In the spleen of a bird, the equivalent of our hæmatoblasts can be found, but always with central nuclei. Of the significance of the non-central position of the nucleus in mammals more will be said presently. This nucleus appears separated from the protoplasm by a dim granular halo.

These nucleated red marrow cells undergo fission, commencing at their nuclei. The more quickly this process proceeds, the smaller will be the resulting red corpuscles. This point must be remembered with what was said above with regard to increased blood-pressure during convalescence, and what will be found below with regard to the appearances of blood at stated intervals in recovery from hæmorrhage. Besides these cells, leucocytes abound in marrow. There are also "great-celled elements", probably altered forms of the marrow-cells just described; and also the well-known giant-cells, which Rindfleisch looks upon as deposits of formative material that has not been wanted. The absence of lymphatic vessels in marrow accounts for this accumulation. All the above cellular elements are considered by the author as organs of sanguification, and as no part of the permanent parenchyma, which consists of stellate fibres, composed of protoplasm, partly displaced by fat-cells. By a simple process of fatty degeneration, the red marrow becomes yellow.

Through what process, then, are the non-nucleated red blood-corpuscles developed from the nucleated hæmatoblasts of the marrow? Precisely in the same manner as the nucleated cells in the embryo precede the non-nucleated form. Rindfleisch searched specimens of marrow from numerous fœtal guinea-pigs. "Many a female guinea-pig", says he, "had to lay down her life without yielding that which was sought for." But at length he found four embryos, in which he could detect the transition of nucleated into non-nucleated blood-cells. He observed the nucleus, surrounded by a little colourless protoplasm, in the act of quitting the cell and leaving behind it a bell-shaped reddish-yellow structure, almost identical in form with a non-nucleated blood-corpuscle. This process must go on with great rapidity when it is necessary to make up for loss of cells from menstruation, anæmia, or debility. The bell-shaped body, being composed of soft, somewhat elastic material, soon assumes a rounded form when set free from its bed in the marrow and rolled along in the circulation, proceeding in one direction; so that it has the pressure of the stream behind it and the pressure of the resistance of the blood in front of it, which determine the biconcave form of the perfect red blood-corpuscles. The nucleus left behind accounts for the free nuclei which may be found in red marrow.

When fresh blood-corpuscles are required to make up for the loss of blood by accident or disease, the blood-pressure, increased by certain influences towards the medullary cavity, necessitates the exit of an extra supply from that cavity as fast as its entrance therein, since the blood is passing through unyielding structures. Red corpuscles are more rapidly formed. Rapid fission of the hæmatoblasts taking place, the corpuscles, under these circumstances, are smaller than normal. After bleeding a guinea-pig, its blood was examined on the third day, and numerous small red corpuscles were found side by side with those of natural dimensions. The number of these small bodies increased till the seventh day, then they diminished; so that, about the fourth week after the bleeding, not one single small corpuscle was to be found. In the blood of women after menorrhagia, similar bodies were detected, ultimately disappearing; and neither in this nor any other form of hæmorrhage could an increase of white corpuscles be discerned. The deduction thus suggested by Professor Rindfleisch is obvious.

That in animals where the red blood-corpuscles are permanently nucleated, these, too, are developed from hæmatoblasts, there can be no doubt. Besides, from examining sections of the spleen of a young dove, proofs have been found of the origin of hæmatoblasts from white blood-corpuscles or leucocytes. The spleen is the chief blood-forming organ in birds; in mammals it plays a great part, being a store of hæmatogenous tissue supplemental to the blood-forming red marrow. Why the cells of the marrow have this tendency to form corpuscles is a question unsolved, but which does not refute Rindfleisch's theory. What has the marrow (says he) in common with the spleen or the blastoderm? Yet the two latter, quite different structures, have long been admitted to aid in the formation of blood. After extirpation of the spleen, vicarious sanguification has been found to be established in the mesenteric glands. In an anæmic child, rachitic and with general sclerosis of the cancellous tissue of the bones—which, of course, implied great changes in the red marrow—the greater part of the lymphatics, and even the cellular tissue in the tubes of the kidney, was discovered to be hæmopoietic. Rindfleisch concludes by admitting that M. Hayem, in 1877, already pointed out the identical nature of certain cells in the blood and in the red marrow. In the small red-corpuscles found in the blood of convalescents, we recognise the French physiologists "*globules nains*" described in the eighty-fourth volume of the *Comptes Rendus*.

KESWICK.—In this report, Dr. Ward argues at length that many so-called local diseases of the brain, the respiratory organs, the kidneys, etc., in addition to those of the zymotic class, are intimately connected with sanitary defects; and he gives numerous examples to prove his case. There can, of course, be no doubt that impure air is a potent influence for evil everywhere; but we think that Dr. Ward has gone too far in ascribing to "impure house-atmosphere" all the mischief that he imputes to it. Although works of water-supply and drainage-extension are in progress, the houses generally seem to have very imperfect sanitary arrangements, and it would be well that the authority should address itself earnestly to securing an improvement in this respect. The death-rate for the year 1879 was not high (16.1 per 1,000); but it was 1.8 in excess of that for 1878. Diseases of the respiratory organs and allied affections accounted for the major part of this excess. Zymotic diseases were not prevalent, only two deaths occurring from diphtheria, and two from diarrhœa.

ASSOCIATION INTELLIGENCE.

FORTY-EIGHTH ANNUAL MEETING.

SPECIAL NOTICE.

ACCOMMODATION IN CAMBRIDGE.

MEMBERS of the Association who propose to bring ladies to Cambridge on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, A. P. Humphry, Esq., 56, Corpus Buildings, Cambridge. The prices at which lodgings will be obtainable vary from three shillings to one guinea per day (inclusive of attendance) for a bed-room and sitting-room.

Hotels.—The following are the principal hotels in Cambridge.

"Bull" (Trumpington Street).—Bed, 3s. 6d.; sitting-room, 6s. to 10s. Attendance, 1s. 6d.; breakfast, from 2s.

"Lion" (Petty Cury).—Bed, 3s. 6d.; sitting-room, 5s. to 7s. 6d. Attendance, 1s. 6d.; breakfast, from 2s. 6d.

"Hoop" (Bridge Street).—Bed, 5s.; sitting-room, 7s. 6d. Attendance, 1s. 6d.; breakfast, from 1s. 6d.

"University Arms" (Regent Street).—Bed, 2s. 6d.; double bed, 3s. 6d.; sitting-room, 5s. Attendance, first day, 1s. 6d.; following days, 1s. Breakfast, with meat, 2s. 6d.; plain, 1s. 6d.

Applications for hotel-accommodation should be addressed direct to the landlords.

EAST YORK AND NORTH LINCOLN BRANCH.

THE twenty-fourth annual meeting of this Branch will be held at the Infirmary, Hull, on Wednesday, May 26th, 1880, at 1.30 P.M.; the President, T. M. EVANS, Esq., in the Chair.

The following cases and papers are promised.

1. The President: Opening Address.
2. Mr. R. H. B. Nicholson: Osteotomy in a Case of Double Genu Valgum; Removal of the Cervix Uteri for Malignant Papilloma.
3. Dr. Frank Nicholson: The Changes Associated with Granular Kidney.
4. Dr. Lunn: Dislocation of Astragalus: Removal with good result.
5. Mr. Craven: Surgical Instruments.
6. Mr. Sherburn: Successful Removal of a large Uterine Fibroid Tumour.
7. Dr. King: Two Cases illustrative of the Treatment of Stricture of the Œsophagus.

The President will be happy to see any of the country members to lunch at his house, 17, Albion Street.

The dinner will be held at the Vittoria Hotel, at 5.30 P.M.: dinner, exclusive of wine, 7s. 6d.

Members of the profession are invited to attend both the meeting and dinner.

It would facilitate arrangements if gentlemen who intend to dine would inform the secretary without delay.

E. P. HARDEY, *Honorary Secretary.*

35, Regent Terrace, Anlaby Road, May 18th, 1880.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE annual meeting will be held at St. Bartholomew's Hospital, Rochester, on Thursday, May 27th, at 1.30 P.M.

WM. KNIGHT TREVES, F.R.C.S., *Hon. Sec.*

Margate, May 14th, 1880.

EAST AND WEST KENT DISTRICTS: CONJOINT MEETING.

A CONJOINT meeting of the above districts will be held at St. Bartholomew's Hospital, Rochester, on Thursday, May 27th, at 2 P.M. The chair will be taken by Dr. BOWLES of Folkestone, President of the South-Eastern Branch.

SOUTH MIDLAND BRANCH.

THE annual meeting of the above branch will be held in the Board Room of the Northampton General Infirmary, on Thursday, May 27th, at half-past two o'clock, under the Presidency of FRANK BUSZARD, M.D.

The following papers have been kindly promised.

1. D. J. T. Francis, M.D.: A Few Words on Effects of Change of Air on Health.
2. W. Newman, M.D.: Scarlet Fever, in Special Reference to its Sequelæ.

3. G. P. Goldsmith, M.D.: Notes on an Interesting Case of Heart-Disease.
4. H. Veasey, Esq.: Cases in Surgery.
5. A. Haviland, Esq.: The Principles of Climatology in reference to Health-Resorts.
6. R. H. Kinsey, Esq.: Some Notes on Surgical Cases.
7. G. H. Percival, M.B.: Case of Extra-Uterine Fœtation.
8. W. H. Bull, Esq.: Notes on Carbolic Acid Poisoning.
9. C. J. Evans, Esq.: Case of Abdominal Tumour.
10. A. H. Jones, M.B.: Case of Pelvic Hæmatocele.

G. F. KIRBY SMITH, *Honorary Secretary.*

Northampton, May 10th, 1879.

P.S.—The President requests the pleasure of the company of the members of the Branch to luncheon at his residence, 43, Abington Street, at a quarter past one o'clock.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

A MEETING of the above district will be held at the Marine Hotel, Worthing, on Monday, May 31st, at 4.15 P.M.; Dr. KELLY in the Chair.

The dinner will be served at 6 P.M. punctually. Charge, 6s. 6d. (exclusive of wine).

Papers are promised from the Chairman and other members.

WM. J. HARRIS, *Honorary Secretary.*

13, Marine Parade, Worthing, May 17th, 1880.

SOUTH OF IRELAND BRANCH.

THE quarterly meeting of the Branch will be held in the Royal Cork Institution on Saturday, May 29th, at 4 P.M.

Members intending to read papers or send communications will kindly intimate their intention to the honorary secretaries as early as possible.

P. J. CREMEN, M.D.,
T. G. ATKINS, M.D., } *Honorary Secretaries.*

Cork, May 12th, 1880.

STAFFORDSHIRE BRANCH.

THE May meeting of this Branch at Wolverhampton has been postponed until further notice.

VINCENT JACKSON,
J. G. U. WEST, } *Honorary Secretaries.*

SOUTH-EASTERN BRANCH.

THE thirty-sixth annual meeting will be held on Tuesday, June 8th, at two o'clock P.M., in the Royal Pavilion, Brighton; W. WITHERS MOORE, M.D., President-elect, in the Chair.

CHARLES PARSONS, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, May 19th, 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE Secretaries invite the co-operation of members in increasing the strength of the Association and Branch. Each member, in his own district, can be of great service if he will ascertain the names of suitable gentlemen desirous of joining us, and forward the same to either of the undersigned without delay.

ALFRED SHEEN, M.D., Cardiff,
J. HANCOCKE WATHEN, Fishguard, } *Honorary Secretaries.*

May 1880.

MIDLAND BRANCH.

THE annual meeting of this branch will be held at Nottingham, on Thursday, 24th June. Members desirous of reading papers are requested to communicate at once with Dr. Marshall, *Honorary Secretary*, Nottingham, or with

C. HARRISON, M.D.,
Lincoln. *Honorary Secretary of the Branch.*

MIDLAND BRANCH: MEETING.

A MEETING of this Branch was held at Matlock Bath, on Wednesday, May 5th. The President, J. WRIGHT BAKER, Esq. (Derby), in the Chair.

Medical Education.—The PRESIDENT briefly addressed the members, and stated that the meeting had been called chiefly for the purpose of considering the resolutions of the Metropolitan Counties Branch on medical education. After considerable discussion—

Resolution No. 1 was approved.

In place of resolution No. 2, it was proposed and approved: "That every student of medicine before going in for his final examination, should produce a certificate of having studied at least eighteen months with a registered practitioner who dispenses his own medicines, or having dispensed for eighteen months at a public hospital or dispensary."

In resolution No. 3, it was recommended "that the age should be twenty-one instead of twenty-two years."

In resolution No. 4, it was resolved "that all students be required to undergo an examination in elementary anatomy and physiology at the end of the first year of professional studies."

In resolution No. 5, it was resolved that in place of two years, one year be inserted; and that the following be added: "That regular tutorial instruction be given at all medical schools and recognised hospitals—in the former, by regular medical tutors; in the latter, by the house-surgeons and physicians—and that this tutorial instruction be considered equivalent to a proportion of the lectures which the student is compelled to attend."

Paper.—Dr. Webb read a paper an Progressive Locomotor Ataxy.

Previously to the meeting, the members ascended to the summit of the High Tor, accompanied by Dr. Holland of Matlock, and Dr. Webb of Wirksworth, who kindly explained the objects of interest.

SPECIAL CORRESPONDENCE.

PARIS.

Exencephalic Infants.—A Calculating Boy.—Congenital Small-pox.—Dr. Galezowski's Ophthalmic Practice. — New Ophthalmological Clinic.

A SHORT time ago, a great sensation was caused among the inhabitants of the quarter called "Les Ternes" by the birth of a child supposed to have two heads. It turned out that what was taken for the second head was simply a tumour, caused by the protrusion through the anterior fontanelle of a portion of the cerebrum with its membranes. The child, which was otherwise well developed, was born at full term, and lived only a few days; but the mother, a primipara, was so depressed at the idea of having given birth to "a double-headed monster", that it was with difficulty she recovered her health. This case is evidently only another example similar to the following, which was lately presented, through M. Broca, to the Anthropological Society of Paris, by M. Tarnier, obstetric surgeon to the Maternity Hospital. It consisted of an exencephalous child, which was born at the Maternity at full time and well developed, but survived only a few hours. M. Broca said he was glad of the opportunity of discussing the subject of the influence that one had upon the other in the development of the brain and skull. It is generally known that, when the brain is not developed, the cranium is small; whilst, on the other hand, it is admitted that the resistance of the cranium prevents the development of the brain. But the example under notice suggests another proposition. It has hitherto been understood that, if the brain of the superior animals were folded upon itself, it would occupy less room. M. Broca, however, offers another explanation; he suggests that the surface and bulk of the brain do not develop in the same geometrical proportion; that, owing to the folds or convolutions that are formed on it, its surface can adapt itself to the central mass of the brain. And the example before the Society would seem to confirm this theory; for the bones of the cranium were formed, but they did not close over, so that the brain grew outside the skull. If, therefore, the folds of the brain be due to want of room, it is evident that here the brain ought not to present any, as it had all the space necessary. On the contrary, in the present case, the brain was not only folded on itself, but it was more so than in an ordinary child at term; the folds were more numerous and smaller, and presented a great irregularity. The case presented another peculiarity: the dura mater was adherent to the edge of the placenta, and a plaster-of-Paris moulding was taken of the subject. The specimen is to be seen in the museum of the Society, where it is placed upright; and the placenta, which is spread out fan-shaped, gives the figure the appearance of one of the Hindoo deities generally seen in museums.

At the last meeting of the Anthropological Society, M. Broca exhibited a human phenomenon in the person of a young lad aged 11, a Piedmontese, named Jacques Inaudi. He left his native place a short time ago, and, in company with a monkey, he earned his livelihood by begging. When his appeals in the ordinary way were not attended to, he offered to solve mentally in a few minutes, and without any assistance of any kind, the most difficult problems in arithmetic. He was often put to the test; and, during his sojourn at Marseilles, a gentleman to whom he had appealed for charity was so astounded with the lad's gift of calculation, that he was induced to bring him to Paris as a curiosity. When M. Broca presented him to the Society, he gave him verbally a sum in multiplication composed of some trillions to be multiplied by billions. This he accomplished in less than ten minutes mentally and without any aid whatever, in presence of the members, who were all struck with wonderment. The lad is far from intelligent in other respects, and can neither read nor write; and the most curious feature of his method of calculation is, that he proceeds from left to right, instead of from right to left. He is of the ordinary stature of his age; but his head is rather large and somewhat hydrocephalous in appearance. His forehead is high, and developed to an extraordinary degree. The question of the localisation in the brain of such a function is as yet a mystery.

Cases of congenital small-pox are exceedingly rare, and their existence is even denied by some; and this no doubt induced Professor Depaul to make known a case that lately came under his observation in his hospital. He stated at the Academy of Medicine that a woman aged 33, who was affected with small-pox about the end of January last, made a good recovery without the slightest mark on her face or body. She was pregnant, and on April 30th, feeling herself unwell, was admitted into the lying-in hospital, where she had scarcely been a few hours when she aborted. The child was of the male sex, and weighed 820 *grammes;* it had been dead for about a month, and presented on different parts of the body the characteristic pustules of small-pox. The placenta, which was also diseased, was affected with fatty degeneration. MM. Devilliers and Blot referred to other cases still more curious. These gentlemen asserted that they had met with cases in which mothers served as channels for the transmission of the small-pox to the fœtus *in utero*, without having themselves any manifestations of the disease. Surely these examples ought to be sufficient to convince antivaccinators of the efficacy of vaccination, and of the necessity of employing this prophylactic measure not only as early as possible, but of renewing it at certain intervals. At Professor Depaul's *clinique*, the children are vaccinated directly they come into the world.

Michelet, the great philosopher and writer, remarked in his work *La Femme* that there were more women treated now-a-days for diseases of the womb than in times of yore. He added, however, this did not prove that these diseases are actually more prevalent than they used to be, but that, with the progress of science, greater facilities have been afforded for finding them out; and there is no doubt they are even better understood, and consequently better treated. The same may be said of diseases of the eye, and indeed of many other diseases. Whether the former are more prevalent in France than elsewhere I am not in a position to state; but, judging from the published reports of some of the ophthalmic clinics in Paris, the French are not behind their neighbours in this respect. According to a report drawn up by Dr. Parent, *chef de clinique* to Dr. Galezowski, 7,973 ophthalmic patients presented themselves at the clinic of the latter gentleman from November 1st, 1878, to November 1st, 1879; and, if it be granted that each patient had, on an average, ten or twelve consultations, this would bring the number to about 80,000 to 100,000! Thus it may be seen that there are ample opportunities for studying eye-diseases in Paris; and these seem to be availed of, if we may judge from the number of medical students and practitioners that frequent the clinics. Dr. Parent's report, which is published in the *Recueil d'Ophthalmologie*, will be found very interesting, and the list of diseases seems to comprise the whole range of ocular pathology. I may, however, notice certain points, in order to give your readers an idea of the difference of Galezowski's treatment from that adopted by others. His operation for cataract, of which he had 198 cases during the year, consists in forming a flap with the upper third of the cornea by making the incision quite close to the sclerotic, and combining it with iridectomy. The opening of the capsule is effected with a knife, and he never employs the cystotome except in cases of soft cataract. The eye operated on is immediately bandaged, and a lotion of a one per cent. solution of boric acid is applied. He never employs instillations of eserine or of atropine after the operation. The bandage is removed after twenty-four hours; and, if the anterior chamber be re-established, the eye is simply sheltered by a floating shade during the day, and the bandage is reapplied for the night. The same treatment is continued for some days afterwards; and, if all go well, the bandage is entirely removed and the eye protected by a veil. Dr. Parent declares that, since he entered Dr. Galezowski's clinic about twelve months ago, he met with only one case of phlegmon of the eye after operation for cataract. He witnessed several cases of iritis resulting from the operation, but which, with a few exceptions, were amenable to treatment. The results altogether may be considered satisfactory. Not a single eye was lost from escape of the vitreous humour; and this accident happened only three times in all; and the rarity of the accident is attributed to Dr. Galezowski's method of operation, in which he avoids approaching too near the sclerotic, and takes the precaution of withdrawing the dilating forceps as soon as the iris is excised. The lens is extruded by simple pressure with the finger. The accident before referred to is, generally speaking, rare even at the other clinics in Paris; and this immunity is ascribed to the abandonment of von Gräfe's operation for cataract; and, indeed, as Dr. Parent facetiously remarks, nothing, as far as Paris is concerned, is left of von Gräfe's method except his knife. In the treatment of glaucoma, Dr. Galezowski never believed that sclerotomy could seriously compete with iridectomy. The former affords no security against sympathetic ophthalmia; and even those who adopted the new method with so much enthusiasm are agreed that sclerotomy is more palliative than curative, and that it does not for any time prevent a return of the glaucomatous symptoms. Dr. Galezowski, however, thinks it useful in some cases of absolute and hæmorrhagic glaucoma. I cannot enter more fully into Dr. Parent's report, which is somewhat long; but any of your readers will find it in the *Recueil d'Ophthalmologie* for the current month.

In connection with diseases of the eye, and to show the importance attached to the great prevalence of this class of affections in France, I may notice the laying of the foundation-stone of a new ophthalmological clinic to be annexed to the "Quinze-Vingts", an asylum for the blind already in existence. The ceremony, which was altogether laical, was performed by M. Lepère, Home Minister, in presence of M. Gambetta, President of the Chamber of Deputies, M. Pepau, Director of the Institution, Dr. Fieuzal, the Principal Medical Officer, and a certain number of medical and other notabilities. In an eloquent speech, the Director traced the history of the institution, the origin of which goes as far back as Louis XVI, who in 1779 decreed the removal of the Quinze-Vingts from the Faubourg Saint-Honoré to its present site in the Rue de Charenton; ordering at the same time the establishment of an ophthalmological clinic to be annexed to the asylum. From some cause or other, the latter part of the decree had not been put into execution, and it has been left for the republic, after a lapse of a hundred years, to carry out the wishes of an ancient monarch.

Paris, May 16th, 1880.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

TYPHOID FEVER IN BRISTOL.

Whilst the evidence which has been adduced with regard to a recent outbreak of typhoid fever in Bristol does not enable the cases to be traced with certainty to the milk-supply, which is stated to have been the only condition common to the five houses invaded, there is enough in Mr. Davies's report to warrant a very strong protest against the inefficiency of the present law with regard to dairies. The local veterinary authority, upon whom the duty of regulating dairies was cast by the Contagious Diseases (Animals) Act of 1878, is required, amongst other things, to see to the purity of their water-supply. Mr. Davies found, on repairing to the farm whence the milk-supply of the five invaded houses was derived, that, whilst the dairy and its surroundings were clean, the only available water-supply was from a mill-stream, which, at the time of his visit, was turbid. Following this stream up the valley, Mr. Davies came upon some closets discharging into it, and a cesspool which overflowed into it in winter-time. In one place, he found parts of the entrails of a bullock in it; and a little higher up, the two hind quarters of a calf dead of the "quarter-evil"—a very contagious disease, supposed to be identical with anthrax in man. It is true that the farmer and his family have drunk water from this source without recognisable mischief; but if either the closets or the cesspool spoken of discharged at any time, as they might easily do, sewage containing the germs of typhoid fever, the danger of the drinking of water from the mill-stream is manifest. It was the duty of the local authority to have seen that the water-supply of a dairy thus regulated by special legislation was free from this or any other source of danger. Yet nothing was done until Mr. Davies' inspection, when the farmer, thoroughly disgusted at what he had seen, promised at once to secure a proper water-supply from the Bristol Waterworks. Piecemeal legislation, such as that of Section 34 of the Animals Act of 1878, is worse than useless; and we trust that a speedy opportunity will be taken of transferring the duties imposed by that section to the proper authority, viz., the sanitary board for the district in which each dairy-farm is situated.

THE MINISTRY OF HEALTH.

WE see with satisfaction that the plan which we have adopted for the last few years of devoting a special column to the interests of the public health services, and which has proved highly advantageous and satisfactory to the members of those services, has now been followed by our contemporary the *Lancet*. We cannot, however, but suggest, for the reputation of medical literature, that the supervision of these matters should be entrusted to some one possessing an elementary knowledge of the history of the subject. From a series of articles appearing during successive weeks, our contemporary has reiterated its quaint jubilations that "the claims of the country to a Ministry of Health", on which it thinks it important to add that "it has long and importunately insisted", are now satisfied by the admission of Mr. Dodson to the Cabinet. It thinks it eminently worthy of Mr. Gladstone to have carried into effect this policy, and to have "taken the initiative in giving the Local Government Board its proper place". All this might be excusable as a passing error, but that our contemporary should not, in the course of a month of this sort of writing, have become aware or been reminded that throughout Mr. Gladstone's last administration Mr. Stansfeld held a place in the Cabinet as President of the Local Government Board, and, unfortunately, without those happy results which are now predicted from Mr. Dodson's presence. Mr. Dodson is an untried statesman, and we are content to be very hopeful of his future, but that his presence in the council chamber offers any immediate prospect of a Ministry of Health is a proposition too childish to be entertained. A President of the Local Government Board has been a Cabinet Minister with far more satisfactory results. The exclusion of the late President was mainly due to personal considerations, and the new President has now merely resumed the position which is the due of the Minister who is in such immediate connection with the local interests of the country. A real Ministry of Health is, we are afraid, for the moment, as far off as ever; but, as the new Government have come in pledged to progress in home legislation, it may be hoped that they will not leave sanitary matters in the unfortunate plight in which they now find them.

SMALL-POX AT READING.

FOR some years past, the Medical Officer of Health for Reading has been pressing upon the Town Council the expediency of providing hospital accommodation for infectious diseases, but the Council have delayed adopting his oft-repeated recommendation, backed up, as it had been, by the Local Government Board, until a recent outbreak of small-pox in the town has induced them to sanction the erection of a temporary hut for the isolation of the cases. It may be hoped that the authority will proceed from this to the building of a properly equipped hospital for their important district; for they have had, during the recent outbreak, evidence sufficient for complete conviction of the disadvantage and inconvenience arising from the want of such accommodation. A servant-girl was brought from a house in London to Reading in February last, whilst suffering from incipient small-pox. The parents of the girl were unwilling to receive Poor-law relief, until, by being kept away from work on account of the infection, they were compelled to accept it. They would, however, have been willing for their daughter to have been removed to a hospital for infectious disease if one had been available. The result of non-isolation was that the girl communicated the disease to three other members of her family, one of whom died. The father and his son were thrown out of work, and then (too late) the cases were removed to the infirmary at the workhouse, and were isolated. A man who acted as bearer at the funeral of the fatal case in this family was attacked ten days afterwards with small-pox; and as he was the landlord of a beerhouse, arrangements had to be hurriedly made for his isolation in an empty cottage, which it was necessary to clear out and furnish before he could be removed to it. All the cases subsequent to the first would probably have been prevented, and an incalculable amount of trouble and anxiety spared, if the Authority had possessed in readiness the hospital of which they are now, too tardily, contemplating the erection. The aphorism of shutting the stable door when the steed is stolen has never been more strikingly exemplified.

MEDICO-PARLIAMENTARY.

Notice of Motion.—The following notice of motion has been given by Mr. R. PAGET: To draw attention to the inconvenience of sending criminal lunatics to county asylums; to the necessity for making separate accommodation for idiots and for chronic lunatics now in county asylums; and to move a resolution.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Fellows of the College on May 13th, 1880.

Barlow, Thomas, M.D.London, 10, Montague Street
Coupland, Sydney, M.D.London, 7, Nottingham Place
Dickinson, Edward Harriman, M.D.Edinburgh, Liverpool
Donkin, Horatio Bryan, M.B.Oxford, 60, Upper Berkeley Street
Goodhart, James Frederick, M.D.Aberdeen, 27, Weymouth Street
Kelly, Charles, M.D.London, Worthing
King, Robert, M.B.Cambridge, 48, Harley Street
Mahomed, Frederick H. H. Akbar, M.D.Brussels, 12, St. Thomas Street
Shaw, Thomas Claye, M.D.London, Banstead Asylum, Surrey
Topham, John, M.D.London, 19, Collingham Road

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 14th instant, and, when eligible, will be admitted to the pass examination.

Messrs. John C. Underwood, James M. Griffin, Charles Y. Shuter, Edwin G. Hunt, and Henry R. Todd, students of Guy's Hospital; Albert Ramsden, Charles G. Grimmer, and Harry Campbell, of St. Bartholomew's Hospital; George H. Salter and John J. Y. Baber, of St. George's Hospital; Chas. F. Downman, of University College; H. Ruskin Hancock, of Charing Cross Hospital; Archibald G. Andrews, of the London Hospital.

Twelve candidates were rejected.

The following gentlemen passed on the 15th instant.

Messrs. John O. Littlewood, Henry C. Ensor, Richard P. Samut and George P. Longman, of Guy's Hospital; Henry Ward and William R. Cowen, of St. Bartholomew's Hospital; Chas. W. Whistler, of St. Thomas's Hospital.

Nine candidates were rejected.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on the 18th instant.

Bassettt, Henry T., Birmingham, Guy's Hospital.
Cantin, Lewis A., Mauritius, St. Bartholomew's Hospital.
Cook, George W. H., Southsea, London Hospital.
Crowther, George H., Wakefield, Leeds School.
Jones, Arthur, Manchester, Liverpool School.
Jones, Vincent A., Birmingham, Birmingham School.
Kingsland, Arthur T., Birmingham, Birmingham School.
Lane, James E., Norfolk Square, St. Mary's Hospital.
Mackrell, Alfred S., Queen Anne Street, St. Bartholomew's Hospital.
Megarry, John W., Lavender Hill, Belfast School.
Mott, Frederick W., Hastings, University College.
Nance, Henry C., Eccleshall, St. Bartholomew's Hospital.
Plummer, Charles J., Valparaiso, Guy's Hospital.
Redman, Edwin M., Peckham, University College.
Rhodes, James H. A., Liverpool, Liverpool School.
Rummalls, Harry B., New Quay, Cornwall, St. Mary's Hospital.
Smart, Alfred, Luton, Beds, Guy's Hospital.
Sturge, Henry H., Dartford, Guy's Hospital.
Watson, Frank S., Isleham Soham, Charing Cross Hospital.
Weldon, George, Brompton, St. George's Hospital.
White, Alfred T. O., Lansdown Road, St. George's Hospital.
White, Robert P., Wigan, Edinburgh School.
Young, Thomas M., South Shields, Newcastle School.

Eleven candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 13th, 1880.

Black, William Glaholm, Ludhoe Grange, Durham.
Condon, James Hunt, Sydenham, Kent.
Crane, Charles Robinson, Charing Cross Hospital.
Powell, Henry Albert, 32, Huntley Street, W.C.
Schmidt, Wolfgang, 127, Leman Street, E.
Stevenson, Henry Wickham, 22, Charterhouse Square.
Tew, James Scott, 5, Marquis Terrace, N.W.

The following gentlemen also on the same day passed their primary professional examination.

Hull, Walter, St. Thomas's Hospital.
Parke, Charles James, Guy's Hospital.
Phillips, Frank Leslie, Queen's College, Birmingham.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BATTLE UNION—Medical Officer for the Second District. Salary, £25 per annum.

BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications to the Honorary Secretary on or before May 30th.

BELGRAVE HOSPITAL FOR SICK CHILDREN—House-Surgeon. Stipend, £30 per annum, with board and lodging in the hospital. Applications, with testimonials, to the Honorary Secretary on or before May 30th.

*BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications, with testimonials, to the Secretary on or before June 1st.

BROOKE'S DISPENSARY, Selby, Yorkshire—Medical Officer.

*CARLISLE DISPENSARY—Junior House-Surgeon. Salary, £90 per annum, with apartments, coals, gas, and attendance (not board). Applications, age, and qualifications, to the Honorary Secretary.

CENTRAL LONDON SICK ASYLUM DISTRICT—Principal Medical Officer. Salary, £300 per annum, with furnished house, coals, and gas. Applications, with testimonials, not later than May 22nd.

DUDLEY DISPENSARY—Resident Medical Officer. Salary, £120 per annum, with apartments, coals, and gas. Applications, with testimonials, to the Honorary Secretary before May 22nd.

DUNGANNON UNION—Medical Officer for Workhouse, Fever Hospital, and Medical Superintendent Officer of Health. Salary, £120 per annum for Workhouse and Fever Hospital, and £1 per case as Medical Superintendent Officer of Health. Election on the 27th instant.

EAST RIDING LUNATIC ASYLUM, Beverley—Assistant Medical Officer. Salary, £100 per annum, with board, apartments, etc. Applications, with testimonials, not later than June 18th.

ETON UNION—Medical Officer for the Burnham District. Salary, £90 per ann.

HAILSHAM UNION—Medical Officer for the Fourth District. Salary, £60 per annum.

LEEDS AMALGAMATED FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Assistant-Surgeon. Salary, £140 per annum. Applications, with testimonials, on or before May 25th.

LIVERPOOL INFIRMARY FOR CHILDREN—Assistant House-Surgeon. Remuneration, £50 per annum.

LONDON HOSPITAL, Whitechapel—Sixth Assistant Physician. Applications, with testimonials, on or before May 24th.

MANCHESTER ROYAL INFIRMARY—Pathological Registrar. Salary, £100 per annum. Applications to the Secretary on or before May 27th.

NOTTING HILL PROVIDENT DISPENSARY—House-Surgeon. Salary, £100 per annum, with furnished apartments, firing, lighting, and attendance. Applications, with testimonials, to the honorary secretary on or before May 25th.

*ROYAL FREE HOSPITAL—Senior Resident Medical Officer. Salary, £104 per annum, with board and residence in the hospital. Applications, with testimonials, to the Secretary on or before May 26th.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY OF WIGAN—Junior House-Surgeon. Salary, £80 per annum. Applications, with testimonials, on or before May 26th.

SAFFRON WALDEN UNION—Medical Officer for the 1st District. Salary, £80 per annum.

SELBY UNION—Medical Officer to the Selby District. Salary, £73 per annum.

*SHEFFIELD GENERAL INFIRMARY—House-Surgeon. Salary, £120 per annum, with board, lodging, and washing. Applications, with testimonials, on or before May 29th.

SPILSLEY UNION—Medical Officer for the Stockney District.

SUNDERLAND UNION—Medical Officer for Bishopwearmouth East District.

TAUNTON UNION—Medical Officer to the Churchstanton District. Salary, £52 per annum. Applications, with testimonials, before May 29th.

TORBAY HOSPITAL HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon and Dispenser. Salary, £90 per annum. Applications, with testimonials, to the Honorary Secretary not later than May 22nd.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum, with residence in the Infirmary. Applications, with testimonials, to the Secretary, before June 25th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter.—Assistant Medical Officer. Salary, £100 per annum, to be increased to £120 the second year. Applications, with testimonials, not later than June 1st.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Groom, Henry T., M.R.C.S., appointed Assistant Medical Officer to the Metropolitan Free Hospital, *vice* Alexander Pentland, M.B., whose term of office has expired.

Hotham, R. H., M.R.C.S., appointed Attending Medical Officer to the Royal Pimlico Dispensary, *vice* W. Cunningham Cass, M.R.C.S., resigned.

King, George M., M.R.C.S., appointed Junior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, *vice* H. E. Dixey, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

Hayward.—On March 28th, at Riverton, South Australia, the wife of W. T. Hayward, M.R.C.S., of a son.

MARRIAGE.

Eastes—Rumboll.—On the 19th instant, at Thorpe-le-Soken, Essex, by the Rev. Claude Bosanquet, M.A., Vicar of Christ Church, Folkestone, assisted by the Rev. Professor R. J. Pearce, M.A., Thomas Eastes, M.D., third son of Silvester Eastes, Esq., Folkestone, to Alice Elizabeth, second daughter of the Rev. A. H. Rumboll, M.A., Vicar of Thorpe.

DEATHS.

Bracey, W. Arthur, M.R.C.S., at Birmingham, aged 38, on May 10th.

Fox, Edward Charlton, M.D., at Auckland, New Zealand, aged 38, on March 8th.

Everest, Henry, F.R.C.S., at 14, Westbourne Terrace Road, aged 64, on May 12th.

Presentation.—Dr. Foster McGeagh has been presented with a handsome clock and candelabra, together with a purse of gold, by his patients and friends, on the occasion of his resigning the office of Resident Physician of the Tunbridge Wells Sanatorium, a post which he had held since the opening of the institution.

Public Health.—During last week, being the nineteenth week of this year, 3,645 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 22 deaths annually in every 1,000 persons living. The annual death-rate was 20 in Edinburgh, 28 in Glasgow, and 35 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Norwich 16, Oldham 18, Leicester 18, Leeds 18, Brighton 18, Bristol 19, London 20, Portsmouth 20, Sheffield 21, Newcastle-upon-Tyne 21, Hull 22, Birmingham 22, Bradford 22, Wolverhampton 23, Salford 23, Nottingham 23, Sunderland 24, Manchester 25, Liverpool 27, and again the highest rate 31 in Plymouth. The annual death-rate from the seven principal zymotic diseases averaged 3.1 in the twenty towns, and ranged from 0.9 and 1.1 in Oldham and Leeds, to 7.2 and 17.4 in Sunderland and Plymouth. In London, 1,389 deaths were registered, which were 123 below the average, and gave an annual death-rate of 19.8. The 1,389 deaths included 8 from small-pox, 24 from measles, 47 from scarlet fever, 7 from diphtheria, 89 from whooping-cough, 8 from different forms of fever, and 13 from diarrhœa—being altogether 196 zymotic deaths, which were 38 below the average, and were equal to an annual rate of 2.8 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 260 and 280 in the two preceding weeks, further rose to 286 last week, but were one below the average; 164 resulted from bronchitis, and 83 from pneumonia. Different forms of violence caused 39 deaths; 32 were the result of negligence or accident, including 12 from fractures and contusions, 4 from burns and scalds, 3 from drowning, 2 from poison, and 8 of infants under one year of age from suffocation. Six cases of suicide were registered. The duration of registered bright sunshine in the week was equal to 47 per cent. of its possible duration. The recorded amount of ozone showed an excess during the week, especially on Wednesday and Saturday.

Surgeon-Major J. O'Nial, Army Medical Department, has been appointed principal medical officer, 1st Division Candahar Field Force, and is to have the temporary rank of deputy-surgeon-general from the date of his taking up the duties of the appointment.

North-Eastern Hospital for Children.—The annual meeting of the friends and subscribers of this institution was held at Devonshire House, Bishopsgate, on May 14th. From the committee's report, it appeared that during the twelve months 397 in-patients had been treated, as compared with 379 in the previous year, whilst the out-patients had numbered 13,472 new cases, as compared with 13,961 in 1878. The Convalescent Home at Croydon had proved an useful auxiliary to the institution. The net result of the bazaar held in July last year had been the receipt of £1065 19s. 11d., in addition to which forty-seven cots were promised for the new wards. For the new building, about £1500 was required, and when this was subscribed the trustees would be in possession of freehold property to the value of £17,873. The general expenses of the hospital had grown during the year from £1613 8s. 6d. to £1869 4s. 8d. During the previous three years, the excess of expenditure over income had averaged £400 *per annum*. In 1878, it was £503; whilst for the past year it had been only £265. The new wards, which will accommodate fifty patients, will be opened on June 2nd by the Duchess of Edinburgh.

City Orthopædic Hospital.—The Lord Mayor presided on May 7th at the twenty-eighth anniversary festival of this hospital, held at the Albion Tavern, Aldersgate Street. The result of the Lord Mayor's appeal on behalf of the charity was a list of subscriptions amounting to more than £500.

University College Hospital.—Dr. Thomas Barlow, late Assistant-Physician to the London Hospital, has just been appointed to the same office, and Assistant Teacher of Clinical Medicine, in University College Hospital, where he was formerly a distinguished student. Dr. Barlow is also Assistant-Physician to the Hospital for Sick Children.

Honour to a Medical Hero.—The *Philadelphia Medical Times* reports that passed Assistant-Surgeon John W. Ross has been promoted eight numbers in his present grade, for extraordinary heroism in risking his life at Holly Springs and Memphis during the yellow-fever epidemic of 1878.

Medical Magistrate.—Dr. J. W. Eastwood of Dinsdale Park has been placed on the Commission of the peace for the borough of Darlington.

University of Oxford.—At a Congregation holden on May 15th, the following degree was conferred: *Doctor of Medicine:* Payne, Joseph Frank, Fellow of Magdalen.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY........	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Wm. Adams, "On the Treatment of Lateral Curvature of the Spine by Steel Supports, Plaster-of-Paris Jacket, etc."; Mr. Henry Morris, "On Epithelioma of the Neck, following a patch of chronic skin-disease, in which the cancer was twice excised and the jugulars ligatured".

FRIDAY.—Clinical Society of London, 8.30 P.M. Report of the Committee on Dr. Crocker's Case of Congenital Disease of the Scalp. Report of the Committee on Keloid. Dr. Graily Hewitt, "A Case of Acute Hysterical Vomiting of ten months' duration, caused by Displacement of the Uterus"; Mr. Clutton, "A Case of Acquired Hypertrophy of one Limb"; Mr. Henry Morris, "Two Cases of Disease of the Mastoid Bones, in one of which a severe attack of Herpes of the Face followed Thrombosis of the Jugular Vein and Lateral Sinus"; Dr. F. Taylor, "An Unusual Case of Cardio-pulmonary Bruit"; Dr. Whipham, "A Case of Cancer of the Pylorus: Ulceration of the Cancerous Growth and Formation of an Abscess between the Pylorus and the Liver: Gangrene of the Left Foot and Leg".—Quekett Microscopical Club, University College, 8 P.M. Mr. A. D. Michael, "On two species of Acarina, not hitherto recorded as British".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ST. ANDREW'S UNIVERSITY.

SIR,—In to-day's issue of your JOURNAL, there is an extract from a Scotch paper that is so manifestly unjust to the St. Andrew's graduates, that I cannot allow it to pass without protest.

The degree of M.D. can now only be obtained from St. Andrew's University without residence by men who are above the age of forty, and who are recommended to the senators by holograph letters testimonial from at least three hospital physicians or surgeons of acknowledged eminence; and this practice of selection is rigidly carried out. Dr. Pettigrew, the Dean of the Medical Faculty, evinces much care and pains in his preliminary investigation of the professional position and social status of the candidates, from whom the Medical Faculty select a limited number every November to undergo the examinations for the degree in the following April; and as only ten can have the degree conferred upon them in the same year, the examination to some extent is competitive.

The selected candidates are all registered medical men, holding, in almost every case, three or four registrable diplomas; men who have practised their profession for nearly twenty years or more; and men, too, who are pronounced both by the profession (as witness their testimonials) and the public as successful deserving medical practitioners; but this is not sufficient for them to receive the degree. They must not merely *attend* but *pass* the required examinations; and if any think they have merely to attend, I would inform them what Dr. Keiller, whom I met subsequently when going over the New Infirmary at Edinburgh, told me, "that the examiners at St. Andrew's did not necessarily pass any candidate who presented himself for examination; on the contrary, on one occasion they rejected a man for the fourth time, and he, too, had been mayor of his town".

The examination lasts two days; the written from 10 A.M. till 5 P.M., with an hour's interval for lunch. The *vivâ voce* examination is held the following day, at four tables, the candidates being a quarter of an hour at each, besides ten or fifteen minutes occupied by Dr. Pettigrew in testing the candidate's knowledge of the microscope. The other examiners were Drs. Balfour, Littlejohn, Keiller, and Watson in Surgery—all Edinburgh men occupying a foremost position in the medical world. I have passed seven examinations; and the recent one of St. Andrew's was anything but a farce, and I believe was well calculated to test the knowledge, reading experience, and ability of the candidates.

One word as to the grievance complained of by the Edinburgh graduates. Ten men only receive the degree from St. Andrew's every year; therefore, as there are two or three times as many men who receive annually the degree of M.D. from the University of Edinburgh, it is no longer a grievance; indeed, in due time, the position will be reversed, and the medical graduates of Edinburgh will "overbear by their votes" those of St. Andrew's.

I have, sir, troubled you with this information, because you have many St. Andrew's graduates amongst your readers, and some may even feel hurt at the somewhat offensive paragraph, but also because I believe the intention to obtain the St. Andrew's degree has had a good influence on my own career, acting as an unconscious stimulus to keep *au courant* with the advancement of medical knowledge; and because I think it may possibly have a similar influence on others desirous of obtaining the degree of M.D.—I have the honour to be,

A FORMER HOUSE-SURGEON OF THREE LONDON HOSPITALS, AND A RECENT GRADUATE OF ST. ANDREW'S UNIVERSITY.

May 15th, 1880.

TREATMENT OF RANULA.

MR. G. APPLETON (Lizard) has succeeded in effecting a speedy cure in a case some time since by cutting out a piece (using forceps and scissors) and then smearing the inside with lunar caustic.

ERGOT IN DIABETES.

SIR,—The following corroborates the case reported in the JOURNAL of May 8th by Dr. W. Murrell on the treatment of diabetes insipidus with ergot. The case appeared during my assistantship with Dr. Canney of Bishop Auckland, about twenty years ago. He had two cases of diabetes, a lady and gentleman. After they had been under his care for some time, he ordered the following: Ergot, one ounce, bruised in one pint of cold water, and boiled down to half a pint, strained and put into sixteen half-ounce bottles, with direction for one to be taken every three hours. I had also to take the specific gravity twice a week for both patients; and I may add that it gradually increased to 1021. I left the situation; therefore I could not say if the cases made any further recovery; but I think, with Dr. Murrell, that ergot is worth a trial in such cases.—I am, sir, yours, etc.,

SAMUEL J. NOAKE, L.R.C.P.

A PESSARY TWENTY-FIVE YEARS IN THE VAGINA.

SIR,—A few days ago, I removed from a woman aged 74 years, a wax pessary, which, according to her own statement, had been placed there twenty-five years ago by a midwife for some uterine displacement. It was well imbedded in the tissues, and had nearly penetrated into the gut. It never caused her any inconvenience, until lately she suffered from severe constipation of the bowels, and complained of a burning sensation in the vagina. The pessary was very irregular in shape, soft in structure and was incrusted with a calcareous deposit.—I am, etc.,

J. H. DANAHER.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Colonial Appointments.

Sir,—The following notes may be of use to medical men seeking employment in the Colonies and will, in some measure, answer the query of "Colonial" in your impression of March 15th.

All colonial medical appointments are made subject to "confirmation" by the Secretary of State; but those made by the local governments are usually confirmed. Consequently, if the candidate be living in Britain, he should apply to the Secretary of State; if living in the colony, to the Local Government. Appointments by the Secretary of State are made, either after the exercise of personal influence, or on production of good professional testimonials: in the latter case, the candidate must have patience, the exercise of which may have to last over some years, unless he takes the first offer, irrespectively of pay, health, or "conditions". If he be appointed by the Secretary of State, the passage is paid and half-pay allowed from the date of sailing, on condition of serving three years, to the date of taking up duties. The duties must be taken up immediately on arrival in the colony, and the medical officer must provide himself with suitable lodging (which often cannot be got), horses and carriage, and must in many cases dispense his own medicines. Immediate attendance on all calls at a fee of two shillings, with an allowance of one shilling per mile after the first mile, is one of the conditions often made, qualified by the very magnanimous permission to sue for accounts in the Petty Debt Court! The roads in most cases are but the roughest of bridle-paths. The patients seldom call the doctor until the final stage of a disease is reached, and will then only pay for one visit, this visit being more required for the purpose of avoiding an inquest than for the benefit of the patient, who is probably considered to be "Obeah'd" beyond recall. The ordinances of local legislatures may at any time be altered or ignored, at the whim of the local government, or by direction of the authorities "at home".

Demerara, or more correctly British Guiana, has a somewhat complicated medical service, the principal branch being the medical service of the Immigration Department, and it is chiefly to this department that men are appointed by the Secretary of State. On assuming duties of appointment, they are styled "Supernumerary Medical Officers", and are allowed, if not married, the use of an empty room in the assistant resident surgeon's quarters of the colonial hospital. They have a salary of £288 a-year, 4 per cent. *per annum* on the pay being stopped by local law for the "Widows' and Orphans' Fund"; a claim to pension after ten years' service and after attainment of fifty-six years of age; and they are required to act, if called on, for the assistant resident surgeon without extra pay (the assistant resident surgeon gets £96 a-year more and has furnished quarters); to take charge of medical districts, either for short periods without additional remuneration, or for longer period on half-pay of supernumerary and half-pay of district medical officer; to accept the appointment to a district which has been proved too unhealthy for even a Creole to reside in and continue in health. Leave to England *may* be obtained for six months after five years' service, if there be enough men in the colony to act for those entitled to be absent.

The amount stopped annually for the Widows' and Orphans' Fund, if invested in a Life Insurance Company, would give the widow a sum of more use to her, in the event of the premature decease of the officer, than the allowance from the fund could possibly be. If ordered to assume the charge of a district, the medical officer of which is going on leave, the supernumerary will have to do so at a few days' notice, and to provide himself with furniture, horses and carriage, on the half-pay of supernumerary, with half-pay of district medical officer—*e.g.*, a man just starting in life is ordered to take charge of a district having a salary of £600 per annum for six months, with a total pay of £225. That is, for £225 the supernumerary is expected to get horses and carriage (= £150), pay house-rent (= £40), furniture (= £100); besides paying servants and personal expenses; and, at the end of six months' acting duty, the supernumerary may be required to go back to the colonial hospital, and lose half the value of his recent purchases by a forced sale. There is no allowance for moving nor for travelling expenses.

The salaries of the district medical officer appear good to those unacquainted with the expenses of living in this colony; but intending candidates should know that the Government have proposed a scheme which will materially reduce these salaries; and, although this new scheme has not passed the local legislature, yet the Government are filling up such vacancies as occur by making "provisional" appointments at very reduced rates of pay: this reduction of salaries carries with it a reduction of the superannuation and also of the Widows' and Orphans' Fund allowances.

Permit me to add that the rules and regulations, as published "by Authority" in the Colonial Office List, are seldom enforced in favour of a medical officer, and then only after the tedious process of an appeal to the Secretary of State; on the other hand, if the medical officer misunderstand or exceed the most trivial rule or instruction, no board of guardians in England can be more severe, unjust, and damaging than the local government of a colony.

A roll-call of those engaged in the medical service of the Immigration Department of this Colony since 1873 should be a mournful ceremony for the local authorities.—Your obedient servant, A British Guiana Surgeon.

24th March, 1880.

Royal College of Surgeons of England.

The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery, which were submitted to the candidates at the pass examination for the diploma of membership of the Royal College of Surgeons on the 14th instant, when they were required to answer at least four, including one of the first two, out of the six questions. 1. Supposing a portion of the Musculo-Spiral Nerve, as it passes behind the Humerus, to be removed in an operation, describe fully the condition in which you would expect to find the limb a year afterwards. 2. Describe the relations of the common Carotid Arteries in the Neck. How is the Circulation carried on after one of them has been tied? 3. What forms of Abscess may occur in connection with the Mammary Gland? How should they be treated locally and generally? 4. Explain how Stricture of the Urethra may lead to Extravasation of Urine: give the treatment you would adopt in such a case. 5. Describe the appearances and treatment of the various forms of Lupus. 6. Describe fully the treatment of a case of Strangulated Hernia after operation.

Those candidates who had not undergone any examination in Medicine, or who did not hold a recognised medical licence, were required to pass in it before obtaining the diploma; the following were the questions on Medicine. 1. Describe the symptoms and pathological conditions of Rheumatism, Gout, and Rheumatoid Arthritis respectively, with the treatment proper to each. 2. Give the causes, symptoms, and treatment of Peritonitis. 3. State the uses and doses of the following drugs: Ipecacuanha, Elaterium, Digitalis, Extract of Stramonium, Liquor Strychniæ, Liquor Morphiæ Acetatis, Sulphate of Zinc, Nitrate of Silver, Dilute Sulphuric Acid, and Dilute Hydrocyanic Acid. State the composition of the following drugs: Compound Ipecacuanha Powder, Compound Kino Powder, Compound Jalap Powder, Compound Mixture of Senna, Compound Tincture of Camphor.

Physicians and Patients.

Sir,—In the discussion now proceeding under the above title in the British Medical Journal, two or three points—and, to my mind, most essential ones—have as yet had no stress laid on them. The following required conditions naturally, and I think equitably, influence the relation in which the second medical man consulted stands to the first or ordinary medical attendant. A second opinion being desired, is the person from whom that opinion is sought selected by the ordinary medical attendant, or by the patient? If by the patient, is his preference concurred in by the ordinary medical attendant, or is it opposed by him? Answers to these questions, if given, would, in my estimation, justify difference in the relations of the second medical man to the first. If a patient be sent by one medical man to another for consultation, not only should the second medical man communicate his opinion and prescription to the first, but in no future illness should he consult with that person without similar communications so long as the medical man who first introduced the patient continues the ordinary medical attendant of his family. I should not, however, feel bound to such a course if a patient, not acting capriciously, but whose case was admittedly a fair one for a second opinion, came for my advice in opposition to the will and against the selection of his ordinary attendant. In the imperious requirements of illness and love of life, in the difference of opinion, real and assumed, existing among medical men, together with the complete ignorance of medical matters among the public, it is absurd to suppose their liberty can be restrained in the choice of medical consultations, while scrupulously insistent on full liberty in all other matters. If a patient come to me for advice, I, of course, consult with him; if his case do not relate to any former treatment, inquiry is unnecessary; if it do, I write to the ordinary medical man; but if the patient come of his own will in opposition to the choice of his ordinary medical attendant, I consider I owe no allegiance to the latter, and therefore accept the patient when he chooses to apply. I do not know the estimation in which this mode is held by the profession, but as it appears to me to have equity and common sense in its favour, I shall act on it till a better code is laid down.—Your obedient servant,

Milverton, May 11th, 1880. Geo. Cordwent.

Mr. F. Nicholls (South Croydon).—Apply to the Secretary of the Obstetrical Society of London, 53, Berners Street, W.

The Brussels Examination.

Sir,—In reply to your correspondent "Aspirant", who, in your last issue, wished to know the nature of the examination on Mental Diseases at the University of Brussels, I, having graduated there within a twelvemonth, would inform him that he will be required to answer any questions on Mental Diseases which the examiner may choose to put to him. I would therefore recommend him to study the subject well. He will find Dr. Blandford's work of great service.—I am, sir, yours faithfully, M.D.Brussels.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. J. Mann, Glasgow; Mr. W. K. Treves, Margate; Mr. J. J. Ilott, London; Dr. D. J. Mackenzie, Glossop; Dr. P. Boulton, London; Mr. S. F. Murphy, London; Dr. Herbert Snow, London; Dr. A. H. Carter, Birmingham; Dr. R. T. Cooper, London; Dr. Joseph Walker, London; Dr. W. Cheadle. London; Mr. J. Farrar, Morecambe; Our Glasgow Correspondent; Dr. R. J. Lee, London; Dr. Glascott, Manchester; Mr. J. D. Wilson, Edinburgh; Mr. A. S. Greenway, London; Mr. J. E. Stuart, Dunse; Mr. G. A. Woods, Southport; Dr. T. F. Pearse, Liphook; Dr. D. Edgar Flinn, Brownhills; Dr. W. R. Gowers, London; Our Edinburgh Correspondent; Our Paris Correspondent; Dr. S. M. Miller, Philadelphia; Dr. W. J. Marshall, Greenock; Dr. J. Harris, Worthing; Mr. G. Appleton, Helston; Mr. Eastes, London; Mr. Henry de Styrap, Middlesborough; Mr. J. E. Ingpen, London; Dr. Alderson, London; Dr. T. Oliver, Newcastle; Mr. Vincent Jackson, Wolverhampton; Dr. E. Seguin, New York; Dr. C. Parsons, Dover; Dr. Brailey, London; Messrs. J. Weiss and Son, London; Mr. C. A. Cooper. Sheepshed; Dr. A. Sheen, Cardiff; Mr. R. Torrance, Newcastle-on-Tyne; Mr. J. W. Sanders, London; Dr. Flynn, Cork; Dr. C. R. Drysdale, London; Dr. D. J. Rutherford, Baltasound; Mr. T. Alexander, London; Dr. Bushell Anningson, Cambridge; Dr. Alexander, Hull; Mr. Osman Vincent, London; Dr. Taylor, London; Mr. F. Turner, Great Malvern; Mr. W. Bowman Macleod, Edinburgh; Dr. Peacock, London; Dr. Kinkead, Galway; etc.

BOOKS, ETC., RECEIVED.

Lectures on the Human Eye in its Normal and Pathological Conditions. By A. Alt, M.D. New York: G. P. Putnam's Sons. 1880.

General Paralysis of the Insane. By W. J. Mickle, M.D. London: H. K. Lewis. 1880.

The Human Body and its Functions. By H. S. Paterson, M.D. London: Hodder and Stoughton. 1880.

Le Cerveau: Sa Topographie Anatomique. Paris: Berger-Leurault et Cie.; J. B. Baillière et Fils.

Des Epanchements de Sang dans les Plèvres consécutifs aux Traumatismes. Par le Dr. Ch. Nélaton. Paris: G. Masson. 1880.

Des Abcès Chauds de la Prostate, et de Phlegmon Périprostatique. Par le Dr. Paul Segond. Paris: G. Masson. 1880.

Tables of the Physiological Action of Drugs. By E. A. Morshead. London: H K. Lewis. 1880.

LECTURE
ON
ETHIDENE-DICHLORIDE.

Delivered at University College, May 19th, 1880.

BY J. T. CLOVER, F.R.C.S.

GENTLEMEN,—Since the beginning of last year, when attention was drawn to this substance by the investigations of the Glasgow Anæsthetics Committee of the British Medical Association, published in the BRITISH MEDICAL JOURNAL, I have made use of it in hospital and private practice in almost every case requiring longer anæsthesia than that of nitrous oxide gas. I have for some time been intending to publish my experience with it, and will delay no longer, as the advantages of using it are very evident; and it is right that its objectionable properties should not be concealed or too lightly treated, especially now that the warmer weather will increase the potency of all anæsthetics of this kind.

Ethidene-dichloride ($CH_3, CHCl_2$), as it is now found in the market, has not an uniform boiling-point. It can be divided by fractional distillation into two or more substances. That which I have lately been using has a specific gravity of 1225, boils at 115°, the temperature rising to 140°, at which it boils steadily and is nearly all dissipated. I am told that there are greater difficulties in the way of procuring the dichloride now than last year, in consequence of the waste-products in the manufacture of chloral, from which it was made, having been used up. At all events, the price has more than doubled within a year, and some of the samples I have examined have had a disagreeable after-odour. Hitherto it has nearly all been imported from Germany; but some of our English chemists are trying to make a purer drug, and I hope they will succeed.

Ethidene-dichloride mixes freely with alcohol, but only slightly with water—enough to flavour it only, but less than chloroform, which it resembles in taste and smell. It is less inflammable than alcohol. A piece of paper saturated with it does not readily take fire; but air passed through the liquid takes up a vapour which makes it burn at a jet like coal-gas.

The total number of cases in which I have administered it is *one thousand eight hundred and seventy-seven.* Of these, two hundred and eighty-seven have been major operations in surgery, including—

Amputation of breast	17 cases.
Excision of tongue	7 ,,
Excision of rectum	4 ,,
Lithotomy	7 ,,
Lithotrity	83 ,,
Stricture	6 ,,
Excision of eye	8 ,,
Cataract	15 ,,
Iridectomy	14 ,,
Squint	23 ,,
Excision of tumours	27 ,,
Excision of jaw	7 ,,
Fissure of palate	5 ,,
Hæmorrhoids	44 ,,
Fistula	16 ,,
Colotomy	4 ,,

The remaining 1,565 cases were of minor surgery, and the extraction of several or of difficult teeth; and these latter cases have put to the test the qualities of the drug, inasmuch as one administers at a disadvantage.

The table shows an experience sufficiently large to form a judgment of its use. Although, so far, my experience has been without a fatal case, I have sometimes noticed a depression of the pulse which has alarmed me; and I will to-day relate a case in which, during a struggle at the commencement of inhaling ethidene without nitrous oxide, the patient's heart suddenly failed, and he died. Although the disease of the heart was found sufficient to account for death, it was connected with ethidene, and its reputation for safety will suffer.

My usual plan of giving it is by first getting the patient nearly unconscious by means of nitrous oxide gas, and then gradually adding the vapour of ethidene. The general features of an administration are that the patient falls asleep, without moving a limb; a little convulsive twitching is seen, and then stertorous breathing; the pupils at first dilate, about the same time that stertor commences; a very little air is now given at every third or fourth respiration, and the pupil contracts. The quantity of ethidene is regulated according to the condition of the pupil of the unsteadiness of the patient, the pulse usually remaining much less affected than when the same narcosis is produced by chloroform. The anæsthesia usually continues some time after consciousness returns, and the patient awakes almost as from natural sleep, speaking clearly. The dreams are usually pleasant, often of rapid travelling or of music, and, if one whistle or sing, it often guides the dream in this direction. The patient, within two minutes of being in the most profound sleep, if it have lasted only a short time, will get up and walk steadily. The non-interference with muscular co-ordination is equally striking in the act of talking. Vomiting has occurred in about one-third of the cases of major surgery, and in about one-twentieth of the minor cases. It is more likely to occur if the vapour have been strong enough to excite swallowing. Without exception, the vomiting has ceased sooner than it usually does after chloroform. You had an opportunity last week of seeing what it can be made to effect in a difficult operation on the mouth. A little delicate child, aged nine, was kept asleep an hour and a half, perfectly quiet, without vomiting, and even without coughing, except when the blood tickled the throat. The other severe operations on the jaw and tongue have been also very satisfactory. A private patient of Mr. Heath, and another of Mr. Hill, each had the tongue removed; the quietude during the operation and the rapidity of recovery being remarkably good. I think the most triumphant anæsthetic case I ever had was that of a patient of Mr. Durham, who removed a large malignant tumour of the palate, together with a group of indurated lymphatic glands, from the neck. Anæsthesia was perfectly sustained for an hour and a half; the patient awoke in capital spirits, and made a rapid recovery from the effects of the operation. Unfortunately, it sometimes depresses the heart's action. I have been seriously alarmed by this, and have been obliged on three occasions to lower the patient's head and induce artificial respiration. By this means, recovery has been so easily effected that I hoped that, by being on the watch for failure of circulation, it would be possible to keep the patient always safe. However, some persons have a tendency to faint from various causes; some from particular smells, others from fear. I once saw a patient fall down on the floor of my room, and thought him dead; on recovering, he told me it was the sight of a pair of common dissecting-forceps I held in my hand which frightened him, and that he had had a similar attack when looking over a hospital on the continent. And then there is true fatty degeneration, which cannot always be diagnosed.

CASE I.—A lady, about 60, had lost blood from a vascular growth of the urethra. Within the first two minutes of inhaling, I felt the pulse become small, and removed the inhaler at once. She continued breathing regularly fifteen or twenty times, then the breathing intermitted; the pulse was now imperceptible. I used artificial respiration. She recovered in two minutes; the pulse remained feeble; but I kept her insensible by occasionally giving the dichloride during the operation.

CASE II.—A gentleman, aged 30, was about being operated on for fistula. I gave nitrous oxide till he was stertorous, adding ethidene carefully. The pulse becoming small, I allowed fresh air for three inspirations. He then became delirious, and struggled, passing quickly into a state of opisthotonos. I allowed air till he had so far recovered as to speak, and then renewed the ethidene. As he became stertorous, I noticed the pulse become intermittent and stop. I removed the inhaler; the breathing continued to be free and regular. In about twenty seconds, the pulse returned; the patient awoke in five minutes in glorious spirits, though covered with perspiration. No vomiting followed.

CASE III.—An old gentleman had lost blood for a long time from piles. At first, I had difficulty in making him breathe regularly. At last, he commenced panting very quickly. As he began to snore, I noticed the pulse begin to fail, and it stopped. I drew his head to the edge of the bed, allowed it to fall back, and drew forward the tongue with my long finger passed into the pharynx. Artificial respiration was carried on for two minutes, when he recovered. He was put again in position, and I continued to keep him insensible by ethidene during the operation. In five minutes after it was over, he expressed his satisfaction in the liveliest manner.

In the first and third cases, I believe that the percentage of ethidene vapour was higher than usual, and that the rapidity of their recovery showed its superiority to chloroform. But it must never be forgotten that it cannot be used with the same freedom as ether may be.

I have now to mention a case of cardiac syncope, which terminated fatally.

A man was about to have an operation performed for hæmorrhoids. He was palish from the loss of blood which had been going on for six months. He was in the wine and spirit trade, and had lately had a carbuncle; otherwise, there was nothing particular in his history. The heart-sounds were normal. He had not eaten or drunk anything since the previous night. Laughing-gas had not acted satisfactorily, when he took it to have a tooth extracted. He struggled a good deal, and felt the pain, he said.

Being placed on his right side with his knees drawn up, dichloride of ethidene was administered with the gas- and ether-inhaler. He did not respire regularly at first; but he never coughed, and was not observed to swallow. After twelve or fourteen respirations, he talked, and commenced to struggle. The face-piece was then removed for a little distance from the face, to allow him to breathe some fresh air. The struggling and convulsive movement which followed interfered with the precise observation of the state of the pulse; when these had ceased, there was hardly any pulse, and it soon disappeared; but he continued to breathe ten or twelve times in a satisfactory manner, and then a pause was noticed between the respirations. His head was immediately extended backward and downward over the edge of the bed, and the tongue drawn forward, whilst the feet were raised, and artificial respiration commenced. This, in about a minute, restored him so far as to cause him to try to speak in an indistinct manner, as a patient often does just before waking up. The pulse became distinct, all danger seemed past, and he was again placed in the position for operating. In doing this, he seemed to raise his head voluntarily, and some more of the anæsthetic was about to be given, when the pulse was again noticed to be failing. Without loss of time, the artificial respiration was recommenced as before, and, during the first three minutes, there were several natural gasping inspirations, but the pulse was never felt again. The case becoming desperate, an opening was made through the crico-thyroid membrane into the larynx, and a silver tube introduced. Air was blown through the laryngeal tube, during artificial inspirations, for three-quarters of an hour, after which it became evident that further attempts were useless.

The *post mortem* examination, made by Mr. Samuel Lloyd of Bloomsbury, revealed a large flabby heart, with the usual amount of fat on it; the substance seen on section, of pale tint mottled with yellow, having the ordinary appearance of fatty degeneration. The lungs were a little emphysematous, and congested posteriorly, but fairly crepitant. The spleen was friable; other organs healthy; the liver rather large.

The heart was carefully examined by Dr. Crosby, who wrote the following notes of it. "The apex of the heart, including the extremities of both ventricles, was covered with a layer of fat five-eighths of an inch in thickness, which mingled with the muscular wall so as to render it difficult to define where one ceased and the other began. The microscope showed the muscular tissue at this part to have undergone extensive degeneration, whole fibres consisting of strings of fat-globules, displacing the true sarcous elements. At other portions, where to the unaided eye the muscle appeared fairly healthy, abundant deposits of oil-globules existed."

REMARKS.—With reference to this sad case, the first question is, What was the cause of death? It was clearly one of cardiac syncope, the breathing continuing for some time after the circulation had stopped. It could be accounted for, first, by supposing the administration of an excessively strong dose of the anæsthetic; secondly, by exhaustion of a weak heart in consequence of violent effort; or, thirdly, by the inefficiency of the heart's action, produced by advanced fatty degeneration. Such a heart as we found was ready to cease beating from comparatively slight causes. He had inhaled but a small quantity of the anæsthetic, and for a short time. Holding the head in a depending position, with the feet raised, and ten or twelve artificial respirations, were followed by a gasping inspiration, his pulse became regular, and he commenced speaking. Had the syncope been produced by a large dose of dichloride, the pulse would not have so soon recovered on lowering the head. If recovery of the heart's action had been brought about by the artificial respiration dissipating the vapour from the chest, and so supplying the heart with purer blood, the heart, once fairly started again, would probably have continued to act. Nevertheless, as death was probably the result of several factors, may not the depressing effect of ethidene have made the syncope fatal, which, under gas or chloroform or ether, might have been recovered from? What we know of the stimulating effect of ether would lead us to conclude that it would have been safer, but the struggling produced by ether would have been dangerous in this particular case. Had chloroform been used, and the same struggling occurred, the chances of resuscitation would have been less. The case shows how very important it is to watch the pulse as well as the breathing. The respiration was effectually performed some time after the pulse ceased to be perceptible. If the inhaler had been applied until the breathing showed signs of danger, the restoration of the circulation, which unfortunately was for a brief time only, would not have occurred at all. In any case where the pulse is observed suddenly to fail, I would not only remove the inhaler from the face, but use a towel or some kind of fan to blow the vapour away from the patient's lips, and I would also assist the natural respiration by gentle pressure on the sternum during the respirations. Seeing, also, that raising the patient to a position for operating was quickly followed by syncope, I would, in a similar case, keep the head dependent until recovery were complete, in spite of the disadvantage of having a struggling patient to deal with.

Some of you may ask whether the failure of the heart might not arise from the stoppage of blood in the lungs, through their not being supplied with oxygenated blood. My reply is, that the circulation was restored, and the patient's lips became of almost natural colour when he was put back in position for the operation, and the inhaler was not again applied. Moreover, in giving gas, ether, or ethidene, I have always excluded air, upon the same principle, until voluntary struggling has ceased; and these cases in all exceed twenty thousand, amongst which not a single death occurred.

REMARKS

ON ULCERATIVE ENDOCARDITIS, OR MULTIPLE EMBOLISM.*

By J. S. BRISTOWE, M.D., F.R.C.P.,

Physician to St. Thomas's Hospital, etc.

THERE are few subjects more interesting to the practitioner than embolism; but, of all its forms, that which now often goes by the name of ulcerative endocarditis—that form in which the granulations developed on inflamed valves, and may be the diseased valves themselves, tend to undergo disintegration and to be shed in small fragments into the blood-stream—is at once, perhaps, the most interesting and the most obscure.

The cases here referred to are certainly common; but there can be no doubt that they are largely misinterpreted, being apt, according to circumstances, to be mistaken for cases of ague or malarial poisoning, for cases of chronic pyæmia, for cases of enteric fever, for cases of subacute rheumatism, for cases of tuberculosis, and not improbably for many other affections of different kinds. The symptoms, indeed, of ulcerative endocarditis may simulate those of any of the diseases here named. There is generally, however, something special in the symptoms, something peculiar in the progress of the case, something suggestive in the circumstances under which the symptoms have arisen which stamps its nature. Especially there is generally manifest heart-disease; generally there has been antecedent rheumatism; and generally, in addition to a febrile temperature of hectic or remittent type together with the various phenomena referable to such temperature, sooner or later distinct implication of certain organs may be recognised.

I shall not stop to consider the question whether ulcerative endocarditis is dependent on the presence of micrococci in the blood and in the cardiac lesions, as many German writers contend, further than to state my own belief that, as a general rule, at any rate, there is no causal relation between them. I believe that the disintegration, or ulceration if you will, may take place spontaneously, so to speak, in any of the inflammatory or degenerative affections of the valves or other parts of the endocardial surface; and that it is especially common after or in the course of acute rheumatic endocarditis. The particles which become detached, suspended in the blood, may of course be carried into any of the terminal systemic arteries, and no doubt are carried indifferently to various parts of the body. But the consequences of their impaction will of course depend partly on the size and anastomotic relations of the arteries in which they become arrested and which they obstruct, and partly on the importance of the organs to which the obstructed arteries belong. And hence, since the brain and kidneys and spleen not only are important organs, but are supplied with arteries which beyond a certain point do not anastomose with one another, and which, therefore, if obstructed, are liable to involve the softening and disintegration of the districts to which they lead, it is easy to understand why they especially should manifest the consequences of embolic obstruction. And, as a matter of fact, in ulcerative endocarditis, the vessels of the spleen become from time to time thus occluded; so-called "infarcts", or wedges, varying, it may be, from the size of a walnut downwards, are developed in its substance, and the organ becomes enlarged. The renal vessels become similarly affected; infarcts, wedge-shaped and extending from the surface vertically inwards, form, and the kidneys enlarge. As regards the brain, no doubt analogous conditions are always liable to arise; and occasionally effusions of blood or circumscribed softenings occur, as in a case of ordinary embolism. It must be added, that in the walls of the heart, in the liver, and elsewhere, small points of disintegration, surrounded by congestion, occasionally appear, doubtless due to the same cause; that smaller or larger extravasations of blood are liable to take place beneath the integuments and serous membranes; and, further, that inflammation of the serous membranes (occasionally suppurative) is apt to supervene. As a general rule, of course, disease is limited to the left side of the heart; and consequently the arteries of the lungs escape the pluggings to which other arteries are liable.

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* Read before the East Surrey District of the South-Eastern Branch.

It will be gathered from the above remarks, that the main indications of ulcerative endocarditis are the supervention, in a case of manifest valvular disease of the heart, of remittent febrile symptoms of more or less irregularity, attended with rigors, and in which the temperature may rise to 105° and upwards, and sink below the normal; and the occurrence, sooner or later, of symptoms pointing to the implication of the various organs above specified, especially tumefaction and tenderness of the spleen, and albuminuria, associated possibly with tenderness and pain in the loins. Other phenomena, which are much less frequent, but which tend to establish the correctness of the diagnosis, are jaundice referable to congestion of the liver, serous inflammations, and paralytic or other symptoms referable to the brain.

I refrain from here discussing the symptoms of ulcerative endocarditis at length, because the cases which I now proceed to narrate will give a more complete picture of the disease than a mere formal discussion could possibly do. I should like, however, to add that, in my view of the question, the difference between a case of ordinary solitary embolism and one of ulcerative endocarditis or multiple embolism is only one of degree; that, between these, which may be regarded as the extremes, many intermediate conditions occur; and that the phenomena of ulcerative endocarditis, of which my cases are extreme examples, occur temporarily, or (so to speak) in a dilute form, in many cases of heart-disease, probably without being recognised as such.

CASE I. *Syphilis (?): Ulcerative Endocarditis: Symptoms simulating those of Ague: Infarcts in Kidneys, probably also in Spleen and Heart: Suppuration of Serous Membranes: Death.*—A. J., a married woman, aged 35, was admitted into St. Thomas's Hospital under my care on February 12th, 1878. She seemed to have been a fairly healthy woman, and never to have had rheumatism or any other serious disease until within the last fourteen months. She had had, however, two miscarriages. During the last fourteen months, she was said to have suffered from syphilis. She had sore throat, sore places on the lips, breakings out about the body, and falling off of hair. In October last, she stayed at Overton, a village in Hampshire; and, on her return to London, was attacked, as she said, with ague. The fits came on once and sometimes twice a day; comprised a cold, a hot, and a sweating stage; and lasted generally for several hours. Her illness continued for six weeks. After an interval of two or three weeks, they recurred in the second week of December, and continued without intermission until December 23rd. She was then quite well, she said, for two days; but on Christmas Day she went into a cold bed, to which she attributed the return of her malady, which came on at once and had persisted ever since. During the last four weeks, the paroxysms had recurred regularly every twelve hours. She said, however, that the paroxysms were now of longer duration than formerly; and that the severe rigors she once had were replaced by a slight creeping sensation. She had lost flesh, and latterly her appetite had been bad.

She was a thin, dark, sallow-looking woman, sensible, but somewhat lethargic in manner and appearance. There was no eruption on the skin, or other sign of syphilis. Her tongue was moist, but slightly furred; her appetite was moderately good; her bowels rather confined. The lungs were normal; respirations 20 in the minute. Præcordial dulness was normal. The apex of the heart beat just below the nipple, and feebly. There was a loud systolic mitral murmur. Pulse regular, small and weak, 116. Her temperature at the time this note was taken was normal. The liver-dulness was not increased. The splenic dulness was about two inches and a half long; but the organ did not extend below the ribs. The urine was free from albumen.

For the first four days, or rather from the afternoon of the 12th, when she was admitted, until midnight on the 15th, she was put under no special treatment; but she was carefully watched, and her temperature taken every hour. During this time, she had five distinct ague-like attacks, each of several hours' duration, the first of which reached its height at midnight on the 12th; the second, midday on the 13th; the third, early on the morning of the 14th; the fourth, at midnight on the 14th; and the fifth, midday on the 15th. Each attack presented a cold, a hot, and a sweating stage; and during each the temperature rose to from 104.8° to 105°, and fell in the intervals to from 97° to 95.8°. She continued ill and weak. On the morning of the 16th, salicylate of soda was ordered, and it was continued until midday on the 19th. It had its usual influence in causing headache, noises in the ears and deafness, sickness, and on the night of the 19th hallucinations. For the first two days, it was given in half-drachm doses before each expected attack. Throughout the latter part of the time, twenty grains were administered every two hours. During this period of three days and a half, she had six distinct febrile paroxysms: two on the 16th, in each of which the temperature rose to 105.6°, and between which it fell to 104.6; two on the 17th, and two on the 18th, in which the height of the temperature-curve gradually fell to 103.4°, and in connection, at any rate, with the earlier of which, the interparoxysmal falls were diminished. The paroxysms, however, on the whole, were becoming more frequent, and probably the falls were interrupted in consequence. On the morning of the 19th, however, the temperature sank as low as it had ever done, and remained low for an unusual length of time. There was still no improvement in her general condition.

At midday on the 19th, quinine in five-grain doses three times a day was substituted for the salicylate, and the treatment was continued until midday on the 26th. The temperature during this time underwent considerable change, and presented remarkable variations. On the 19th, 20th, and 21st, it scarcely rose at any time above 100°, or sank below 97°; but its oscillations between these extremes were frequent; and, although she had no rigors, her skin presented at different times extreme cold, great heat, and profuse perspirations. But during the next five days the febrile attacks acquired, with some degree of irregularity, their old intensity. Within this period, she had ten distinct attacks, in most of which the temperature reached to between 103° and 104°, with intervening falls to 96° or 97°. During the whole of this time, she was evidently becoming worse and worse. She was drowsy and apathetic, and indisposed to answer questions; she was exceedingly pale and sallow; she was once or twice sick; she was troubled part of the time by a cough, attended with a little sanguinolent expectoration; and her tongue, which was at first clean, latterly became dry and fissured. But she was in no pain. Her respirations were 24 in the minute, and her pulse varied only from 96 to 100. There was no physical sign of pulmonary mischief. On the 26th, her tongue was dry; her abdomen was slightly tumid; there was some tenderness in the splenic region, with slight splenic enlargement; the urine, which had a specific gravity of 1025, contained a small quantity of albumen, with hyaline casts and mucous corpuscles; and the blood presented a marked excess of white corpuscles. Dr. Sharkey noted, besides the systolic murmur at the apex, a localised rough to-and-fro sound at the base of the heart.

About noon on the 26th, five minims of liquor arsenicalis were ordered to be given three times a day; and the medicine was continued until her death on March 1st, at 6 A.M. The temperature fell to 95.3° in the afternoon of the 26th, and rose to 105° about midnight; it fell the next morning to 95°, and rose about noon to 105°. Subsequently, the variations of temperature were very numerous; but it never fell again below 100°, or rose above 105°, and for the most part oscillated between 102° and 104°. At the moment of death, it was 101.6°. During this time, she was manifestly sinking. She was becoming weaker and thinner, and more apathetic; was very sleepy, and indeed somewhat comatose, and at times inclined to ramble. Occasionally she passed her urine unconsciously. Her tongue and lips were dry and cracked; her teeth were covered with sordes. Extension of dulness with some degree of tenderness still continued in the splenic region. The urine had a specific gravity of 1012, and contained albumen. Respirations 24; pulse 108. She became more and more comatose, and died without any other marked change in her symptoms.

NECROPSY.—The body was pale, well nourished, and somewhat fat. The peritoneal cavity contained a pint of semipurulent fluid, mixed with ropy pus; no congestion. There were old adhesions about the uterus and ovaries. The liver was large, soft, and flabby; the lobules were coarse and fatty. The spleen was six inches long, three inches wide, and three-quarters of an inch to an inch thick; it was dark-coloured and pretty firm. One or two small dark red spots, suspicious of embolism, were seen here and there. The kidneys were small, especially the left; their capsules were partially adherent; their surfaces were smooth, but with small scattered depressions due to old infarctions. The colour of these was dead white, with here and there a yellowish tinge and small red or purplish dots. On section, some reddish cones of more or less recent infarction—chiefly small—were also observed.

The cortex was pale and somewhat atrophied. The pericardium contained an ounce of slightly turbid fluid, and presented a few small ecchymoses. The heart was somewhat enlarged; both ventricles, but mainly the right, being dilated. The muscular tissue of the organ presented two minute, apparently embolic, abscesses. All the valves were healthy, with the exception of the mitral. On looking at this from the auricular aspect, a mass apparently as large as a marble seemed nearly to fill the orifice. This was adherent to the posterior segment. It consisted of an irregular outgrowth of vegetations, which hung down into the ventricle, and measured three-quarters of an inch vertically by half an inch thick. The chordæ tendineæ connected with the diseased arteries were thickened, and several were ruptured. The auricular surface was slightly granular; the ventricular very irregular and eroded. The mass was of irregular consistence; in some parts hard; in others soft and crumbling. The pleuræ contained from a quarter to half a pint of turbid puriform fluid, and presented a few subserous petechiæ. The lungs were generally crepitant, but presented here and there small ecchymoses, in the centres of some of which were small firm plugs of fibrin. No further disease was discovered.

REMARKS.—This case is a very interesting one, and one for several reasons specially interesting to myself. In the first place, I am bound to acknowledge that, although on admission I made a note of the mitral murmur, I was so satisfied, from the statements made by the patient and from the character of her symptoms during the first two or three days of her residence in the hospital, that she was really suffering from ague, that I not only neglected to attach any importance to her cardiac affection, but actually for a time forgot that there was anything the matter with her heart. Consequently, when, after the lapse of a few days, I had satisfied myself that her symptoms were not due to malarious influence, I looked, not to the heart, but to the uterine organs, for the source of the symptoms, which I was now disposed to regard as pyæmic. There was nothing in the history, however, and nothing in the symptoms, to indicate affection of these parts; and when the cardiac disease was, so to speak, rediscovered, the case was regarded, as in fact it turned out to be, one of ulcerative endocarditis. How long her heart-disease had existed, and what was its cause, could not be determined; but probably the disease was due to a forgotten attack of rheumatic fever, or had occurred in connection with her syphilitic symptoms during the last twelve months or so of her life. The symptoms were interesting, not only from their resemblance to those of ague, but because antiperiodic remedies had little or no important influence over them, and because of the long intermissions which occurred during their progress. The enlargement and tenderness of the spleen, and the albuminuria which came on in the course of the disease, were important diagnostic signs. The *post mortem* examination confirmed the opinion previously held as to the nature of the case; for not only was the affected mitral valve in a condition of disintegration, but numerous infarcts were found in the kidneys; the spleen was large, and presented indistinct traces of the same condition; there were minute spots of disintegration in the heart; and there were numerous subserous petechiæ, and a tendency to suppuration in the peritoneal cavity and in the pleuræ.

CASE II. *Rheumatism: Ulcerative Endocarditis: Infarction in Spleen and Kidneys: Extravasation of Blood into Right Cerebral Hemisphere: Epileptic Attack: Death.*—H. A., a married woman aged 26, was admitted into St. Thomas's, under Dr. Stone, on November 25th, 1879. She was married eight years ago, and had had four children, who were living, and one miscarriage. She had an attack of rheumatic fever early in 1878, which came on whilst she was suckling, and left her with some difficulty of breathing. In all other respects, she had been well down to nine weeks ago; when she caught cold, had a dry and painful cough, and took to her bed. She had had no rigors or vomiting; had perspired a good deal; had felt weak and ill, and short-breathed, and the catamenia had been absent. She had only left her bed for a day or two at a time since.

She was thin, pale-faced, suffered from shortness of breath on exertion, and had some pain, with slight effusion, in both knee-joints. The tongue was coated, moist; the appetite bad; the bowels confined. The temperature on admission was 100°. The area of cardiac dulness was increased; the impulse was diffused, powerful. A loud systolic murmur was audible at the apex, which beat in the nipple line. The murmur was conducted round to the axilla, and might be heard at the angle of the scapula. The pulse was 96, regular. The lungs were healthy; the liver-dulness was normal; the spleen measured three and a half inches in its longest diameter, and the point which was tender could be felt below the ribs. The urine was of specific gravity 1018; it contained no albumen.

By December 3rd, the pain in the knee-joints had subsided; but she still continued weak and ill. On the 5th, the urine was found to contain a trace of albumen; its specific gravity being 1015. About the same time also she began to complain of pain and tenderness in the loins. On the 13th, she was complaining again of pain in her knees, and also in the ankles. She was becoming manifestly weaker and thinner, was somewhat deaf, and disinclined to answer questions. About the same time, she began to suffer from cough, and it was observed that she perspired profusely. On the 18th, she complained of a sense of weakness in the right hand and arm, but there was no perceptible difference in the grasp of the two hands. It was also discovered at this date that her sight was dim; and on ophthalmoscopic examination, many floating opacities were found in the vitreous humour of both eyes, especially the right, which obscured the fundus. On the morning of the 20th, the temperature rose to 102°, and small petechial spots were found studding the trunk and extremities; but were chiefly abundant on the chest. She was extremely weak and emaciated. Her face was very pale, but the cheeks presented at times a slight hectic flush. She had a slight cough, unattended with expectoration or local signs of disease. The cardiac murmur remained without change. The spleen was still enlarged; and the urine was scanty, albuminous, smoky, and of 1016 specific gravity. On January 3rd, it was reported that she had spat a little blood on December 31st, and that she had slept well, and, on the whole, had improved a little in her condition. But petechiæ were still present on the chest; and her urine had a specific gravity of 1020, and contained albumen; and she was drowsy and apathetic. She remained in the same state down to the morning of the 7th, when, at about 9.30 A.M., she was suddenly seized with a fit. She was insensible and rigid, with some gurgling sound in her throat for about a minute; she then struggled and bit her tongue; but there was no distortion of the face. The eyes were turned upwards; the pupils were equal; there was no squinting; the face was pale; and the respirations gasping, and about nine in the minute. Her extremities were cold. She died in about half-an-hour.

One or two additional facts in regard to this case may here be added. 1. Throughout her illness, the temperature generally varied daily between 98° and 99°, on the one hand, and 101° and 102°, on the other; it was usually lowest in the morning and highest in the evening; but sometimes the morning and evening temperatures were febrile and at about the same elevation; and once or twice the morning temperature was higher than that of the evening; further, on two or three occasions, the temperature was subnormal, and on two or three rose to nearly 103°. 2. The pulse was, for the most part, not very rapid, varying between 90 and 96. 3. And lastly, her temperature, on the morning of her death, previously to the fit, was 98.6°.

NECROPSY.—The body was much emaciated. There were small petechiæ on the surface of the pericardium, which contained eight ounces of fluid. The heart weighed twelve ounces; it was hypertrophied. The valves were healthy, with the exception of the mitral, which, on its aortic segment, presented an irregular area, of the size of a shilling, which was rough with papillary elevations and long shaggy outgrowths. There were petechial spots on the visceral pleuræ. The lungs were œdematous, but otherwise healthy. The peritoneum was studded with small hæmorrhagic spots. The liver was pale and friable; healthy. The spleen was large (twelve ounces), soft, containing a large number of infarcts; some pale and old and perfectly decolorised, others quite fresh. The kidneys were large (together weighing fifteen ounces). The surfaces were congested, with here and there petechial spots. Some small infarcts, for the most part not very recent, were scattered through both, together with patches of probably both interstitial and tubular nephritis. Below the dura mater, covering the right hemisphere of the brain, was a large mass of clotted blood recently effused. This had come from a hole in the lower part of the parietal lobe. On section, the hæmorrhage was found to extend about an inch into the substance of the brain. On the surface, in connection with the hæmorrhage, was a small cavity, about the size of a pea, with a well-defined wall, the origin of which was not clear. The vessels at the base were healthy.

REMARKS.—This was a typical case of ulcerative endocarditis coming on as a sequela of, and in connection with, rheumatism. The febrile symptoms, the increasing debility, the enlargement and tenderness of the spleen, the albuminuria, and the petechiæ, associated as they were with distinct heart-disease, all combined to render the nature of the case clear. The point of chief interest in the case, however, was the sudden occurrence of cerebral symptoms due to abundant extravasation of blood into the tissue of the brain. Was this a mere accidental coincidence, or was it the direct consequence of her disease? Considering her age, and that no degenerative affection of the arteries was present, my own belief is that the hæmorrhage was connected with cerebral embolism: itself a consequence of the ulcerative endocarditis. It is known that embolism leads to weakening of arteries and to the formation of aneurisms; and it is not improbable that the rupture of one of the cerebral arteries in this case may have been due to that cause. The nature of the small cyst in the neighbourhood of the hæmorrhage was not made out.

CASE III. *Acute Rheumatism: Ulcerative Endocarditis: Deposits in*

Spleen and Kidneys: Cerebral Embolism with Hemiplegia and Aphasia: Death.—A. H., a girl aged 13, was admitted into St. Thomas's Hospital under my care on April 8th, 1879. Five years ago, she had an attack of acute rheumatism, followed by a relapse, since which time she had been perfectly well down to the commencement of her present illness. She had suffered from no dyspnœa or palpitation until, she said, two months ago. Six weeks since, she complained of stiffness of legs, followed by pain and swelling in the knees and ankles. The symptoms subsided in a week's time, but recurred after the lapse of another week. At this time, she was attacked with pain and swelling in the right knee and left wrist.

On admission, her face was pallid, but her cheeks slightly flushed; she complained of pain in the right knee and left wrist, which joints were red, swollen, and tender. There was no cardiac pain, or indeed pain anywhere else. Pulse 96, regular, soft. The cardiac impulse was diffused, the apex apparently beating one inch outside the left nipple in the fifth interspace. The præcordial dulness measured at this level about two inches and a half across, and extended upwards to the upper level of the third rib. A loud blowing systolic murmur, transmitted mainly towards the axilla, and heard at the angle of the left scapula, was audible at the apex. The sounds at the base were natural, with the exception that there was accentuation of the second sound. The lungs were resonant, and the breath-sounds normal. The tongue was moist and coated. Her appetite was fair; she had no thirst. The splenic dulness was normal. There were no signs of abdominal affection. The urine was of specific gravity 1,022; clear, without albumen. She slept well. The temperature on admission was 97.4°. It rose in the evening, however, to 102.6°, at which time the pulse was 120°.

The next morning (the 9th), the rheumatic symptoms continuing, and the temperature remaining elevated (100.4°), with pulse at 120, she was ordered 20 grains of salicylate of soda with syrup of orange-peel and water every four hours. She was put also on milk diet with beef-tea.

By the morning of the 10th, the inflammation of the joints had wholly subsided, but the temperature remained febrile, and she was weak and poorly. She continued with little change down to the 15th, on the morning of which day, although her temperature was only 98.8°, her pulse was 132, and her tongue coated; she made no complaint, however. The salicylate was discontinued, and a draught containing a grain of quinine was ordered three times a-day. That evening, her temperature rose to 103°.

The next morning (16th), her temperature had fallen to 99°. The tongue was coated. Pulse 112; temperature 26°. There was no joint-affection; and in fact nothing special to remark, except, perhaps, that she was quiet and apathetic, and remained weaker than one would have expected. In the evening, however, there was slight return of pain and swelling in the ankle and wrist. This continued, not very severe, until the evening of the 18th, the temperature on the evening of the 17th rising to 103.4°.

From this time forward, there was no return of rheumatism; but there was no improvement in her condition generally. She lay in bed, pallid, quiet, and uncomplaining; not acknowledging any pain or suffering, and generally answering that she was better; her appetite remaining fairly good; and her bowels acting naturally. She was becoming, however, progressively thinner and weaker; and her temperature, which had much of the hectic character, presented remarkable fluctuations. It was almost always lower in the morning than the evening; at the former time, indeed, it was often normal or even subnormal; and at the latter, rose occasionally to 100°, but more frequently to 102° or 103°. The highest temperature (with the exception of that preceding death) was 103.8°. She never had rigors. About the middle of May, it was noted that her legs had become contracted at the knee-joints, not from any rheumatic affection, but simply from having lain so long motionless in bed, and extension was applied; but it caused much pain, and was not persisted in for any length of time; and, about the end of April, a rough murmur, increased by pressure, was audible at the base of the heart. This was probably pericardial; at any rate, it soon disappeared. The systolic murmur at the apex persisted without change.

The continuance of the above symptoms after all the rheumatic affection had disappeared—and at a time when, from the absence of dyspnœa, cough, and expectoration of blood, of distension of the systemic veins and dropsy, and of irregularity of pulse, there was no reason to believe that the mitral valve disease which was present was yet causing its mechanical consequences—led me naturally to suspect that they were referable to multiple embolism. And consequently we looked carefully, from an early period of her illness, to the condition of the spleen and kidneys, in which organs especially embolic infarcts are met with under such circumstances.

A trace of albumen was first detected in the urine on April 14th. This might have been due to the influence of the salicylate. A small quantity was again observed on the 22nd and on the 24th. On the 25th, there was none. Henceforth, a small quantity of albumen was found on every examination but one or two, the urine being for the most part scanty, clear, and of high specific gravity.

On June 6th, it was first clearly recognised that the spleen was enlarged. Its dulness had an extent of four inches in the mid-axillary line, extended forwards, and, on deep inspiration, the lower extremity of the organ could be felt below the ribs. It was not tender at this time. On the 28th, it was first noted that, in addition to the splenic enlargement, she had been complaining for a few days of severe pain in the splenic region—so severe as to cause her to cry out—together with tenderness.

She continued thus, becoming weaker, thinner, and paler, more and more apathetic, and latterly drowsy, until July 14th. At 8 A.M. on that day, she was apparently in her usual condition; but at 11 A.M., she was found by the nurse to be paralysed and speechless. She had completely lost the use of the right arm and leg, her mouth was drawn to the left, and the right side of the face was generally weaker than the other. There was no loss of sensation, nor was there any loss of sight in the right eye. The pupils were equal and contracted to light. She whined a little from time to time, but did not utter any articulate sound. She passed her evacuations unconsciously. She was not unconscious, but did not seem to understand what was said to her. About this time, her temperature ranged from 98.2° to 98.8°, her respirations were about 30, and her pulse 114.

She now gradually sank. There was no appreciable improvement in her paralytic symptoms, and she remained entirely speechless. She seemed to suffer from pain in the left leg, which she frequently rubbed. With her left hand she was constantly picking at her lips or at the bed-clothes. She frequently moaned, and had much difficulty in masticating and swallowing. All her evacuations continued to be passed into the bed. The urine, which on one occasion was removed by the catheter, was found to be turbid, of specific gravity 1032, and containing much albumen. Her pulse, during the 15th, 16th, 17th, and 18th, ranged from about 140 to 156; her respirations from 30 to 44; and her temperature gradually rose from 100.2° on the morning of the 15th, to 106.6° shortly before her death at 7.45 P.M. on the 18th. She perspired profusely also during this period.

NECROPSY.—The body was much emaciated. There was no evidence of pericarditis. The heart was somewhat hypertrophied. All the valves were healthy except the mitral, the free edges of which were puckered and studded with irregular, pedunculated, friable, wart-like masses. The surface of the left auricle in the neighbourhood of the valve for about a square inch was rough and granular, with inflammatory exudation. The lungs and pleuræ were healthy. The liver was natural, but for a patch on the upper surface several inches square, and extending an inch or so in depth, in which the tissues were of a port-wine hue. The spleen was much enlarged, and presented three or four large infarcts; the largest of which, occupying the lower extremity, was as big as a Tangerine orange, and softened in the centre. The kidneys were pale, mottled, and somewhat enlarged, with preternaturally adherent capsules. Their surfaces presented numerous depressions, which corresponded to contracting infarcts. Besides these, there were many wedge-shaped infarcts of more recent formation. The brain at first sight was healthy. The left middle cerebral artery, at a short distance from its origin in the fissure of Sylvius, was plugged by a small clot, in which was imbedded a branching yellow friable mass, exactly like those attached to the mitral valve. The distal and proximal parts of the vessel were both plugged with recent clot. The caudate nucleus of the corpus striatum, the anterior part of the ventricular nucleus, and the portion of the internal capsule between them, together with the anterior extremity of the optic thalamus, were much softened. The white matter external to and around the corpus striatum and the grey matter on the surface was only very slightly, if at all, affected.

REMARKS.—This also was a case of much interest; but it calls for few remarks beyond those incidentally made in the foregoing narrative. There was no apparent reason why, when her rheumatism had subsided (as it had done, a few days after admission), she should not speedily have recovered. There was a cardiac murmur, no doubt; but the cardiac disease had not induced any of the usual mechanical ill-consequences, and in that sense was not incompatible with restoration to fair health. But the expected amendment never came. Instead, she remained weak and febrile, and before long it became only too apparent that ulcerative endocarditis had supervened. Progressive debility and apathy, persistent hectic temperature, the supervention of enlarged and painful spleen and of albuminuria, combined to render the nature of the case clear. The occurrence of cerebral embolism, with hemiplegia and aphasia, was a striking incident in the case.

CASE IV. *Heart-Disease: Ulcerative Endocarditis (?): Enlargement and Tenderness of Spleen: Albuminuria.*—E. A. E., a girl eighteen years old, was admitted under my care on February 22nd, 1878. She had had scarlet fever and other diseases common to childhood, but had never had rheumatism or other serious illness. She was said, however, to have been short-breathed and liable to colds. The catamenia had been absent for eleven months. Her present illness commenced a week before admission, and was attributed to kneeling on damp stones. Since then, she had suffered from bad cough, had been frequently sick, and had perspired much at night. Three days ago, her face and legs became swollen. She had been passing urine frequently. The bowels had been regular.

She was in fair condition, and had a high colour, which was natural to her and often became bluish on exposure to cold. The face was puffy and shiny. The feet and legs were much swollen. The tongue was moist, covered with a thin white fur; appetite fair; bowels open; urine pale, clear, 1015; no albumen. Her cough was troublesome; there was no expectoration. Respirations 48; pulse 104; temperature 101°. She complained of headache, but had no other pain. The lungs were fairly resonant, but there was a good deal of crepitation audible over the lower half of the right lung. The præcordial dulness was increased in all its dimensions; and a marked thrill was perceptible over the apex. As regards the sounds of the heart, it may be at once stated that they were a source of considerable interest and frequent examination. The conclusions to which we came, however, were that there was a diastolic murmur (probably aortic) audible along the sternum, but scarcely at all over the aortic valve itself; a musical systolic murmur over the right ventricle, and probably, therefore, regurgitant tricuspid; a deeper-toned, but somewhat indistinct and variable, systolic murmur audible at the apex, which was probably mitral regurgitant; and a diastolic murmur internal to the apex, which blended to some extent with the aortic diastolic murmur, but was of slightly different rhythm, and apparently a presystolic murmur. She appeared, therefore, to be suffering from regurgitant aortic disease; from obstruction and regurgitant mitral; and from regurgitant tricuspid.

During the first three days of her stay in the hospital, her cough subsided; her anasarca disappeared; and her temperature, which rose at times to over 102°, sank by the end of that time to about 99°.

From this time forward to the middle of May, she remained weak, and indisposed for exertion, and suffering off and on from sickness, headache, pains in the chest and abdomen, and slight cough. For a few weeks at the beginning, she was troubled with conjunctivitis and pain in the eyes; for about a week dating from March 12th, the pulse at the wrist varied usually between 44 and 60; the beats of the heart, which were alternately strong and weak, being exactly twice as frequent; and the respirations were rapid, occasionally amounting to 64 in the minute. During the earlier part of this period, the temperature ranged between 97° and 99.8°; but during the latter part of it, mostly varied between 99° and 101°.

On May 17th, her temperature rose to 102.7°, and she complained of a sharp cutting pain in the left side of the chest, which prevented her from sleeping that night. From this time to the beginning of August, her daily temperature ranged for the most part between 98° and 102° or 103°, occasionally, however, falling nearly to 97°, and occasionally rising above 103°. During this period, she greatly complained of chills, not unfrequently rigors, coming on in the morning, and followed by much heat and then by perspirations. She suffered also from tendency to faint, and occasional sickness. The febrile exacerbations, moreover, were generally attended with pain in the left hypochondriac region; and subsequently it became clear that the spleen was enlarged, its area of dulness being considerably increased, and its lower end perceptible below the ribs; and that not only was it the seat of pain, but was tender on pressure. For the relief of this, leeches were applied on July 30th. The last note in regard to splenic pain was made on August 6th. On July 23rd, the urine was dark coloured, turbid from lithates, specific gravity 1022, and contained albumen. The only other noteworthy facts during the period now under consideration were, that, on July 2nd, she complained of pain in her limbs, and one of the ankles was said to be swollen; that, on the night of the 4th, she was kept awake with pain in the right calf, which continued for several days; and that, on the 15th, a similar pain arose in the left calf, which lasted for a day or two. The pain was circumscribed, but unattended with pain or redness.

Early in August, there was considerable improvement. The temperature became normal or nearly so; all pain in the spleen and elsewhere subsided; sickness ceased; and the urine became free from albumen. She left the hospital on September 9th, apparently convalescent. I did not see her again, but heard that she died suddenly, under what circumstances I do not know, a few months afterwards.

REMARKS.—The above case was interesting as a study of cardiac murmurs; but in the absence of a *post mortem* examination, it is useless to discuss the facts of the case further than has been already done. At first, I was disposed to regard the heart-disease as congenital, and so, indeed, it may have been; but since rheumatic symptoms manifested themselves whilst she was under treatment, there is some reason to suspect that her cardiac disease was of rheumatic origin. The case, while it was under observation, was in all respects a typical example of ulcerative endocarditis. It was a very disappointing case to treat, for nothing that was done for her appeared to do her any good. It is interesting, however, that, without apparent cause, the special symptoms of ulcerative endocarditis subsided during the last month of her stay in the hospital, and that she left the hospital comparatively well. In this respect, her case resembled Case I. Both of them show that the symptoms of this affection may disappear, at any rate for a time; and presumably, therefore, may disappear altogether. Whether or not the symptoms in this case recurred before death, I am unable to say.

ON THE USE OF ARSENIC IN SKIN-DISEASES.*

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IT seems only natural that this Association should take an especial interest in the action and uses of arsenic in cutaneous medicine, for it is little more than thirty years since it made a vigorous effort to poll professional opinion widely on the subject. In 1848, a series of queries was issued to all its members, and the seventy-five answers received bore emphatic testimony to the fact, that the remedy had never been found either fatal or permanently detrimental to health. It may have been necessary to reassure the public mind at that time, for it seems pretty certain that arsenic was then prescribed without much scientific precision, and in a way which must often have aggravated the symptoms which it was intended to relieve; and the writings of Hunt, valuable though they undoubtedly were as the records of a wide and well used experience, undoubtedly unsettled the minds of practitioners by the free use he made of the drug in almost every form and variety of skin-disease. Arsenic at this time was in serious danger of suffering gravely in general estimation from the indiscriminate praise of some of its more enthusiastic adherents; and it is only the able writings of Hutchinson, Startin, Clifford Allbutt, Wilson, McCall Anderson, and others, which have once more placed it in its proper position, and pointed out with scientific accuracy the class of cases in which it may be given with most advantage; and, following the action of thirty years ago, I venture to invite the members of our Association here present to open their budgets of experience, and discuss a few points which I will now briefly lay before them.

We do not require to be specialists to know, in a general way, which cases of skin-disease benefit by arsenic and which are rebellious to improvement under its use. Any practitioner who gravely proposed to treat measles, or small-pox, or scarlet fever, with Fowler's solution, would be looked upon as little short of a lunatic; and all the cutaneous manifestations of syphilis are by common consent regarded as quite outside the boundary of this line of medication. A broad distinction has been drawn in respect of treatment between the moist and the dry eruptions; for, whilst we know that a case of acute eczema, with red smarting skin and copious exudation, is usually made worse by arsenic, no fact in therapeutics is better established than the disappearance of the same eruption when it has become chronic, under the use of the drug, or the way in which the silvery scales of psoriasis will gradually drop from the skin of the patient who has perseveringly taken his daily doses. All this is part and parcel of the commonest professional knowledge. Can we do more than simply reaffirm the facts? Shall we rest satisfied with their simple possession as mere empirical experience, or may we attempt to explain? Is there any guiding principle which may serve to place our practice on a scientific basis? Is there anything in the physiological actions of arsenic from which we may derive any clue to its practical uses? Writers on therapeutics supply some facts which have been used in explanation; for we are told that various skin-eruptions of a vesicular, pustular, and even scaly character, occasionally follow the administration of the drug; and from this we might consider ourselves entitled to argue that it simply acts as a cutaneous stimulant by setting up a new action which may replace, or even permanently displace, the morbid process already going on. But specious although this may seem at first sight to be, it can hardly be accepted, in the absence of more convincing evidence than we can at present bring forward in its favour, for all authorities allow that cutaneous irritation is very rarely observed when arsenic is given as an ordinary nervine tonic; and although skin-diseases sometimes seem to grow temporarily worse under its administration, this result does not occur with sufficient regularity to give any really solid support to the theory in question. Arsenic, however, no doubt modifies in some way the nutrition of the skin, by altering its conditions of cell-growth, as Broadbent puts it, "by effecting a change in the blood through a general influence on cell-growth in all the tissues and organs, and a special influence on cell-growth in the skin as the arsenic is passing through it". As a proof of the influence of the drug as a cutaneous nutrient or tonic, I have only to remind you of the sleek and rosy complexions of the Styrian arsenic-eaters, or of the way in which a closely allied drug, antimony, is given to horses to improve the condition of their coats. And in this influence we might, naturally enough, again seek for the explanation of the facts which are acknowledged by all, were it not for the clinical experience already noted, that, whilst arsenic does good in some cases, it appears to be inert, or even positively harmful, in others.

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Before proceeding to hazard any opinion on the reasons for this, let us consider for one moment some of the other uses to which we put the remedy, and but very little reflection will remind us that many of these are intimately connected with its undoubted efficiency as a nervine tonic. Vague although this term may be, and unconnected in our minds with any precise theory or physiological law, it recalls to every experienced practitioner the valuable aid afforded by arsenic in chorea, in neuralgia, in asthma, and in various periodic disorders; and to go a step further, it would only seem reasonable to assume that it may also have the most beneficial influence over those skin-diseases which are included in the neurotic class. Dr. Clifford Allbutt has formulated this principle very clearly, and, in a paper in the *Practitioner* for 1874, has pointed out how acne, and eczema, and psoriasis, and lichen, and urticaria, show their nervine origin in heredity, in symmetry, in itching, and in tingling; and I think we must all have observed their frequently intimate connection with mental shock and depression, and the way in which they may alternate with or accompany such undoubtedly nervous affections as chorea. It is true that we are often utterly unable even to attempt an explanation of the sudden and unexpected appearance of some one or other of these varieties of chronic skin-disease, but it is well in every case to make careful inquiry into the family history and personal antecedents of the patient, and find out, if we can, the remote clue which may lead us up to the truth. The rheumatic diathesis is also justly held responsible in some measure for the appearance of some of the varieties of eruption; but whether we accept the view of Addison or not, and range this among the neurotics, we have another reason for the success of arsenic; and Yandell's observation of the frequent association of skin-disease with malarial poisoning, shows that we must look to the antiperiodic virtues of the remedy as the occasional groundwork of its action. In short, to use the nomenclature of Hardy, even without being able to explain its meaning, we may say broadly and generally that, in the dartrous type of cutaneous disorders, arsenic usually acts satisfactorily and well.

And at this point, it may not be out of place to say a word of grateful recognition for the labours of those French observers who have laid before us so clearly the diathetic nature and origin of skin-diseases, and have encouraged scientific research into the constitutional action of remedies, as opposed to the more purely local medication of the Vienna School. In pemphigus, which is presumably a nervous affection, arsenic acts with much of the certainty and charm of a true specific; and Mr. Hutchinson, to whose writings we owe nearly all our precise knowledge on this subject, tells us "that it not merely represses the eruption, but remedies the unknown constitutional cause on which it depends, always benefiting the general health of the patient, making relapses fewer and slighter, and frequently succeeding in effecting a cure".

In lichen ruber, even Hebra (opposed as he usually is to the constitutional treatment of skin-diseases) is compelled to allow the controlling influence of arsenic: and Fowler's solution has been strongly recommended as an addition to bromide of potassium, as preventing the troublesome and disfiguring pustular eruption which frequently follows the administration of this useful drug. On this point I should be glad to hear the opinions of others, and more especially as to the probability, or possibility, of any interference with the restraining influence of the bromide over the epileptic paroxysms being thus exerted. In one case, recently under my care, the patient, after taking the combination for a short time, complained that his medicine did not do him so much good as formerly, imagination being quite excluded from his calculations by the tasteless nature of the addition, and the care taken not to let him know that any change had been made.

In impetigo and strumous affections, probably including lupus, we cannot hope to derive much benefit from the use of arsenic; but I should again ask for the teachings of experience as to its action in herpes zoster—a form of eruption which has been occasionally observed to follow its use.

Having got so far, let us now proceed to consider the mode of administration of our remedy; when should it be given; in what doses; and under what conditions may we hope to ensure its best effects? The question of dosage naturally first presents itself, and two rival plans have been vigorously supported, both at home and abroad; the first advising us to begin with small doses, and increase with cautious deliberation; whilst the other sanctions a much more decided system of medication. Of these, I unhesitatingly prefer the second—believing that, like quinine and iodide of potassium, arsenic is more likely to produce well marked physiological effects, when given in fairly large quantity than in small. As a rule, I find it good practice to begin with ten minims of liquor arsenicalis, and push boldly on up to fifteen or twenty minims; and, in this way, I have not only obtained results of a very satisfactory kind, but I have seldom had much trouble from the patient's inability to continue the use of the drug. In fact, one girl, eighteen years of age, who was formerly a good deal upset by five-minim doses, is now (on the occasion of a relapse of her psoriasis) taking fifteen to twenty minims, with most signal success.

Against one dogma, strongly held by Dr. Begbie and other excellent authorities, I feel it my duty to protest; and that is the necessity for the production of the physiological effects of the remedy before it really begins to act efficiently as a curative agent. Dr. Begbie writes: "I have never seen the loathsome scales of lepra or psoriasis drop from the skin and leave healthy cuticle, till the eye and the tongue manifested that the system was under the influence of the mineral, and that for days and weeks together." Now, in my own experience, I have not only found this to be quite unnecessary, but observation has taught me that, when the eyes begin to smart and the tongue to be covered with a silvery fur, the skin-eruption usually becomes worse—not in the sense of that temporary irritation which may give the much needed stimulus to the sluggish progress of the disease, but as a needless, and therefore injurious, addition to the discomfort of the patient, being followed by no improvement, or giving better hope of permanent cure; and, as regards these physiological actions, which I hold we should avoid if possible, I should like to hear the experience of others regarding their frequency, and the order of their occurrence. Slight conjunctival inflammation is probably most usually observed, the patient complaining that his eyes are stiff and aching; and observation detecting fine infection of the superficial vessels, more especially of the lower lid, and, more rarely, a pink zone around the cornea. To this succeeds puffing about the lower lid, and the loose cellular tissue between it and the malar bone, resembling the look of kidney-disease, and being occasionally, according to some observers, associated with albuminuria. The tongue is covered, save at the extreme tip, with a thin greyish fur, through which a few enlarged papillæ are distinctly visible, and the resemblance to an irritable patch of mucous membrane brushed over with a coating of mucilage at once suggests itself. If the poisonous action of the drug had been allowed to go further, we have a thick yellowish deposit, with bright red tip and edges, suggesting the irritation progressing below.

I have not often detected abdominal tenderness or diarrhœa; but sudden and effectual vomiting, following each attempt to swallow a dose of any of the preparations of arsenic, is an evidence of idiosyncrasy more especially met with in females, and is a fatal barrier to the use of the drug, as every attempt to establish toleration only makes the patient worse. None of the symptoms which I have just described are dangerous in any degree, and require little in the way of treatment beyond a gentle purgative and temporary discontinuance of the remedy; but, as already noted, they are to be avoided, as interfering with the regular and systematic treatment by which we can alone hope to cure, or even alleviate, a case of long-standing chronic skin-disease. It may be well occasionally to look to the urine, and see whether renal congestion or actual disease may not be present to interfere with the natural elimination of the drug by the kidney; and thus render it necessary for us to try to find out active remedies elsewhere.

One other physiological peculiarity has been described by Dr. McCall Anderson, and that is the great susceptibility to cold experienced by persons under the influence of arsenic; but I have never seen any direct evidence of this, and would prefer to explain the connection, if it be confirmed, by the action of the remedy in curing or partly checking the cutaneous affection, and thus causing that not uncommon diversion, a metastasis to the bronchial mucous membrane, which might appear to be due to chill or exposure.

Concerning the best mode of administration, I may say that I have always found the liquor arsenicalis to be a safe and reliable preparation, and am by no means prepared to concur in the opinions of those who believe the liquor sodæ arsenitis to be much more free from irritating action. It is an invariable point of practice to direct our patient to take his dose during, or directly after, a meal; and this is a judicious injunction—not only because the metal is less likely to depress and annoy when given on a full stomach, but, following the analogy of other drugs, we may venture to assume, even in the absence of actual physiological proof, that the preliminary solution in the gastric juice or the bile may be necessary to develope its full powers, and to promote its absorption.

Children generally bear arsenic remarkably well; and it has been stated by Bulkley and Ringer, and other authorities, that girls more especially may be given very large doses with impunity. But my own experience is entirely opposed to this; and the only case in early life, where the drug seriously disagreed, happened to belong to the female sex. Lilly H., aged 4, came under my care at the Belgrave Hospital for Children, with an unusually bad attack of psoriasis, due to no ascertainable cause. Five minims of liquor arsenicalis were ordered to be taken twice a day; and a week later, when she again presented herself, I was shocked to see the change in her appearance. From being plump, fresh, and rosy, she had grown dull, thin, pale, and dejected; her lips were dry, the eyes deeply injected, the tongue covered with a dirty yellowish fur and displaying a red tip and edges. The appetite was entirely lost. She complained much of thirst; was very restless and sleepless; skin hot and dry; pulse quick and sharp. The mother stated that, after four doses of the medicine, the child became very sick, and complained much of pain in the back of the neck. Recovery rapidly followed soothing treatment and withdrawal of the drug, and a cure was eventually effected by phosphorus; but the case shows that, even in the very young, idiosyncrasy is occasionally, though rarely, observed, and must at all events be remembered, even although, unfortunately, it cannot be foreseen.

Finally, the all-important question may be asked: Can we really hope permanently to cure skin-diseases by arsenic? I think we may; true although it undoubtedly is that, whilst one case of psoriasis will rapidly improve under its use, another, apparently similar in every respect, will prove entirely rebellious; and, over and over again, we shall be disappointed by the frequency of relapse. But, if the eruption come under our care early, and we treat it carefully and systematically, and, above all, continue the medicine for some time after the skin has become smooth and clear, we may promise the best results to our patients. Of course, we may fail by trusting too implicitly to mere drug treatment, and by neglecting other means suggested by general principles and common sense. Good food and mental and bodily rest are of the first importance; and of this I observed a notable example last winter among my skin-patients at St. Mary's Hospital. A young married woman, with extremely bad psoriasis, made not the least improvement with arsenic; and, even when the drain of a suckling child was removed, we were surprised to note that the eruption continued as bad as before. It was then found that she was suffering, in addition, from the depressing influence of a bad husband and insufficient food; and, on being taken into hospital, she very quickly made a complete and satisfactory recovery.

In conclusion, and in briefly summing up, I would suggest the following points as most worthy of your consideration; and, to facilitate discussion, I will throw them together in the form of a few questions.

1. Shall we explain the fact that arsenic is useful in some cases of skin-disease, and inert, or even harmful, in others, by its stimulating action; by its modifying influence over cell-growth; or by its properties as a nervine tonic? Of these, the last appears the most comprehensive and suggestive.
2. In which special cutaneous affections have you derived most aid from arsenic?
3. Is it your impression that arsenic, given along with bromide of potassium to prevent acne, in any degree lessens the controlling influence of the bromide over epilepsy?
4. Which preparation of arsenic do you prefer? Do you agree with me in beginning boldly with large doses; and, like me, do you find it unnecessary to induce physiological effects?
5. What is your experience of the relative frequency, and order of occurrence, of these physiological effects?
6. Do you believe that we may hope to cure skin-disease by arsenic?

BEQUESTS.—Miss Mary Wasey, of Prior's Court, Chieveley, Berks, has bequeathed £3,000 to the Berkshire County Hospital, and £2,000 each to the Bath Hospital for Strangers, the Consumption Hospital, Brompton, and the Cancer Hospital, Brompton. Sir Theodore Brinckman has left £100 to the Windsor Infirmary; and Mr. William Cobbett of Wigmore Street has left £100 to the Surrey County Hospital, and £10 to the Western General Infirmary.

PURPURA HÆMORRHAGICA.*

By J. MAGEE FINNY, M.D.Univ.Dub., F.K.Q.C.P.Ireland,
Physician to, and Lecturer on Clinical Medicine in, the City of Dublin Hospital.

CASE I.—Catherine W., a widow, aged 56, was admitted into the City of Dublin Hospital under my care on August 6th, 1877. She had always enjoyed good health, never having had any illness. Her confinements (for she is the mother of four children) were easy, and six years ago her changes stopped gradually without any unpleasant symptom. A year ago, she visited America, and returned in good health. Her diet has been always good, including meat, vegetables, and porter for dinner.

About six weeks before admission, while out walking, she experienced a sensation of cramp and weight in both legs, more particularly in the right. She did not pay it much attention for a fortnight, although the sensation of weight and heaviness in walking continued. She then observed several small specks on the front of the legs. They made their appearance without tingling or any other sensation. At times, they disappeared for a day or two, when new ones would take their place. The chief complaint she then had was a sense of fatigue, so that, though she was up and out every day, she had to lie down several times to rest her legs. The uneasy sensations she attributed to rheumatism, and it was for this supposed disease that she sought relief in the hospital. The symptoms increased in severity within a fortnight of her admission, the pains in her legs and knee-joints and ankles being such as to prevent her from having any rest for some days and nights. She also felt very weak, and was hardly able to stir about the house without assistance. A few days before admission, her feet swelled, and large purple stains, like "bruises", appeared on the knees and ankles and the skin over the tibiæ, the right leg being the worst. Her gums bled the day before admission, but she never, before or afterwards, had hæmorrhage from any of the mucous tracts.

In appearance, she was much younger looking than her age, having a great quantity of long brown hair, with but few grey hairs interspersed. Her features were pronounced, her skin of yellowish tinge, teeth sound, but gums and tongue pallid. The pulse was soft and compressible, 94 in the minute. All the organs and viscera in the body seemed normal. The legs and feet presented a very remarkable appearance. They were swollen and œdematous, with large ecchymoses of various shades of colour—in parts purple, in parts black and blue, and again in parts of greenish-yellow and light straw colour. The right knee in particular was marbled with blue and yellow, and to all appearance exhibited the identical characters of a very severe bruise. The left leg was similarly affected, but to a less degree. The thighs, with the exception of a hand's breadth above the patella, were free from all spots, and I may add that no other part of the body and extremities showed any stigmata or vibices. Both ankles and knees were swollen, particularly the right knee, which had all the physical characters of synovial effusion. The surface over the tibiæ was spotted with petechiæ, varying in size from a flea-bite to a split pea. The left tibia was distinctly enlarged laterally about two inches below the knee, and was well bowed forwards in this place, having the characters of a large flat node. The knees, ankles, and tibiæ were extremely sensitive to touch and to cold, the latter being much complained of, although the temperature of the ward was high. Owing to the state of her legs, the patient was unable to stand or move, and she had to be carried into hospital.

The treatment consisted of rest in the horizontal posture; wrapping the knees in cotton-wool covered with gutta-percha tissue; a diet of beef-tea, milk, and a little wine; and a mixture containing in each dose twenty minims of liquor ferri perchloridi and two grains of sulphate of quinine, three times a day.

The urine was examined a couple of days after admission, and found free from albumen.

August 11th. She had now no pain in the legs and feet; she slept well; her appetite was improved. The swelling was less, but the discoloration, particularly about the knees, was more pronounced. She was ordered to continue the medicine, and allowed chop, buttermilk, and beef-tea. Two lemons were to be used each day.

August 16th. No new spots had appeared. The colour of the vibices and ecchymoses over the knee and ankle had changed to green; all œdema had disappeared, and the effusion into the right knee had almost subsided. She could move her limbs without pain, and, except on standing, the joints were painless. As a diarrhœa had set in since yesterday, the lemons were discontinued and an astringent mixture ordered.

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* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

August 20th. The patient was allowed to get up, and treatment was changed to three-grain doses of reduced iron three times a-day. Her appearance was daily improving, and by the end of August, she was so well as to be able to walk about the ward without pain; and she left hospital for the Convalescent Home on September 2nd.

CASE II.—George W., aged 61, was admitted to the City of Dublin Hospital in October 1876. For the last five years, he was a gamekeeper, living in a comfortable lodge; for twenty-six years previously, he had served in the Irish Constabulary. At the time of his discharge from the force, he suffered from varicose veins, but was otherwise healthy; and he remained healthy to about twelve months ago. Since then, owing to failing health, he had been almost unable to do anything. He, at that time, suffered from epistaxis, numbness and coldness of his hands, combined with a stinging and painful sensation, dyspnœa, and palpitation on the slightest exertion. Eleven months ago, he was attacked with severe pains in the calves of the legs, shivering fits, and bleeding from the gums. These symptoms, with the exception of the bleeding from the gums, each recurred at intervals until within a few weeks of his admission. In addition to the foregoing, after being confined to bed, some small red spots made their appearance, changing to black; there were also some patches, of the size of a finger-nail, of similar colour; a few of these spots were on his chest, but along the legs and thighs they were most marked. Three months after the first bleeding from the gums, and whilst he was confined to bed, he was attacked with copious bleeding from the bowels, followed by attacks of syncope, great shortness of breadth, and passing delirium. The melæna had recurred several times since. His appetite had always been good, and his diet fairly generous, including vegetables.

On admission, his chief symptom was debility. He was greatly emaciated, and looked much older than he stated himself to be. His face was pallid and yellowish; his lips and gums blanched. The gums were free from sponginess or soreness. The temperature was normal; and the pulse 75 to 80 in the recumbent posture, small and compressible. The heart and lungs seemed healthy. The first cardiac sound was feeble, almost inaudible at the base, and unaccompanied by murmur. A loud venous hum in the neck was audible on sitting up. With the exception of slight increase of the splenic dulness, no evidence of disease of any organ could be discovered. The ankles were œdematous. The urine was free from albumen. About a dozen spots, small, red, slightly raised, ineffaceable by pressure, were seen on the chest and abdomen, and a couple on the legs and forearms; two or three of them were purplish black, of the size of a cherry.

The following was the treatment adopted: ℞ Quinæ sulph. gr. 16; ferri sulphatis siccatæ gr. 24; extracti ergotæ liquidi ʒij; acidi sulph. diluti ʒij; liquoris atropiæ sulphatis ♏ 12; infusi quassiæ ad ℥viij. M. An eighth part three times a-day. The diet to consist of milk, beef-tea, and a little whiskey.

In a week's time, no new spots had appeared, and no hæmorrhage had occurred. The diet was then changed to fresh meat, fresh vegetables, and porter; and the liquor ferri perchloridi in fifteen-minim doses in infusion of quassia was substituted for the former mixture.

It is unnecessary to follow the daily details; suffice it to say that the full diet did not suit his delicate condition, and that, owing to a diarrhœa which was kept in check only by acetate of lead and opium, he was greatly run down during the ensuing fortnight. In spite, however, of this drawback, no hæmorrhage occurred, and he was able to be up each day by the 22nd November, and had resumed meat and vegetable diet; reduced iron being given instead of perchloride of iron. He then steadily gained strength, and left the hospital on November 30th.

CASE III.—The subject of this case was Mr. F. B., aged 22, one of my pupils (who was preparing for his examination for the degree of Bachelor of Medicine in the University of Dublin). This gentleman, who was naturally much interested in the details of his own case, has kindly furnished me, at my request, with the following short statement.

"On Saturday, June 1st, 1878, I first noticed, as I was walking home in the evening, that the calves of my legs felt stiff, without being actually painful. After sitting for some time, I found, on attempting to walk, that they had become so intensely painful that I could scarcely reach my bedroom. I then noticed that my legs above the ankles were slightly swollen, and very sore to the touch. In all others respects I felt perfectly well. I slept well, and the next morning my calves were not nearly so painful nor so tender to the touch; in fact, I felt so much better that I went for a walk of four or five miles into the country. "During the walk, my hands and wrists became greatly swollen and very sore, so much so that I could not close my hands and hold anything in them. On my return home, I experienced a peculiar tingling sensation in my legs; they were also very hot and burning.

"The next morning (June 3rd) I found on getting up that my legs, particularly the left leg, had assumed a dark purple colour; which completely covered the lower half of both legs, but not extending below a line drawn just above the malleoli. There were also several much smaller spots like the petechiæ of typhus on my thighs. My hands and wrists were still swollen and stiff, but they were not discoloured.

"On Tuesday morning (June 4th), the colour of my legs had changed from a mulberry red purple to a greenish-blue colour, exactly like a common bruise. The swelling of my hands and wrists had almost completely subsided, and had given place to a greenish blue ecchymosis, which was not nearly so dark or so deep a colour as on my legs. The ecchymoses above the wrists were, however, very distinct.

"The next few days, no fresh larger discoloration took place, and the colour of the legs faded gradually, day by day, going through all the stages of a bruise, and by the end of the week had almost gone.

"For three or four days after the first attack, several small extravasations occurred on my legs and arms. Each crop was, however, preceded by the usual soreness of the part attacked.

"I had several attacks of epistaxis without assignable cause during the week; but there was no hæmorrhage from any other of the mucous membranes. My temperature was normal; pulse variable, but always faster than normal.

"I had not been in my usual health for some weeks previous to the actual attack, as I had been reading hard and had not taken sufficient exercise."

The foregoing graphic account needs little addition at my hands. His lodgings were free from damp, and his diet had been always sufficiently generous; but, for a fortnight before he consulted me for the actual attack, he was looking pale and listless. The rate of his pulse during the week he was ill ranged from 110 to 120.

The treatment consisted of a mixture containing spiritus terebinthinæ and fluid extract of ergot. This was commenced a few days after the first appearance of the hæmorrhages on the legs, and continued for four days. As no fresh hæmorrhage occurred, and as he was pale and nervous, quinine and iron were substituted, and he went for change of air to one of the best health-resorts in the neighbourhood of Dublin. This latter remedy did not prove as useful as I expected. He complained of great lassitude and muscular weakness, with loss of appetite. I then gave him a mixture of aromatic spirit of ammonia, fluid extract of cinchona, and tincture of digitalis. This acted well, and in a very short time he was quite himself again. He has had no return of the attack. I may mention that, while the ecchymoses were still visible, this patient presented himself for, and very successfully passed, his examination, which lasted three days.

REMARKS.—The foregoing cases of purpura exemplify various degrees of cutaneous hæmorrhage, rather than different species.

Authors have, indeed, made several divisions of this disease, such as *P. simplex*, *P. senilis*, *P. cachectica*, *P. urticans*, *P. febrilis*, by Willan; *P. simplex* (minima, diffusa, senilis), *P. rheumatica*, and *P. hæmorrhagica*, by Fuchs; and Hebra makes three species, *P. simplex*, *Peliosis rheumatica* (Schönlein), and *P. hæmorrhagica*; and most English writers adopt two, *P. simplex* and *P. hæmorrhagica*. But I prefer to classify them all (excepting only the purpura of fever) under the common head of *Purpura Hæmorrhagica;* for, the less we look upon disease as exhibited in its various manifestations, and the more we view it in its entirety, modified and changed, it may be, by idiosyncrasies, and differing in its manifestations and in the severity of concomitant symptoms, the more accurate and scientific, I conceive, will be our knowledge.

In purpura, the varieties detailed above depend, not upon any differences in crasis or in the condition of the blood and its relation to the cutaneous capillaries, but upon non-essential concomitants. Thus purpura simplex has neither the painful affections of the joints which characterise peliosis rheumatica, nor the hæmorrhages from the mucous tracts which give the distinctive feature to purpura hæmorrhagica (*morbus maculosus Werlhofii*).

The etiology and pathology of purpura are most obscure, and the cases I have detailed do not, I fear, throw any light upon them. All three, differing as they did in age, circumstances of life, and severity of symptoms, presented no points in their history to indicate a common causation.

The condition of the blood in purpura seems also to be an open and unsettled question. Dr. Parkes found the blood of two patients the subjects of the disease to exhibit, in addition to a somewhat diminished proportion of the solid constituents in general, a remarkable increase of iron (quoted by Aitken, *Science and Practice of Medicine*, 6th edit, vol. ii, p. 62). Others state that the blood is less coagulable; and, after death, it has been found fluid in the cavities of the heart. Simon (quoted by Habershon, *vide infra*) noted a marked diminution of the fibrin, while by others this has not been confirmed. Dr. Habershon

(*Guy's Hospital Reports*, vol. iii, p. 90) and Dr. Ogle connect purpura with a diseased condition of the spleen. The cutaneous capillaries have been also examined; and though, in one case, Dr. Tilbury Fox found them undergoing a lardaceous change, the patient had a history of syphilis, and other observers have found nothing wrong with them.

Dr. Richardson has started (*Lancet*, 1874, vol. ii, p. 729) a hypothesis accounting for the varieties of purpura, and has defined three forms, each with a distinct pathology, etiology, and treatment: (*a*) aqueous; (*b*) saline; and (*c*) vascular—referring thereby to the altered condition of the blood, its salts, and the walls of the vessels.

My own view as to the pathology of purpura is that the nervous system is primarily at fault; and that, through the influence of the vaso-motor system, the blood and the capillaries are secondarily affected. The following reasons occur to me as justifying such a conclusion.

1. The majority of the cases of purpura present a history pointing to some nerve-waste, such as over-exercise, fatigue, and mental emotion.

2. The prominent symptom at the onset of the disease, long prior to the occurrence of cutaneous hæmorrhages, throughout its course, and for some time after the cessation of all bleeding, is that of exhaustion, muscular weakness, and fatigue; and this holds good, whether or not the attack be accompanied with pyrexia.

3. The analogy which exists in the acknowledged influence of the sympathetic nerve over cutaneous eruptions, such as erythema and herpes, and the altered pigmentation in pregnancy, leucoderma, and morbus Addisonii.

4. The symmetry of the eruption; the rapid manner in which purpura at times makes its appearance; and the still more remarkable way in which further hæmorrhages are abruptly arrested while the patient is exposed to the same circumstances, hygienic and dietetic, and while the constitution of the blood, it must be acknowledged, can hardly have undergone any alteration.

5. The close connection between disease of the cerebro-spinal centres and purpura, such as was manifested in that malignant purpuric fever (Stokes), or cerebro-spinal fever, which, as an epidemic, visited Dublin in 1868-9, the fell influence of which still clings round our patients, and, complicating nearly every disease of a febrile type, renders prognosis most difficult and treatment too often futile.

In this view of the neurotic origin of purpura, I find I am not quite alone; for, though all the writers on purpura whom I have consulted—and they are not a few—seem never to allude to this possible influence of the sympathetic as a factor of the pathology of this obscure disease, Dr. Andrew Minich (*Philadelphia Medical Times*, 1875, quoted in the *London Medical Record*), dismissing the hypothesis that the disease rests upon a change in the blood, or is due to a fatty degeneration of the capillaries, is of opinion that the real pathology is vaso-motor paralysis.

The cases I have described present some features deserving, I believe, a passing notice. Case I may be termed an extreme instance of the variety termed peliosis rheumatica. In it, not only were rheumatic pains much complained of (as I mentioned, it was for the rheumatism the patient sought relief), but there was great effusion into the right knee, and to a less extent into the left. There was also effusion under the periosteum of the left tibia. That the former was but serum I have little doubt, judging from the rapidity with which it was absorbed; but the latter was, I suspect, blood, since for fully ten days the localised swelling of the left tibia was evident. The extent of the cutaneous hæmorrhage was remarkable; and the appearance of the right leg so closely resembled that of a limb which had been subjected to the worst possible injury short of fracture, that one of my surgical colleagues, who saw it with me, said it might readily pass, in the absence of any history, for a most severe contusion of the leg and knee.

It is further deserving of note, as it proved an exception to the statement of Hebra (page 423), that peliosis rheumatica occurs generally in the strong and healthy, in males between twenty and thirty years old, never in children or aged persons.

Case III belongs to the same category as Case I—namely, the rheumatic variety—and presents the comparatively unusual symptom of the purpura engaging the forearms as well as the legs. Niemeyer, indeed, states that peliosis rheumatica is only met on the lower extremities. It contrasts with Case I, moreover, by the pains being more confined to the muscles. Hence Case III might be considered as purpura with rheumatic pains, and Case I purpura with rheumatism of the joints.

I have described these two cases under the generic term of purpura hæmorrhagica for reasons already given, and because in each case the bleeding was not confined to the cutaneous surface. According to Hebra, the occurrence of hæmorrhage from the mucous tracts marks the difference between purpura simplex and purpura hæmorrhagica. There can, however, be no doubt, looking to the prominence of the symptoms, that they both deserve to be placed under the term purpura rheumatica.

Believing, as I do, in the nervous origin of purpura, I am not prepared to consider this variety, as Wunderlich holds such to be, to be purpura with the rheumatic phenomena grafted on as epiphenomena; nor do I conform to the view ably put forward by Dr. Southey (*Lancet*, 1877, vol. ii, p. 6), that the peliosis rheumatica of Schönlein is nothing but purpura occurring in the persons subjects of chronic nephritis, or in whom, sooner or later, it will be complicated by acute renal affections.

There is much in the published reports on purpura, and our French *confrères* have contributed largely to the literature on the subject, to justify the views, adopted generally by French writers, that peliosis rheumatica is really a variety of, and is identical with, erythema nodosum. Dr. Robert Liveing (*Lancet*, 1877, vol. ii, p. 307) advocates this theory. I have myself met with several cases where the rheumatic symptoms followed upon the erythema; but Cases I and III cannot, I think, come under such a definition, inasmuch as in each case, and particularly Case I, the rheumatic pains preceded the cutaneous hæmorrhages by a considerable interval—by two weeks in Case I, and two days in Case III.

In conclusion as to treatment, so far as the evidence of the cases I have described warrants one in drawing any inference, I would say that the best results are to be looked for by the employment during the attack of physiological medicines, such as ergot and belladonna, especially ergot; since, by their action on the capillaries through the vaso-motor nerves, vaso-motor spasm is induced, and thus the tendency to transudation of the blood-corpuscles through their walls can best be kept in check. Perchloride of iron certainly did not in my hands produce the good effects that might be expected of it, although it has been strongly recommended by some, including Neumann.

Since I prepared this paper, I find that ergot has produced the best results at the hands of others, and is quoted by Neumann as advocated by Henoch and Bauer. In addition, I would mention that Robert Campbell (*New York Medical Journal*, December 1878) treated cases with it, administered internally; and Dr. Andrew Minich found the profuse bleedings in a case of severe purpura hæmorrhagica to be arrested by the hypodermic injection of ergotin.

In cases of peliosis rheumatica, Neumann lays the greatest stress upon the patient assuming the horizontal posture, and maintaining it for some time after the eruption has disappeared. Niemeyer also approves this treatment. I cannot, however, give much credit to it, since the patient in Case I, who was confined to bed for nearly a fortnight before admission to hospital, showed no evidence that she had derived any benefit therefrom; and the subject of Case III, who never remained in bed more than one day, nor more than three in the house, made a rapid and good recovery, so far as the cutaneous hæmorrhages were concerned.

As soon as the acute symptoms of purpura hæmorrhagica abate, I think the best treatment seems to be that by mineral acids and bark—a treatment as old as the seventeenth century, when it was recommended by Werholf in morbus maculosus. Little good is to be looked for from the antiscorbutic diet, as vegetables and lemon-juice have no influence whatever in purpura.

NOTES ON THE TREATMENT OF RINGWORM.

By WYNDHAM COTTLE, M.A., M.B.Oxon., F.R.C.S., M.R.C.P.,
Senior Assistant-Surgeon to the Hospital for Diseases of the Skin, Blackfriars.

FEW cutaneous diseases have been the subject of more numerous and varied methods of treatment than ringworm. Many of these plans are difficult or painful in their application, and all of them frequently fail in cases of difficulty. Impressed with the unsatisfactory nature of the means at our command for combating this disease, I have long been looking for some manageable and reliable mode of procedure. I was early struck with the ready curability of ringworm in infants and when situated on parts of the body unoccupied by a vigorous hair-growth, and I took the difference to be that, in the more hirsute regions, the materies morbi had invaded and found shelter in the deep hair-follicles, etc., and that the difficulty we experience in eradicating it consists in our inability to attack it in its lair. Observation has taught me that ringworm, even of the most obstinate character and in hair-clothed parts, rarely if ever survives suppuration in its site. We see this when suppurative inflammation has been set up or kerion has supervened. I think this beneficial action results from the presence of some of the inflammatory products affecting the disease in its deep follicular seats, and perhaps from the admission of some of the remedial agents that may be simultaneously applied.

Keeping these points in view, I have endeavoured artificially to imitate this curative action of nature. In practice, I found it no easy matter to accomplish. I endeavoured to find some substance inimical to fungoid growth and also capable of exercising the required action on the skin.

My earlier attempts were made with the sulpho-carbolates of barium and zinc, with which I obtained some success. I used the sulpho-carbolate of barium in the form of an ointment, thirty grains to an ounce of lard, and the zinc salt as a lotion, twenty-five grains to an ounce of water. The suppuration that I succeeded in producing by by means of sulpho-carbolate of barium was often slow in developing itself, and occasionally no such effect followed its use. After making trial of various agents, I have obtained the best results by painting the most obstinately affected portions of the scalp with linimentum crotonis and directing the subsequent frequent use of an ointment or lotion of salicylic acid. One application of the croton oil usually suffices to produce a copious pustular rash over the parts with which it is brought in contact. If it fail to do so, the application should be repeated. An ointment of ten to forty grains of salicylic acid to the ounce of the base selected should then be rubbed over the scalp twice or thrice daily. The strength, frequency, and vigour of the application should be proportioned to the inflammatory effect that results. All crusts, scales, and diseased hairs, should be removed as speedily as possible. Though this mode of treatment is neither suitable to every case, nor universally successful, it possesses some advantages. 1. The croton oil liniment gives rise to no pain at the time of its application, while the consequent suppuration is not in most cases more irksome to the patient than the prolonged and acute pain that attends the use of the usual caustics. 2. Permanent loss of hair does not result. 3. The treatment is easy to carry out. 4. Many intractable cases rapidly mend when so dealt with. 5. The agents employed are not poisonous.

I usually prescribe salicylic acid as an ointment of from ten to forty grains of the acid to an ounce of lard, vaseline, etc., and I often find advantage from combining it with other drugs, as carbolic acid or oil of cade, etc. If it be desired to increase its irritating properties, the addition of a few grains of perbromide of mercury or antimony chloride to the ointment will be effectual. Again, if an eczematous state of skin have supervened, some of the more soothing of the salts of zinc or mercury may be advantageously ordered with the salicylic acid. If a liquid form is preferred, from twenty to forty grains of salicylic acid may be dissolved in an ounce of alcohol and the affected parts painted with the solution two or three times a-day. Such solutions often set up much skin irritation.

The following cases of tinea tondens, which I have selected from among my notes, will serve to elucidate the action of croton oil and salicylic acid in the treatment of this disease. They were instances of tinea tondens affecting the scalp. Fungus was present in each, and none are noted as "well" till fungoid growth was unable to be discovered.

CASE I.—Henry C., aged 7½, was admitted at the Hospital for Diseases of the Skin, Blackfriars, on August 14th, 1878. The disease was first noticed in November 1877. Nearly the whole scalp was occupied by well marked ringworm. He was treated by ordinary methods till October 9th, 1878, under the use of which the disease had become limited to one large patch on the vertex. On October 9th, 1878, linimentum crotonis was applied to the patch. On November 6th, slight suppuration had resulted. Linimentum crotonis was reapplied. Salicylic acid ointment (twenty grains to one ounce) was applied night and morning. On November 20th, he was improved. On December 18th, no evidence of the disease could be detected. He remained under observation till January 31st, 1879.

CASE II.—George P., aged 6, came under treatment on July 10th, 1876. The disease commenced in the previous May. There was a pronounced patch of ringworm on the left temple. He was treated with cantharides, tar, etc., till October 9th. He was improved, but still infected. Linimentum crotonis was now painted over the affected parts. On October 30th, suppuration had resulted. On November 13th, a portion of the patch showed disposition to scale. I reapplied the croton-oil liniment. On November 27th, remains of inflammatory action were visible. On December 11th, he was "well".

CASE III.—Henry P., aged 6, came under my care on September 18th, 1878. Ringworm commenced about Christmas 1877. There were bare and scaly patches on the occiput. His sister was also affected. On October 16th, no improvement had followed the usual methods of treatment. I applied linimentum crotonis to the diseased parts. On October 23rd, the affected portions were inflamed and encrusted. Linimentum crotonis was repeated. The same application was made to the little girl. On October 30th, in the little girl's case, some of the parts to which the liniment was used had suppurated. On December 4th, the boy was free from the disease. The girl's head was clear of the complaint where suppuration had taken place. Salicylic acid ointment was ordered. On January 15th, 1879, there was no sign of the disease; nor on March 10th.

CASE IV.—Grace P., aged 7, had three large spots of tinea tondens, of two months' duration, on the head. Her brother had the same complaint. She was treated by the ordinary methods for two months, with some slight improvement. On January 17th, 1879, linimentum crotonis was used, and salicylic acid ointment and cod-liver oil ordered. On February 26th, the old spots were "well", but two new ones had appeared. The treatment was repeated. On March 12th, she was "well".

CASE V.—Charles W., aged 7½, had ringworm over the greater part of the scalp since September 1878. He was treated by a medical man with acetic acid and an ointment of sulphur and carbolic acid. On November 5th, 1878, linimentum crotonis was applied to some of the spots. Salicylic acid ointment was used night and morning. On January 6th, 1879, there was no evidence of the disease.

CASE VI.—Eleanor B., aged 4½, had a well marked patch of tinea tondens, about an inch and a half in diameter, on the vertex, and several smaller spots, of four weeks' duration. A brother and sister were similarly affected. On January 20th, 1877, linimentum crotonis and salicylic acid ointment were ordered. On February 10th, the parts were thickly crusted. On March 10th, the parts previously affected were well, but a fresh spot had shown itself on the neck.

CASE VII.—Marion S., aged 6, had thickly encrusted ringworm of the entire scalp in an active state. The duration of the attack had been six weeks. She had been previously treated. On January 20th, 1877, salicylic acid ointment was ordered. On January 29th, the scalp was irritated. On February 12th, kerion had formed. On March 12th, no tinea tondens could be detected; nor on March 26th.

CASE VIII.—M. B., aged 7, had a large patch of ringworm on the head, with eight smaller ones. On January 27th, 1877, linimentum crotonis was applied to the spots; salicylic acid ointment night and morning. On February 10th, the treatment was repeated. On February 24th, all the spots were suppurating slightly. On March 17th, the skin was red. There were a few scales. No fungus was found.

CASE IX.—H. D., aged 2, had three large spots of well marked tinea tondens on the head, with numerous disorganised hairs. The disease began about Christmas 1878. There had been no antecedent treatment. On March 19th, 1879, salicylic acid ointment was ordered to be used night and morning. On April 2nd, the patient was better; and on April 23rd, "well". On April 30th, there was no recurrence.

CASE X.—George W., aged 14, came under treatment, on April 16th, 1879, with ringworm on the occiput. The duration of this case was one month. The ordinary treatment was pursued. On June 4th, there was no improvement. I applied croton-oil liniment, and ordered ointment of salicylic acid. On June 16th, the parts had suppurated. On July 14th, he was apparently well.

Recent ringworm in healthy individuals, or on parts of the body not covered with thick hair, generally yields readily to any of the parasiticides in common use. I therefore reserve these more severe measures for the cases in which the disease has become firmly rooted. If a tendency to eczema or scalp-irritation exist, a less active treatment is preferable.

Cases of tinea tondens often suffer a relapse, the disease reappearing after an interval. Such an accident can be avoided by careful and constant inspection, and by the long continued use of some mild antidote. The extension of the disease must also be guarded against. The free application over the surrounding healthy skin of whatever parasiticide is selected will generally act as a preventative. Owing to the necessity of so free and prolonged an use of the remedies, non-poisonous substances are to be preferred.

In almost all the instances in which tinea tondens is chronic and intractable, the nutrition of the patient is defective. They are generally anæmic and thin, with feeble digestion and little inclination for fatty foods. The local treatment should therefore be supplemented by measures for the improvement of the constitutional condition. Fresh air; the addition to the diet of fatty substances, as cod-liver oil, cream, etc.; the regulation of the digestion; attention to the action of the bowels; and the administration of tonics are generally called for.

The following points seem, then, to be worthy of consideration in the treatment of ringworm.

1. The risk of the extension of the disease should be avoided.
2. Suitable constitutional treatment should be adopted.
3. Recent cases in healthy individuals may be very well dealt with by almost any of the usual remedies.
4. In chronic and obstinate cases, the production of suppuration by croton-oil liniment, followed by the application of salicylic acid either alone or in combination (or of any agents whose action is similar), offers a not unpromising means of eradicating the disease.

THE DIAGNOSIS OF RÖTHELN.

By HENRY TOMKINS, M.D.,
Resident Medical Officer to the Monsall Fever Hospital, Manchester.

It is well known that the very existence of rötheln or rubeola as a distinct and specific disease has by many been denied; and, further, it has been suggested that by the use of this term the diagnostician does but show his inability to decide in certain cases whether the disease brought under his notice be that of measles or that of scarlatina, the symptoms being so nearly balanced between the two diseases. At one extreme, we have teachers of high repute, especially in Germany, giving most marked characteristics of the disease, which would, if able to be distinguished in practice, sharply define it both from scarlatina and from morbilli; while at the other extreme we have English writers asserting that "any special description is unnecessary, because it is well known that measles and scarlatina may exist in the body at the same time, and hence the affection is merely a compound of the two" (Dr. T. H. Tanner's *Practice of Medicine*, vol. i, p. 272).

In practice, this conflict of opinion leads to but little inconvenience, as the treatment of these diseases is carried out upon the same general lines; but, in the interests of scientific medicine, it is desirable that no opportunity be lost which may in any way afford evidence as to the existence of rötheln as a separate and distinct disease. To this end the following case may contribute something.

On February 23rd, 1880, Mary P. was sent to this hospital by a medical man in doubt as to which of the eruptive fevers the case would prove to be, he being afraid that it would turn out to be variola. The patient, an intelligent educated domestic servant, nineteen years of age, said that at the age of nine years she had a bad attack of measles, which she remembered well and described distinctly. She had never had scarlet fever. On February 19th, she returned from a visit in Gloucestershire; and on the 21st, without known exposure to infection, she felt poorly, with sore-throat, aching in the limbs and back, nausea, and slight watering of the eyes. On the 22nd, the symptoms were about the same; and a rash came out in her face, rapidly extending to the neck and body. The next day she was sent to the hospital.

On admission, she was covered with an eruption which at first sight appeared more like measles than scarlatina, consisting for the most part of distinct spots varying in size from a small shot to a threepenny-piece, slightly raised above the skin, of a red colour, not nearly so bright as the rash of scarlet fever, but considerably brighter than that of measles, and showing no very large patches. The spots in some places coalesced, but were chiefly distinct; and on the back they could be distinctly felt by the finger. Her throat was red and sore; the right tonsil was a little swollen; the conjunctivæ were red and moist, but scarcely amounting to coryza. Pulse 112. The tongue was red and moist; the papillæ were very prominent; in fact, she had a typical strawberry-tongue, as in scarlatina. The urine was free from albumen. The bowels were loose. Evening temperature 102.6°.

February 24th. Her general symptoms were about the same. The throat was less sore, and the rash was fading on the body and upper limbs. Morning temperature 100.8°; evening 101°.

February 25th. The rash had almost disappeared; the throat and conjunctivæ were natural. Morning temperature 99°; evening 99°.

February 26th. All the symptoms were quite gone. The temperature was normal night and morning.

It should be stated here that, the case having been looked upon as more like scarlatina than anything else, the patient had been placed in a scarlet-fever ward, where there were a dozen children in all stages of the disease, varying in age from nine months to fourteen years.

On the 27th, 28th, and 29th, she was up and about, and expressed herself as feeling perfectly well. There was a little furfuraceous desquamation on the sides of the neck.

March 1st. She complained of headache, sore-throat, and general *malaise;* and at 8 P.M. her temperature was found to be 102.6°.

March 2nd. Temperature in morning 102.4°. The tongue was loaded with a thick white fur. The cervical glands were swelled and painful. Evening temperature 103.6°.

March 3rd. Morning temperature 103°. A well-marked scarlatinal eruption was present over the chest and arms. The throat was but little affected; but the cervical glands were very painful. The tongue was furred in the centre, with red tip and edges, but not showing the papillæ very prominent. Temperature in the evening 103.8°.

March 4th. Morning temperature 102°. The eruption had spread all over the body and lower limbs. There was considerable constitutional disturbance, and the urine showed a trace of albumen. The tongue had a thick white fur in the centre; the tip and edges were red; the papillæ were not very prominent.

From this time, the case ran the usual course of an ordinary attack of scarlatina. The rash had disappeared on the 7th, the temperature falling steadily and becoming normal on the 8th, on which date the urine had lost all trace of albumen. The enlargement of the glands in the neck had disappeared on the 10th, and the patient was convalescent. There was but slight desquamation, and she left the hospital on the 20th.

In reviewing the above case, we may, I think, fairly set it down as one of rötheln; this conclusion being based, perhaps, quite as much upon circumstantial as upon direct evidence; for, had the first attack alone been met with, and especially if there had been an absence of history of any previous attack of measles, the case might not unreasonably have been looked upon as a somewhat irregular one of either measles or scarlatina, the balance of opinion being, perhaps, in favour of the former. But, when we consider that the patient had within ten years had a severe attack of measles, and when we consider, further, that during her stay in hospital she occupied the same ward with several children who were known not to have had measles, and not one of whom contracted the disease, it can, I think, leave little doubt that this was not true measles. That it was not scarlatina is amply proved by her immediately contracting that disease from her fellow-patients, the attack being one of a perfectly typical character.

Since the above was written, what may almost be called a sequel to it has occurred.

On the morning of March 22nd, I noticed in my own person a slight soreness and enlargement of the cervical glands on the right side, but felt nothing else amiss.

March 23rd. I awoke early in the morning, with the glands more painful, and a sense of general *malaise* and slight pyrexia, dryness of mouth and tongue, with slight coryza and sneezing. Upon looking in the glass, I found my face and neck to be covered with an eruption which at first sight I thought to be that of scarlet fever. This by midday had spread down the arms and chest. It consisted of small red patches varying in size from a pin's head to a pea, not so bright a red as scarlatina, but with none of the purplish colour of measles, and having between them distinct patches of normal skin. Temperature 99.8°; pulse 84. The tongue was covered with thick white fur; the papillæ were not prominent. The fauces and tonsils were quite normal. The urine and bowels were normal. In the evening, the temperature had fallen to 98.8°.

March 24th. The rash was fading on the face, but had spread over the leg and lower part of the body. The glands in the neck were about the same. Morning temperature 99°. The eyes were still watery, and there was a feeling of soreness with much irritation about the larynx; but the fauces and tonsils were quite unaffected. The tongue was thickly coated; the bowels were loose; the urine was acid and contained lithates; no albumen. Evening temperature 98.6°.

March 25th. The eruption was almost gone, being only just visible on the thighs. Morning temperature 98.6°. The tongue was cleaner, not red. The glands were less painful; but the larynx was very sore. Evening temperature 97.6°.

March 26th. The eruption was quite gone. Temperature 98.8°. The cervical glands were quite free from pain, but still a little large. The larynx was less sore. The urine was normal. Evening temperature 97.8°.

From this time, there is nothing to record. There was slight soreness in the larynx up to April 2nd. The urine never contained albumen. There was no desquamation.

That this was rötheln I have little doubt; and in this I am confirmed by the opinions of Drs. Simpson and Steele of the Manchester Infirmary, both of whom saw the rash. In addition, I had had an attack of measles when young, but never scarlet fever. That it was not the latter is proved by the perfectly normal condition of the tonsils and fauces, the low temperature, and, as collateral evidence, the fact of my having been daily in the scarlet-fever wards here for the past two years, with cases far more virulent and more numerous than those at this time in hospital.

Weardale Rural District.—Mr. Arnison's report for 1879 on the Stanhope and Newlandside division of this district is only remarkable as showing what erroneous inferences may be drawn from a death-rate calculated from very small figures. During the year, there were 65 deaths, which is equal to a rate of 22.3 per 1000, or as high as that in some of our largest towns. But this result was greatly, if not entirely, due to the fatality of diseases of the respiratory organs, which, causing 20 deaths, or nearly a third of the total, necessarily affected the death-rate to a very marked extent. There seems to have been no outbreak of infectious disease except one of whooping-cough, though scarlatina made its appearance three times.

SURGICAL MEMORANDA.

THE SURGICAL TREATMENT OF EPISTAXIS.

I can endorse the recommendation of Mr. Corner in the Journal of Saturday to use perchloride of iron spray in epistaxis. The following is a case in point. About midnight on Tuesday, October 3rd, 1876, when I was practising in London, I was called to see Mr. N., who had "broken a blood-vessel". On my arrival, I found the patient suffering from profuse epistaxis from the right nostril. It had come on about 7 P.M., while he was attending to his business in another part of town. He went to a doctor in that neighbourhood, who supplied him with some medicine, and a powder to sniff up the nostrils. This checked the bleeding for a time, and the patient came home. About 11 P.M., the hæmorrhage recommenced, and I was sent for. Finding the man a full-blooded plethoric subject, addicted to alcohol, though not a drunkard, I did not take very active measures, considering some loss of blood would do no harm. The next morning, the bleeding having returned, though to a less extent, I plugged the anterior nares as far back as possible, applied cold, etc. At 5 P.M., I saw him again, and finding the hæmorrhage still going on, I resolved to inject perchloride of iron, and improvised an instrument for the purpose. Taking a piece of gum elastic catheter, I plugged one end and near it cut two small holes. Inserting this along the floor of the nasal cavity, with the holes directed upwards, I injected with a small glass syringe about two drachms of a solution of equal parts of liquor ferri perchloridi and water. The bleeding ceased at once. I should certainly adopt the same system again in any similar case, in preference to plugging the posterior nares.

W. Douglas Hemming, F.R.C.S.Ed., Bournemouth.

A case of epistaxis was treated here, a few days ago, in a much more simple manner, than by the plans proposed in the last numbers of the British Medical Journal.

A sergeant on sick furlough, a cachectic man, of fifteen years' service in India, was bleeding so profusely from the left nostril that I admitted him to the Station Hospital, with the intention of at once plugging the nostrils anteriorly and posteriorly. Surgeon-Major Kilner of the West Suffolk Militia, being then at the hospital, suggested that a plug of lint steeped in turpentine should be passed into the nostril and pressed upon the floor of the nares by means of a small dressing forceps. This was done, and the flow was instantly arrested, and there has been no return of it. Mr. Kilner informs me that he has frequently tried this treatment, and always with success. D. P. Barry, M.D., Surgeon-Major.

Bury St. Edmunds, May 25th, 1880.

CLINICAL MEMORANDA.

DEATH FROM PELVIC HÆMATOCELE(?) SIMULATING IRRITANT POISONING.

Mrs. H., aged 26, married, mother of three children, was going about in her usual health on the day of her attack. Before sitting down to dinner at 1 P.M., she drank a cupful of an infusion of bitter herbs to improve her appetite. Within twenty minutes afterwards, she was seized with violent pain in the abdomen, sickness, and purging. About an hour and a half after the symptoms began, I found her in a state of collapse, pulseless, and suffering from great thirst. She complained of excruciating pain in the abdomen, principally on the left side, and shooting through to her back. She could only lie on her left side. Her breathing was hurried, and very shallow. Her skin was covered with a cold perspiration. She was perfectly calm and conscious, and stated that she believed the cause of her illness was the "bad bacon" she had eaten for dinner. She mentioned the herb-drink, and directed me where to find the remains of it. She readily took large quantities of beef-tea, brandy and milk, and other appropriate stimulants. Her pain never left her, but became worse until she died, ten and a half hours after the commencement of the symptoms. She stated before her death that she was living on unhappy terms with her husband, who was jealous of her. She also informed me that she was not pregnant, as she had menstruated about a fortnight ago. The authorities considered the case a suspicious one. I was asked to examine the herbs, and to make a *post mortem* examination of the body. The herbs were the bog-bean, agrimony, St. John's wort, and the meadow-sweet, all of them slightly tonic, but in themselves quite harmless. A strong decoction given to three young animals was followed by no injurious effect.

The *post mortem* examination was made sixteen hours after death. The body was well nourished, but extremely pale; the lips were of a bluish tinge. The abdomen was enormously distended. The whole of the organs were found healthy, with one exception. On opening the abdominal cavity, it was found completely filled with blood, the diaphragm being pushed up and much displaced. After baling out the blood, the hæmorrhage was traced to the left ovary, where a rounded tumour about the size of a hen's egg was discovered. The tumour seemed to be firmly imbedded in the ovarian tissue; and on its lower surface a point was found having the appearance of a rupture, but of very small dimensions. In the left ovary was also found a cyst about the size of a walnut filled with transparent yellow fluid. In the right ovary, two such cysts were discovered; one being as large as a pigeon's egg, and the other rather smaller. The interior of the uterus was not congested, but there was a purulent discharge from the vaginal mucous membrane.

The case is interesting from a medico-legal point of view. The husband was for some days regarded as a murderer, and it was not until the *post mortem* appearances were observed that I convinced myself that the woman had not been poisoned.

R. Bruce Low, M.D., Helmsley, Yorks.

METAPHOSPHORIC ACID A DELICATE TEST FOR ALBUMEN IN URINE.

In the great majority of instances, the ordinary tests for albumen in urine are sufficient and satisfactory; there is, however, a residuum of cases which raise a doubt in the mind as to its presence. Unfortunately, these are the very cases for which a delicate and unerring test is most required. It is not always easy to determine, by the ordinary tests in use, the presence of albumen in the urine in minute quantities. Nitric acid for all ordinary purposes, when properly used, is a reliable test; but for very small quantities of albumen it fails, even when the greatest care is taken. I have recently made a series of experiments with nitric acid and metaphosphoric acid, and find that the latter acid will demonstrate the presence of albumen after the former has ceased to give a reaction. My attention was first directed to it by Dr. Dupré, F.R.S. I believe it has been long known to chemists, and used by them as one of the most reliable tests, if not the most reliable, for albumen, but I am not aware that it has been used for clinical purposes.

In using it, care should be taken that the solution of metaphosphoric acid is freshly made, and that no heat is applied to dissolve it, as it is a very unstable acid and readily decomposes. The plan I have adopted is to put a piece of metaphosphoric acid about the size of a pea into a drachm of distilled water. The urine can either be added to the solution, or the acid solution to the urine. If there be a trace of albumen, the urine will immediately become turbid and of a milky white colour. I have recently had an excellent opportunity of testing its accuracy, and strongly recommend a trial of it in the clinical examination of urine. W. C. Grigg, M.D.

6, Curzon Street, Mayfair, May 20th, 1880.

THERAPEUTIC MEMORANDA.

OLEATE OF LEAD IN ECZEMA.

After I had used for several months both in hospital and in private practice the ointment of oleate of zinc (for which the profession is indebted to Dr. Crocker, and which is certainly one of the best local remedies for eczema), I expressed my testimony in its favour in the issue of this Journal for April 19th, 1879. Thinking an oleate with lead for the base instead of zinc would be likely to prove a serviceable alternative application in eczema, especially when the soothing effects of lead might be desired, I asked Messrs. Southall, of Birmingham, to make for me an ointment of oleate of lead. After a series of experiments, they produced an excellent preparation, according to the following formula:—Lead oleate, 24 parts; heavy and inodorous paraffin oil, 14 parts. The lead oleate is prepared by heating a mixture of oleic acid and oxide of lead. After using it for many months I can recommend this ointment as a very efficient local remedy in eczema.

James Sawyer, M.D. Lond., M.R.C.P.,
Physician to the Queen's Hospital, Birmingham.

Bloody Sweat.—Dr. R. G. Hill (*Virginia Medical Monthly*, January 1880) reported to the King William County Medical Association a case of bloody sweat in a boy aged 4. This boy was suffering from malarial fever, and blood oozed from the face and neck during the sweating stage. Febrifuges and quinine gave relief, but two months later there occurred hæmorrhage from the alimentary canal, vomiting and purging of blood, and death. There was no necropsy.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 25TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

ON THE TREATMENT OF LATERAL CURVATURE OF THE SPINE BY STEEL SUPPORTS, PLASTER-OF-PARIS JACKET, AND THE POROPLASTIC JACKET. BY WM. ADAMS, F.R.C.S.

THE author commenced by alluding to the great change in the treatment of curvatures of the spine, both angular and lateral, during the last three years, in consequence of the method introduced by Professor Sayre of New York, *i.e.*, the application of the principle of extension, by suspending the patient from the head and arms, and then applying a plaster-of-Paris jacket during suspension. The author did not propose to speak of angular curvature from Pott's disease, further than to say that it was in this class of cases that the advantages of the plaster-of-Paris jacket were most conspicuous; and his experience led him to confirm all that Professor Sayre had claimed for it; but in the treatment of lateral curvature, Mr. Adams differed from Dr. Sayre, and believed the plaster-of-Paris jacket to be as useless and injurious in this class of cases as it was useful in cases of angular curvature. For practical purposes, the author arranged cases of lateral curvature in three classes, viz., 1. Physiological curves; 2. Confirmed structural curves; 3. Commencing structural curves. In forming a diagnosis between these three classes, the importance of the stooping position as affording evidence of the existence of rotation of the bodies of the vertebræ was particularly insisted upon, attention being directed to the symmetrical relations or otherwise of the angles of the ribs in the dorsal region, and of the transverse processes in the lumbar region, rather than to the spinous processes, the apices of which might preserve their normally straight line in relation to one another, without any lateral deviation, whilst rotation of the bodies of the vertebræ might have taken place to a considerable extent, rendering the case incurable. This fact was illustrated by a specimen exhibited to the Society by Mr. Adams, and described in a paper published with illustrations in vol. xxxvii of the *Transactions* of the Society. In the cases of commencing structural curve, in which probably the intervertebral cartilages only had suffered from unequal compression, arranged in the third class, and forming an intermediate group between the first and second classes, the spinal curvature was much more apparent in the standing than in the stooping position; although, in the stooping position, it did not completely disappear, as in the physiological curves. Some evidence of commencing rotation was afforded by a slight posterior projection of the angles of the ribs on one side, and depression on the other; and a similar deviation as regards the transverse processes in the lumbar region, when the patient was examined in the stooping position. With regard to treatment of cases in the first class, or physiological curves, no mechanical treatment by any form of spinal support should be given, but reliance should be placed entirely upon physiological means, such as gymnastic exercises, partial recumbency, and attention to the general health. In some cases, an elastic brace attached to stays might be used. In the second class, of confirmed structural curves, mechanical support of some kind must be resorted to, and continued during the period of growth, in the hope of preventing increase and obtaining some improvement in the curvature; but confirmed lateral curvature, whether slight or severe, with its adapted series of structural changes, was essentially incurable. The most efficient retentive spinal support was an instrument made with a pelvic belt and spring plates attached to vertical bars at the back, without any mechanism requiring alteration by the surgeon. In some favourable cases for improvement, the stronger spinal instrument, with steel plates attached to levers, and adjusted by rack-and-pinion movements, might be used with advantage. Sayre's plaster-of-Paris jacket had been largely employed in these cases; but from what the author had observed in the practice of others, he condemned its application on the grounds that it failed as a curative agent, the gain in height by extension being quickly lost; that it weakened the spinal muscles by its constant use, and hindered gymnastic exercises; that it restrained respiratory movements, and prevented active exercise; and that it was an unnecessary restraint at night, and interfered with bathing and cleanliness. The poroplastic jacket, which, when softened by steam, was applied in the same way as the plaster-of-Paris jacket during suspension, was free from the disadvantages of the latter, as it could be removed at night, or at any time for the purpose of gymnastic exercises, etc. It acted as an efficient and light retentive support in many cases of incurable curvature. Commencing structural curves formed the only curable cases of lateral curvature; and for these the author recommended a combination of mechanical support, gymnastic exercises, and partial recumbency. By this combination of physiological and mechanical means, the further progress of curvature would be arrested, and the best opportunity afforded for recovery from such slight structural damage as might have already occurred.

Mr. BRYANT said that Mr. Adams's observations were consonant with what was felt by most surgeons. On one point, however, there might be difference of opinion, viz., as to the time when curvature ceased to be curable by physiological means, and passed into the incurable stage, requiring artificial supports. He would delay assuming the commencement of the incurable stage as long as possible. In many cases of lateral curvature, recovery took place in a remarkable degree. He approved of the means of diagnosis recommended by Mr. Adams. He had been accustomed to examine the patients in the stooping position, with their hands on the back of a chair. He agreed that the plaster-of-Paris jacket was not fitted for lateral curvature; though in some rare instances, of which he had seen one, it was the only thing that would support the patients. He would even discard the iron apparatus. The poroplastic jacket was preferable to any other; and the addition of steel bars to it, as recommended by Mr. Adams, was no doubt an advantage.—Mr. WARRINGTON HAWARD was glad to hear Mr. Adams say that many cases of lateral curvature did not need any apparatus. He thought that the prejudice of the public was rather in favour of artificial supports than against them. He agreed with the opinion that the application of supports should be delayed as long as possible. All spinal supports were necessary evils, for they interfered with respiration. In cases where the curvature was apparently only an indication of general debility, he would depend more on recumbency and exercise, both being judiciously regulated by the surgeon, and the general health being at the same time attended to, than on artificial supports. In such cases, the application of the plaster jacket tended only to still more weaken the spinal muscles. When the disease had become incurable, the object was to prevent it from becoming worse; and he would here use the poroplastic jacket, which could be fitted to every part of the body.—Mr. E. OWEN said that it was difficult to draw a distinction between the three classes; and this was much more difficult for "surgical mechanicians", into whose hands many cases of spinal curvature came, and whose tendency was to apply artificial supports in all cases, even in hysterical spinal curvature. He wished to speak with all respect of the surgical mechanicians; but he had met with cases in which the supports applied by them had been worse than useless.—Mr. ADAMS replied.

ON A CASE OF EPITHELIOMA OF THE NECK FOLLOWING A PATCH OF CHRONIC SKIN-DISEASE; IN WHICH THE CANCER WAS TWICE EXCISED, AND THE EXTERNAL AND INTERNAL JUGULARS OF THE SAME SIDE WERE LIGATURED. BY HENRY MORRIS, F.R.C.S.

ELIZA H., aged 60, had for years a small circular red and scaly patch on the right side of the neck, which remained in much the same condition, shedding fine scales occasionally for five years. At the end of this time, and about four years before admission into the Middlesex Hospital, the surface of the patch was knocked off by the elbow of a child; then followed a scab, and the gradual extension of the underlying sore. Subsequently, under a course of treatment by "burning plasters", the sore spread more rapidly, until it reached the size of half the palm of a man's hand, having raised, everted, and hardened edges, and a yellow grey, and in places sloughing, base. It was situated in the central and upper part of the right posterior triangle. She had also a large bilateral solid bronchocele, which on both sides displaced the large cervical vessels outwards. On September 20th, 1876, the growth was excised, and the external jugular vein was ligatured. The microscopical examination of the ulcer proved it to be an ordinary epithelial cancer. The patient made a good recovery, and remained well until January 1878, when the growth recurred. On March 21st, 1878, this was excised; and during the operation, the internal jugular vein, which was largely involved in the disease, was wounded. A silk ligature was applied to the vein above, and another below, the wound. Chloride of zinc paste was required in the after-treatment to be applied to one or two points where the disease showed a tendency to recur; but, ultimately, a good recovery was made. The patient left the hospital on May 23rd, 1878, and remained well to April 1880. The case afforded another illustration (although a somewhat different one from ichthyosis of the tongue and eczema of the nipple) of cancer excited by long-standing irritation of epithelial surfaces, and spreading from those surfaces to the tissues beyond; it also pointed to the truth of Sir James Paget's suggestion, "that a superficial disease induces in the structures beneath, in the course of many months, such degeneracy as makes them apt to become the seats of cancer"; and, further, it gave support to the local hypothesis of the origin of cancer. Reported cases justified the conclusion that the simultaneous ligation of the common carotid artery and the internal jugular vein, contrary to the opinion of Langenbeck, was at least four times as likely to excite brain mischief as ligation of the internal jugular alone, and that in no case in which the ligature had been completely applied to the vein had either apoplexy, softening of the brain, or other cerebral disorders ensued. While incised and punctured wounds of the internal jugular, if not treated by the ligature, were almost invariably fatal, yet the chances of a good recovery after the complete ligation of this vein were very considerable, provided the carotid artery was not interfered with, and that neither extreme hæmorrhage nor the aspiration of air into the vein had occurred before the application of the ligature. The mortality of cases hitherto reported was not more than 10 per cent. when the vein alone was ligatured; but if the carotid were ligatured at the same time as the vein, the chances of recovery or death were about equal, *i.e.*, the mortality was about 50 per cent., or 7 per cent. higher than the mortality after ligature of the common carotid alone.

The PRESIDENT had seen a case of ligature of the internal jugular vein, in which no cerebral or other symptoms were the result.—Mr. HOLMES had an imperfect recollection of a case of ligature of the vein during the removal of a tumour. No cerebral symptoms followed, but the patient died in consequence of previous weakness and shock. He thought that, in Mr. Morris's case, there was probably obliteration of the vein by the tumour at some point. He agreed in disapproving of the ligature of the carotid artery with the jugular vein.—Mr. R. W. PARKER had tied the internal jugular vein in a case of suicidal wound, in the London Hospital. The patient recovered. He dissented from the theory of the connection between eczema and cancer.—Mr. BRYANT had met with two cases of ligature of the internal jugular vein during the removal of tumours, in which no symptoms followed.—Mr. MORRIS replied.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 18TH, 1880.

JONATHAN HUTCHINSON, F.R.C.S., President, in the Chair.

Reports of the Morbid Growths Committee.—Mr. BUTLIN read the reports of this Committee on the following specimens exhibited at previous meetings. 1. Tumour of the liver, exhibited by Dr. Coupland, which was stated by the Committee to be of a carcinomatous nature, with concurrent increase of connective tissue elements. 2. Mr. Eve's specimens of diseased bones, which the Committee considered to be due to congenital syphilis. 3. Mr. Morris's specimen of pulsating tumour of the cranium. This was found to resemble neither sarcoma nor enchondroma. It was, however, very much like the ordinary structure of the thyroid body. Virchow and Cohnheim had described cases of thyroid disease with secondary growths resembling thyroid structure in other parts of the body. In Mr. Morris's case, the thyroid body was enlarged. 4. Mr. Nunn's specimen of tumour of the breast, which proved to be an unusual form of cancer described by Cornil and Ranvier.

Specimens illustrating the Pathology of Cancer.—Dr. THIN showed a series of microscopical specimens of cancerous organs. The first set were of liver affected with secondary cancer. The cancer-element formed columns surrounded by liver-cells. The most distant cells were healthy; those somewhat nearer the cancer-masses were bile-stained; those nearer still were fatty; whilst those in immediate contiguity with the cancer formed mere fatty bodies with pale degenerate nuclei. There was nothing whatever to show that the cancer-elements took their origin in the liver-cells, which was the source usually ascribed to them. The second set were from a case of cancer like that described by Mr. Nunn and reported upon above, both of them being instances of what Dr. Thin termed "duct-cancer". The secreting epithelium of the acini in a lobule first broke down, and the surrounding parts were infiltrated with small cells, until at length the epithelium was replaced by cylindrical columns of cells. These columns enlarged, encroached on the intervening interlobular tissue, and finally coalesced, forming large spherical masses of cells, which, subsequently degenerating, formed amorphous masses that had been described as the products of altered blood, but whose real origin was that just indicated. This tumour had been removed from a woman aged 28, and had been mistaken for scirrhus before removal. Dr. Thin believed that eventually it would be possible to diagnose this form of tumour during life.—Mr. PARKER thought the tumour was an adenoma rather than a carcinoma. The patient's age favoured this view. He could not understand why cancer beginning in a duct should differ from cancer beginning in the acini of a gland, for there was no great difference between the two forms of epithelium.—Mr. MORRIS thought Dr. Thin had confused two kinds of clinical cases: 1, tumours of the breast with secondary invasion of the nipple; and 2, eczema of the nipple preceding tumour of the breast. After a tumour had begun to grow in the latter form of disease, its course was much like that of the first form, and a diagnosis between them was of little consequence.—Dr. PYE-SMITH remarked that it had been disproved some years ago that the epithelium of the ducts and of the acini was the same; that of the ducts grew from the epiblast, whilst the secreting epithelium took origin in the mesoblast.—Mr. CRIPPS agreed with Mr. Parker in believing the tumour was an adenoma.—Dr. THIN replied that he believed this form of tumour was often called an adenoma; but he doubted the existence of real adenoma. The difference between non-malignancy and malignancy of these tumours he believed to lie in the resistance or non-resistance of the fibrous tissue of the breast to the advance of the cell-growth. In reply to Mr. Morris, he looked upon this kind of case as essentially different from those beginning with disease of the nipple.

Painful Subcutaneous Tumour.—Dr. HOGGAN showed microscopic specimens and drawings illustrating the pathology of this affection, which was usually classed among the neuromata. He believed it to be, however, a typical adenoma of the sweat-gland, the painful symptoms being due to impaction of the hard nodule upon the nerve-bundles lying immediately beneath it. Axmann described bodies like Pacchionian corpuscles in these tumours; this appearance was, however, due to the organisation of blood-clots. The cells within these clots took on the form of the other cellular elements of the tumour, which exactly resembled the epithelium lining the tubules of the sweat-glands; and ultimately dense masses of such cells occupied the position of the blood-clot, and obscured the tubular structure of the rest of the tumour.

Recurrent Mammary Tumour.—Mr. GAY showed a tumour which he had recently removed from the breast of a woman about thirty-four years old, being the sixth of the same kind he had removed from this patient since 1865. The tumour was a spindle-celled sarcoma. Before the last removal, a secondary growth had appeared near it, growing very rapidly. This new growth proved to be a myxomatous tumour. Notwithstanding the recurrence of these tumours, the patient had steadily improved in health.

Aneurism of the Aorta opening into the Right Auricle.—This specimen was shown by Dr. NORMAN MOORE. There had been no symptoms during life, notwithstanding that the opening had evidently existed for a long time.

Cirrhosis of the Liver in a Child.—Dr. FREDERICK TAYLOR showed the liver of a child aged 8 years, which presented all the characters of ordinary cirrhosis. It weighed twenty-five ounces. It had begun to show signs of liver-disease three years and a half before death, having at that time suffered from jaundice, vomiting, and diarrhœa. From that time, it suffered from occasional attacks of jaundice and ascites. The liver was at first large, but gradually diminished in size. There was an indirect history of spirit-drinking.

Dermoid Tumour of the Rectum.—Dr. PORT showed a tumour that he had removed from the rectum of a girl, aged sixteen, at the German Hospital. It was mainly composed of fibrous tissue, enclosed in an integument like ordinary skin which was covered with long hair, and contained abundant involuntary fibre like that seen in the healthy cutis; growing upon it also was a well developed canine tooth. A somewhat similar case had been recently reported in Germany, where a tumour was removed containing a tooth and brain-substance.

Cystic Calculus.—Mr. SHATTUCK showed a calculus chiefly composed of cystic oxide, with a thin layer of oxalate of lime below the surface. It had been removed from a man aged nineteen.

Aneurism of the Abdominal Aorta opening into the Vena Cava.—Dr. PYE-SMITH showed a specimen taken from the body of a young man who had been ill for eight weeks, suffering from orthopnœa, pallor, and general dropsy. There was a loud *bruit* down the whole length of the vertebral column. He died of gangrene of the right leg following puncture to relieve tension. The aneurism was situated close to the bifurcation of the aorta, and opened into the vena cava at its bifurcation.

Scleroderma.—Dr. DUCKWORTH exhibited a female patient, aged twenty-four, who presented well-marked scleroderma of the arms from the elbows downwards, and of the legs from the knees downwards, the left thigh being also partially involved. The disease in the arms assumed the diffused form, whilst, in the legs, it was partially diffused and partially circumscribed, presenting in these latter parts the characteristics of morphœa. The commencement of the disease dated from eight years previously, the circumscribed patches in the legs having been the first to appear. During its course, she had suffered from two attacks of subacute rheumatism.

Cystic Degeneration of the Kidneys.—Mr. EVE showed the kidneys of a man who died of uræmia in St. Bartholomew's Hospital. He had presented no symptoms until a short time before his death, when he suffered from extreme dyspnœa, his urine containing two-thirds of albumen. *Post mortem*, the kidneys were found in an extremely advanced state of cystic degeneration. Section showed the tubules to be greatly dilated, tortuous, and for the most part denuded of epithelium; the Malpighian corpuscles were not dilated.—The PRESIDENT remarked that the case resembled one exhibited by himself, where a sailor who had presented no signs of renal disease died of uræmia after a compound fracture of the leg; both the kidneys being found to be in an advanced state of cystic degeneration.

Congenital Syphilitic Ulceration of the Tongue.—Dr. BARLOW narrated the case of a girl, aged six, whom he had exhibited at a previous meeting, and who presented a gumma of the tongue, with adjacent ulceration. He believed this condition had not hitherto been described in connection with congenital syphilis.—The PRESIDENT remarked that he was quite familiar with this condition, and had seen several cases of congenital syphilis where it had been present.

Sarcomatous Growths in both Kidneys.—Dr. ABERCROMBIE showed the kidneys of a child, aged four, containing a deep purple growth, which, on microscopic examination, proved to be a small round-celled sarcoma. He had seen two similar cases. In all three children the spleen was enlarged; in none of them was there any history of congenital syphilis, nor were there any symptoms of renal disease.—Dr. PAYNE asked whether the growth might not be lymphomatous. The drawings handed round by Dr. Abercrombie resembled this form of growth, and the enlarged spleen pointed to it.—Dr. ABERCROMBIE replied that, in two of the cases, it was possible that the growth was of that nature; but, in the third, the evidence was in favour of sarcoma.

Malformation of Heart.—Dr. STEPHEN MACKENZIE showed two specimens of this nature. In the first case, taken from a child aged two and a half years, there was stenosis of the pulmonary artery, with a supernumerary right ventricle, the infundibulum being partially shut off from the real ventricle. The left superior vena cava was pervious and the systemic veins opened into the left auricle. In the second case, there were three ventricles with imperfect septa between them. The extreme right ventricle gave origin to a superior aorta to supply the head and arms, the descending aorta being chiefly supplied through the ductus arteriosus, with a small branch from the superior aorta.

Alveolar Sarcoma of the Face.—Mr. McCARTHY showed a tumour which he had removed by Paquelin's cautery from below the lower eyelid of an old man. The tumour had begun in a wart; there was no glandular affection and scarcely any pain. The growth proved to be an alveolar sarcoma degenerating in the centre.—Dr. THIN remarked that the microscopical sections bore a close resemblance to those of rodent ulcer.—The PRESIDENT said that clinically the case was very widely distinguished from rodent ulcer. The growth was pedunculated, had increased rapidly, and had not ulcerated.

Specimens exhibited by Card:

1. The PRESIDENT: Four drawings of unusual forms of Rodent Ulcer and Epithelioma of the Face.
2. The PRESIDENT: Drawing showing an Indurated Chancre of the Tongue.
3. Mr. WALSHAM: Persistent left Vena Cava.
4. Mr. NETTLESHIP: Spontaneous Intraocular Hæmorrhage in an Infant.
5. Mr. NETTLESHIP: Eyeball degenerated and containing much Cholestearin.
6. Mr. McMAHON: Cancer round the Colon.
7. Mr. McMAHON: Double Kidney.
8. Mr. McMAHON: Strangulated Funis.
9. Dr. RALFE: Remarkable Branched Concretions in the Pelvis of a Kidney.
10. Dr. RALFE: Acute Fatty Changes occurring in Enlarged Liver.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 14th, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Section of the Femur above the Small Trochanter for Angular Ankylosis of the Hip—Mr. RICHARD BARWELL read this paper. William D., aged 12, had when five years old severe hip-disease and many abscesses about the joint. After several years, he got about on crutches, but the result was a thigh flexed at right angles to the pelvis and somewhat adducted. The deformity was extreme. The altered state of parts about the neck of the bone rendered section at that place inadmissible; section below the trochanters was rejected, because Mr. Barwell considered that such operation must produce very considerable shortening—equal in amount to the distance from the centre of the head of the bone to a point below the small trochanter, namely, from two to three inches. The operation of Dr. Rhea Barton, and that of Dr. Sayre, viz., the removal of a wedge of bone from about the junction of the femoral neck and shaft, appeared to aim at an unattainable result, since an artificial joint at this part of the body, even if it could be secured, could not be relied on to support the weight of the trunk. A review of the results obtained by those surgeons showed that in the two successful cases, one of Barton's and one of Sayre's, motion at the place of section was either never attained or soon ceased. In the case of William D. all such intention was, therefore, discarded. Mr. Barwell endeavoured simply to secure a straight limb without further shortening than that already produced by the loss of growth which accompanied the original disease. On October 30th, the operation was performed antiseptically by making a crucial incision on the outer aspect of the great trochanter, down to the bone, peeling off the periosteum all round, finding the small trochanter and the tendon of the ilio-psoas muscle, passing above this latter part an armed needle, and drawing with the thread round the bone a chain saw, with which, obliquely upward and outward, the section was made. Barely twenty drops of blood were lost, the patient was taken to bed, and a weight suspended to the foot. No suppuration followed, nor indeed any other bad symptom, the temperature being good throughout. Union of the soft parts took place by first intention, except where the drainage-tube was inserted, and that channel healed as soon as the drain was withdrawn. In the result, the boy stood upright and straight, the limb parallel with the other; the shortening was barely an inch, and that appeared due to lack of growth in the bone, not to the operation. He walked almost perfectly and without sway of the body. Mr. Barwell especially directed attention to the fact that this end was attained by an operation which, by being subperiosteal, secured so rapid an union of bone that the boy was in bed only thirty-three days. The temper and the small size of the surgical needles gave rise to a little difficulty in getting a thread round the bone. An instrument devised on the principle of Bellocq's sound was exhibited by Mr. Barwell, who had tested the facility of its use on the subject; with this instrument the operation was quite easy.—Mr. HEATH said that Adams's operation was good, but in many cases there was a degree of uncertainty, and where it could not be adopted Mr. Barwell's plan had much to recommend it. He had now a case under his care where it was hardly possible to tell through what structures one would cut, operating in the usual way. When the bone was cut below the trochanters, according to Mr. Gant's method, there was a risk of tilting forwards. Professor Sayre, when in this country, exhibited the model of a case referred to by Mr. Barwell, but it was very difficult to believe that it represented the exact state of matters. On the whole, it was better to aim at a stiff limb than an uncertain joint.—Mr. BARWELL, in reply, said that he considered Mr. Gant's operation unsatisfactory. The case described and illustrated by Professor Sayre had been the subject of warm controversy. The patient was said to have died of tubercle of the lung, whilst many believed that it was pyæmia.

Rheumatic Fever treated with Salicin.—Two papers contributed by the PRESIDENT were read by the Medical Secretary (Dr. F. TAYLOR). The first was an account of ten cases treated with salicin. The author stated that for some years past he had been in the habit of testing carefully and methodically in a series of cases the several remedies from time to time proposed for the treatment of rheumatic fever. During the last three years, he had treated, in the Middlesex Hospital, ten cases with salicin and fifty with salicylate of soda. All the patients were confined to bed until the fever had entirely subsided. The diet consisted of milk, beef-tea, and sometimes eggs; stimulants were sparingly given. The affected joints were wrapped in cotton-wool, and when pericarditis or endocarditis was present, belladonna and iodide of potassium ointment was applied over the præcordia. In most cases, simple effervescing medicine was prescribed on the day of admission, and an aperient and occasionally sedatives were given, but the latter as seldom as possible. In all the cases treated with salicin, and in many of those treated with salicylate of soda, the urine was examined the day after beginning the medicine, and found invariably to yield the characteristic reaction with perchloride of iron. In order to exclude cases of mild type, which, especially in young subjects, rapidly improved under any kind of treatment, the salicin or salicylate was not prescribed until the patient had been from twenty-four to thirty-six hours in the wards. Case I.—First attack; incipient pericarditis; salicin in full doses on day after admission. Temperature began to fall on third day, became normal on sixth. Pains abated on second day and ceased on fifth. The salicin taken every two hours, for six days, then for two days every four hours, and for nine days every six hours. A mild relapse occurred whilst taking the drug. Epistaxis occurred in this case; and the heart's action became feeble, requiring stimulants. Discharged on sixty-sixth day. Case II.—Sixth attack; admitted on fourteenth day; mitral disease and pericarditis. Pain diminished on second day of treatment, ceased on sixth day. Temperature fell on third day and became normal on fifth. Salicin was given every two hours for six days, then every four hours; but, a relapse occurring, the frequency was again increased to two hours. Vomiting and headache became so severe, that at the end of ten days more the drug was discontinued. Pleurisy and a second attack of pericarditis occurred. Discharged on 107th day. Case III.—First attack; ailing several weeks; pericarditis. Pains rapidly subsided, and temperature became normal on fourth day of taking the drug, but cardiac failure was very marked, and the salicin was discontinued on the eighth day. Discharged, with an open systolic murmur, on twenty-fifth day. Case IV.—Third attack; old mitral disease and a recent basic murmur. Pericarditis supervened two days after the salicin was commenced; the temperature soon fell to normal, but pains and sweating did not subside with it. A mild relapse occurred after the salicin was discontinued. Iodide of potassium was given, and the patient discharged on the fifty-eighth day. Case V.—Third attack; relapse; pericarditis. Temperature normal, and pains greatly subsided on the fourth day. Epistaxis supervened and pulse became small and feeble on the third day. Discharged on twentieth day. Case VI.—First attack. Temperature fell to normal, and pains subsided after two days' treatment, but pericarditis developed. Pulse became very feeble; vomiting and epigastric pain occurred nine days after the commencement of treatment, unrelieved by reduction in frequency of the drug, which was discontinued on the eleventh day. A relapse occurred, but salicin was not prescribed again. Discharged on forty-sixth day. Case VII.—First attack; third day. The temperature fell to normal on the third day of treatment; pains and sweating subsided more slowly. The salicin was continued till the twenty-third day, and patient discharged on forty-fifth day. Case VIII.– Second attack; tenth day. The temperature fell to normal and the pains subsided within thirty-six hours from commencing to take salicin, which, at first given every two hours, was afterwards reduced, owing to feebleness of pulse, and omitted on the twelfth day. Discharged on the twenty-third day. Case IX.—Second attack; third day; complicated with pneumonia. Temperature excessive on tenth day; pains continued a day or two longer. The sounds and impulse of the heart became very feeble on the twelfth day. Discharged on thirty-third day. Case X.—Second attack; sixth day. Double pneumonia and hæmaturia, endocarditis and pleuro-pericarditis. The pains in the joints disappeared on the seventh day of treatment, but the temperature remained high until after the salicin had been discontinued, on account of persistent and uncontrollable sickness. Chloral and morphia were required frequently at night, and stimulants were freely given on account of the dyspnœa and feeble irregular action of the heart. Twenty grains of salicin were given every two hours for seventeen days. It caused sickness at a very early period, and after a few days dryness and soreness of throat. Discharged on fifty-eighth day. Thus the effects of the drug were not very satisfactory. The temperature appeared to be reduced and the pains to subside in the uncomplicated cases; but in Cases I, II, IV, and VI relapses occurred when the salicin was either discontinued or the frequency of the dose diminished. Case V, one of relapse, had already been laid up some time, and recovery might have been as rapid under simple rest and diet, while in IX and X, complicated with pneumonia, the salicin did not appear to exert any influence in their progress. On the other hand, salicin appeared to produce some inconvenient consequences. In one case epistaxis, which recurred when the dose was increased; in four cases marked cardiac depression; nausea and vomiting in two cases. Lastly, the detention of patients in hospital was not shortened by the treatment; for, except Cases III, V, and VIII, two of which were approaching their close when admitted, the patients treated with salicin recovered more slowly than was common in cases of similar severity under other modes of treatment.

Cases of Rheumatic Fever treated with Salicylate of Soda.—This was the title of Dr. GREENHOW's second paper. The cases were fifty in number, and abstracts of a few of them were read. The author discussed firstly the physiological effects of salicylate of soda, and then the therapeutical effects. One of the most obvious effects of the treatment in the majority of cases was a speedy fall in temperature, sometimes within a few hours from commencing the treatment, and, save in a few cases, within two or three days. The pulse usually, but not invariably, came down in frequency with the fall of temperature. In forty-five out of the fifty cases, certain well-marked physiological symptoms attended the reduction of the fever. There were effects on the nervous system, such as deafness, vertigo, headache, noises in the ears, delirium, and hallucinations. Deafness often occurred early, and was noticed in twenty-seven cases; sometimes it was very intense. Vertigo occurred in fourteen cases. Very intense headache, chiefly frontal, though less frequent than deafness and vertigo, was, when it occurred, a much more distressing symptom; it was complained of in nine cases, and in one recurred until the resumption of the medicine. Delirium was present in eight cases; hallucinations in four. Great depression of pulse and action of the heart was the most important effect produced on the circulation. More or less weakening of the pulse, calling for stimulants, in almost every case; great weakening of the impulse of the heart, and in ten cases almost complete obliteration of the first sound. The pulse was irregular, and dicrotous in some. Vomiting occurred in twenty-two cases, great injection of the tongue in many cases, soreness of the tongue in three, and an aphthous state of the tongue in three cases. Diarrhœa in two cases was evidently referable to the salicylate. Epistaxis occurred in seven cases. In two, transient albuminuria was observed; in two others, tremor of the hand or tongue, which might not have been due to the drug. Speaking of the value of salicin and salicylate of soda in the treatment of rheumatic fever, Dr. Greenhow said that his experience led him to regard these as the most powerful antipyretic agents with which he was acquainted. The temperature soon fell under their use. The pulse commonly fell at the same time; and the pains soon abated very considerably, and in most cases entirely ceased within a few days. But the improvement in the symptoms only took place coincidently with the development of one or more of the physiological phenomena already described; and in all the most acute cases the relief derived from the medicine passed away soon after the treatment was intermitted, and a relapse—in some cases, several relapses—took place. On this ground, these agents could not be regarded as in any respect specifics in the treatment of rheumatic fever. Excluding two cases which passed into the state of hyperpyrexia whilst under the physiological influence of the salicylate of soda, two other cases which proved fatal, and about fourteen very mild cases from which no conclusion could be drawn, there were relapses in twenty-one out of the remaining thirty-two cases. In seven of these twenty-one cases, there was one relapse, in nine there were two, in two there were three, in another two, four, and in one five relapses. A proportion of twenty-one out of thirty-two was a large one for relapsing cases; and in most of the cases the relapse was due to the passing off of the influence of the medicine. Admitting the great immediate relief that appeared to follow the use of these agents in the treatment of rheumatic fever, there still remained for consideration the question whether, upon the whole, the treatment was successful. The answer depended upon whether the complications apt to arise in rheumatic fever were less frequent under this treatment; whether the condition of the patient after recovery was better or worse; and whether the length of time during which the patient was disabled was shorter or longer under this than under other modes of treatment. To all these questions Dr. Greenhow's experience led him to reply in the negative. In the first two cases recorded, hyperpyrexia was developed after the proper physiological influence of the salicylate of soda had become manifest. Pericarditis was present in many cases before the treatment was commenced; but in several instances it improved afterwards. In three cases pneumonia, and in four others pleurisy, supervened when the physiological effects of the medicine had become manifest. On the other hand, several cases that were admitted with either pleuropneumonia, bronchopneumonia, or bronchitis, ran very much the same course as in similar cases under other treatment. Patients treated with salicylate of soda appeared to him to become unusually anæmic, and to regain health and strength very slowly. Excluding the two cases of hyperpyrexia, the two fatal cases, and nine very mild cases, which were, on the average, less than twenty days in the hospital, the remaining thirty-seven cases were, on an average, fifty-seven days each in the hospital. This period, however, by no means represented the duration of their disabling illness; for all had been at least a few days ill previous to admission, and probably never were discharged in a condition to resume work, many having been sent to convalescent hospitals, and others to their friends in the country to recruit. An examination of the cases treated with salicin showed a very similar result. Two cases which were admitted in an advanced stage of their illness being excluded, the average residence in hospital of each of the remaining eight cases was fifty-five days. With regard, therefore, to the treatment of rheumatic fever with salicin and salicylate of soda, Dr. Greenhow came to the conclusion that the pain and distress of the patients were undoubtedly for a time greatly assuaged, but that the duration of the illness was not shortened. Blisters applied in the vicinity of all the painful joints were by far more efficacious and speedy in the relief they afforded, and had the advantage of not producing so much subsequent debility. He feared also that the marked weakening of the first sound of the heart present in many cases in which salicylic acid was given indicated the exertion of an influence upon the muscular structures of that organ, which might not always pass entirely away when the treatment was suspended, and more particularly when either inflammation of the endocardium or pericardium, or of the muscular structure itself, existed during the treatment.—Dr. SILVER said that the value of the papers could not easily be over-estimated; they constituted a kind of standpoint for future progress in the treatment of acute rheumatism. He had seen many cases of this kind, and his views exactly coincided with those of the President as to the action and effects of the salicylate. When given in doses of fifteen grains every four hours, it almost invariably reduced temperature and relieved pain within two or three days at the outside. But there he believed its function and its usefulness ended. If continued, the patient did not improve, and there was great risk of relapse. His constant practice, therefore, was to discontinue its use as soon as the pain and fever had disappeared, and to substitute for it the potash treatment, coupled as soon as possible with the use of quinine. The paper would be a notable one in the annals of the Society, the more especially as the Society had been specially intended to carry out therapeutic investigation.—Dr. DAVY had seen twenty or thirty cases treated in various ways, but his impression was that this did not prevent complications, though it reduced temperature and relieved pain. He had used salicin in some cases where salicylate of soda did not succeed. He had seen hallucinations with its use.—Dr. HERMANN WEBER had, in a paper read before the Society, expressed himself as greatly in favour of the drug. With it, complications were not so frequent. Above all, he had seen with it no hyperpyrexia. He had never seen the iron reaction in the urine. He was sure it did not act by reducing the heart's action alone, but perhaps by arresting some kind of fermentation in the blood. It diminished sugar in diabetes, and arrested any process whereby bacteria were rapidly produced in the urine.—Dr. CAVAFY had used the drug since 1876, and often given it in half-drachm doses every two hours, gradually diminishing the quantity administered. The undoubted improvement effected by it did not date from the toxic phenomena, for these were seldom seen; they might be very unpleasant, but not grave, and he had seen no serious result from them. The albuminuria spoken of must depend on something else. Relapses did not occur if small doses were continued after the first full ones had exerted their effect. As a rule, recovery was not tedious; he had seen many patients out of bed in five days. The weakening of the first sound of the heart might be due to pyrexial conditions.—Dr. HEWAN had tried salicin and salicylate of soda in his own case. It always produced sickness, and had not given him confidence in its use. In his own case, he had recently used salicylate of quinine, under which he recovered rapidly.—Dr. BURDON SANDERSON said that it was in 1872 that the salicylate of soda was introduced. Binz first showed that quinine was a powerful antiseptic, and reduced temperature. Next, it was found that the salicylate was even more powerful. He himself had been one of the first to speak of it in this country.—Dr. DYCE DUCKWORTH, whilst admitting that salicylate of soda was of great value, contended that it was no specific, but with it the urgent symptoms were speedily relieved. He would then reduce the dose and give good diet. He had good faith in alkalies, but he was now prepared to advocate the use of the salicylate of soda.—Dr. DOUGLAS POWELL thought that thirty grains was rather too large a dose. He would not give more than fifteen. When it was used, some of the tissues, notably the lungs, resisted decomposition.—Dr. F. TAYLOR, with reference to the remarks made by Dr. Silver, said that, in many cases, the temperature fell of its own accord in a day or two.—Dr. SILVER explained that he was perfectly cognisant of these cases, but did not include them in his remarks. Often without any treatment the temperature would be high the morning after admission, and fall immediately afterwards. The element of pain had also to be borne in mind.—The PRESIDENT, in reply, said that, in this matter of treatment, he was willing to try all plans, and had no preconceived ideas on the subject. The papers were based entirely on his own experience. He thought rest and diet the great thing. The diet should be carefully attended to, as slight carelessness often led to relapse. He had given no opinion as to the mode of action of the drug; he had only given results. Its prolonged use was likely to be injurious where the heart was affected. The ultimate results obtained by employing the salicylate were not satisfactory. Small doses frequently repeated suited better than large ones—say five grains every two hours,—but continuing such small doses did not prevent relapse. He was still in favour of blisters in the neighbourhood of the joint.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

FRIDAY, APRIL 30TH, 1880.

G. F. BODINGTON, M.D., President, in the Chair.

Amaurosis.—Mr. PRIESTLEY SMITH showed a case of amaurosis, with epileptiform attacks and constant dropping of fluid from the nose. The blindness had been coming on for six years, and had been complete for two years. There was also loss of smell. The fluid was clear, contained a little albumen and mucin, a large quantity of chlorides, but no sugar.

Kidney from a Case of Diabetes.—Dr. BARLING showed a section of a kidney from a case of diabetes, which exhibited diffuse inflammatory changes in the renal structures, and advanced fatty degeneration of the epithelium. During life, the urine had contained not only sugar, but a considerable quantity of albumen with epithelial and hyaline casts.—Dr. SAUNDBY drew attention to the mode of formation and the diagnostic value of hyaline casts. The researches of Aufrecht and Cornil had established that they owed their origin to a change in the epithelium, and were not, as had been wrongly supposed, coagula of fibrin derived from the blood. As they were found as transient phenomena—*e.g.*, in the urine of Weston, the pedestrian, during his walk—the epithelial lesion was not one which, if due to temporary causes, was serious or irreparable. Their appearance in jaundice and diabetes harmonised with the fact that both of these conditions, if persistent, led to marked renal changes. While the accidental presence of one or two casts did not indicate serious organic derangement, when present in some quantity, and, if persistent, they were a sure index of Bright's disease. They were absent or only rarely present in the "albuminuria of adolescents", and served to distinguish this from true renal disease. They might be found in cases of granular kidney, in which albumen was absent, thus confirming the diagnosis in a very significant manner. The character of the casts enabled one to discriminate between the two types of chronic Bright's disease, which otherwise had many clinical features in common.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MAY 5TH, 1880.

DAVID LITTLE, M.D., President, in the Chair.

Congenital Tumour of the Arm.—Dr. LLOYD ROBERTS exhibited a child five weeks old with a congenital tumour, probably of a fibroid nature, over the left deltoid muscle.

Ovarian Cysts.—Dr. LLOYD ROBERTS showed four ovarian cysts which he had recently removed. The particulars of the cases are briefly as follow. 1. A cyst was removed with antiseptic precautions from a healthy woman aged 58. The tumour had been eighteen months in forming, and was multilocular. There were several adhesions, which were all broken down with the finger. The pedicle was returned, and there was considerable oozing. A glass drainage-tube was inserted immediately after the operation, and removed on the seventh day, having much aided in the removal of the serous discharge. The wound quickly healed, and the patient left the hospital five weeks after the operation. 2. An ordinary single ovarian cyst was removed antiseptically from a woman aged 60. There were no adhesions. Two and a half pints of fluid were removed from the cyst. The pedicle was returned, but no drainage-tube was used. On the fifth day after the operation, the patient became restless, thirsty, and flushed in the face. There was no pain or tenderness complained of, and the wound healed, for the most part by first intention. At the end of the sixth day, she suddenly became unconscious for six hours, and died. At the necropsy, no fluid was found in the abdomen; but there was extensive peritonitis, the parietal peritoneum being ashy grey in colour. 3. This was a large multilocular growth removed from a patient aged 28, who had only been confined nine weeks before. The adhesions were large, and there was a good deal of bleeding. The operation was performed antiseptically, and a drainage-tube was inserted. The pedicle was also returned. In this case, the wound healed rapidly and the patient made a quick recovery. Bichloride of methylene was the anæsthetic used. 4. A large single ovarian cyst, weighing, with contents, 4 lbs. 14 oz., was removed by Mr. Cullingworth, with antiseptic precautions, from a healthy married woman aged 26. The tumour was removed without puncturing the cyst, which was shown to the Society still unopened. This necessitated a rather large incision, but had the great advantage of ensuring that none of the fluid contents escaped into the peritoneal cavity. The posterior surface was largely adherent, but not the anterior. The pedicle was tied and returned after the operation. A glass drainage-tube was used for the first three days. Convalescence was interrupted for a few days in the third week by the occurrence of a retro-uterine hæmatocele, which, however, quickly became absorbed, and the patient left the hospital five weeks after the operation.

Cardiac Disease, with Gangrene of Lower Extremities.—Dr. SIMPSON showed the heart, together with the lower portion of the aorta and the iliac arteries, from the body of a woman aged 31, who died under his care at the Manchester Royal Infirmary. On admission, she was found to be suffering from chronic albuminuria and cardiac disease. The heart was hypertrophied. There was no murmur at the base; but a systolic murmur was heard at the apex, and was replaced by a sound at the angle of the scapula. At first, no presystolic murmur was heard, but one was frequently noticed before death. On February 18th, she had an attack of suffocative dyspnœa, with œdema of the lungs, from which, however, she rallied. Shortly afterwards (February 23rd), gangrene showed itself in both feet and legs; but, while the right was shrunken and dry, the left was swollen, and several large bullæ made their appearance. No pulsation could be felt in either femoral artery. The patient died March 9th. The heart weighed 17 ounces. The walls of the left ventricle were very much thickened, its cavity not much increased. The left auricle was considerably enlarged, and its walls thickened, while the auriculo-ventricular orifice was only large enough to admit the tip of the finger. At one end of the slit-like opening, a portion of vegetation was left, which looked as if part of it had been carried away. The interest of the case lay in the direct connection of the cardiac disease with the gangrene which caused death. The lower end of the aorta was plugged to a considerable extent, the right iliac artery completely so, and the left was almost, but not entirely, occluded. Whether the embola had as their nuclei portions of the warty growth above mentioned, or whether they were formed by *ante mortem* clots formed in the heart at the time of the suffocative attack, was not determined at the *post mortem* examination. The swelling of the left leg was considerable, and contrasted strongly with the thin, shrivelled state of the right; indeed, the two limbs afforded a good illustration of dry and moist gangrene. This was explained by the complete stoppage of the blood-supply to the right leg, while that to the left was very greatly diminished, but not cut off. The circulation in this latter, however, was so enfeebled, that the conditions became favourable to the occurrence of thrombosis, which took place in the veins of the left leg, but was not found on the right side.

Peptonised Beef-Tea.—Dr. WILLIAM ROBERTS exhibited a specimen of peptonised beef-tea. It was prepared by boiling one pound of finely minced lean beef in a pint of water for one hour and a half in a covered saucepan. The liquid portions were then strained off, and the undissolved meat-fibre remaining in the saucepan was beaten with a spoon into a paste or pulp. The strained-off beef-tea and the pulped beef-fibre were then mixed together again, and introduced into a covered jug. To the mixture, as soon as it was sufficiently cool to be tolerated in the mouth (*i.e.*, at a temperature not above 140° Fahr.), a fluid ounce of Benger's liquor pancreaticus was added, and the whole well stirred up together. The jug was then placed in a warm place under a "cosey" to keep up the heat. At the end of two hours, the mixture was boiled for two or three minutes, and finally strained through a colander. Beef-tea prepared in this way was, he said, undistinguishable in taste from ordinary beef-tea, and it contained three per cent. of dry peptone. This represented a nutritive value in regard to albuminous matter nearly equal to that of milk. Peptonised beef-tea possessed not only the stimulating and peptogenic virtues of ordinary beef-tea, but it also had considerable nutritive value, owing to the presence in it of peptone.

Extroversion of the Bladder and other Malformations.—Mr. CULLINGWORTH exhibited, for Mr. Westmorland, a living child, born on the previous day, with a large hernial protrusion of the abdomen, extending from the umbilicus downwards, extroversion of the bladder, absence of the external organs of generation, and imperforate anus. The hernial mass had a moist, bright red, raw-looking surface, and was covered only by peritoneum, through which there was, in the middle line, just above the normal situation of the pubes, an opening into the bowel. This opening was situated at the anterior extremity of a tubular projection from the lower part of the hernia, which projection had very much the appearance of a penis denuded of skin, and had at first been mistaken for this. Mucus and fæces were seen to pass out by this opening. The orifices of the ureters were easily seen, and found to be pervious. The external genital organs were so extremely rudimentary that it was impossible even to guess at the sex of the child; while the anus was represented by the merest dimple. [This child died after living a little over sixty hours, and the body has since been placed in the hands of Professor Morrison Watson for dissection and preservation. The hernia consists of intestine and a displaced portion of the liver. There is no large bowel, and the small bowel is exceedingly short, terminating abruptly by an external opening in the abdominal wall, from which the terminal portion of intestine projects in the manner above described. The examination of the sexual organs will be made subsequently; so far, no uterus or uterine appendages have been seen; while at the sides of the abdominal cavity there are two little bodies, which will most likely prove to be testicles. Their coverings have not yet been opened.]

Removal of the entire Tongue by Mr. Walter Whitehead's Method.—Mr. LUND advocated the merits of this operation and the advantages which it possesses over other plans. The paper, although long, was listened to with great attention, as Mr. Lund went very minutely into the details of the operation and the after-treatment. The operation consists essentially in this, that the entire tongue is removed, from apex to base, by the use of scissors only, making the cuts required for this purpose slowly and deliberately in a certain pre-arranged order; the mode of division and the ligature of the lingual arteries being the cardinal points in the operation. Mr. Whitehead's claim to originality in designing and perfecting this method of excising the tongue rests entirely upon the precise order in which the various steps of the operation are taken, and the combination of the whole proceeding, rather than on any single peculiarity. Mr. Lund concluded with the remark that, having sought in vain in works on general surgery, as well as in those devoted to operative surgery, to find any account of so simple and perfect an operation for the removal of the tongue for cancerous or other disease, he could not discover that before Mr. Whitehead's time any surgeon had attempted to remove the entire tongue by means of scissors, as the only instrument to be employed from the commencement to the end of the operation.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, MAY 7TH, 1880.

G. E. PAGET, M.D., F.R.S., President, in the Chair.

Case of Anomalous Choreic Spasms.—The PRESIDENT showed a patient, the subject of anomalous choreic spasms. The patient was a robust labouring man, of ruddy complexion, well built, of middle height, aged 50. He had been under observation for eleven years, the symptoms having remained much the same throughout the whole of that period. The spasmodic movements were of the right arm and leg, and they were not continuous but interrupted. He would sit quite still for a time, when the jerking movements of the limbs would suddenly begin, the most usual being a rapid tapping on the floor with the toe of the right foot. The vibrations or oscillations of the arm and leg were usually of the short and rapid kind, but they were occasionally diversified with movements more extensive and more energetic, which increased in intensity until they reached a culminating point. It was scarcely probable that this disorder was merely functional, the patient being a stout labouring man. There was probably some organic disease, sclerosis or some other chronic condition of the cerebro-spinal centres. The symptoms resembled most closely those of disseminated sclerosis, but they were peculiar in several respects. The most remarkable thing was that, after eleven years, he was no worse; the head-symptoms were not aggravated, the sight was not impaired, there were no oscillation of the eyeballs, nor the drawling kind of speech. Another point of difference was, that the movements began as if spontaneously, from a state of rest, and not, as in cases of sclerosis, upon moving the arms or legs by an act of the will. When he got up to walk, the spasmodic movements ceased, and his gait was on the whole firm and regular. Other differential points were these. The vibrations were rapid and of short range; there was no want of co-ordination; no paralysis nor paresis; no wasting of the muscles; the patellar reflex was present, and the same on the two sides. It was difficult to localise the chronic lesion that was presumably present; the symptoms were neither those of disease of the posterior columns, nor were they the symptoms of the ordinary antero-lateral sclerosis. A great number of remedies had been tried, but only two proved markedly beneficial, viz., cod-liver oil and sulphate of zinc in fifteen-grain doses. The improvement was greatest when the two remedies were taken together.

Intestine Ruptured through Violence.—Dr. BACON showed a specimen of intestine ruptured through violence. The patient, a man aged 40, was an inmate of the Cambridge County Asylum, in good bodily health, but a dangerous lunatic. He had frequently committed assaults, and his removal to another asylum, furnished with more special means of restraint, had actually been advised. The injury was received, in some unknown manner, in a scuffle with another patient and with the attendants who interposed. When he was secured, it was found that the first requirement was a bath to remove the effects of an involuntary defæcation. During the bath, and after it, he showed no signs of collapse. Death followed in twenty-four hours. There was the mark of a not very extensive bruise in the right lumbar region. On opening the abdomen, there was a rush of fœtid gas, and the cavity was found to be occupied with fæces and fluid. Peritonitis had begun. There was no rupture of the liver, spleen, or kidneys. The laceration of the intestine was in the jejunal portion; the tear was transverse, extending round the free border half-way to the mesenteric attachments. The edges were widely separated, and the deep red villous mucous membrane was everted.

Recovery after Severe Injury to Brain.—Dr. EASBY gave an account of a case, from former practice, in which an extensive injury to the brain in a child, from a penetrating wound, had been followed by complete recovery in a few weeks.

Scirrhus of Pylorus combined with Simple Ulcer: Unusual Secondary Infection.—Dr. BRADBURY showed specimens from a case of scirrhus of the pylorus, in which there was a combination with simple ulcer, and in which the course of the secondary infection was somewhat unusual. The patient was a woman aged 68. The symptoms (vomiting, etc.) had been observed for three years, and, two months before her death, a number of scirrhous nodules appeared in the skin, some of which became red and painful. A tumour also appeared over the middle of the femur in front. After death, the stomach was found to exhibit one small healed ulcer, without any infiltration or thickening near it, about the size of a sixpenny-piece, on the posterior wall and near the greater curvature. There were two other small shallow depressions with smooth (cicatrised) surface, just within the pylorus; and, in the submucous tissue beneath and around one of them, there was a flat nodule of intense hardness, about one inch in diameter and not more than a quarter of an inch thick at its thickest part. The muscular ring of the pylorus was much thickened, and admitted the point of the little finger. In the dense connective tissue round the pancreas (which was adherent to the back of the stomach), numerous enlarged and cancerous lymphatic glands were embedded. The gastro-hepatic omentum was normal, as was the peritoneum generally. There were no secondary tumours in the liver or in any other organ. The retroperitoneal glands on both sides of the spine in the lumbar region were enlarged and cancerous, and matted together. The skin round the umbilicus was occupied with a number of hard button-like nodules, and the same were found in the pectoral regions, and over the right scapula. The tumour on the femur lay beneath the crureus, and had formed in the periosteum, the subjacent bone being merely roughened on the surface. The tumour was larger than a hen's egg, and of medullary consistence and pure white colour. A microscopic examination of the tumours in the various parts, which had been made for Dr. Bradbury, showed the flat nodule at the pylorus to have the character of scirrhous infiltration—epithelial cells, with relatively large nuclei, arranged in linear rows or alveolar groups in the interstices of the submucous and muscular coats. The nodules in the skin had precisely the same structure (epithelial infiltration in the subcutaneous tissue); and so also had the tumour on the femur, the epithelial cellular elements in the latter being more abundant, and the stroma more scanty, in correspondence with the medullary consistence of the growth.

Glandular Tumour of Upper Lip, containing Cartilage.—Dr. HUMPHRY showed a tumour which he had removed from the left side of the upper lip of a woman aged 35. It was a very firm nodule, of the size of a large hazel-nut; and, although both the skin and the mucous membrane were freely movable over it, he felt uncertain about its malignancy, and removed it by a V-shaped incision through the whole thickness of the lip. The tumour proved to be definitely circumscribed, with loose connective tissue round it. A group of the labial mucous glands adhered to its posterior surface. A section through the tumour revealed several hyaline cartilaginous areas. On microscopic examination, numerous traces were found of the glandular structure of the mucous glands of the region, undergoing a variety of complex transformation. The cartilaginous spots had, in some places, the tolerably perfect structure of hyaline cartilage. The tumour had grown from the mucous glands of the upper lip, and had undergone, here and there, a cartilaginous transformation, which was no doubt of the same nature as that which occurred in parotid tumours and, in rare instances, in mammary tumours. The character of the tumour, as seen after its removal, favoured the idea that it was non-malignant.

Lardaceous Viscera.—Dr. BRADBURY showed, from a case of psoas abscess, the organs with well-marked lardaceous change. The liver weighed fourteen pounds and three quarters.

Fungi of Skin-Diseases.—Dr. INGLE showed microscopic specimens and drawings of the parasitic fungi in certain skin-diseases.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, APRIL 7TH, 1880.

J. W. F. SMITH SHAND, M.D., President, in the Chair.

Intra-uterine Coagulum, leading to Inversion of the Uterus.—Professor STEPHENSON reported this case, to which he was called in consultation by Dr. Robertson. The patient had had three children at full time, and one miscarriage eight months before she was seen. She was again in the fourth month of pregnancy, when, on February 24th, after exerting herself in washing, she felt a discharge. On being seen and examined by Dr. Robertson, at 2 A.M. on the 25th, a fœtus enveloped in the membranes was found in the vagina. The fœtus was removed, but, owing to the contracted state of the cervix (through which the cord hung), the placenta could not be reached. There was no hæmorrhage. The vagina was plugged and a drachm of liquor ergotæ given, and a second dose was ordered to be taken three hours afterwards. By noon the same day, the plug had been expelled, and the placenta was found lying in the vagina. The os admitted the finger, but nothing could be felt in the uterus. On March 4th, the patient, having made a good recovery, was out of bed and engaged in household work; and continued well until March 9th, when she was compelled to return to bed, owing to diarrhœa and weakness. When seen on the 12th, the uterus was felt to be large, and, as diarrhœa continued, she was directed to take a mixture containing ergot and opium. On the 14th, Dr. Robertson was suddenly called on account of a constant desire to have the bowels relieved without any result, and (when sitting and straining) a discharge of blood from the vagina. An enema was administered; and, during this operation, a slight gush of blood escaped, which led to an examination, when a concavo-convex mass of intra-uterine coagulum, of the size of an orange and of two unequal parts, was found in the passage. On examining again, another solid mass was felt protruding from the os; but, from the alarm of the patient and her friends, this could not be minutely examined, nor its exact nature determined. Dr. Stephenson having been sent for in consultation, chloroform was given, and the solid body protruding was discovered to be the inverted uterus. The whole hand having been introduced into the vagina, steady uniform pressure was kept up, which succeeded perfectly in restoring the uterus to its natural position, the only difficulty being when the fundus was at the level of the os. The patient did well. There was no hæmorrhage when the coagulum was found. It was not easy to explain how or why the inversion had taken place. The feeling of desire to evacuate the bowels had been caused by the uterus expelling the coagulum, and the inversion had then taken place, owing probably to the lax state of the upper part of the uterus and the strong downbearing pressure from above. Dr. Stephenson had replaced first the body and then the fundus. A caution might be given against using the abortion-forceps, unless the diagnosis were perfectly certain, as, in the case under consideration, the inverted uterus felt very like another coagulum. Again: the condition might have been overlooked had the coagulum been expelled spontaneously, as no examination might have been made.

Post Partum Hæmorrhage.—Dr. MICHIE of Cove read notes of two cases of this affection, occurring in his practice. Case I was that of a primipara, about twenty years of age, short, thick-set, and of sanguine temperament, who had enjoyed good health till the time of her delivery. The labour was tedious, and had exhausted her strength before medical aid was called in. The cause of delay appearing to lie in the want of pains, ergot was given, and repeated in four hours, but without effect, and the forceps had to be used, delivery being then very easily accomplished. On examination *per vaginam*, another child was found, with the head presenting; and, as there was no action of the uterus and the patient's strength was reduced to such an extent as to render waiting inexpedient, the forceps was again had recourse to, and delivery effected about half an hour after the first child was born. There were two placentæ, which became detached by contraction of the uterus, and which were removed about ten minutes after the birth of the second child. The uterus contracted and continued active for about five minutes, feeling firm, hard, and irregular, but not reaching the usual small size; and it gradually became larger and softer, and simultaneously with this a flow of blood took place, saturating the bed and rendering the patient blanched and pulseless. Ice, ergot, ice in the vagina, external compression of the uterus by the hands with ice in them, and compression by one hand externally and the other in the vagina behind the uterus, were all tried; and, after three hours' continuous pressure by the hands in the various positions mentioned, the uterus contracted. There was no relapse, and recovery was perfect, after slight septicæmia on the fourth, fifth, and sixth days, which was treated by quinine and antiseptic injections.—Case II was also that of a primipara, aged 25, tall, pale, anæmic, but enjoying good general health. Her labour was reported to have been natural from midnight of January 31st till 4 A.M. next morning, when the membranes became ruptured. After that, the pains decreased, and the patient, on the first visit, was found tossing about, restless, and suffering from small continuous ineffective pains. The pelvis had a fair capacity, and the os being nearly fully dilated, a drachm of liquor ergotæ was given, but without effect; and three hours afterwards delivery was accomplished by the forceps after some difficulty, the instrument not being readily applied, owing to the os being raised posteriorly and the patient being very sensitive to pain. There was no uterine action till the child was born, but contractions succeeded the birth of the child, and the uterus remained contracted for about ten minutes, when it suddenly became enlarged and relaxed, allowing the escape of a large quantity of blood before the placenta had been removed. The placenta was immediately detached by introducing the hand and insinuating it between the womb and the placenta, and the presence of the hand caused for a time a cessation of the flow; but, on removing it along with the placenta, the flow increased so greatly as to threaten immediate death. External pressure was tried without success, and therefore the right hand was introduced into the uterus as far as the fundus, and retained there for two hours, and the left hand was applied occasionally externally over the uterus, assisting in compressing the uterus. After two hours, during which there had been little hæmorrhage, and when the organ had become increased in hardness and reduced in size, the hand was removed from the uterus, and external pressure alone trusted to; but, the hæmorrhage having recurred as violently as ever and the external pressure producing no effect, the right hand was again introduced and retained in the uterus for a further period of two hours and a quarter, and was removed only when expelled by uterine contractions. The patient soon rallied and had a good recovery. Dr. Michie, in concluding, said that, had there been sufficient means and help at hand, he should have tried warm-water injections or perchloride of iron; but in neither of the two cases were these instruments, assistants, or medicines to be had.—Dr. STEPHENSON thought the treatment had been very successful. Pressure with both hands was the only satisfactory method. External pressure was certainly of no use in such a case as the second, to which he had been called in consultation. He thought the perseverance and endurance of Dr. Michie very admirable, the length of time his exertions were required having been very great. He had no doubt iron would have checked the hæmorrhage sooner, but then its use would, from the relaxed state of the vessels, have been very dangerous. Hot water would have done good had it been available. The cold douche would have been of no service, and ice seemed not to have any stimulating effect. Ice never seemed to be of value, except in cases where there was plenty of "tonus" in the walls.

Effects of Belladonna in a Case of Heart-Disease, complicated with Disease of the Kidneys.—Dr. MICHIE read notes of the case of a woman, aged 70, suffering from enlarged heart, with slight mitral regurgitation and chronic kidney-disease, probably large white kidney. There was anasarca over all the body, and there was also ascites. The breathing was much oppressed, especially towards two or three in the morning, when she had to be raised up in bed and have all doors and windows opened to prevent impending suffocation. After the ordinary treatment, including stimulants, diaphoretics, diuretics, purgatives, cardiac tonics, with counter-irritants, fomentations, leeches, and dry-cupping, had been tried for three months with little or no effect, a belladonna plaster (nine inches by six) was applied over the heart, and this entirely relieved the difficulty of breathing in five or six days; the anasarca disappeared, the abdominal organs and lungs appeared to regain their normal condition, she relished her food, and could sleep eight hours at a time without being raised up in bed. The improvement continued for about twenty-one days, when, from over-exertion, she fell into a comatose condition, and died a few days afterwards in a state of muttering delirium.

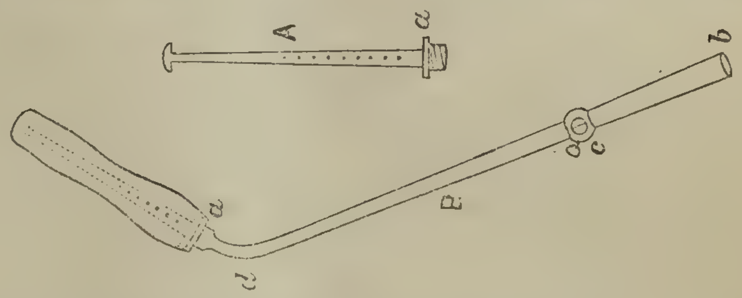
NOTES ON BOOKS.

Traité Pratique des Maladies des Yeux. Par le Docteur EDMOND MEYER. Second edition. Paris: G. Masson. 1880. The first edition of this valuable handbook of diseases of the eye has been now for some time out of print. We are therefore glad to welcome the second edition, which, containing all the excellent features of the first as regards arrangement and style, brings the work more up to the level of the requirements of the present day. Nearly one hundred pages of new matter have been added, and many chapters completely rewritten. Thus the subjects of ophthalmoscopic examination, the application of the perimeter, the value of chromatic tests as a means of diagnosis, have been so much extended as practically to form new features in the present work. The author has also incorporated in the volume all the latest researches and observations on such pathological conditions as amyloid degeneration of the conjunctiva and syphilitic manifestations on the lids, and on such comparatively new operations as iridotomy, optico-ciliary section, tattooing, and Weber's operations for the relief of epiphora. The metrical system is now definitely accepted, and a very clear and practical statement of its advantages is given. These improvements and additions have combined to render this text-book one of very great value, both to the student and to the practitioner.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

APPLICATION OF HYDROSTATIC BAGS.

SIR,—Anyone who has had occasion to use the hydrostatic bags is aware of the difficulties attending their application: first, of placing them in proper position; and secondly, of retaining them there. The following contrivance, made at my request by Walters, effectually obviates these difficulties, and will, I think, commend itself to those who are called upon to use these dilators. The instrument I have contrived consists of two parts: the first (A) fits inside the bag, and screws into the second or handle (B); both parts are provided with a flange (*a*), between which the margin of the India-rubber bag is tightly compressed, and any escape of water thereby prevented. The entire instrument is hollow. The orifice (*b*) is adapted to the common enema-pipe of a Higginson's syringe, and a tap (*c*) prevents the return of the fluid. The part A is perforated and provided with a small button at the end. A bend has been formed at (*d*) to accommodate it to the curve of the pelvis. The India-rubber bags now in use answer the purpose, but I prefer them slightly modified by having the margin of the orifice strengthened to prevent tearing; and to diminish the bulk as much as possible, I have them made folded. If the India-rubber become torn or perish, another bag can be replaced in a moment.—I am, yours truly, J. A. MANSELL-MOULLIN, M.A., M.B.Oxon.



CHRISMA: A NEW BASIS FOR OINTMENT.

UNDER this name, Messrs. Allen and Hanburys have introduced a pharmaceutical product of unusual interest to practitioners and to the medical officers of public institutions. The research for neutral hydrocarbons, to take the place of fat and lard as a basis for ointment, has already been conducted with great success by American chemists, who have found for this purpose a valuable material in petroleum variously refined. Messrs. Allen and Hanburys have resumed, and carried a step further, the investigations which have already given to pharmacy several popular and extensively used products of petroleum. In Chrisma, we have a hydrocarbon which seems to combine all the advantages of any product hitherto known, with that of remarkable cheapness; it is purely neutral in its reaction; it is free from smell; it cannot become rancid; it has the consistence of lard, and is of an agreeable yellow colour. It is hardly more expensive than lard, while it has over it the great advantages which we describe. As a basis for ointment it appears to be likely to recommend itself for very extensive use.

SUPPURATION OF JOINTS AFTER ACUTE ARTICULAR RHEUMATISM.—Körte reports some cases of this rare affection in the *Berliner Klinische Wochenschrift*, No. 4, 1880. From August 1877 to June 1879, six cases were observed in the Bethanien Hospital. In three cases the knee, and in three the ankle was affected in patients who had had multiarticular rheumatism. All had been treated with preparations of salicylic acid. The surgical treatment consisted of incisions into the joints, drainage, and antiseptic dressing; it was successful in two of the ankle cases, but partial resection was required in the third. Resection was necessary in the three knee cases; in these, there were found degeneration of the capsule, erosion of the cartilages, and hyperæmia and granulating proliferation in the spongy tissue of the bones. One of the patients died of bed-sore after resection. All the patients were women, from twenty-one to forty-eight years of age.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 29TH, 1880.

THE COLLEGE OF SURGEONS OF ENGLAND AND THE CONJOINT SCHEME.

THOSE who have at heart the ultimate success of the movement which has now been carried on for many years with such infinite pains and labour, for the consolidation, completion, and simplification of the examination-tests for medical men seeking to be put on the *Register* as qualified practitioners, will have seen with great regret the course which the Council of the College of Surgeons seems likely to take in relation to the conjoint scheme for England. The Council appears to have lost all confidence in legislative measures for the amendment of the examination-tests, and to have resolved to treat all that has been done by the recent Governments and by the successive Committees of the House of Commons as of no effect, and unlikely to lead to any practical result.

It is difficult to see why the Council should at this juncture be called upon to adopt so hopeless a view of the prospects of legislation, and to act upon it with so much promptitude and negative decision. Undoubtedly, the sudden political revulsion which followed the recent elections has seriously injured the prospect of an immediate settlement of the question of examination for medical diplomas, which was reasonably anticipated when the Government of Lord Beaconsfield had taken up the question with so much decision and earnestness; we, however, are not in possession of any information which should lead to the conclusion that the present Government have come to any decision not to follow to a prompt termination the labours of the past sessions in this matter. The question is not a party question, but one of internal legislation, involving the interests of all parties alike, and in no way the property of one Government more than another. The prominent officers of the Privy Council, who have shown much interest in this question, and have impartially desired to become acquainted with the views of all parties, and the facts in support of those views, remain in their places, and the information gathered by the Committee of the House of Commons of the last session and the previous sessions is available in a printed form. The draft Bills of the department, and the suggestions of our own Association and of other bodies, are in the hands of the members of the legislature; and there seems no reason why the work should not be taken up exactly where it was left, and carried to a safe conclusion.

There are even some grounds for thinking that the present Government will be particularly likely to complete this work. The Vice-President of the Council, Mr. Mundella, has already given considerable attention to the subject, and at one time identified himself with one of the Bills for medical reform. Of course he would not now, as a member of the Government, fail to take into consideration all the more recent information which has been accumulated on the subject, and would not hold himself bound as a Minister to act implicitly upon the views which he entertained at an earlier stage of the proceedings when acting as an independent member. Nevertheless, the attention which he has already given to the subject, together with the information which is now at his disposal in the evidence taken by the Select Committee, and in the documents possessed by his department, and the special knowledge of this subject which Mr. Lennox Peel, the Clerk of the Council possesses, would all peculiarly fit him to complete the work, and to help to set at rest this important debate.

Under these circumstances, we are at a loss to understand why, before the new Government has had time to turn round; before, so far as we know, they have been appealed to on the subject, and certainly before they have given any public utterance to their views, the Council of the College should declare that they despair of seeing the conjoint scheme carried out by Parliamentary authority, and publicly withdraw from the part which they have honourably and efficiently taken in preparing a conjoint scheme for England, such as the Government Bill proposes to accept as a model for the three kingdoms. It may be that they have reasons for fearing that legislation may yet be long postponed and unduly delayed, and in that case no one could blame them for taking steps by uniting with the College of Physicians or other examining bodies, to give a satisfactory diploma on a joint and complete examination, instituted by themselves and the bodies with whom they may voluntarily combine. That may be a very advisable step for the present; but, even supposing that the prospects of medical legislation are still so distant as this would imply—an hypothesis which we are by no means prepared to accept as well founded—nevertheless, there is no apparent reason why the College of Surgeons should go out of their way to discredit and shatter to pieces the work which they have taken so much work and time to prepare. The open withdrawal of the Council from the conjoint scheme by an official act may have very grave consequences, both directly and indirectly. It may well be treated by those who are well known to be hostile to such a scheme in the other parts of the country, as an evidence of loss of faith in the excellency of this scheme, and as an open rejection of its principle. It is true that they allege as their immediate cause of action the dislike to indefinite delay, which, they hold to be, is the prospect which lies before them; but such a motive does not seem to have any great validity, seeing that their withdrawal is not in any way necessary to the establishing of any immediate temporary action which they may desire; and that, on the other hand, it will interpose very considerable difficulties to the resumption of negotiations for a conjoint scheme at a future time. At any rate, the College might well rest upon its oars in respect to this conjoint scheme, and, if it do not see its way to carry it out voluntarily, in view of legislative difficulties and delays, it might let matters stay as they are. The scheme is one which has been agreed to by all the English bodies, both in principle and in detail; and any ostentatious withdrawal from it now might well seem to cast discredit upon either the principle or the details, which have at great pains been prepared and accepted. We hope, therefore, that, at the next meeting of the Council, the more cautious and thoughtful members may induce those who have from the first shown no slight dislike to the scheme, to hold their hands, and leave matters as they are in respect to this conjoint scheme. Let them by all means, if they think it desirable, take steps for negotiating some simpler and more immediate applicable mode of conferring a complete surgical and medical diploma; but it will be much to be regretted if any act of the College of Surgeons should, either directly or by implication, discredit the excellent conjoint scheme, in framing of which they have played an honourable and conspicuous part, and which should remain as a valuable model for future use.

MEDICAL EDUCATION AND APPRENTICESHIP.

IT is very satisfactory and extremely interesting to find a discussion of these subjects by a writer at once so candid, so free from empty pretences and multitudinous verbiage as Dr. Pye-Smith, and, at the same time, to find that he really has something to say which represents the thought and experience of a man who has clear judgment, and has had good opportunities for observation. Dr. Pye-Smith's annual oration delivered before the Hunterian Society, and now printed by request of the Council, is one of the most refreshing manifestoes which we have read for a long time; and we appreciate it so well that, although on several vital matters he has arrived at conclusions which differ to some extent from those which we favour, we think it more useful to state some of his leading propositions substantially in his own language, and to commend them to consideration, than to enter at this moment into any detailed criticism of them.

Early in his address, Dr. Pye-Smith deals with the subject of "specialism"; and on this head, he says: "While there will be general agreement that medicine, as a whole, has gained by the breaking down of the barrier which existed between physicians and apothecaries—not, I trust, by lowering the former grade, but by educating the latter on the same liberal and scientific plan—the natural divergence of which I just spoke, between the general practitioner and the consultant, and the equally natural distinction into the branches of medicine, surgery, and obstetrics, continue, as they exist in France and Germany and America, where their development is left to itself. Whether it is desirable to carry the division of labour further, for the sake of medical science, for the sake of the specialist, or for the sake of his patient, is a more delicate point to decide. I will only say that the almost unanimous opinion of us, who can judge—whatever may be that of the public, who cannot—is that such specialisation ought to be jealously watched, since it may easily lead to results injurious alike to the character of the profession, the character of the specialist, and the welfare of the patient. The only really satisfactory kind of specialism is where a broadly and deeply educated man adds to his knowledge of the profession as a whole, special proficiency in all its branches. We cannot all hope to attain such excellence; but I need not go beyond our own Society for a striking example of one who, besides the highest qualifications of a pathologist and a surgeon, has better acquaintance with cutaneous diseases than professed dermatologists, better ophthalmic skill than most oculists, and sounder knowledge of syphilis than those who 'devote themselves' to this single disease." This is rather quaint in its way, for it carries conservatism almost to a *reductio ad absurdum.*

Dr. Pye-Smith's definition of a real satisfactory kind of "specialism" implies special proficiency in all branches of professional knowledge. Thus, in addition to a broad and deep preliminary education, and a knowledge of the profession in all its branches, it might very well be taken as a definition of "universalism"; and we might be tempted to ask Dr. Pye-Smith whether the definition which he gives is not meant to exclude rather than to embrace specialism; at any rate, it is almost time that those who give their approval to this sort of specialism should cease to point to one only man as an example of their meaning. If Mr. Jonathan Hutchinson be the only specialist in Great Britain who can be pointed to with approval, it can hardly be said that specialism has any representative—and this is a proposition which carries with it its own refutation. The fact is that in France, Germany, and Belgium, to which Dr. Pye-Smith points, the whole of the profession in each country passes through one uniform portal. The University education of those countries is not raised to so high a standard as to exclude the *oi polloi;* but, on the contrary, is made to represent the actual necessities of a complete medical education. Through it everyone must pass; there is no medical man in any other European country, except the United Kingdom, who is not an University man, and who has not an University degree as Doctor. The humblest general practitioner and the most eminent physician have sat side by side on the benches, have passed like examinations, and have received like degrees; they have done so, however, with differing marks of honorary distinction, which have foreshadowed the subsequent differentiation of their professional degree; and, with these limitations, specialism is not a thing to be derided or to be regarded with suspicion; nor is it necessary to qualify its acceptance with the numerous limitations by which Dr. Pye-Smith practically multiplies his own definition.

On the subject of apprenticeship, Dr. Pye-Smith is very outspoken and very decided in his opinions; it is in deference to the respectable names by which the proposal of reviving apprenticeship has been supported that he points out the absolute objections to it. The objects of medical education have changed; the old methods are useless or mischievous; treatment and prognosis must rest now on diagnosis, diagnosis on pathology, pathology upon a knowledge of healthy structure and function, and this last upon a knowledge of physics and chemistry. Practice, then, no longer rests on tradition, on imitation, or on dogma. A man may not touch a broken limb till he is familiar with the bones and muscles; attend a woman in labour while ignorant of the fœtal circulation; prescribe for a cough until the chest has been examined; otherwise we will make bone-setters, or man-midwives, or quacks, but never physicians. Thus, he holds, "to become familiar with the practice of medicine before beginning the study of its institutes is worse than useless, and the time so spent is worse than wasted." These theoretical views are supported by his experience. "My own experience", he says, "is that the most ill-prepared students in our wards are those who come up from a small country hospital, or a private surgery, with ability to compound pills and potions which shall not be obviously injurious, and familiarity with the names of diseases; they find they must forget everything which they have learnt before they can begin to learn aright. They have absolute faith in what is least certain, ætiology and specifics; and absolute scepticism as to what they have been taught to call new-fangled German 'views'—these being ascertained facts which could be rigidly demonstrated to them if they had patience to hear, or observation to see, or modesty to learn. On the other hand, no pupils make such rapid progress in clinical work as those who do not know the difference between a simple and a compound fracture, a cancer and a chancre, pneumonia and phthisis, but who have been well drilled in the facts of anatomy and physiology, who can use a microscope and a thermometer, and who, above all, have been trained to observe, to distinguish, and to learn. A private medical pupil may, it is true, 'learn his bones', but he learns them by the dullest and dreariest method; he may pick up a little chemistry, in the very worst way, from a book; and he may, if he be so inclined, make himself familiar with wild flowers. Meantime, he forgets his school learning, and contracts desultory, if not idle habits, which unfit him for the work of the hospital." He answers the alleged advantage accruing to the people of learning the art of compounding medicines by observing that too high a price is paid for this acquirement. Every year the dispensing of drugs by practitioners diminishes in extent, and the ready made preparation of pills and tinctures by skilled manufacturing chemists becomes more common. As for elegant combinations, the less the student learns of them the better; the simpler the prescription, the more likely he is to learn its effect; and his own hospital pharmacopœia will furnish him with enough combinations, and only too large a choice of drugs. The proper time for acquiring knowledge of the details of practice is not at the beginning, but at the end, of a hospital course; and a year or two as resident medical officer, or as an assistant to a practitioner, is invaluable to the young man about to enter on practice; and few attempt to pass directly into practice without such preliminary training.

The question of University degrees is dealt with not less trenchantly, but of this part of Dr. Pye-Smith's address we defer notice.

MALIGNANT PUSTULE.

SOME recent deaths in the vicinity of the great manufacturing town of Bradford from what is locally known as "wool-sorters' disease" are of so unusual a nature, that a special inquiry into the circumstances of their occurrence has, we are glad to learn, been instituted by the Local Government Board, with a view to and the measures to be adopted to prevent future similar catastrophes. In the course of December last, local feeling was strongly excited by the sudden death of a healthy and vigorous man who was engaged in sorting "Van mohair" at Shipley, and who had complained several times to his wife of the offensive nature of the wool with which he had to deal. He was suddenly taken ill, and in four days was dead of what was considered to be a severe cold, but which was no doubt in reality an acute form of blood-poisoning. No further cases seem to have occurred in the district until the present month, when eight more cases have been recognised, six of which have proved fatal. All the cases were of men employed in sorting Van mohair, and in three cases a malignant pustule was formed. Dr. Bell of Bradford, who had previously been professionally concerned in the December case, found *bacillus anthracis* in the blood of one of the two cases where a pustule was not formed, and certified the death as from splenic fever. It may be interesting to note certain of the more striking features of the outbreak to which reference is here made. In all the cases, the onset of the disease appears to have been very sudden. The attacks began with shivering, severe pains in the head and back, and violent fits of vomiting. In one case, utter collapse speedily set in; and in two others, delirium and high fever supervened. In these latter cases, a malignant pustule formed, in one in the centre of the forehead, in the other on the right side of the neck. In the case of which the fullest particulars are given, the sufferer died in great agony on the fifth day after the appearance of the first symptoms. In two other cases, the fatal termination was on the fourth and fifth days; and, in the non-fatal case, the sufferer continued in a dangerous condition until the eighth day, when he began to mend. In the first death spoken of, the symptoms of poisoning were so marked, that the main arteries of the man's head and neck were distended and discoloured, and afterwards became "blue-black". The fellow-workers of this man were so frightened at his death that they have gone on strike, because the mill-owners have declined to subject the hair to washing or steaming before its manipulation, as the sorters desired.

All the facts of these cases point to blood-poisoning of a specific kind; and there can be little doubt that the particular infection is the same as that known by the names of anthrax, charbon, milzbrand, splenic fever, malignant pustule or vesicle, etc., which is primarily an affection of horses, horned cattle, and sheep, but which may be propagated among all warm-blooded animals, including man. As we have already said, Dr. Bell has found in the blood of one of the cases the *bacillus anthracis*, a fungoid organism which infects the blood and tissues, which in its full development assumes a rod-like form, and is very perishable, but which propagates by spores which are very tenacious of life, and, in fact, are, when dried, practically imperishable. Anthrax assumes different aspects, apparently depending on the mode of access of the infecting organism to the system, *i.e.*, according as it is inhaled or swallowed, or enters locally by the hair-follicles or other natural or artificial openings in the skin. In the former case it is called charbon fever *(fièvre charbonneuse)*, intestinal or internal anthrax, and mycosis intestinalis, the symptoms being from the outset constitutional. In the latter case, it is known as malignant pustule, charbon, or anthrax proper, the constitutional symptoms being preceded by, or, at any rate, advancing *pari passu* with, certain characteristic local appearances of the nature of a carbuncle or pustule. There would appear, also, to be a combined local and constitutional infection, in which the specific contagium at once passes from its local nidus into the surrounding tissues, and thence permeates the whole body. This has been styled œdematous charbon *(C. œdémateuse)*, malignant œdema *(Œdème malin)*, or malignant anthrax œdema *(Bösartige Anthrax œdem.)*.

The general circumstances under which anthrax manifests itself in man are these. It is always observed in persons employed either in the care of animals during life, in their slaughter, or in trades and manufactures connected with the utilisation of the various parts of animals. The localities in which outbreaks have been observed in man are, therefore, either districts where anthrax is prevalent among animals, or places at a distance where it is unknown as an epizootic, but to which, in the course of commerce, the products of infected animals may be conveyed. Hair, wool, bristles, hides, horns, hoofs, etc., being valuable articles of commerce and in wide request, those parts of animals have furnished the most startling demonstrations of the vitality and portability of the disease by its propagation to man. Hirt, in his classic work *Die Krankheiten der Arbeiten*, thus enumerates the various classes of workpeople who have suffered: "Tanners, makers of coarse hats, fellmongers, furriers, fur-dyers; workers in horsehair, wool, and paper factories; and ropemakers who clean hair brought from abroad."

In the just issued Report of the Medical Officers of the Local Government Board for 1878, Dr. Russell, the energetic health-officer for Glasgow, publishes a valuable report on some cases of sickness and death from anthrax occurring in a Glasgow horsehair-factory. This paper throws a flood of light on occurrences of the disease. In this outbreak, which Dr. Russell proves to demonstration to have been undoubtedly one of anthrax, the symptoms were markedly like those of "wool-sorters' disease". The cases at Glasgow are, we believe, with one exception, the first cases of anthrax at a British hair-factory that have been recognised as such. As Dr. Russell says, the fact that anthrax is enzootic in the pastoral districts of all the chief European countries excepting Great Britain, sufficiently accounts for the circumstance that all our precise knowledge of the disease, both in the lower animals and in man, is derived from the observations and investigations of foreign writers. It is, nevertheless, remarkable, considering our commercial relations with those countries, and the existence among us of old established and extensive hair-factories, that only one casual record has been made of cases of malignant pustule in connection with an English hair-factory. These were three cases quoted by Mr. South in the additional notes to his translation of Chelius's *System of Surgery*, published in 1847. They were recorded by Mr. Lawrence as having occurred in an English hair-factory, and were described as malignant pustule. It is, indeed, curious, considering the wide publicity given to the late Dr. William Budd's "Observations on the Occurrence of Malignant Pustule in England, illustrated by numerous fatal cases", which appeared in the first volume of this JOURNAL for 1863, that, in the seventeen years which have since elapsed, no similar mishap seems to have attracted attention in the kingdom. It is true that, when Dr. Budd read his paper before the British Medical Association in 1862, he could not refer to a single case in association with a hair-factory in this country (evidently not being aware of Mr. Lawrence's cases), but he quotes two continental examples of a sufficiently suggestive kind. Additional facts made out in reference to the outbreak at the Glasgow hair-factory make it unfortunately too probable that we cannot infer from the absence of any record of such outbreaks of anthrax among British hair-workers that no such outbreaks have occurred. The probability is that they have occurred from time to time, but, being chiefly of the intestinal or internal variety, as in the Glasgow cases, they have not been recognised. It may be hoped that the publication of Dr. Russell's paper, and the occurrence of the recent cases in Yorkshire, may serve to dispel some of the want of knowledge which seems to exist with regard to this disease, and to incite mill-owners and the authorities to energetic action in the direction of the discovery of means by which similar accidents may in future be avoided.

BROMIDE OF ETHYL AS AN ANÆSTHETIC.

AT the last meeting of the Paris Société de Chirurgie, M. Terrillon stated that he had recently tried bromide of ethyl in fourteen cases. The anæsthesia produced by it lasted from eight minutes to an hour. The results obtained may be classified in three divisions, according as they were obtained at the outset, in the anæsthetic stage, or at the awakening. At the outset, M. Terrillon used rather large doses of bromide of ethyl, and noted as remarkable that there was neither irritation nor suffocation. As a rule, anæsthesia supervened in less than a minute, without convulsive phenomena; muscular relaxation occurred at the end of two or three minutes. In the majority of patients, the period of excitement was much shorter than with chloroform. Excessive congestion of the face, neck, and upper part of the chest was noted; the pupils were never contracted, but sometimes dilated. The pulse was always quickened; each time a fresh dose was given, the pulse showed acceleration. It is necessary to give a little air from time to time, but without entirely removing the napkin, as bromide of ethyl is very rapidly eliminated. Respiration, accelerated like the pulse, is interfered with by the presence of a somewhat large quantity of mucous matter which lodges in the larynx. Patients frequently suffer from a kind of regurgitation due to this cause. If, however, these mucosities be removed with a sponge mounted on a pair of forceps, respiration returns to its normal condition. In fine, bromide of ethyl seems to produce congestion, and not anæmic phenomena. The restoration to sensibility is rapid; the majority of patients awake completely in less than a minute, and without the confusion of the faculties produced by chloroform. Vomiting may occur during insensibility, but a certain number of patients vomit for some hours after restoration to consciousness. If accidents occur, they must be attributed to the mucous matters accumulated in the larynx; they are, therefore, accidents which do not occur suddenly, and which can be warded off.

M. Berger said that his experience of bromide of ethyl was nearly identical with that of M. Terrillon. He had found, however, that caution was required in the employment of this anæsthetic, especially in operations which occupy some time. He was at first struck with the facility and the rapidity with which bromide of ethyl killed animals. A rabbit, put under a bell-glass in which were placed ten *grammes* (about two and a half drachms) of bromide of ethyl, expired suddenly; and M. Berger remarked that neither he nor M. Richet had ever seen so quick and immediate a death result from any other anæsthetic. It seems extremely disagreeable to dogs, even more so than chloroform. In a certain number of cases, anæsthesia was obtained, but without ever producing relaxation of the muscles. Thus, up to the present time, it had not been found advantageous to administer bromide of ethyl. Results observed in animals had not led M. Berger to use this anæsthetic for human beings. In one case in which he saw it employed in M. Gosselin's wards, he thought he perceived an undulating character in the pulse, which made him fear the cessation of the heart's action. He had also seen repeated attacks of vomiting occur throughout the whole day. He was, therefore, of opinion that in all operations in which complete relaxation is necessary, it would be unwise to have recourse to this anæsthetic, which does not seem to induce muscular relaxation. The symptoms observed also led him to think that the substitution of bromide of ethyl for chloroform could not be thought of.

M. Verneuil stated that he had been struck by the singular power of this drug. In an operation on a woman for a small epithelioma, he seized the tumour with a tenaculum and caused her to inhale the vapour of bromide of ethyl, and she was asleep in an instant, thus showing the power of the anæsthetic. Bromide of ethyl, M. Verneuil thought, was very valuable for local anæsthesia. He used it in operating on a medical man suffering from disease of the anus; and in two other cases by its use he was able to apply the actual cautery without pain.

M. Lucas-Championnière said that he had only administered bromide of ethyl once. He thought that, in consequence of the analogies of this substance with iodide of ethyl, hysterical patients might perhaps tolerate it better than chloroform. He found some drawbacks. The odour of the bromide is more disagreeable than that of chloroform, and is unpleasant even to the assistants. M. Lucas-Championnière had been struck with the analogies existing between ether and bromide of ethyl administered to lying-in women, in respect to oppression of breathing.

M. Nicaise said that he had used bromide of ethyl many times in applying the thermo-cautery, and had found it satisfactory. It was, he thought, the only local anæsthetic which could be used concurrently with the actual cautery. Iodide of ethyl induced anæsthesia, but the red-hot iron in contact with it produced disengagement of vapour of hydriodic acid, which is extremely unpleasant both to the patient and to the surgeon.

M. Terrillon then said that he had made experiments on four rabbits, not using a bell-glass, but a simple napkin, and had not observed any untoward results. With respect to dogs also, his experience differed from that of M. Berger. Out of eighteen dogs, five or six only experienced a period of agitation; in a dozen, he obtained complete relaxation; and M. Terrillon was able to obtain complete relaxation without even binding the dog, producing anæsthesia by merely putting a sponge under the nose. No accident was observed in any of these eighteen dogs. In the patient whose case was noted by M. Berger, there were marked congestion of the face and diminution of the pulse. These are the usual phenomena attending the use of bromide of ethyl, but need not cause alarm. Vomiting occurs in a certain number of patients, especially in women, whatever anæsthetic be used. The odour referred to is frequently owing to differences in preparation.

THE Royal Charity Fund, on the recommendation of Lord Beaconsfield, has granted £100 to the Bucks Infirmary at Aylesbury.

THE Executive Committee of the General Medical Council has been summoned to meet in London on Tuesday, June 15th, at 1 o'clock.

SMALL-POX last week caused 53, and typhoid fever 49, deaths in Paris.

ONLY two deaths from measles were registered last week in Plymouth, whereas they had averaged twenty in the six preceding weeks.

IT is with the deepest regret that we learn that Dr. Alfred Swain Taylor died of cardiac disease on Thursday morning. He had been ill for some weeks previously.

DURING the past seven weeks of the current quarter, the death-rate in London has averaged only 20.3 per 1,000, against 24.0 and 24.8 in the corresponding periods of 1878 and 1879.

A FRIENDLY Societies' Medical Association has been established at Bury St. Edmunds, and is to be opened on the 24th June. Dr. Fraser Henry has been appointed the first medical officer.

ON the night of Sunday, April 3rd, 1881, a census of the United Kingdom will be taken, and during the present short session a Bill will have to be passed to authorise the expenditure necessary for this purpose.

PROFESSOR RIZZOLI of Bologna has offered to the city a sum of 1,250,000 *francs* (£50,000) for the purpose of founding an orthopædic institution. The villa of San Michele in Bosco, near the town, has been chosen for the establishment of the institute.

M. CAUVIN is commissioned to continue his anthropological researches in Melbourne; and Dr. Hacks, member of the Paris Anthropological Society, is also charged with an anthropological mission to Malacca, the Sunda Islands, Indo-China, China, and Japan.

THE Registrar-General states that the death of a male, aged 29, in Holborn, last week, was referred to "failure of heart from fatty degeneration, whilst inhaling the bichloride of ethidene previous to operation: misadventure". There was a *post mortem* examination, and an inquest was held.

AT Bradford, this week, an inquest was opened on the body of Samuel Firth, who is said to have died from woolsorters' disease. Many deaths having recently been attributed to the disease, Mr. Spears, Local Government Board inspector, is engaged in the district investigating the subject.

SIR GEORGE JESSEL, the Master of the Rolls, was, at the meeting of the Senate at the University of London on Wednesday last, elected Vice-Chancellor of the University in place of Sir John Lubbock, resigned. The appointment is one which the graduates will warmly approve. It is the first time that any high office in the University has been conferred on a graduate, and it may be expected that a new era will now be inaugurated, in which the University will recognise the claims of its graduates more liberally. Sir George Jessel has every qualification which could be desired for the office of Vice-Chancellor.

LYING-IN-HOSPITALS AND VACCINATION.

AN important question affecting the public health is, we learn, under consideration at Queen Charlotte's Lying-in Hospital. It appears that at that institution from three hundred to four hundred single women are admitted each year to be delivered. They come from all parts of the country, and, after remaining in the hospital a fortnight after confinement, go from it to various places—the hospital authorities being unaware of their destination. The material point is that their infants, when removed by them, are unvaccinated; so that a large number of children unprotected from small-pox are annually thrown on the population, to serve as so many sources of danger. The hospital authorities have had the matter under consideration, and have authorised the district vaccinator to attend the hospital at any time for the purpose of vaccinating the children. This arrangement, however, has not been successful, partly in consequence of difficulties connected with the arrangements under the Vaccination Act; and we understand that an endeavour is being made by Dr. Stevens of the Local Government Board, with the concurrence of the St. Marylebone guardians, to have the hospital made a special vaccinating station. The subject to which we have referred is one well worthy of attention; for the addition to the unvaccinated infant population made by Queen Charlotte's Lying-in Hospital can be only a part of that supplied by the similar institutions in the kingdom, from which a large number of illegitimate children are sent out yearly.

THE CONTREXÉVILLE MINERAL-WATERS.

AT the last meeting of the Paris Académie de Médecine, M. Debout d'Estrées read a note on the treatment of incontinence of urine by the waters of Contrexéville (the pavilion spring) as a drink. This paper is based on cases observed in Paris, in the children's hospitals, and in private practice. The efficacy of this treatment is probably due to a property of these waters, defined as follows by Civiale in his treatise on the *Diseases of the Genito-Urinary Organs*, in the chapter concerning catarrh of the bladder: "The mineral-waters of Contrexéville have the special effect of reanimating the vesical contractility which is almost always weakened in this disorder." M. Debout d'Estrées' conclusions are as follows. The water of Contrexéville, used in doses of from 40 *centilitres* to 1 *litre*, according to the age of the patients, has given satisfactory results in ten out of the thirteen patients for whom it has been employed. The action of the mineral water is explained by the stimulation of contractility and of vesical tonicity. In this respect, it occupies a similar position to strychnine, ergotine, and electricity. The contra-indication is found in cases where the affection is connected with an excess of contractility of the muscular fibres of the bladder, and which are more amenable to belladonna.

LECTURES TO PRACTITIONERS.

WE learn from the *New York Medical Journal* for May that, through the generosity of the late Mr. Benjamin Cartwright of Newark, New Jersey, the Alumni Association of the College of Physicians and Surgeons of New York has come into possession of a fund, a portion of which is to be devoted to the endowment of an annual course of lectures on subjects connected with medical science. The opening course is to be given next winter by Professor Roberts Bartholow, of the Jefferson Medical College.

WONFORD HOUSE HOSPITAL FOR THE INSANE.

THE seventy-ninth annual report of the Wonford House Hospital for the Insane, near Exeter, contains many features of interest, and especially likely to receive attention at the present moment. This institution belongs to a type of which we have more than once spoken with favour, and which we should be glad to see largely adopted in England, as it has been with great advantage in Scotland. In this house, there were at the close of the year ninety-two patients in residence, and, towards the maintenance of the poorer inmates, charitable funds are available to the extent of £1,124 *per annum;* but this foundation enables the Committee to give favourable consideration to the claims of professional men and others in the better classes of society, whose incomes have been largely cut down by the calamity of insanity, but whose friends are nevertheless able to afford to pay for, or towards, their maintenance. This hospital for the insane is provided with an efficient committee of management, and is under the guidance of this committee and of the trustees. It has an active resident superintendent, Dr. Sutherland Rees-Philipps, who appears to have recently introduced many and considerable improvements; and private patients are received here under circumstances which make any imputation *primâ facie* untenable, since the patients received have all the safeguards which can be provided by a public institution, while they have apparently also the advantages which are often specially claimed for private asylums. Well-conducted hospitals for the insane appear to us to combine the recommendations of the two kinds of institutions, and it is on this ground that we have read with peculiar interest the report of the Wonford House Hospital for the Insane; and we are glad to see that it appears to be progressing satisfactorily on a career of prosperity and extended usefulness.

COUNTER-SEATS FOR SHOPWOMEN.

ATTENTION has recently been called again to this subject, owing to a distressing case of suicide lately investigated by the coroner for Wapping. This is the second of the kind that has occurred within the last few months. Our readers will remember our having referred to this subject about eighteen months since, when Dr. Edis, who had collected much valuable information on the question, first brought it prominently forward in a letter to the *Times*. Since this, the interest of the public has been steadily increasing. Much has been done to ameliorate the condition of young shopwomen. In Dublin alone, no fewer than eighty-seven houses have provided seats. In Cork, the movement has met with great success. In numerous provincial towns in England, counter-seats have been provided. In Manchester, Devonport, Weston-super-Mare, Southsea, and numerous other towns, seats are being furnished. In London, the movement has received practical aid from the advocacy of the National Health Society; and last year, their annual course of lectures included one on this subject by Dr. Edis, which was published and widely circulated, and much reviewed and discussed. Many influential ladies, among whom may be mentioned the Duchess of Marlborough and the Countess of Aberdeen, have, in consequence, been most active in their endeavours to induce employers to allow seats in their shops. Much could be done by individual members of the profession who visit the large shops, advising the employers to allow the shopwomen to rest when not actually on duty.

THE VICTORIA UNIVERSITY.

AT a special meeting of the governors of Owens College, Manchester, held on Tuesday last, it was reported that Her Majesty had granted a charter for the creation of the Victoria University, and that it bore date the 20th April, 1880. The committee who had been appointed with reference to this matter, expressed a hope that the authorities of the University would take an early opportunity of seeking the power to grant degrees in medicine and surgery, without which, in their opinion, the University must still be considered as essentially incomplete. Sketch plans of the proposed new museum building were submitted and provisionally adopted. The cost of the building is roughly estimated at £31,000.

SCHOOL-BOARD EDUCATION FOR THE DEAF AND DUMB.

THE care and educational development of dumb children is a matter of equal interest to the medical profession and to the philanthropist. Recognising the fact that these children, who required more care and training than those not so affected, actually received much less, the school-board for London organised special classes, whereby the 340 dumb children that were then scattered over London might have such care and education as were needful. In September, 1874, the first class was opened and made use of by those living near. It was found, however, that many children were prevented from attending, on account of difficulty in going to and fro. The Rev. Mr. Stainer then started the plan of temporary houses, where the children could be brought together as weekly boarders, living near the schools, and being paid for by their parents. The first house of this kind was opened in September, 1875, at No. 74, Pentonville Road; and they have been so eagerly sought after that another in Bethnal Green was soon full. These are for the north and east of London. It is still much needed to start similar houses in the south and west, but these are obliged to wait for want of funds. The differences between the old and new plans are at once obvious. In the former, it was only after the deaf and dumb child had attained the age of nine years that it could be received into any of the schools, and then under most unfavourable circumstances—in large numbers, packed closely, with intellects stunted for want of the training that an ordinary child would have had years earlier. Can it be wondered that a large percentage of these deaf and dumb children turned out to be idiots? On the other hand, the new plan provides education from the age of four years, affords home-training, instructive amusements, and healthful exercise, good food; and, what is most important, the responsibility is not taken off the parents' hands, as in all cases they are required to pay the cost of the children's food. By this means the rates are not in any way increased, and the children are preserved from accidents which in their home lives they are specially liable. Mr. Stainer has adopted the oral and the manual methods of instruction. During thirty years of practice he has found that, to do full justice to the children's different capacities, they must be fully instructed in both methods—these he calls the "dual" method—and it is a combination of the German or lip system with the French or "sign" system, thus putting this most afflicted class in as thorough communication with their friends in the outer world as is possible. From last year's report we see that the expenditure in the first home, No. 74, Pentonville Road, for the year was £476 3s. 10d.; towards that the parents paid £175 18s. 4d. A sale brought in £38 3s.; thus leaving £263 2s. 6d. to be paid yearly by contributions from those interested in the work.

RESEARCHES ON MILK.

THE badness of the agricultural season of last year, leading to a great deficiency in food for cows, has been found to produce results, in respect to the average quality of milk, of considerable economic and dietetic importance, at the same time that they are of much scientific interest. The results of analyses of milk, especially those made by the very reliable method of Mr. Wanklyn, have shown that the constant element in milk from which accurate scientific data can at present be deduced is the solids not fat—and that these alone can at present constitute the basis for analyses which aim at discrimination between pure milk and good milk which may have been deteriorated either by water or by abstraction of the cream. Some attempt has been made by analysts to fix the standard amount of fatty matter which should be accepted as a minimum for unadulterated and deteriorated milk, and below which it should be a matter of legal assumption that cream had been abstracted. The results of a great number of analyses of undoubtedly pure milk, direct from healthy cows, on good farms, during the last winter, have shown that there is much risk in the attempt to establish any such arbitrary line with respect to fats, in the present state of our knowledge. A year or two since, at the request of Dr. Murchison, Dr. Sieveking, Dr. Hardwicke, and Dr. Whitmore, acting as a medical council of advisers for the Aylesbury Dairy Company, that company instituted a series of experiments in feeding a limited number of healthy cows with various kinds of food, suggested as being the most likely to increase or to diminish the quantity of fatty matter in the milk. The analyses in connection with these experiments were carried out by Mr. Wanklyn; and the results showed that, while the solid matters not fatty remained constant, the fatty matters of the milk were considerably affected by the kind of food—so much so that, while in one case, the cream rose to an extraordinary figure, in others it was almost entirely abolished. Distillery swill was especially found to have a bad effect in diminishing the quantity of cream. During the past winter, farmers have been in great straits to provide rich, good, and nutritious food for their cows; and it has been found, by those who have had an opportunity of watching the results of analyses of the milk supplied direct from large and well arranged and carefully inspected farms, that the quantity of cream during this season has been in many cases much below that which is found in good milk in more favourable years; and in some cases it is certain that the arbitrary standard which has been suggested would have, if applied to undoubtedly pure milk, direct from country-fed cows, given prejudicial and unjust results. It is, however, desirable that the best information should be obtained as to the best means of procuring rich milk continuously throughout the winter; and with this view, the Aylesbury Dairy Company has now offered prizes to farmers, consisting of pieces of plate valued at £50, £35, and £20, to be given to those farmers whose milk-supply stands highest in quality between October 1st and March 31st next. The samples of the milk supplied will be carefully examined, as at present, by the official analysts, whose analyses and reports will decide the competition finally, and without appeal. In this way, a considerable amount of information will be obtained as to the most successful results obtained by farmers on a large and on a small scale (for the premiums are offered in two classes) on the question of producing the richest possible milk at fair market price. The exact data obtained by numerous analysts will be available for scientific information, and may help to set at rest what is now a moot point of considerable dietetic importance. This Company proposes to establish, during the present season, a laboratory at Bayswater, in which the whole time and skill of analytical chemists will be given to the study of the conditions under which the best qualities of milk are produced, and the variations noticeable at the different seasons of the year in relation to the food made use of by farmers, and to the other scientific conditions involved in the production of milk, cream, and butter. Such data will be of no small public utility, and will be made available by publication for the information of public analysts and others.

PROVINCIAL REPRESENTATION IN THE COUNCIL OF THE COLLEGE OF SURGEONS.

MR. CADGE of Norwich has for some weeks been announced as a provincial candidate for one of the four vacant seats, and we have referred to his great seniority and high position in the provinces and in public and scientific estimation as giving him peculiar claims to the position. The name of another eminent provincial surgeon is now brought forward, who, although much junior to Mr. Cadge, has special claims from his connection with an important centre of medical education as yet unrepresented in the Council. Mr. Reginald Harrison is one of the most active and able of provincial surgeons and teachers. The following requisition has been presented to him.

"To Reginald Harrison, Esq., F.R.C.S., President of the Medic Institution; Surgeon to the Royal Infirmary; late Lecturer on Anatomy and on Surgery at the School of Medicine, Liverpool.—Dear Sir,—In view of the approaching election of four members of Council of the Royal College of Surgeons, we are of opinion that the claims of provincial surgeons to representation on this occasion should be considered. Hitherto Liverpool, one of the largest of the provincial cities, and a centre of medical education, has been unrepresented, and we venture to suggest that her claims warrant us in asking you to become a candidate. The interest you have shown in all that relates to the progress of surgery and of medical education generally induces us to think that you will be a most suitable representative of the provincial fellows, and we therefore trust that you will consent to allow yourself to be nominated as a candidate for election on the Council of the College, feeling that your presence there will be of value to the College and to the profession at large."

It is signed by 158 provincial fellows. Mr. Harrison thus comes before the constituency supported by a requisition of the most influential and flattering character.

THE ARTISANS' AND LABOURERS' DWELLINGS ACTS.

MR. BRAND has given notice that he will on an early day call attention to the operation of the Artisans' and Labourers' Dwellings Acts, 1875, and its amendments of 1879, and will move a resolution. The working of these Acts under the Metropolitan Board of Works has been such as almost wholly to defeat the object in view, involving enormous expenditure; and to arrest progress. The Board of Works has been much discredited by the serious jobbing; and it is much to be hoped that some early and vigorous effort will be made by the present Home Secretary to remedy the palpable failings of Mr. Cross's measure, which in operation has been useful only to the owners of bad property, who have received large sums in compensation for assumed rights in property from which they were obtaining excessive revenues, at the same time that the very existence and management of the property were a mischief to the whole neighbourhood and to the general health of the metropolis. Sir U. Kay-Shuttleworth, to whom belongs the great merit of having marshalled all the facts and prepared the scheme on which the Artisans' Dwellings Acts were framed, will be much missed in the House. No one has more thorough knowledge of the subject than he; and perhaps few legislators have shown more self-denial and devotion than Sir U. Kay-Shuttleworth in allowing himself to be eclipsed by those who reaped the benefit of his labours in public opinion, while they have hardly known how efficiently to use the materials which he prepared for them. The subject is one of great urgency, and it is to be hoped that it will receive the attention of the Government with the least possible delay.

A NEW HOSPITAL.

On Monday afternoon, the ceremony of opening a new hospital at Twickenham was performed by the Duchess of Teck, in the presence of a numerous company. St. John's Hospital, as the new institution is called, has been erected and largely endowed by the munificence of Miss Twining, who, together with the other members of her family, received Her Royal Highness, who was accompanied by the Duke of Teck, at the entrance-gates. After a special service appropriate to the occasion had been performed by the chaplain to the hospital, the Duchess of Teck went the round of the wards, escorted by the Honorary Secretary, General Sir George Bourchier, K.C.B., Dr. Benthall, the resident surgeon, and other officials, and expressed herself delighted with the arrangements made for the comfort of the patients.

THE CONTAGIOUS DISEASES ACTS.

A Bill to repeal the Contagious Diseases Acts was presented by Mr. Stansfeld, and read the first time, on May 24th. It was ordered to be read a second time on Tuesday, June 22nd, and to be printed. On Monday, Mr. Gladstone said that another Committee would be appointed, in continuance of the Committee of last session. That Committee consisted of Mr. Massey (Chairman), Mr. Cavendish Bentinck, Mr. Stansfeld, Colonel Alexander, Sir H. Johnstone, Viscount Crichton, Mr. Shaw Lefevre, General Shute, Mr. Burt, Mr. Bulwer, Mr. O'Shaughnessy, Sir Henry Holland, Mr. Kavanagh, Mr. Ernest Noel, Mr. John Tremayne. Of the above, Mr. Kavanagh, Mr. Tremayne, and General Shute have lost their seats. It appears to us desirable that on the Committee should be placed medical members and others representing places under the Acts.

ANTISEPTIC SURGERY.

Mr. MacCormac's book on Antiseptic Surgery appeared last week. This book, which has been much looked forward to, contains a report, much amplified and corrected, of the address at St. Thomas's Hospital and subsequent debate, to which is added a very full and exact statement of the theory of the antiseptic method, together with a description of the materials employed in carrying it out, and applications of the method to operations and injuries in different regions of the body, and the use of the method in war. No exact and comprehensive account of the application of the "antiseptic method" has up to this time been published in the book form in this country; and the want of such a treatise has been very much and very widely felt; it could not have come more opportunely than at this moment, nor have been supplied by a surgeon of more philosophical power of appreciation and larger practical experience. A very early and conclusive proof of the excellence of the work and its applicability to the purpose for which it is intended, has come at once from the most authoritative quarters. Among other evidences of the appreciation which this book is likely to receive at home and abroad, perhaps the most striking is in a letter which, we hear, has been received from Professor Volkmann of Halle, one of the foremost antiseptic surgeons of Europe, who writes that he has, immediately on receiving the book, read it through with the deepest interest, and desires permission at once to translate and republish it in German, with additions derived from his extensive practice of the antiseptic system. Germany is already supplied with more than one treatise illustrating the application of the antiseptic system to surgical practice; and this tribute, coming from a German surgeon thoroughly imbued with the literature of his country, and himself among the most esteemed writers on surgery, affords a very satisfactory testimony to the practical and scientific value of Mr. Mac Cormac's work.

VACCINATION AND VACCINATION-MARKS.

A correspondent, whose letter we print in another column, writes to us adverting to the "unfortunate custom of many private practitioners to vaccinate in two or three places in order to please their patients"; and complains that, in consequence of his insisting on the necessity of producing four vesicles, he has lost clients. He says that this necessity does not seem sufficiently understood by all practitioners, and asks what we consider should be the duty of the vaccinator. The answer to this inquiry is plain. The aim of the vaccinator is the affording of protection against an attack of small-pox; and overwhelming evidence exists to prove the vastly superior protection afforded by four good vesicles to that afforded by a less number. Our correspondent is doubtless acquainted with the tables compiled by Mr. Marson from his unequalled experience, which show the percentages of deaths from small-pox in persons vaccinated in different ways to range from ¾ in persons with four or more cicatrices, to 1¾ in those with three cicatrices, 4⅛ with two, 7½ with one, 21¾ in those stated to be vaccinated but having no cicatrix, and 35½ in persons admittedly unvaccinated. The whole of the statistics on the subject corroborate these figures, as our correspondent may see for himself by reference to the little work recently published on *The Truth about Vaccination*, where the subject is treated at length. Perhaps we cannot better answer the inquiry made of us than by quoting Mr. Marson's article on Small-pox in *Reynolds' System of Medicine*, where he says:

> "Those who have been fortunate enough to have been vaccinated in four or more places with lymph that leaves good easily perceptible cicatrices, have almost invariably a slight form of small-pox when it occurs; but those who have only one or two marks from vaccination, such as are hardly visible, will probably have a severe form of the disease; and those who have no marks at all are in still worse circumstances. What we contend for is that, if possible, all should be vaccinated in the *best way;* at least, the attempt should be made to vaccinate all in the best way, that there should be as little as possible of haphazard vaccination, done with a view that if the operation takes effect badly it can be done again. By such a proceeding, persons often take vaccination badly, and cannot be made to take it properly afterwards; the imperfect success prevents its taking fully again, and yet some day they may take small-pox severely, and perhaps die of it. Every effort should therefore be made that there may be as few imperfect vaccinations as possible."

We cannot but think that, if our correspondent were to acquaint his patients with the published statistics on the subject, and explain the greatly increased protection against small-pox afforded by thorough vaccination, his difficulty (which we know to be a real difficulty) would speedily disappear. There is reason to believe that private practitioners too frequently yield to the prejudices of parents as regards the performance of vaccination, and thus give to their patients inadequate protection against small-pox. On this account, Mr. Marson's figures cannot be too widely known and acted upon; for nothing is more certain than that the protection against small-pox afforded by vaccination is in direct proportion to the number and quality of the vesicles produced.

INFANT LIFE PROTECTION.

At the Queen's Hotel, North Camp, Farnborough, Mr. W. E. Foster, the deputy coroner for North Hants, has held an inquiry as to the death of Susannah Cooke, 13, who is alleged to have died from starvation and neglect while an inmate of the Farnborough Orphanage. Mr. C. H. Stephenson, the Deputy Chief Constable of Hampshire, prosecuted the inquiry on behalf of the County Constabulary, and Mr. R. Eve, solicitor, watched the case on behalf of Mrs. Pashley, the resident proprietress of the orphanage. The inquiry was instituted at the instance of the police authorities. In the evidence, which was given at considerable length by the mother of the deceased, Mr. Sloman of Farnham, Mrs. Mary Fisher, a person formerly employed at the orphanage, and others, it was alleged that the child had suffered from cruelty and neglect on the part of Mrs. Pashley. The coroner, in summing up, said there were two kinds of neglect—criminal neglect, and neglect of a gross nature, which, although not criminal, rendered the person liable to an action for damages. It was for the jury to determine whether or not Mrs. Pashley was guilty of wilful and criminal neglect. The jury retired at half-past six o'clock, and, after deliberating for an hour, returned into court with the following verdict: "We find that the deceased's death was accelerated by careless and wilful neglect by not calling in medical attendance sooner, and we would call the attention of the proper authorities to such an establishment existing without any committee or supervision whatever." The coroner then made out his warrant for the committal of Anna Pashley for trial at the Winchester Assizes on a charge of manslaughter. The defendant was removed in custody. Whatever the upshot of this inquiry, it is clear that the provisions of the Infant Life Protection Act should be extended to "charitable institutions". They were expressly exempted from it by the recommendations of the Select Committee of the House of Commons, contrary to the advice of Sir W. Charley, Mr. Ernest Hart, and other principal witnesses who promoted that measure. The exemption has worked badly for the infants.

MORTALITY FROM MEASLES.

THE extraordinary mortality from measles during last quarter in the "three towns" (Plymouth, East Stonehouse, and Devonport), and in other parts of Devon and Cornwall, needs more than a passing notice; and it would seem to us well that a special inquiry should be set on foot as to the causes which have made this disease so terribly fatal hereabouts. It would appear from all accounts that the first appearance of measles in the neighbourhood, was in the child of a sergeant who landed from a troop-ship, the disorder attacking the child shortly after the landing. Notwithstanding that isolation and disinfection were practised by the military medical authorities, the disease spread amongst other children in the married quarters, and thence to the civil population. On the departure of the infected regiment, the quarters were kept empty for a time and disinfected, but measles again spread in the incoming regiment, some families of which had been temporarily lodged in the town, where measles then existed amongst the civilians. In the quarter ended the 30th September last, 15 deaths from measles occurred at Devonport, all in the married quarters of the Raglan Barracks. In the next quarter, 90 deaths occurred in the town, and in the first quarter of this year 95 deaths. Meanwhile, the disease seems to have spread in several directions. Plymouth was entirely free from fatal measles in the third quarter of last year, but in the fourth quarter there were 44 deaths; in the first quarter of the present year, 132 deaths; and almost every week brings news of an increasing number of victims from the disease in the town. At East Stonehouse, a district of much smaller population than either Plymouth or Devonport, measles did not commence to be epidemic till the last quarter of the year; but it then became "more general in its distribution and more fatal in its results" that any outbreak that the medical officer of health has ever witnessed. In the first quarter of this year, there were 95 deaths from measles in the district, 82 being in children under five years of age. No fewer than 47 of the 95 fatal cases were those of the children of mariners. With the exception of this curious fact, the medical officer of health gives no particulars of any value with regard to the outbreak. From Devonport the infection was taken by two children to a village in the Kingsbridge Rural District, from which it spread into adjoining parishes. In this locality, 28 deaths from the disease were registered last quarter, the rest of the district being free. Whether any connection exists between the Devonport epidemic and outbreaks of measles in the Okehampton, Liskeard (Looe), St. Columb, and St. Austell districts, where 24, 42, 15, and 28 deaths respectively occurred from it during last quarter, we are not able positively to state; but in view of the fact that the other districts in the two counties were singularly free from the disease, there would appear strong *primâ facie* reason for suspecting such connection. No other counties have of late suffered so severely from measles as Devon and Cornwall. Isolated outbreaks occurred last quarter in Tyldesley and Atherton (Lancashire), Atherstone (Warwick), Nottingham, Hull, Egremont (Cumberland), Hartlepool, Brecknock, and Bangor, but in no case were the figures so striking as these. It would be well, therefore, to endeavour to learn, if possible, some lesson for the future from the recent exceptional fatality in the West of England.

MR. EDISON'S LATEST.

AMERICAN papers report that Mr. Edison, not having succeeded in dispelling darkness by electricity, has consoled himself by an invention to relieve the suffering of neuralgia. It has been patented under the suggestive name of Edison's Polyform.

LUNACY AND CRIME IN CONSTANTINOPLE.

OUR correspondent writes to us under date May 21st: To conclude the account I have given you of the proceedings of the trial of Veli Mehmed, the murderer of the Russian Colonel Kummerau, I beg to inform you that the court-martial has condemned him to death, and has condemned his two accomplices to hard labour for life. This sentence has been forwarded to the Emperor of Russia, with the clause recommending the murderer to his Russian Majesty's merciful consideration. I am now informed that the Emperor has declined to express any opinion with regard to this judgment, and simply reminds the Porte that the murder has been committed upon Ottoman territory, and that Turkey has its own laws to deal with such cases. In the meanwhile, this scandalous proceeding and the impunity with which murders, burglaries, and crimes of all sorts, are daily allowed to be committed upon natives, has led to another murderous attack, in broad daylight and on the public thoroughfare, upon (this time) an Englishman—Mr. Burness, one of the most quiet, inoffensive, and respectable residents of this capital. Mr. Burness was taking a walk with his wife and another lady, on the same spot where Colonel Kummerau was murdered, when he was suddenly attacked by three *lazes*, *employés* of the Naval Dockyard; robbed of his watch and money; and then stabbed in the throat and belly; and while lying insensible upon the ground, was kicked in various parts of his body. Two of the offenders have been caught, but the third has not yet been found.

BRITISH DENTAL ASSOCIATION.

THE *Monthly Review of Dental Surgery*, of which the first two or three numbers are now before us, appears to afford very satisfactory evidence of the progress of British dentists in the process of organisation. Whatever may be the defects of the Dental Act (and we do not moderate them), it has at least afforded a wide basis upon which to establish the organisation of existing dental practitioners, and safeguards against the admission into the ranks of the dental profession, from this time forth, of any who shall not have received a satisfactory education, and passed adequate examinations by established and chartered medical bodies. In order to make their organisation more complete, the dentists have copied pretty faithfully the constitution of the British Medical Association, and have established for themselves a British Dental Association, having a central representative board and country branches. The representative board includes, we see, as representatives for London, Messrs. Tomes, Underwood, Parkinson, Smith Turner, Edwin Saunders, Woodhouse, Coleman, Dr. Walker, Mr. Rogers, Mr. Vasey, Mr. Oakley Coles, Mr. Moon, Mr. Ibbetson, and Mr. Roberts—a highly representative and more than respectable list. The list for the provinces is equally satisfactory, including the names of a number of the best known dentists in Dublin, Glasgow, Manchester, Birmingham, Edinburgh, Liverpool, and other important centres. The British Dental Association has also established its literary organ, through which members will be enabled to communicate with each other, with a due editorial supervision as to form and suitability of matter; and in which will appear the results of the scientific activity of the members of the body. This *Monthly Review* is edited by Dr. Walker and Mr. Coleman, and the last number includes (besides technical matter) interesting scientific articles by Professor Lionel Beale, Dr. J. G. Garson (Royal College of Surgeons), and others. We recognise in this periodical already the elements of substantial success; and congratulate the founders of the British Dental Association upon the rapid progress they have made towards the successful realisation of their excellent idea.

LISTERISM IN CALCUTTA HOSPITALS.

THE *Indian Medical Gazette*, noticing the welcome fact that antiseptic surgery has "at length won for itself more than tolerance in London", adds that "this measure of recognition will, we feel assured, ere long be followed by its final triumph and all but universal adoption". Our contemporary offers the strongest possible testimony in its favour, founded on the experience of its employment in Calcutta. "We have long held", it writes, "from personal observation and experience, that Listerism constitutes an immense improvement in surgery and a great boon to humanity; and in the principal surgical hospital of this city a signal illustration of this truth has been given. Under surgeons of singular eminence and skill, the results of surgery in the Medical College Hospital were, not many years back—to use a mild term—most discouraging. Gangrenous cellulitis and osteitis, septicæmia, pyæmia, and the worst forms of erysipelas, followed almost every entry of instruments into the tissues. The hospital was blamed, and nothing short of its demolition and the building of a new hospital on a better site and improved principles would, it was held, prove of any avail. *Now*, wounds and sores heal kindly, and operations succeed, patients recover in a manner eminently satisfactory, and hospitalism has almost vanished. No great change in hospital arrangements has taken place; diet and stimulants have been less liberal than in those days. The improvement is entirely due to antiseptic surgery, and the more closely Listerism has been followed, the better the results. The time has now come when the system should be adopted in its purity and totality in every hospital in India. It is capable of effecting a great saving of suffering and life, and the additional expense caused by it is, under careful management, by no means formidable."

COPPER IN PRESERVED VEGETABLES.

M. GALLIPPE has recently presented to the Paris Société de Médecine Publique et d'Hygiène Professionelle, a report on the colouring of vegetables by sulphate of copper. The question had been brought to the notice of the Council of Hygiene by M. Brouardel, who, in conjunction with M. Pasteur, had been appointed to investigate the question, and had arrived at the conclusion that the authorities should allow the colouring of preserved vegetables by salts of copper, on condition that the declaration of the substance by which the green appearance had been obtained should be printed in legible characters on the tins containing them. M. Galippe, in his report on the question, comes to the following conclusions, which were unanimously adopted by the Society. Seeing that copper is found in the animal economy in many articles of food habitually consumed, sometimes even in a larger quantity than in the preserved foods carefully coloured green; seeing also that it is by no means demonstrated, after experiments carried on on a large scale for twenty-eight years, that the coloured preserves have ever produced any bad results,—there is no reason for interdicting the colouring of preserved vegetables, etc., by sulphate of copper, care being always taken that this salt shall only be employed within limits which shall not be exceeded by the manufacturer. Taking note of the fact that the quantity of copper fixed for certain green vegetables—beans, for instance—is larger than that found in green peas, the Commission has thought it well to fix this limit at four *milligrammes* of metallic copper to one hundred *grammes* of dried vegetables. It would only, therefore, be necessary to prosecute those manufacturers of preserved vegetables who introduce a larger amount of copper into their products.

NIGHT MEDICAL SERVICE IN PARIS.

DR. PASSANT, the founder of this system of public medical aid, has published the statistics of the first quarter of 1880. It appears that 1,847 visits were made, against 1,385 in the corresponding three months of 1879, showing an increase of more than 462 visits. The average of night visits was 20.5, it having been only 15.5 for the corresponding quarter of 1879. The proportion of women requiring these visits was 48 per cent., of men 35 per cent., of children under three years of age 17 per cent. As a matter of course, the poor quarters of the town absorbed the greater number of visits, the localities inhabited by the affluent not being so much in need of sudden medical aid. The diseases and accidents which required nocturnal medical assistance were throat-affections, 143; croup, 64; bronchitis, 143; intestinal derangements, 116; hepatic and nephritic colic, 55; strangulated hernia, 19; retention of urine, 22; hæmorrhage, 78; wounds, 67; fractures and dislocations, 36; convulsions, 88; eruptive diseases, 57, of which 48 were cases of small-pox; confinements, 133.

CERTIFICATION OF CAUSES OF DEATH.

THE causes of 132,293, or 90.8 per cent. of the 145,704 deaths last quarter in England and Wales were certified by registered medical practitioners, and 6,934, or 4.7 per cent., by coroners in inquest cases. The causes of the remaining 6,477, or 4.5 per cent. of the total deaths, were uncertified; no certificate of the cause of death signed either by a medical practitioner or a coroner being furnished to the registrar. The proportion of uncertified deaths differed but slightly from that which prevailed in the three preceding quarters, and ranged from 1.5 and 2.9 in the Metropolitan and South-Eastern, to 6.1 in the Northern, 6.3 in the York, and 10.7 in the Welsh registration divisions. The percentage of uncertified deaths was equal to 7.6 in Shropshire, 8.3 in Cornwall, 8.6 in Westmorland, 8.8 in Herefordshire, 11.8 in South Wales, and 12.0 in North Wales. In the twenty large English towns, the proportion of uncertified deaths averaged 2.5 per cent., and showed a decline from that in recent quarters; in London, the percentage did not exceed 1.5, whereas it averaged 3.6 in the nineteen provincial towns. The percentages in these nineteen towns ranged from 1.0 in Portsmouth, 1.7 in Brighton, and 1.9 in Plymouth, to 4.8 in Sunderland, 5.6 in Sheffield, 6.2 in Salford, 6.8 in Wolverhampton, and 7.5 in Hull; these proportions showed an increase in Wolverhampton, Salford, and Hull, but had considerably declined in Oldham and Sunderland. The co-operation of medical officers of health and coroners has recently caused a marked decline in the proportion of uncertified causes of death in Nottingham and Bristol, and there is little reason to doubt that a similar result might be obtained in other towns where the proportion of uncertified deaths now shows a marked excess. The proportion of uncertified causes of death was exceptionally large in Truro, Dawley subdistrict (Madeley), Norton subdistrict (Leek), St. Helen's, Keighley, Lofthouse subdistrict (Guisbrough), Sedgefield, St. Woollos (Monmouth), and Cardigan. The local registrars in every instance attribute these large proportions of uncertified causes of death to the practice of unqualified assistants of registered medical practitioners or of unregistered or unqualified practitioners on their own account.

RECENT METEOROLOGY.

THE Registrar-General publishes the following remarks respecting the meteorology of the quarter ending on March 31st, 1880: "The readings of the barometer ruled exceptionally high during January, while they were generally below the average during February; they again showed an excess throughout the greater part of March. January was exceedingly cold, with the smallest recorded rainfall in any year since 1826; the temperature during February and March was for the most part above the average, although cold easterly winds prevailed during the latter half of March. The mean temperature of the quarter was 39.8°, and exceeded the average for the corresponding period in one hundred and nine years by 1.0°. In January, the mean was only 33.2°, and showed a deficiency of 3.3°, whereas it was equal to 41.8° and 44.3° in February and March, and exceeded the average by 3.1° and 3.2° respectively. At forty-three stations of observation, the mean temperature of the quarter varied from 38.0° and 38.1° in Wolverhampton and Bolton, to 43.7° in Guernsey, Truro, and Barnstaple, and 45.4° in Helston. The mean temperature at the Royal Observatory, Greenwich, was below the average during each of the fifteen months ending January last; the mean of this cold period was only 44.0°, and was lower than in any previous corresponding period since 1813-15. There is, however, no previous instance on record of the mean temperature being below the average for fifteen successive months. The measured rainfall at Greenwich during last quarter was only 3.2 inches, and was 1.8 inches below the average for the corresponding period in sixty-five years. Rain was measured on thirty of the ninety-one days in the quarter; the aggregate amount measured was 0.3 inch in January, 2.3 inches in February, and 0.6 inch in March. The rainfall showed a marked deficiency in January and March, but the amount in February exceeded the average. At forty-three stations of observation, the rainfall ranged from 1.94 and 2.58 inches in Ramsgate and Lowestoft, to 8.98 and 9.56 inches in Torquay and Bath. The number of hours of bright sunshine recorded during the quarter at the Greenwich Observatory was 235.9, against 141.0 and 137.5 respectively in the first quarters of 1878 and 1879. There was a marked increase in the recorded amount of sunshine in each of the three months of the quarter."

HEALTH OF COLONIAL AND FOREIGN CITIES.

A SUMMARY of the weekly returns with which the Registrar-General is favoured by various authorities abroad shows that the average annual death-rate during the first quarter of 1880 in thirty-two colonial and foreign cities, having an aggregate population of nearly fourteen millions of persons, was equal to 31.1 per 1,000. In the twenty European cities, the average rate was 34.3 per 1,000, against 25.5 in twenty of the largest English towns. In the thirty colonial and foreign cities, the lowest death-rates were 16.1 in Cincinnati, 16.8 in Christiania, 17.7 in Baltimore, and 18.0 in Philadelphia; whereas the rates ranged upwards to 40.8 in Trieste, 41.4 in Madras, 44.3 in Naples, 46.4 in Rome, and 52.0 in St. Petersburg. Small-pox caused 831, diphtheria and croup 535, and typhoid fever 764 deaths in Paris, where the death-rate was equal to 34.9 per 1,000. Small-pox also showed fatal prevalence in Vienna, Buda-Pesth, St. Petersburg, Madras, Bombay, and Calcutta. An unusually severe epidemic of measles prevailed in Amsterdam; and scarlet fever was very fatal in Hamburg.

MANGLING AS A SOURCE OF INFECTION.

THE conveyance of contagium through the medium of laundries has for some time been an established fact. A physician in practice in London has lately related to us a circumstance which indicates a further source of propagation of disease by means of a calling connected with, but carried on as a distinct trade from, that of the washerwoman. He was called a short time ago to see a tradesman's child, who was ill with small-pox. He could not find any tangible source of infection in the house; and the child, on account of indisposition, had been confined at home during the winter, and had apparently not been exposed to infection. The family linen was washed at home. On the same day, he saw in the same neighbourhood another child which had small-pox; the family lived in a detached house, with a garden, and, in consequence of the prevalence of small-pox in the district, the child had been kept at home. Some days later, he was called to see the child of a mangling woman, and found it suffering from confluent small-pox. He ascertained that three of the woman's other children had had small-pox, but so mildly that they had not been under medical treatment. On further inquiry, he found that the mangling for the two other families above mentioned, whose children he had been attending, was done at this house. The child with the confluent small-pox was kept in the room where the mangling was done; and the other children had been allowed to be in the room, even during the eruptive stage. There can be but little doubt that the contagium of small-pox was conveyed to the children in the first two cases through the medium of the linen. The facts to which we have referred indicate the necessity for including the mangling trade in any regulations which may be made for the purpose of preventing the spread of infection by laundries. It must be remembered that, in London, mangling is carried on as a separate business from that of washing, and is very often done in cellars.

SCOTLAND.

THE OUTBREAK OF TYPHOID FEVER IN GLASGOW.

ALTHOUGH the report of the sanitary authorities occupied in the investigations connected with the late outbreak of fever in the northern district of Glasgow has not yet been made public, it has transpired that the present epidemic, like several of its predecessors, is closely connected with the milk-supply of the town. It would be premature to say more in the matter at present until the report appears, but no doubt the facts then made public will help to direct attention to the necessity for increased supervision and inspection of the sources of milk-supply for our large towns. Up to the present, more than three hundred persons have been attacked; but, from the report of the medical officer of health for the past fortnight just issued, he states that all his information leads him to think that the epidemic is rapidly subsiding, if it may not be said to have ceased. The number of deaths from fever in Glasgow during the past fortnight was thirty-eight, in place of eleven during the preceding fortnight; and, of these, thirty-five were from enteric fever, two from typhus, and one undefined.

AMBULANCE LECTURES IN EDINBURGH.

THE first of a course of ambulance lectures to volunteers by Dr. A. G. Miller, F.R.C.S.E., one of the assistant-surgeons to the Infirmary, was delivered by him in the Drill Hall, Forrest Road, last week. Mr. Imlach, President of the College of Surgeons, occupied the chair; and there was a large attendance of volunteers. The lecturer gave a description of the skeleton, and of the various fractures; also the means of treating them speedily; and referred to the use and abuse of stimulants in such cases. The lecture was illustrated by diagrams, etc., and was attentively listened to.

ST. ANDREW'S UNIVERSITY.

EDINBURGH and Glasgow Universities having given indications of the approaching rectorial elections, St. Andrew's now does the same; and it has been stated that Mr. E. A. Freeman, the historian, will be nominated for the Rectorial Chair at present held by Lord Selborne.

HEALTH OF EDINBURGH AND GLASGOW.

IN Edinburgh, the mortality last week was 21 per 1,000; of the deaths, 23 were due to zymotic diseases. There were 14 deaths from whooping-cough, 6 from measles, and 2 from scarlatina; 19 out of the 23 deaths from zymotic diseases occurred in the Old Town. In Glasgow, the mortality last week was 23 per 1,000.

FIFE AND KINROSS ASYLUM.

ON Friday, May 21st, Sheriff-Substitute Lamond refused to discharge a patient called Thomas Duncan from the Fife and Kinross Asylum, on the ground that he was not completely satisfied with his sanity, and because he considered the patient's mother insufficient guarantee. The patient had been committed to the asylum by Sheriff Bell (the predecessor of Sheriff Lamond) "until cured". On Saturday, Dr. Joseph Brown, the Medical Superintendent of the Asylum, discharged Duncan as cured; and his opinion of the case is supported by one of the Commissioners in Lunacy, who recently examined Duncan. A meeting of the Board of the Asylum was held last week, at which it was reported that the present number of inmates is 321. The estimated cost of the new female ward is £5,801, of which £2,733 has already been paid. The clerk was instructed to make inquiries as to the best means of paying the balance.

GLASGOW PHILOSOPHICAL SOCIETY.

THE General Committee, appointed by the Glasgow Philosophical Society, met on the 11th instant, under the presidency of Dr. Fergus, and appointed a large Executive Committee to promote an exhibition in Glasgow of apparatus for the utilisation of gas and electricity.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending May 15th, it appears that the death-rate in the eight principal towns during that period was 24.8 per thousand of estimated population. This rate is 2.8 above that for the corresponding week of last year, but 0.6 below that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 18.3 per thousand—and the highest in Aberdeen—viz., 29.2 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 5.5 per thousand, being a slight decrease as compared with last week. Whooping-cough and fever were rather prevalent in Glasgow. Acute diseases of the chest caused 118 deaths, being slightly under the number for the previous week. The mean temperature was 47.8°, being 0.8° above that of the week immediately preceding.

GLASGOW DEAF AND DUMB INSTITUTION.

THE annual examination of the children attending this institution was held on the 19th instant, in presence of a large number of persons interested in the movement. From the report of the directors, it appears that the total number of inmates on the roll for the year was 129, and that the result of the Government examination held in March was very satisfactory. The practice of articulation and lip-reading continues to form one of the chief features in the curriculum of the institution. An examination in public of the children showed what remarkable progress had been made by the pupils since last year. In the senior division, the articulation was clear and distinct, and the lip-reading comparatively easy. Several questions put to various pupils by some of the visitors were answered with great readiness, and the exhibition called forth the hearty applause of the large audience. The financial statement showed that the ordinary income for last year was £2,786, and the expenditure £2,519.

IRELAND.

A DEATH from sunstroke took place in Cork during the past week.

THE sanitary state of Limerick is at present creating anxiety in consequence of an outbreak of fever in the old part of the town. It is stated that there are more cases at present in the hospital attached to the workhouse than for a considerable time past.

ROYAL UNIVERSITY OF IRELAND.

IT is stated that very shortly a Bill will be introduced by the Government granting a representative in Parliament to the new University. The bestowal of this privilege was strongly urged upon the late Government upon many occasions without effect; although its justness was acquiesced in by all parties. The following extract from a report of the President of the Queen's College, Belfast, will be read with interest as bearing on the matter. "That any difficulty should exist in the granting of representation in Parliament to the Queen's University, is a matter deeply to be lamented. The justice and expediency of this has been officially presented to your Majesty's advisers; and the question has in various ways and from the most influential quarters, been pressed on their attention; and whilst the strength of the claim is fully admitted, it is to be hoped that a member will speedily be assigned to the Queen's University in Ireland. To leave it in a state of isolation as the only unrepresented university in the empire, when already it presents a constituency of nearly two thousand graduates, unsurpassed by any others for general intelligence—a constituency which will steadily increase every year—would injure the great interests of education, and deprive the graduates of constitutional privileges to which they are justly entitled."

HEALTH OF DUBLIN.

DURING the week ending the 15th instant, the births registered amounted to 175, and the deaths to 211; the latter representing an annual rate of mortality equal to 34.9 in every 1000 of the population. Forty-seven deaths were due to zymotic diseases—a number less by fifteen than those recorded in the preceding week, but still considerably above the average for the corresponding week of the previous ten years. Small-pox caused eight deaths, being three less than the previous week; but, on the other hand, twenty-seven new cases of the disease were admitted into the Dublin hospitals during the week, being ten more than the week preceding. A further increase in the mortality from scarlatina took place, fourteen deaths having been attributed to this affection.

DANGEROUS LUNATICS IN WORKHOUSES.

A DISCUSSION took place at a meeting of the Cork Board of Guardians last week, in reference to a lunatic who had attempted to cut her throat, yet was refused admission to the Cork Lunatic Asylum. The chairman considered it advisable to write to the Local Government Board to see whether anything could be done to have cases of dangerous lunacy transferred at once to the lunatic asylum, as they were deprived of all chance of cure in the workhouse. This patient was sent for admission to the asylum by Dr. Wall, one of the medical officers of the workhouse, and refused, for what reason was not explained. There is no provision for such cases in the Union Hospital; and the guardians should not be made responsible for them, more especially as, at the present time, there are fourteen patients more than the proper number. Dr. Wherland pointed out that there was one thing required, viz., that a curative or exclusive ward for dangerous lunatics should be provided; but other guardians considered that the only insane that should be admitted to the workhouse were the incurable and the harmless. The following resolution was passed unanimously: "That the Local Government Board be requested to put themselves into communication with the proper authorities with the view of obtaining for this Board the right to secure admission to the local asylum for any dangerous pauper lunatic from the workhouse, when such lunatic is duly certified by our medical officers as dangerous, as in the case of Mary Coveney, this day reported by the master, who was rejected at the asylum, although she had attempted suicide while in the workhouse."

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE College elections will take place the first Monday in June; and, in addition to the candidates already mentioned for Council, we may add those of Messrs. John A. Baker, James Good Curtis, and Austin Meldon. We are glad to find that Mr. Samuel Chaplin of Kildare will be unopposed for the Vice-Presidency, and will be duly elected on the 7th proximo.

BELFAST ROYAL HOSPITAL.

AT a quarterly meeting of the members of the General Committee held last Monday, it was stated that they had arranged to act as deputations to wait on the large employers of labour in Belfast, in order to have, if possible, systematic collections taken up from their *employés*, and a Hospital Saturday inaugurated. It is trusted that the bazaar which will be held at the close of the year will be successful, and that a considerable amount will be obtained for the funds of the hospital. The Lord Bishop of Down referred to the appointment of house-surgeon, and considered it should be vested almost entirely in the hands of the medical staff, gentlemen of position in their profession, and who gave their time and services gratuitously to the hospital. Those who worked under them should be their representatives; and it was impossible to suppose that the General Committee could understand as well as they did the qualifications necessary in the case of such appointments. They held the staff responsible; and how could they do so unless they placed under them for the carrying out of the work of the hospital those who had their approval? His lordship stated that, on this occasion, he was not going to raise a point, but he thought that on general grounds it was desirable that this subject at some future meeting should have some reconsideration.

RICHMOND DISTRICT LUNATIC ASYLUM, DUBLIN.

THE annual report shows that there has been an increase in the death-rate during the past two years, a result attributed by Dr. Lalor, the resident medical superintendent, to the defective sewerage. The school classes were in an efficient condition, 360 males and 460 females being so employed, leaving 170 unemployed, who were incapacited from illness or infirmity. Of 20 males admitted last year as criminal lunatics, a large proportion were found to be sane when admitted. The number of inmates at the close of the year amounted to 990, the females preponderating to a slight extent; and more than two-thirds of the patients were unmarried. The total expense of the institution amounted to £26,000, or at the rate of £25 10s. for each patient remaining a year.

THE PROGRESS OF PUBLIC HEALTH,

THE annual conference of the Society of Arts will take place on Thursday and Friday, the 10th and 11th of June, 1880, at 11 A.M. in each day. The Right Hon. James Stansfeld, M.P., late President of the Local Government Board, will be in the chair, assisted by the members of the Executive Committee: Lord Alfred Churchill (Chairman of Council); F. A. Abel, C.B., F.R.S.; Sir Henry Cole, K.C.B.; C. N. Cresswell; Colonel Sir E. Du Cane, K.C.B.; Major-General Frederick Cotton, R.E., C.S.I.; Captain Douglas Galton, C.B., F.R.S.; T. W. Keates; Dr. Voelcker, F.R.S. It has been thought well that, at the conference for the present year, the following subjects, suggested by previous conferences, should be discussed. Neither the Council nor the Executive Committee of the Conference express any collective opinion on the various points which they recommend as suited for discussion.—I. *Administrative Organisation.* 1. *County Boards.* The necessity for further legislation with a view to develop and strengthen local government administration throughout the kingdom, especially by the constitution of County Boards. *a.* That such County Boards, or combinations of them, should, *inter alia,* be charged with the conservation of rivers, including the prevention of floods and the storage of water; and be empowered to put the Rivers Pollution Act of 1876 in force upon the complaint of any local sanitary authority or other person aggrieved, and to charge the cost of the proceedings upon the County rate, or to sanction proceedings of any sanitary authority, or of any such aggrieved person, for such purpose. *b.* That such County Boards shall appoint County Health-Superintendents in each county. 2. *Sanitary Districts.* With regard to the local authorities of urban and rural sanitary districts, that they should be constituted the local governing body for all purposes for which their area is fit, thus enlarging and elevating their functions; and by entrusting functions requiring larger areas to groups or combinations of such districts. 3. *Election.* Election of members by ballot, instead of voting-papers. The holding of all local elections on one and the same day, so as to minimise the trouble and economise the time of the electors. 4. *Local Government Board Inspection.* The advisability of strengthening the administrative organisation of the Local Government Board, whilst diminishing centralisation and correspondence: *a.* By mapping out England and Wales into a few large areas; each area to be under the administration of a staff of inspectors, the whole under the superintendence of a permanent head of the department, properly assisted, and relieved of secretarial work. *b.* By instituting an Inquiry Department, for the assistance of local authorities wanting information and applying for it, charged with the investigation of scientific processes, the collection of statistical data, the official record of sanitary experiments here and in foreign countries, and the publication of periodical reports upon the results obtained. II. *Amendment of the Law.* 1. *Public Health Act,* 1875. *a.* Amending Section 299, by omitting all the words in the first part of the section down to the words "cost or that", and enacting as follows: "When a local authority has made default in respect of any provisions of this Act, the Local Government Board shall, after due inquiry, make an order for limiting a time for the performance of their duty, etc." [N.B. Under this section, as it now stands, the Government can intervene only when complaint by some person aggrieved is formally made, and not upon the report of their own inspectors, however flagrant the dereliction of duty. This amounts in the majority of cases, especially where the interests of the poorer inhabitants are concerned, to a defeat of the intentions of the legislature altogether.] *b.* By conferring powers, and corresponding duties, upon local authorities with regard to the construction of sewers, and connection of house-drains therewith, as extensive as those conferred upon the Commissioners of Sewers by the 11 and 12 Vic., c. 112, ss. 37, 38, and 46. [N.B. These compulsory powers will apply to old houses as well as new, and authorise the local authority to do the entire work of connections from the house to the main sewer at the cost of the owners by authorised contractors, after the same manner as gas and water companies.] *c.* By amending section 23, and substituting one hundred yards for one hundred feet, and empowering the sanitary authority to prevent the continuance in old, and the construction in new, houses, of any drain, sewer, or conduit within the building until an outfall for emptying the same has been provided and constructed to the satisfaction of the authority, other than into any lake, pond, river, canal, or watercourse. *d.* By enabling local authorities in rural districts to construct new sewers and water-supply works for the special service of outlying dwellings, and necessary for their healthful occupation, and charging the cost of the same upon the owners or occupiers thereof, payment to be made within a period not exceeding twenty-one years, the intent of such provision being that rates for sanitary purposes in rural districts, including water-supply, should, as far as practicable, fall on those only who are benefited by the improvements. 2. *Pollution of Rivers Act,* 1876. Amendments desirable in the Rivers Pollution Prevention Act, 1876. 39 and 40 Vic., c. 75. *a.* By striking out of sections 2 and 3 the word "knowingly", as superfluous and embarrassing. *b.* By striking out of sections 3 and 4 the words "solid" and "liquid" respectively, and by substituting, whenever necessary, the word "matter". III. *Sanitary Inspection and Classification of Dwellings.* Discussion of the following resolution: "That it is expedient that the Metropolitan Board of Works within the metropolis, and the County Board within each county, should be empowered by the legislature to make provision for the inspection and sanitary classification of dwellings, upon application being made by the owners thereof; and to grant certificates of healthworthiness in different categories, for terms of years, according to the perfection of sanitary equipment and fitness for habitation of such dwellings; and to determine the scale of fees to be paid for such inspection during construction and repair, and also upon delivery to the applicant of the certificate of classification awarded to such dwelling." [N.B. The conditions and mode of granting these certificates would be analogous to the practice of the department of "Lloyd's" Association in granting certificates of class and seaworthiness to the mercantile marine.] IV. *Further Suggestions by Sanitary Authorities.* An exhibition of sanitary and other appliances in connection with water-supply, sewage, and health will be held during the conference. All articles for exhibition must be delivered, carriage free, at the Society's House, John Street, Adelphi, not later than Saturday, June 5th, 1880. Manufacturers and others desiring to exhibit should communicate at once with the Secretary of the Society of Arts.

GUY'S HOSPITAL.

THE Biennial Dinner of Guy's men took place on Friday, the 21st instant, at Willis's Rooms, and the proceedings throughout were marked by an unwonted display of enthusiasm. An hour before the commencement of dinner, a meeting of past students of the School, the idea of which originated with Mr. C. A. Aikin, was held at the same rendezvous, at which Dr. A. T. Brett of Watford presided; and the following resolution, proposed by Dr. W. F. Cleveland, and seconded by Dr. Arthur Evershed, was carried with acclamation. More than a hundred gentlemen from various parts of the country at once subscribed their names to it, and many others sent letters regretting their inability to attend, but manifesting very warm sympathy with the objects of the meeting. The resolution was as follows.

"This meeting, consisting of former students of Guy's Hospital Medical School, desires to express its very warm sympathy with the present members of the medical and surgical staff of the School, in the extra anxiety which has been associated with their tenure of office during the past few months; and at the same time to record its conviction that, in the hands of the present staff, the past pre-eminence of the school of Guy's Hospital will be most worthily maintained."

Mr. Hopkins Walters of Reading, and Mr. Joseph Lamb of Birkenhead, proposed that copies of the resolution should be sent to the editors of the medical journals, and Mr. G. Eastes was designated to carry out the wishes of the meeting. A vote of thanks to the Chairman for presiding terminated the proceedings. At the dinner, held subsequently, Dr. F. W. Pavy, F.R.S., presided, and over two hundred gentlemen were present, including the President of the Royal College of Surgeons, Mr. Thomas Turner (the late treasurer of Guy's Hospital); the Messrs. Hoare (two of the governors); Sir William Gull; Dr. Owen Rees, and the members of the present acting staff of the school. The toasts were many, and eloquently given and responded to; and Mr. Cooper Forster, in returning thanks for the toast of the "Members of the Acting Medical and Surgical Staff" of the school, which had been proposed in most felicitous terms by Sir W. Gull, seized the occasion to read the resolution passed at the earlier meeting, and to say that the staff very warmly appreciated the kind sympathy and the support that had been given them by those of their professional brethren whom they most highly valued. The subject of the present painful contest now being carried on at Guy's was barely alluded to during the evening, but all felt that it was present, like a ghost at the banquet. The musical arrangements were under the management of Mr. Winn, and added much to the enjoyment of the evening. The company separated at a late hour.

ASSOCIATION INTELLIGENCE.

FORTY-EIGHTH ANNUAL MEETING.

SPECIAL NOTICE.

ACCOMMODATION IN CAMBRIDGE.

MEMBERS of the Association who propose to bring ladies to Cambridge on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, A. P. Humphry, Esq., 56, Corpus Buildings, Cambridge. The prices at which lodgings will be obtainable vary from three shillings to one guinea per day (inclusive of attendance) for a bed-room and sitting-room.

Hotels.—The following are the principal hotels in Cambridge.

"Bull" (Trumpington Street).—Bed, 3s. 6d.; sitting-room, 6s. to 10s. Attendance, 1s. 6d.; breakfast, from 2s.

"Lion" (Petty Cury).—Bed, 3s. 6d.; sitting-room, 5s. to 7s. 6d. Attendance, 1s. 6d.; breakfast, from 2s. 6d.

"Hoop" (Bridge Street).—Bed, 5s.; sitting-room, 7s. 6d. Attendance, 1s. 6d.; breakfast, from 1s. 6d.

"University Arms" (Regent Street).—Bed, 2s. 6d.; double bed, 3s. 6d.; sitting-room, 5s. Attendance, first day, 1s. 6d.; following days, 1s. Breakfast, with meat, 2s. 6d.; plain, 1s. 6d.

Applications for hotel-accommodation should be addressed direct to the landlords.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.

A MEETING of the above district will be held at the Marine Hotel, Worthing, on Monday, May 31st, at 4.15 P.M.; Dr. KELLY in the Chair.

The election of an honorary secretary for the district will be held, the present honorary secretary having resigned that appointment.

Notice of the following communication has been received.

Dr. Kelly: Remarks on Diphtheria in towns and country places.

Dr. Withers Moore: The particulars of a Case.

In the absence of papers, members are requested to narrate cases of practical interest.

The dinner will be served at 6 P.M. precisely. Charge, 6s. 6d. (exclusive of wine).

All members of the South-Eastern Branch are entitled to attend these meetings, and to introduce friends.

WM. J. HARRIS, *Honorary Secretary.*

13, Marine Parade, Worthing, May 24th, 1880.

SOUTH OF IRELAND BRANCH.

THE quarterly meeting of the Branch will be held in the Royal Cork Institution on Saturday, May 29th, at 4 P.M.

Members intending to read papers or send communications will kindly intimate their intention to the honorary secretaries as early as possible.

P. J. CREMEN, M.D., } *Honorary Secretaries.*
T. G. ATKINS, M.D., }

Cork, May 12th, 1880.

STAFFORDSHIRE BRANCH.

THE May meeting of this Branch at Wolverhampton has been postponed until further notice.

VINCENT JACKSON, } *Honorary Secretaries.*
J. G. U. WEST, }

SOUTH-EASTERN BRANCH.

THE thirty-sixth annual meeting will be held on Tuesday, June 8th, at two o'clock P.M., in the Royal Pavilion, Brighton; W. WITHERS MOORE, M.D., President-elect, in the Chair.

CHARLES PARSONS, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, May 19th, 1880.

SOUTH-WESTERN BRANCH.

THE annual general meeting of this Branch will take place about the 21st June, at Plymouth, under the Presidency of Dr. HOGARTH CLAY. As soon as the day is fixed and the necessary arrangements made, notice will be sent to every member.

Members who desire to make any communication, or to read papers, are requested to give notice to

SUTHERLAND REES PHILIPPS, M.D., *Hon. Secretary.*

Wonford House, Exeter, May 25th, 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE annual meeting will be held at the Hospital, Swansea, on Monday, June 28th, at 11 A.M.; T. D. GRIFFITHS, M.D., President-elect.

Members desirous of reading papers, etc., are requested to communicate with one of the Honorary Secretaries without delay.

ALFRED SHEEN, M.D., } *Honorary Secretaries.*
J. HANCOCKE WATHEN, }

May 25th, 1880.

MIDLAND BRANCH.

THE annual meeting of this branch will be held at Nottingham, on Thursday, 24th June. Members desirous of reading papers are requested to communicate at once with Dr. Marshall, *Honorary Secretary,* Nottingham, or with

C. HARRISON, M.D.,
Lincoln. *Honorary Secretary of the Branch.*

YORKSHIRE BRANCH.

THE annual meeting will be held at the Town Hall, Bradford, at 3 P.M., on June 16th, 1880; P. E. MIALL, Esq., in the Chair.

Members intending to contribute papers are requested to communicate at once with ARTHUR JACKSON, *Secretary pro tem.*

Sheffield.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE sixth ordinary meeting of this branch was held at the Bristol Museum and Library, on Wednesday evening, May 19th, at half-past Seven o'clock. J. BEDDOE, M.D., President, in the Chair. There were present thirty-four members.

New Member.—Mr. J. P. Garlike was duly elected a member of this branch, and of the Association.

Papers.—The following were read.

1. Mr. J. R. Cross read a paper on the Treatment of Pyarthritis of the Knee-joint. This gave rise to much discussion, in which Mr. Greig Smith, Dr. Davey, Mr. Lansdown, Mr. Dobson, and Dr. Skerritt joined.

2. Mr. W. J. Tivy read a Successful Case of Wood's Operation for Double Inguinal Hernia, and showed the patient. Mr. A. Prichard, Mr. Cross, and Mr. Greig Smith made some remarks.

3. Mr. Dobson read a series of Cases treated after Lister's Method, with some interesting remarks on this form of treatment. Mr. Cross and Mr. G. Smith mentioned some similar experiences.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THIS district met in the London Hospital Medical College, on April 15th; C. E. GARMAN, Esq., in the Chair.

Communications.—1. Mr. Nelson Hardy exhibited and described Mr. Gamgee's absorbent antiseptic pads.—2. Dr. Stephen Mackenzie read a paper on the treatment of chronic dysentery, in which, drawing attention to those severe cases resulting from acute chronic dysentery contracted abroad, he advocated, as highly successful, Dr. Horatio Wood's method of treatment by injections of nitrate of silver, one drachm of nitrate to three pints of tepid water. The method was useful only in cases of disease below ilio-cæcal valve. Dr. Mackenzie exhibited his apparatus, a simple œsophageal tube, elastic tubing, and a funnel, and then related several very successful cases.—A discussion followed.

CORRESPONDENCE.

SURGICAL STATISTICS.

SIR,—In the BRITISH MEDICAL JOURNAL of the 10th April last, there appeared a leading article purporting to be a summing-up of the controversy arising out of the editorial challenge in reference to the comparative results of Mr. Lister's antiseptic treatment and other methods of wound-treatment. Except for the very distorted view which the leading article gives of the evidence adduced, both regarding the statistics and also Professor Lister's replies to my request for explanations about some of the statements and omissions in his speech at the Antiseptic discussion at St. Thomas's Hospital, I certainly should not have noticed it, as I had no wish to prolong a controversy which interferes with other engagements and also makes me appear to be an opponent to antiseptic surgery, whilst I only object to its exaggerated claims. Under the circumstances, however, I feel forced to call in question the editorial judgment as "against evidence"; and my delay in doing so until now has arisen from my absence from home since it appeared.

In replying to the leading article, I shall reverse the order taken by the writer, and take first the subject of Professor Lister's replies to my request for explanations of some of his statements and omissions, as that will best show how the writer deals with plain matters of fact. His statement on this subject is as follows: "Mr. Spence has also asked for explanations of some of Mr. Lister's statements and supposed omissions. We need only point to the reply given by the latter—a reply which, while it adds much in explanation of the statistics which renders them more valuable, also clears away any doubt as to their completeness which might have arisen in the minds of some after the perusal of Mr. Spence's paper." The writer wisely avoids particulars; let us see how far his statement is borne out by the nature of the replies. The explanations I asked for were these. First, as to excisions of the breast; taking my three last clinical reports, I showed that, out of thirty-eight cases, I had only two deaths. I asked Mr. Lister how he explained the escape of these my successful cases in an operation in which the wound is so long exposed whilst arresting bleeding, etc., if the germs floating in the atmosphere were the cause of all the evils attending operations? To this, the most important part of my question, as it involved the principle on which his theory is based, Mr. Lister vouchsafed no reply. The second part of my question regarding his success in these operations brought out that his number of cases was also thirty-eight, seven of these being removal of tumours from the breast, whilst all mine were excisions of the whole breast, with the exception of the extirpation of a large recurrent cancerous mass from the axilla where the breast had been previously removed. Mr. Lister had three deaths. One of these he seeks to exclude, as the "spray" had not been efficiently applied during a dressing; but accidents incident to any system must be included in its risks. The actual statistical results are—

Mr. Lister, 38 cases	...	3 deaths,
Mr. Spence, 38 cases	...	2 deaths;

showing my results to be better than Mr. Lister's.

My remarks on the operations for ununited fracture produced the explanation that in several instances the operation was repeated (it is not made quite clear whether these repetitions are counted as separate operations), that, out of eight cases, one failed to procure union, and in one, amputation was required to save life—a result not so brilliant as I had been led to expect, nor better than I have had in my own practice, though I have had fewer opportunities in such operations on the femur. Here the reply was valuable as throwing light on the statistics, but scarcely in the sense the editorial article would imply. I also noticed under operations on bones, that Mr. Lister omitted any mention of subperiosteal resections of the shafts of long bones in acute necrosis; and as he takes no notice of such operations in his reply to my paper, I must assume that he has not tested his method in such cases, nor had recourse to an operation, which, in the hands of others, has proved successful in saving useful limbs and diminishing risk to life.

There was one omission, or "supposed omission", to which I specially referred. I asked why Mr. Lister, when speaking of the successes of his system, said nothing of its failures in his cases of suprapubic lithotomy. I repeated the question in my reply to Mr. Lister; but as the editor thought proper, without any communication with me, to suppress part of my question after I had corrected the proof for press, it was rendered almost pointless. I repeat that I think Mr. Lister was bound to have mentioned the failures of his system, as well as its successes; and when he found that the escape of his first case of antiseptic suprapubic lithotomy led him to adopt views which proved disastrous in further practice, it was incumbent on him as a teacher to warn others of the danger.

In my reply regarding the hygienic conditions of Mr. Lister's wards, I pointed out that these depended upon his own arrangements. Here, again, the editor not only suppressed part of my text, but also a footnote referring the readers of the JOURNAL to a correspondence between Mr. Lister and the Secretary of the Glasgow Royal Infirmary in the *Lancet* for January 1870, in which the secretary, by direction of the managers, gives an official contradiction to some of Mr. Lister's statements about the hygienic conditions of that institution, to which he again alludes in this discussion.

So much for the details of Mr. Lister's valuable and complete reply, to which the editorial article alludes in such laudatory terms.

In regard to my statistical results of amputations and excisions at a time when I used a very simple method of dressing, and which I brought forward in answer to the editorial challenge, the writer says I do not meet the point at issue. I stated at the outset, that I did not intend to enter on the general merits of the antiseptic system, as I was and had been for some time engaged in testing it with other methods, and that, when I had fairly tried it, I would return to the subject. I limited myself to show what results were obtainable by other methods by demonstrating what had been obtained, and I did this by comparing the results of sixty cases of major amputations for disease when my method of dressing was exceedingly simple with sixty-four similar cases of Mr. Lister's after his system had been perfected. The absolute statistical results were—

Mr. Lister, 64 amputations	...	5 deaths,
Mr. Spence, 60 amputations	...	3 deaths.

But, according to the editorial article, this is not the point at issue, "what we do want" (says he) "is evidence that the same constant results which are so notable a feature in antiseptic treatment under any circumstance can be obtained by 'simple' methods of dressing under unfavourable circumstances." Here it will be observed that the writer assumes the *constancy* of favourable results in all cases treated on Mr. Lister's system. If that were granted, then no other method could compare with it; for no other system claims such infallibility in results. But there is really nothing, even in Mr. Lister's own statistics, to warrant such conclusion. It is the very question at issue. For my own part, a pretty long and extensive experience of surgical practice has shown me that constitutional and other conditions, besides mere local or external causes or methods of dressing, affect the mortality after operations and injuries, and from ignoring such conditions the antiseptic system is likely to suffer. The writer also chooses to assume that the results I gave show merely a series of favourable cases occurring during three consecutive years. The cases were just the usual class requiring amputation, neither better nor worse. He also makes a statement that some of these operations were apparently performed in private practice. There is no foundation whatever for such a statement; all the sixty cases were operated on in the Edinburgh Royal Infirmary.

The editorial challenge spoke of "tremendous operations", and, as somewhat approaching that character, I compared my statistics of amputations at the hip-joint with those of Mr. Lister. I produced twelve cases, with five successful results, and the summaries of the seven fatal cases, to allow the readers to judge how far the deaths were preventable. All Mr. Lister's cases had a fatal termination; but the writer of the leading article does not see fit to notice this. One of my fatal cases was performed under strict antiseptic precautions.

The writer, in speaking of my general statistics, which have been before the profession for many years in my published *Lectures on Surgery* and *Hospital Clinical Reports*, assumes as correct an account of them which appeared in the JOURNAL, because, he says, I have not questioned it. The editor could hardly have been unaware that, at the beginning of this controversy, I stated in the JOURNAL that I would take no notice of such articles, as I considered Professor Lister was better able to speak for himself. I certainly do not think I am called on to notice every young friend of Mr. Lister's who may choose to thrust himself into notice in a controversy between Mr. Lister and myself. I do not consider that the correspondent referred to possesses either the independent experience in practical surgery, nor the amount of experience in different methods of treatment, to qualify him to deal with such statistics.

If the editor please to ignore my statement (not made for the first time during this controversy), that a consideration of the various methods of dressing I have used, during somewhat more than forty years' practice, had resulted in my gradual return to the method which gave such good results formerly; and to compare all my past practice with Mr. Lister's perfection period, allowing all Mr. Lister's exclusions of fatal cases, whilst he retains all mine without explanation of the nature of the cases, or cause of death, merely giving the absolute percentage; I leave others to judge of the fairness of such comparison. It will, I think, be time enough, when Mr. Lister's practice has been tested for forty years, in all cases of injury and disease requiring amputation, to make such comparison fairly.

As I have not published any *Clinical Report* since I returned to the simple method which formerly gave me such good results, the writer can have no data for the statistics which he thinks proper to give of the results of my greater experience in the simple method referred to. In my last *Clinical Report*, I distinctly stated that the dressings were either with boracic lotion or carbolised oil—methods which, though they give very good results, are not the method I formerly used. It would be well if those who so kindly scan my published statistics, to find flaws or suggest suspicions, would read them carefully to prevent misstatements.

There was nothing in the discussion that seemed to call for my inflicting a lecture on primary and secondary union on the readers of the JOURNAL; but, to make up for this deficiency on my part, the editor quotes, from my *Lectures on Surgery*, the description of the nature and tendencies of a typical case of severe lacerated wound. This is done, I presume, to show that I hold that *all* lacerated wounds must be followed by sloughing and suppuration. There is nothing more unfair than such partial quotation, ignoring the general scope of the context, especially in regard to a work in which the peculiar characters and tendencies of different forms of injury must be treated of. Then, the relevancy of the quotation is not very obvious—unless he means to say that the nature of a wound, and the degree and kind of force inflicting it, are of no consequence, as, if dressed antiseptically, it is sure to do well—something approaching the *reductio ad absurdum*.

In my own practice of the antiseptic system, whilst I have had admirable results in operation wounds, the cases of lacerated wounds and compound fractures have been those in which it has disappointed me; and in several cases I have been forced to abandon it for boracic or salicylic dressings, in consequence of renal irritation and hæmaturia from absorption of the carbolic acid.

As to what the writer calls "spinal abscesses", it was not the antiseptic treatment I objected to, but to the exaggerated style in which Mr. Lister spoke. *I had no difficulty*, as the writer pretends, in understanding the course of such cases, for I have treated many. It was just because I knew how long the discharge continued, and the prolonged treatment required, that I considered Mr. Lister's language likely to lead to disappointment with some who might try it; and the length of time required for cure, in the cases left in the Infirmary by Mr. Lister, shows the need of explanation of the statement in his speech.

The editor says I seem surprised that Mr. Lister should have supposed that some expressions in my first paper reflected on his character. I still feel surprised, and I may add somewhat disappointed, for his own sake, that Professor Lister, on reflection, has expressed no regret at having put such an unwarranted interpretation on my quotation of John Hunter's dictum: "that there were more false facts than false theories in medicine".

In concluding, I must protest against being supposed an opponent of the antiseptic system, because I object to the exaggerated claims put forth for it by some of its more enthusiastic advocates. I have used the method pretty extensively, both in hospital and private practice, with excellent results; and I would be sorry to oppose any method which promises to add to our resources in surgical treatment. But I cannot admit its exclusive claims, nor dismiss, as baseless and visionary, the experience I have had in the past, in my own practice and in that of others, of the good results of simpler methods. Like every other system, the "antiseptic" has its dangers—some inherent, others incidental; and, amongst the latter, not the least is its tendency to concentrate the attention on the mode of dressing, to the exclusion of constitutional and other causes of danger.—I am, etc., JAMES SPENCE.

*** Mr. Spence complains that certain passages were struck out of his former paper on surgical statistics, without giving him notice. They were erased because they appeared to be of an unduly irritating character, and not to be necessary to the discussion of the merits of Mr. Lister's antiseptic method. At the same time, we regret that zeal to ensure early insertion of Mr. Spence's paper prevented his attention from being called to the sentences, the objections to which were not perceived until too late. It is a principle in the editorial management of this JOURNAL, to exclude as far as possible all unnecessarily irritating or acrimonious personal remarks from discussions; and if Mr. Lister or any opponent of Mr. Spence had used language which in our opinion contravened this principle, the objectionable passages would not have been allowed to appear. In his present letter, Mr. Spence still appears not to thoroughly comprehend the object of the leading article to which he refers as a challenge; and we must therefore make our position somewhat more clear. Our request was for the production of a series of great operations *following a certain definite course*, unaccompanied by general febrile disturbance, local inflammations, and the other well known and frequent sequelæ of a large operation. We also asked for a series of successes similar to Mr. Lister's in operations usually regarded as likely to be followed by dangerous or even fatal consequences. Mr. Spence asserts that by stating "what was obtainable by simple treatment" he has met these demands. It was in order to supplement Mr. Spence's statement, and thus obtain some idea of *all* that had been attained by such methods, that we turned to his book for information with regard to those cases which we mentioned as the test-cases of any method. We cannot avoid thinking that Mr. Spence's remarks with regard to Mr. Cheyne's contribution to the statistical question are scarcely worthy of so eminent a surgeon. Such remarks can in no way detract from the significance of the facts recorded. Mr. Spence's great fear seems to be that attention to local measures may lead the surgeon to disregard constitutional conditions. Supposing this idea to be well-founded, it appears to us that if Mr. Lister, while paying but little attention to the latter, can obtain under unfavourable conditions better results than can be got under simple methods of dressing with close attention to the constitutional state, additional evidence is afforded in favour of the method which he advocates. It is, we think, time that this controversy—into which the personal element has been introduced to too great an extent—should for the present cease. ED. B. M. J.

VACCINATION.

SIR,—It is the unfortunate custom of many private practitioners to vaccinate in two or three "places" in order to please their patients. Undoubtedly the practitioner is in a position of some difficulty. It has been my own custom to explain the necessity of producing four vesicular crops, but I have lost patients in consequence. What do you consider the duty of the vaccinator?

Some prominent editorial remarks on this subject (which does not seem sufficiently understood by all practitioners—*i.e.*, the necessity of four compound vesicles) would be of great advantage to the profession and to the public.—I am, etc., G. P.

May 8th, 1880.

FOREIGN WATERING-PLACES.

SIR,—I venture to trespass briefly on your valuable space to speak on a subject which, trivial though it may seem, I yet consider worthy the attention of physicians at home. This is the practice of sending out patients to foreign watering-places so early in the season, that it is impossible for them to follow the prescribed course of baths and waters of such places from the cold weather and personal discomforts to which they are subjected by arriving at these places too early. I speak more especially of the baths and waters of Spa, but I have seen bad results from the same cause in several of the other bath-places in Europe. The month of May is proverbially of such a variable character in point of temperature, that I think I am speaking in the interests of many, in recommending my fellow-practitioners at home to be chary of sending their patients abroad to live in hotels, where often the means of warming the rooms are defective, before the very end of this month. I would also fix the end of September as the latest date for commencing a course of baths at these places; at any rate, in the case of Spa.—I am, sir, yours very faithfully, W. THOMSON, M.D.

Spa, Belgium, May 23rd, 1880.

TRICHINOSIS.

SIR,—As I had the good fortune some few years ago to detect the first outbreak of trichinosis in England, I may perhaps be allowed to offer a few words on the controversy which Dr. Cobbold's letter, recently published in the *Times* newspaper, has called forth, and which has brought down upon him a severity of professional criticism which is unusual even in the columns of the *Lancet*.

I have read Mr. Power's report, and have no hesitation in saying that the symptoms therein described do not in the least resemble those which occurred in the cases of trichinosis under my observation, and which were briefly reported in the columns of the BRITISH MEDICAL JOURNAL in 1871. The *Cornwall* cases more closely resemble those of ordinary typhoid fever. As to the parasites figured by Mr. Power, whatever they may be, they certainly are not trichinæ.—I am, sir, yours truly,

W. L. DICKINSON, L.R.C.P.Lond., etc.

Workington, May 24th, 1880.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE APPOINTMENT OF PUBLIC VACCINATOR IN THE PORTSEA ISLAND UNION.

THE patronage at the disposal of the Board of Guardians of the Portsea Island Union, in the matter of public vaccination, has been exercised in a way hardly calculated to give satisfaction to those gentlemen who, having held office for some years, would naturally look forward to such an appointment. It would appear that, at the recent election, there were three candidates: a district medical officer, of eight years' standing; one of two; and the union medical officer, of four years. The choice of the board fell on the union medical officer, whose duties as such, for a workhouse licensed for nine hundred and forty-three inmates, we should hold to be sufficiently onerous without these being supplemented by his appointment as the sole vaccinator in an union with a population of 120,000 persons.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BOOTLE.—The death-rate in this district for 1879 compares favourably with that for 1878, being 18.43, against 22.32, per 1,000. The infantile mortality also shows a diminution; but it is still enormously high, no less than 49.3 per cent. of the total deaths being in children under five years of age. It would seem from Mr. Sprakeling's report, that a rough and careless population inhabit parts of Bootle; but this mortality amongst infants is so unduly excessive as to call for special inquiry. Zymotic diseases were fatal in 100 cases, against 182 in 1878. Measles caused 9 deaths, enteric fever 11, scarlatina (which was prevalent during a great part of the year) 35, "croup" 12, and diarrhœa 17 deaths, all of which were in children under five years of age. Cancer caused 5 deaths, or 4 less than in 1878; tubercular diseases, including phthisis, 69; and bronchitis, pneumonia, and pleurisy, 127. Eighteen of the deaths were uncertified, and there were thirty-seven inquests during the year.

SALTLEY.—The report for 1879 on this suburb of Birmingham is brief, and the facts recorded call for no special comment. The death-rate for the year was 17.84 per 1,000, against 19 in 1878 and 18.9 in 1877. The mortality amongst children under five years was very high, amounting to just over half the total deaths; whilst a quarter of the total occurred in infants under one year of age. During 1879, the district suffered somewhat from scarlatina and whooping-cough; but the most prevalent disease was measles, which was not, however, fatal in a single instance. Diseases of the respiratory organs were more fatal than in either of the two preceding years. Mr. Cresswell speaks highly of the advantage gained through the undertaking by the authority itself of the systematic and frequent emptying of ashpits.

EAST DEREHAM.—An improvement in the infantile mortality of this district is observable as compared with that of the previous year, 25 deaths being recorded in 1879 against 37 in 1878. Mr. Vincent states that the principal cause of these deaths seems to have been debility, brought on in too many instances by bad feeding and the use of soothing preparations. The general death-rate was 18.7, an improvement of 1.3 on that for 1878. During the latter part of the year, a severe epidemic of measles broke out, but only one death took place. The sanitary state of the district seems to be improving, and the undertaking of the scavenging by the authority is a considerable step in advance.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, May 27th.

Medical Education and Registration.—Mr. ERRINGTON asked the Vice-President of the Council whether he would move the reappointment of the Select Committee on the Medical Acts, in order that the inquiry into medical education and registration may be continued.—Mr. MUNDELLA said that the Committee appointed last session was not a Committee to inquire into the Medical Acts; but it had three Bills which were before the House, and one of which was a Government Bill, referred to it. It was not the intention of the Government to introduce, in this short session, the important measure to which the hon. member referred; but during the recess the whole question would be considered. He thought that on the present occasion there was no reason for the reappointment of the Committee.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners, on the 19th instant, and, when eligible, will be admitted to the pass examination.

Messrs. John Alexander, Trinity Square; Frederick W. Pilkington, Chorley; Frederick Hitch, Bromley-by-Bow; and Thomas B. Cross, Scarborough, students of Guy's Hospital. Thomas Harker, Pateley Bridge, Yorkshire; Edwin W. Long, Southsea; and William E. Barton, Etchingham, Sussex, of University College. Frankland Norman Rushworth, Carlton Hill, N.W., of St. Bartholomew's Hospital. George I'Anson, Great Portland Street, of the Middlesex Hospital. John W. C. Cook, Colchester; Edwin H. Fenwick, Harley Street, of the London Hospital. Arthur M. Davies, Barnard's Inn, of the Westminster Hospital.

The following gentlemen passed on the 26th instant.

Messrs. Herbert H. Back, Henry B. Tait, and Charles F. Bailey, of St. Bartholomew's Hospital; Walter C. Dendy and Henry Blatherwick, of Guy's Hospital; Frank Hewkley and Charles Wray, of the London Hospital and Newcastle-on-Tyne Schools; William T. Crick and Charles T. Evans, of St. Thomas's Hospital; Robert H. S. Spicer, of St. Mary's Hospital; Thomas H. Pounds, of the Charing Cross Hospital.

Nine candidates were rejected.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners, on the 20th instant.

Messrs. Donald D. Day, Blackheath; John M. Nicholls, Hayle, Cornwall; Walter A. Hume, Hounslow; and James B. Rusher, Pershore, Worcestershire, students of St. Bartholomew's Hospital. William G. Evans, Sutton, Shropshire; and Horatio S. R. Sparrow, Southsea, of King's College. Hubert M. Murray, Haverstock Hill; and Albert H. Rees, Swansea, of University College. Walter Gray, Old Charlton; and Francis T. Wilkinson, Lewisham, of Guy's Hospital. Benjamin Poulton, Melbourne, Australia; Henry J. D. Innes, Barnes, S.W., of St. George's Hospital; John C. Culling, West Lydford, Somerset, of the Charing Cross Hospital; and William L. Cox, Abbey Gardens, S.W., of St. Mary's Hospital.

The half-yearly examination for the Fellowship of the College took place on the 24th instant, when the following gentlemen passed their primary or anatomical and physiological examination.

Messrs. Henry Briggs, M.D.Edin., diploma of membership of the College dated July 1877; George James Haslam Steinthall, and Alexander Fraser, M.B.Edin., students of the Manchester School; Samuel Dodd Clippingdale, M.D.Aberd., M.R.C.S., July 10th, 1875; and Basil Woodd Walker, January 26th, 1877, of the London Hospital; Robert Howell Perks and John Alfred Parry Price, B.A.Oxon., of Guy's Hospital; Frederick Bass, of St. Bartholomew's Hospital; George Jordan Lloyd, L.S.A., member November 11th, 1878, of the Birmingham School; and Charles James Pike, of University College.

Ten candidates were rejected.

The following gentlemen passed on the 25th instant.

Messrs. Frederick Eastes, E. H. Booth, and William N. Shorthouse, of Guy's Hospital; John Waddy and William Robinson, of the Newcastle-on-Tyne School; Paul F. Moline and Sidney H. C. Martin, of University College; Edgar M. Crookshank and St. Clair Thomson, of King's College; William B. Paterson and Charles A. Morton, of St. Bartholomew's Hospital; G. Sims Woodhead, of the Edinburgh School; and James O'M. McDonnell, of the Dublin and St. Thomas's Hospitals.

Seven candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 20th, 1880.

Davies, Rees Thomas Edward, Millfield Park, Aberdour.
Otway, Charles John Carrol, Kennington Park Road.
Wigg, Alfred Edgar, Adelaide, South Australia.

The following gentleman also on the same day passed his primary professional examination.

Longman, Arthur, St. Thomas's Hospital.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations of the College, held on Monday, Tuesday, Wednesday, and Thursday, May 10th, 11th, 12th, and 13th, the following candidates were successful.

For the Licences to Practise Medicine and Midwifery.—Henry Cusack, Henry Hamilton Dwyer, William Forrest, L'Estrange Isdell, Thomas Joseph O'Donnell, and Thomas Payton.

For the Licence to Practise Medicine.—Henry Lindo Ferguson, and Edward Michael Finucane.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BELGRAVE HOSPITAL FOR CHILDREN—Physician. Applications to the Honorary Secretary on or before May 30th.

BELGRAVE HOSPITAL FOR SICK CHILDREN—House-Surgeon. Stipend, £30 per annum, with board and lodging in the hospital. Applications, with testimonials, to the Honorary Secretary on or before May 30th.

*BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications, with testimonials, to the Secretary on or before June 1st.

BROOKE'S DISPENSARY, Selby, Yorkshire—Medical Officer.

CARLISLE DISPENSARY—Junior House-Surgeon. Salary, £90 per annum, with apartments, coals, gas, and attendance (not board). Applications, age, and qualifications, to the Honorary Secretary.

EAST RIDING LUNATIC ASYLUM, Beverley—Assistant Medical Officer. Salary, £100 per annum, with board, apartments, etc. Applications, with testimonials, not later than June 18th.

LIVERPOOL INFIRMARY FOR CHILDREN—Assistant House-Surgeon. Remuneration, £50 per annum.

MULLINGAR UNION—Medical Officer for Multyfarnham Dispensary District. Salary, £120 per annum, together with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on June 7th.

RATHDRUM UNION—Medical Officer for Aughrim Dispensary District. Salary, £120 per annum, £15 yearly as Medical Officer of Health, with vaccination fees. Election on the 31st Instant.

SAFFRON WALDEN UNION—Medical Officer for the 1st District. Salary, £80 per annum.

*ST. MARY'S HOSPITAL, Paddington—Assistant-Physician. Applications, with testimonials, to the Secretary on or before June 10th.

SELBY UNION—Medical Officer to the Selby District and Workhouse. Salary, £73 per annum.

SHEFFIELD GENERAL INFIRMARY—House-Surgeon. Salary, £120 per annum, with board, lodging, and washing. Applications, with testimonials, on or before May 29th.

SPILSLEY UNION—Medical Officer for the Stockney District.

SUNDERLAND UNION—Medical Officer for Bishopwearmouth East District.

TAUNTON UNION—Medical Officer to the Churchstanton District. Salary, £52 per annum. Applications, with testimonials, before May 29th.

*WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum, with residence in the Infirmary. Applications, with testimonials, to the Secretary, before June 25th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter.—Assistant Medical Officer. Salary, £100 per annum, to be increased to £120 the second year. Applications, with testimonials, not later than June 1st.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Benson, Arthur H., M.B., appointed Assistant-Surgeon to St. Mark's Ophthalmic Hospital, Dublin.

Castle, H., M.R.C.S.Eng., appointed Resident Accoucheur to St. Thomas's Hospital.

Lunn, J. R., M.R.C.S.Eng., appointed Assistant House-Physician to St. Thomas's Hospital.

Savill, T. D., M.R.C.S.Eng., appointed Assistant House-Physician to St. Thomas's Hospital.

Smith, Herbert A., M.R.C.S.Eng., L.R.C.P.Ed., L.S.A., appointed House-Surgeon of the Middlesex Hospital, *vice* W. O. Jones, resigned.

Story, John B., M.B., appointed Surgeon to St. Mark's Ophthalmic Hospital, Dublin, *vice* R. Rainsford, M.B., deceased.

Thomas, Hugh W., M.R.C.S.Eng., appointed Medical Officer to the Marston Green Cottage Homes, Birmingham.

Walters, F. R., M.R.C.S.Eng., appointed Assistant House-Surgeon to St. Thomas's Hospital.

POOR-LAW MEDICAL APPOINTMENTS.

Abbott, Richard J., M.D., appointed Medical Officer to the Bray District of the Rathdown Union, *vice* Thomas L. Whistler, M.B., resigned.

Canton, Thomas, L.K.Q.C.P.I., appointed Medical Officer to the Kilskee Dispensary District of the Kells Union, *vice* T. F. Sparrow, M.D.

*Flinn, David E., M.K.Q.C.P.I., appointed Medical Officer to the Ogley Hay District of the Lichfield Union, *vice* George H. Lilley, M.D., resigned.

Ozanne, Frederick N., M.R.C.S., appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest at Brompton, *vice* T. Crisp, M.R.C.S., whose term of office has expired.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

DEATHS.

*Hills, George, M.D., F.R.C.S.Eng., etc., at 34, Bridge Road West, Battersea, S.W., aged 73, on May 24th.

Maxwell, James, M.D., at Derrylin, Fermanagh, on May 20th.

The Queenstown Town Commissioners have granted a piece of ground at West Beach for the erection of a coffee-stand for that place.

Medical Magistrates.—Samuel Francis Hawthorne, L.R.C.P.E., of Dromore, has been placed on the Commission of the Peace for co. Down.—Mr. Wm. Hugh Hughes, surgeon, medical officer of health for the borough of Ashton-under-Lyne, has been placed on the Commission of the Peace.—The late Lord Chancellor, Earl Cairns, before resigning office, ordered the name of Mr. J. W. Teale, M.A.Oxon., F.R.C.S., to be added to the Commission of the Peace for the borough of Scarborough.

Public Health.—During last week, being the twentieth week of this year, 3,511 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 21 deaths annually in every 1,000 persons living. The annual death-rate was 22 in Edinburgh, 23 in Glasgow, and 34 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Portsmouth 14, Leicester 18, London 18, Brighton 18, Bristol 19, Hull 19, Nottingham 19, Leeds 19, Bradford 19, Birmingham 20, Oldham 21, Wolverhampton 21, Newcastle-upon-Tyne 22, Sheffield 22, Sunderland 24, Plymouth 24, Norwich 25, Manchester 27, and the highest rate was 30 both in Salford and Liverpool. The annual death-rate from the seven principal zymotic diseases averaged 2.8 per 1000 in the twenty towns, and ranged from 1.5 in Birmingham and 1.6 in Portsmouth and Leicester, to 5.8 and 6.5 in Sunderland and Salford. In London, 1,297 deaths were registered, which were so many as 181 below the average, and gave an annual death-rate of 18.5. The 1,297 deaths included 10 from small-pox, 22 from measles, 37 from scarlet fever, 5 from diphtheria, 67 from whooping-cough, 18 from different forms of fever, and 18 from diarrhœa—being altogether 177 zymotic deaths, which were 62 below the average, and were equal to an annual rate of 2.5 per 1,000. The deaths from small-pox, which had been 10 and 8 in the two preceding weeks, rose again last week to 10, of which 4 were recorded in the Metropolitan Asylum Hospitals at Fulham, Homerton, and Stockwell, and 6 in private dwelling-houses. The deaths referred to diseases of the respiratory organs, which had been 260, 280, and 286 in the three preceding weeks, declined last week to 241, and were 28 below the average; 131 were attributed to bronchitis, and 66 to pneumonia. Different forms of violence caused 60 deaths; 52 were the result of negligence or accident, including 20 from fractures and contusions, 4 from burns and scalds, 12 from drowning, and 13 of infants under one year of age from suffocation. Seven cases of suicide were registered. At Greenwich, the mean temperature of the air was 53.9°, and 0.4° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 12.6 miles per hour, which was 2.2 above the average. No rain was measured during the week. The duration of registered bright sunshine in the week was equal to 43 per cent. of its possible duration.

Tower Hamlets Dispensary.—The new building of this institution, situate in White Horse Street, Stepney, was opened on Monday by the Bishop of Bedford. After a short devotional service, the Bishop declared the building open. Resolutions were moved by Lieutenant-Colonel Holt, the treasurer, and Captain C. T. Ritchie, M.P.

Filtering Materials.—A report has just been issued giving the results of the inquiries conducted by Professor De Chaumont, of the Army Medical School, at the Royal Victoria Hospital, Netley, as to the relative efficacy of materials used in filters. The object was to ascertain what materials were most suited for use by the Admiralty and the War Office. Animal charcoal, carferal (a mixture of carbon, iron, and alumina), silicated carbon, and spongy iron were tested in several series of experiments, and the data obtained are given in many columns of figures. Out of the fifteen series of experiments carferal came out first in thirteen and silicated carbon in two. The adoption of carferal was recommended, though the exact proportions of the mixture were not decided upon.

The Dumfries Lunacy Board have elected Sir Alexander Jardine, Bart., of Applegarth, to be Chairman of the Board.

Wareham.—Dr. Stainthorpe having only assumed the duties of medical officer of health last October, his report for 1879 is necessarily brief; but he seems to have begun work in good earnest, and a long list of matters that he has already brought before his authority is given in the report. During the year, there were 348 births and 199 deaths registered in the district, the latter being at the satisfactorily low rate of 15.3 per 1000. Of the 199 deaths, 30 were due to consumption, and 39 to bronchitis and pneumonia. None of the zymotic diseases appear to have been prevalent; but three deaths were ascribed to typhoid fever, and one to diphtheria.

Rupture of Heart from Indirect Violence.—At a recent meeting of the New York Pathological Society (*New York Medical Record*, May 8th) Dr. Finnell presented a heart removed from a negro, nineteen years of age, who fell from a third-storey window, striking upon the side-walk. The injuries inflicted were—fracture of the fourth, fifth, and sixth ribs of the right side, fracture of the left clavicle and right elbow; rupture of the liver, and a laceration of the right ventricle of the heart, two inches in length, and extending up to the root of the pulmonary artery. Death was instantaneous. The pericardium was filled with blood.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY........	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. Chalmers, Dr. Galabin, and others. Papers: Dr. Charles Carter, "Two Cases of Extra-uterine Fœtation, with results"; Dr. Graily Hewitt, "Report on sixty-seven Cases of Uterine Distortion or Displacement, treated during seven years at All Saints' Institution".—Epidemiological Society of London, 8 P.M. Annual General Meeting. Paper: Surgeon-General C. R. Francis, M.D., "Endemic Plague in India".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

RESIDENT MENTAL PATIENTS.

SIR,—I would be glad if any of the members having resident mental patients could inform me as to—1. The duties of the attendant generally; 2. His usual salary. I may say my patient is easily managed. Can I sue a husband separated from his wife for attendance on the latter? The husband has put the usual notice in the papers about not being liable for any debts incurred by his wife.—Yours obediently,

May 15th, 1880. M.B.

*** The general duty of a person who receives a single lunatic for profit under certificates is to detain him under care and treatment. It is not needful to specify all that is implied by this phrase. The statutory duty is to forward a copy of the certificates and order to the Commissioners in Lunacy within twenty-four hours of the patient's reception. The person who receives the patient is not the medical attendant, whose important duties under the statute are quite distinct. The payment varies from less than one hundred pounds a year to more than two thousand a year; but the amount which it is right and honest to charge may be computed without much difficulty, by a fair estimate of what might be charged to a sane person for the board and lodging afforded, and adding thereto a reasonable charge for the trouble and responsibility involved in the care and treatment of the particular case. There can be no possibility of framing a hard-and-fast rule for the value of services which vary from such as require the whole time and energy of a person of special skill in the management of the insane to the merest supervision of a person quite unskilled.

"M.B." can sue a husband for necessaries supplied to his wife; but whether care and treatment supplied to a mental patient who is easily managed are necessaries, is a question upon which it is impossible to foretell the opinion of a jury.

SINGULAR CASE.

SIR,—I shall feel obliged by your inserting the following outline of a case in your JOURNAL, as I never had a similar one under my observation before, and I should like to be informed by some of your readers whether they would be inclined to look upon its nature as that of metastasis from the parotid gland to the pancreas.

I was called to see a delicate-looking fair-complexioned boy, aged four, in a family the children of which were recovering from mumps, and my young patient's parotid glands were slightly enlarged, but I was informed were more so the day before. He complained of abdominal pain and tenesmus; temperature in axilla 101° F.; pulse small and frequent. Two days afterwards, vomiting and diarrhœa set in, and nothing would remain on the stomach. The tenesmus continued, and he had severe pain, with tenderness on pressure, over the position of the pancreas. Collapse set in, and he died on the seventh day after he came under my care. The brain and testicles remained quite free from disease all through. No *post mortem* examination was permitted.—Yours truly, J. P. DOYLE, L.R.C.S.I. & L.K.Q.C.P.I.

72, Lower Mount Street, Dublin, May 22nd, 1880.

HOSPITAL FLOORING.

SIR,—I should be exceedingly obliged to any of your readers who would favour me with any information respecting the most suitable flooring for a hospital, and also for answers to the following questions.

1. The name of any hospital paved with cement; stating the kind of cement used, as White's, Keene's, etc.
2. Their opinion of a cement floor for hospital purposes, the face of which rapidly wears off, leaving the floors rough, porous, and absorbent.
3. Are there any means (if so, what are they?) which will render such a floor as above mentioned fit for hospital purposes?—I am, yours faithfully, F.R.C.S.

ANIMAL VACCINATION.

DR. VINTRAS, Physician to the French Hospital, has placed at our disposal the remaining copies of a pamphlet on *Some Advantages of Animal Vaccination for the Prevention of Small-Pox*, which he published in 1871. Any of our readers desiring to possess a copy can have one on forwarding a stamp for postal transmission.

TITLES OF RESIDENT MEDICAL OFFICERS OF HOSPITALS.

SIR,—In the JOURNAL for May 8th, I see the following announcement: "Davies, A. Mercer, L.S.A., appointed House-Physician to the Westminster Hospital, *vice* Seaton G. Hamilton, M.R.C.S." The names are not of any importance, as the gentlemen mentioned are not, of course, responsible for the terms used by the Hospital. What I wish to call attention to, is the fact of the title House-Physician being conferred on a L.S.A., and previously on a M.R.C.S. In these days of doubt and controversy as to the correct application of the titles of medical men, it does not tend to elucidate matters if the hospitals, to which we look for guidance, use Apothecary, Surgeon, and Physician, as convertible terms. I should be glad to know if there be any reasonable explanation for the conferring of this brevet rank.—I am, sir, faithfully yours, A. E. B.

London, W., May 25th, 1880.

TREATMENT OF UTERINE HÆMORRHAGE.

SIR,—I have read with much pleasure the remarks of Dr. Pollard on the subject of Hæmorrhage in the Puerperal State. He remarks that in a case of Dr. Brisbane's, life would have been preserved had he had some perchloride with him. I have, during the last seven years, carried to every case, as a matter of routine, a syringe and long uterine pipe, with some solid perchloride ready for mixing with a pint of water, and am pursuaded that, in three cases, my patients owed their lives to its use, and would have bled to death during the time occupied in sending for some.

I should imagine our instrument makers could invent a syringe already charged for use, thus saving the space occupied by the bottle and bag, the inconvenience of carrying which often prevents practitioners from taking the perchloride to cases, when it is so rarely wanted.—Yours obediently, FRANK SMITH.

Plumstead, May 4th, 1880.

Notice to Advertisers. — Advertisements for insertion in the British Medical Journal should be forwarded direct to the Publishing Office, 161, Strand, London, addressed to Mr. Fowke, not later than *Thursday*, Twelve o'clock.

Physicians and Patients.

Sir,—Both for the dignity of the profession, and the eventual good and moral training of the patient, I consider that the consultant should in all cases communicate with the ordinary medical attendant, whether the consultant be chosen by the patient with or without his approval. This is the only way in which the running about for promiscuous medical advice can possibly be restrained. It is as necessary for us to teach our patients how to behave as to secure the best and most successful treatment for their maladies, if we wish to make our profession what it ought to be.

I never think of receiving a patient under my care until I have ascertained all the previous course and treatment of the case; and if I find the patient is still under some one's supervision, I should not think of treating him continuously, except in concert with his former attendant. This is the only way in which we can behave fairly to one another or to our patients.

Differences of opinion are chiefly created by the patients themselves, or imply the keeping back of some essential part in the history of the case. To ignore the value of independent opinions is foolish; to assume omniscience is delusive.

If we do not behave fairly to one another, we damage our professional status and the estimation in which the public should hold us.—Yours faithfully,

Canterbury, May 25th, 1880. T. Whitehead Reid.

Tricycles.

Sir,—In answer to the inquiries of "An Irish Surgeon", I beg leave to recommend the "Salvo", manufactured by Starley of Coventry. He should procure it as high in the driving wheels as possible—fifty-two or fifty-four inches—for a high wheel is much easier to work; and, if possible, get the guiding wheel of a greater diameter than usually manufactured. My idea is to have the guiding wheel twenty-four inches high; for as at present manufactured, eighteen inches, it seems to have to make so many revolutions that a great deal of your available force seems to be lost. I am well pleased with the "Salvo" in other respects, both as to speed and as to the control which you have over it; but I am sure that if these suggestions as to the wheels were carried out, the labour of working it would be much less. I would also recommend anyone who takes to riding it to either wear knickerbockers or a short legging coming up half-way to the knee. There is no doubt that, from the beginning of March onwards to perhaps the end of November, the "Salvo" is available for transporting the practitioner; but from that time on till early spring, the roads are so heavy with metal that, even in the event of there being no snow, the labour of driving it is more than an ordinary constitution can stand. For the practitioner in a country district should not be too much tired bodily, for what with nightwork, etc., his is a most fatiguing life. When there is snow on the ground, I found that the "Salvo" would not go at all; and even a slight coating of hoar frost is sufficient to retard it considerably.

In conclusion, after having had one in my possession for nearly a year, I find that it is not suited for a district even moderately hilly. Where the roads are good, and the gradients slight, it is a means of locomotion which can be depended on entirely for nine months in the year. However, if my views as to the wheels were carried out, it might be better for hills. Still, after now having ridden it for some time, I find even a slight rise affect the wind considerably, although, like most other things, "practice makes perfection". One can ascend a gradient such as the Mound in Edinburgh going towards the Assembly Hall, after practice; yet it is hard work, and I am now obliged to confess that the "Salvo" does not come up to my first views of its usefulness and adaptability to country practice.—Yours, etc.,

Dunse, N.B., May 15th, 1880. J. A. Erskine Stuart.

Pain in a Toe.

Sir,—If "M.D." will apply tincture of iodine to the toe, and recommend his patient to abstain from all stimulants, at the same time using a vegetable diet, I have no fear but he will affect a cure. I speak from experience.—Yours truly,

Baltasound, Shetland, May 13th, 1880. D. J. Rutherford, M.D.

The Liverpool Lock Hospital.

Sir,—In a very interesting account of the Liverpool Voluntary Hospital for Enthetic diseases in the Journal of May 15th, the medical officer of that institution deplores the fact that, whilst the male wards are constantly full, the female wards are often nearly empty. Perhaps a suggestion or two from one who has had some experience of such hospitals may be permitted.

I think, then, that one reason why female lock wards are often so empty is, that the disease, which it is their object to cure and prevent the spread of, is often of little apparent gravity. Women suffer but little, frequently, from gonorrhœa, or true syphilitic sores, or from the secondary contagious lesions, which are the chief means by which that redoubtable contagion is spread. It is otherwise with the soft sore. That gives considerable pain, and hence it is only the very poorest and most careless of men and women who neglect to have that contagion cured. My experience, in the Rescue Society's Lock Hospital, is, that young women will often remain many months in hospital, if only they have a prospect of getting into service when cured, and taught housework and other female occupations during their stay.

But I confess to having a very strong feeling that the communication of true syphilis, by any person who knows himself or herself to be affected by it, is such a heinous attack against the well-being of the party infected, that I cannot understand why the giving of that disease by either a man or woman should not be punished by fine and imprisonment, when it is voluntary. If such a law were in vogue, and were carried into effect once in a hundred times, we should not, I believe, need to complain of the emptiness of our wards in voluntary lock hospitals.—I am, sir, your obedient servant, C. R. Drysdale, M.D.

17, Woburn Place, W.C., May 19th, 1880.

P.S.—Such a law might conciliate all parties. It would punish the real malefactors of either sex, whilst it would not be open to the reproach that it encouraged the practice of prostitution by the State, or that it was partial.

Water Filter might apply to the Spongy Iron Filter Company, 505, Oxford Street. No. 1 filter, price 30s. would probably answer his purpose.

Extraction of Cataract in Madeira.

Sir,—I have just heard that my friend Dr. Frank, who now practises at Cannes in the winter, was in Madeira in 1863, and then extracted a cataract from a native lady.—Yours truly, T. Spencer Wells.

3, Upper Grosvenor Street, W., May 25th, 1880.

Notices of Births, Marriages, Deaths, and Appointments, intended for insertion in the British Medical Journal, should arrive at the Office not later than 10 A.M. on Thursday.

Combination Anæsthetic.

Sir,—I had no intention of troubling you regarding priority of use of the combination anæsthetic nitrous oxide and ethidene dichloride, had not the statement been repeated by Mr. Bailey in the Journal of May 15th, that the exhibition of this compound was no novelty when I introduced it to the notice of the Odonto-Chirurgical Society of Scotland. I was quite content to accept Mr. Clover's statement that he had been using it for some time previously to the date of my communication to the Odonto-Chirurgical Society, and I did not set great store of merit on the fact whether he or I was the first in point of date, so long as it was acknowledged that the use of such a compound was an independent act, free of any knowledge that it was used by anyone prior to my published statement. But Mr. Bailey's reiteration, implying, as it does, that not only was it in use, but that I was controverting Mr. Clover's claim to priority of use, demands a few words of reply and explanation.

The ethidene dichloride I used singly as an anæsthetic so far back as April and May 1879, but soon discontinued its use, as I could not see that it possessed advantages sufficient to displace the older servant chloroform. A case, however, came under my care early in the present year which required a more prolonged operation than the anæsthetic duration of nitrous oxide would permit; and as chloroform was strongly objected to, I was set a-thinking how to overcome the difficulty which presented itself. Gas and ether I was familiar with, but had no confidence in its powers to solve the problem. Remembering the many good qualities of ethidene dichloride, I resolved to try it in combination with the gas. The result was successful beyond expectation, and has since then been equally successful in all cases where exhibited.

If there be any honour going in connection with the combination anæsthetic, I think I am justly entitled to claim equal shares with Mr. Clover. Mr. Bailey seems to admit that, so far as he is concerned, he did not conceive the anæsthetic, but only learned its use from Mr. Clover; while I gave birth to the idea, put the same in practice, and gave publicity to the fact, unwitting that any other had been experimenting in the same direction. This is all the more curious, as both Mr. Clover and Mr. Bailey hold public appointments as anæsthetists, and are members of a society closely allied to one appointment, and have easy access to the pages of the professional journals, and yet, having these facilities, they did not think it worth while to make known to the profession the possession of such a boon, until you gave publicity to the excerpt from the *Transactions* of the Odonto-Chirurgical Society.

Regarding the relative merits of the mode of exhibition, that is a matter upon which we may most pleasantly agree to differ until a more extended trial has been given to both.—Yours truly, W. Bowman Macleod.

43, George Square, Edinburgh.

Vectis.—1. Under the circumstances stated, Dr. G. has clearly no claim for fees after the date of the letter in which he was informed that his further attendance could be dispensed with. 2. As stated, no blame attaches to Mr. J., except that, in our opinion, he ought to have absolutely declined to make the examination, except in the presence of the practitioners who were in attendance, and with whom he was practically in consultation. Any other condition was improper and inadmissible, and should have been rejected. 3. Whether the fee be charged separately or jointly must be a matter of mutual agreement; there is no rule applicable.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Western Morning News; The Glasgow Herald; The Manchester Guardian; The Yorkshire Post; The Leeds Mercury; The Cork Constitution; The Coventry Herald; The British Guiana Royal Gazette; The Ceylon Observer; The Wigan Observer; The Peterborough and Huntingdonshire Standard; The Sussex Daily News; The Liverpool Mercury; The Banffshire Journal; The Newport and Market Drayton Advertiser; The North Wales Guardian; The Sheffield Daily Telegraph; The Wexford Independent; etc.

⁂ We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. A. Ransome, Bowdon; Dr. Thin, London; Dr. Sawyer, Birmingham; Mr. G. Meadows, Hastings; Mr. H. R. Vachell, Llandaff; Dr. Gillespie, London; Dr. Fairlie Clarke, Southborough; Mr. Eastes, London; Dr. Allen Sturge, London; Our Edinburgh Correspondent; Our Paris Correspondent; Our Glasgow Correspondent; Mr. A. B. Myers, London; Mr. W. H. Hughes, Ashton-under-Lyne; Dr. D. Mackenzie, Glossop; Dr. Nedley, Dublin; Mr. J. Mann, Glasgow; Dr. Alderson, London; Dr. S. Rees Philipps, Exeter; Dr. Joseph Rogers, London; Mr. R. D. Fox, Manchester; Mr. N. Dobson, Clifton; Dr. W. Thomson, Spa; Dr. Russell, Birmingham; Mr. J. P. Doyle, Dublin; Mr. W. D. Hemming, Bournemouth; Mr. J. E. Burton, Liverpool; Mr. H. Smith, London; Mr. W. L. Dickinson, Workington; Dr. James Thompson, Leamington; Mr. G. Rickards, Ross; Mr. J. Morley, Portsmouth; Dr. D. Foulis, Glasgow; Mr. J. S. Wood, Chelsea; Mr. F. G. Hanbury, London; Dr. Godson, London; Mr. H. W. Thomas, Birmingham; Our Dublin Correspondent; Mr. J. W. Teale, Scarborough; Dr. E. Seguin, New York; Dr. W. A. Hollis, Isle of Wight; Mr. A. E. Barrett, London; Dr. Aitken, Rome; Mr. C. Spurway, Cheltenham; Dr. J. H. Gordon, Salisbury; Mr. Spencer Wells, London; Dr. A. Grant, London; Dr. A. Perigal, New Barnet; Dr. C. M. Durrant, Ipswich; Mr. T. Whitehead Reid, Canterbury; Mr. R. J. Orton, Llanelly; Mr. A. P. Watkins, Worcester; Dr. J. B. Gill, Canterbury; Mr. A. Coleman, London; Mr. F. W. Lowndes, Liverpool; Mr. W. A. Hunt, Yeovil; Mr. Rushton Parker, Liverpool; etc.

BOOKS, ETC., RECEIVED.

Antiseptic Surgery. By W. Mac Cormac, M.A., F.R.C.S.E. & I. London: Smith, Elder, and Co. 1880.

REMARKS

ON THE EMPLOYMENT OF DOUBLE EXTENSION IN CASES OF DISEASE AND INJURIES OF THE SPINE AND PELVIC JOINTS.*

By JOHN WOOD, F.R.S.,
Professor of Clinical Surgery, King's College; Senior Surgeon to King's College Hospital; President of the Metropolitan Counties Branch; etc.

THE usefulness of the principle of extension in diseases of the joints, and especially those of the lower extremities, is so generally recognised by surgical authorities at the present time, that anything more than a summary of the benefits derived from it would be superfluous for our present purpose. First may be mentioned the important requirement of absolute rest to the joint and articular bones, which is fulfilled by its use. The muscles which act on the joint and bones are thereby prevented from acting in the starts and spasms which are the usual concomitants of joint-disease, especially when affecting the cartilages and ligaments. Secondly, the pressure on the joint-surfaces produced by the tonic contraction of the muscles is relieved, or almost entirely prevented, so that the vascular system of the diseased or inflamed parts is placed under circumstances most favourable for recovery, and local congestions produced by the unequalised pressure are relieved. Thirdly, the action of the muscles, which tend to produce displacement of the natural position of the bones composing the joint, is counteracted by the direction given to the extension. Lastly, the tension which flexion produces in most joints upon the synovial membrane and the soft parts around is removed, and the irritation of the sensory and trophic nerves by the progress of the disease is diminished to the utmost possible extent. No further proof of the efficacy of the method is needed than the cessation or diminution of pain which results in a few hours after the skilful and judicious application of extension. This is notably exemplified in the treatment of disease of the spine by the suspension or Sayre's method. In most cases, the patient expresses a sense of relief from the local pain and aching while being suspended by the head and shoulders; and the more efficiently this extension is kept up afterwards, the more persistent benefit is, in this respect, experienced.

I have long been in the habit of treating *hip-joint disease* by extension by Gurdon Buck's plan of the stirrup applied by adhesive plaister; the counter-extension being obtained by raising the foot of the patient's bed upon two bricks or wooden blocks, so as to bring into play the centre of gravity of the patient's trunk, acting on the reversed inclined plane, in a direction opposite to the extending weights attached to the leg. I had for some time observed, however, the disadvantage resulting from the one-sided action of the extending force in causing or increasing the obliquity of the pelvis, and, through it, acting unequally upon the muscles and ligaments of the spine. In my efforts to obliterate the forward lumbar curve, which is the invariable result of ordinary coxalgia or hip-joint disease, I found that, by the use of the bed-sheet fastened to the bedstead across the abdomen, the antero-posterior curve (caused by the contraction of the psoas muscle) frequently became a lateral curve from the action of this muscle on the affected side, exaggerated by the effacement of the antero-posterior curve. Again, in those cases in which elongation of the limb with abduction at the hip was present, with depression of the pelvis on the affected side, the effect of extension was only to increase this deformity, and to baffle the observations as to the comparative length of the two limbs. The one-sided extension acted on the spine and pelvic joints like traction on one arm of a balance, quite disturbing the equilibrium and intensifying the abnormal deformity. These considerations had before weighed with me in observing the effect of the use of the long Desault's or Liston's splint, where the one-sided action is very imperfectly modified by the use of the perineal band, which, in my experience, is very rarely effective until its tension becomes unbearably irksome to the patient. The use of a jean slop, to fit on to the opposite hip and thigh, as recommended by the late Sir W. Fergusson, is better; but is difficult to adjust and keep in adjustment, is irksome to the patient, and liable to be much soiled by the use of the bed-pan, etc.

I thereupon began to use double extension, by applying equal weights to each limb, so as to balance the pull on each side of the spine. I soon found that when the muscles of the spine, pelvis, and legs were thus placed *in equilibrio*, the patient was made much more comfortable, remained more quietly in position, and could, if necessary, bear even more absolute weight with comfort.

I begin (in a child under ten years) with a weight of two pounds to each foot, the weights being of lead made for the purpose, of the shape of steelyard weights, and provided with hooks above to fasten to the loop of bandage which is attached to the centre of the sole board.

The weights were then gradually increased by a pound a week, until *the limit of easy endurance* by the patient was reached. At this point it remained during the treatment. I soon found that the forward lumbar curve became much more manageable and sooner obliterated; and I believe that the duration of treatment was thereby sensibly shortened, and the patient throve better and fed better under the effects of increased comfort. Of course, in an older patient more weight will be borne easily; but I seldom exceed the limits of twelve to fifteen pounds in hip cases.

Although much greater weights than these are spoken of as common in surgical books, even as much as fifty pounds, or even double, in cases of fractured leg or thigh in the muscular adult male applied to one limb, I believe, from my experience of double extension in spinal, pelvic, and hip disease, that, used in this form, much less force is required, and especially in cases of coxalgia. It is not so much the amount of the actual pull which we require in such cases, as to ease off the pressure upon the diseased surfaces. This is, of course, limited by the resisting power of the ligaments of the joint, and may easily be made to do harm rather than good, by increasing the tension in the front part of the capsule of the joint, which MM. Martin and Collineau believe to be the main cause of the abduction of the limb met with in certain cases.

What I look for in double extension are the steadying of muscular action and the prevention of spasm, combined with an equal downward and constant pull, tending to relieve the diseased joint-surfaces, and to remove muscular and atmospheric intra-articular pressure. The whole of these indications tend to the attainment of that physiological rest which is a powerful (if not the most powerful) remedial agent in the treatment of joint-disease.

By keeping the pelvis horizontal to the spine, the various tendencies of the limb to become abducted at one time and adducted at another are quietly, constantly and persistently, and soothingly, checked and regulated by a counteracting influence ever present and always acting in the same direction and extent. The method allows perfect comfort and cleanliness to the patient, and all that requires watching is the effect of the strapping upon the heel and ankle. This point of extension may at each dressing be shifted upwards, and I have frequently employed it at the knee or calf, instead of the ankle and foot, either by adhesive plaister or soft broad leglets and straps. The treatment should be continued so long as the patient's health bears the confinement to bed, and then an apparatus to fix the joint in a straight position and which allows his moving about should be substituted. Of these, one of the best is Thomas's splint; but a cheaper, and, when carefully applied, an efficient, substitute may be found in a plaster-of-Paris or silicate of potash spica bandage, or a cast of leather or millboard, which, when stiffened and dried, may be cut so as to make a movable splint for the hip and thigh.

Another class of cases to which the system of double extension is of great value is that in which the sacro-iliac joint is affected with disease. Although those cases are not so common, yet, during the last few years, have had many under my care.

The early symptoms are apt to be mistaken for those of hip-joint disease. There is the same kind of limping and dragging of the limb, with apparent elongation on the affected side, from sympathetic paralysis of the gluteus maximus, pyriformis, and psoas muscles. This gives rise to a certain degree of obliteration of the fold of the nates, and there is the same deterioration of the general health. In most cases, spasm of the psoas muscle produces a similar tendency to flexion and eversion of the limb that we see in hip-joint disease, and the same effect in exaggerating the forward lumbar curve is observable.

Now here the effect of unilateral extension of the affected limb is undoubtedly injurious, by increasing the elongation of the affected side already produced by the disease. Moreover, the conformation of the pelvic girdle or double arch is such that a one-sided traction, operating through the arch which forms the segment of the circle on the opposite side, goes far to counteract the beneficial result aimed at in relieving the pressure upon the surface of the diseased joint, and strains and deranges the mechanical equilibrium of the pelvic girdle. The application of the perineal band as the point of counter-extension is, of course, in such cases useless and even injurious; useless, because it is placed on the same side of the diseased joint as the extension; and injurious, because of its pressure in front on the abdominal viscera in the false pelvis, and behind on the posterior supra-iliac spine. Now, in the place of making extension upon both legs which is here advocated, the point of counter-extension is placed in the centre of gravity of the trunk opposite the extremity of the ensiform cartilage, and this inertia or weight of the trunk is brought to bear by raising the bed-foot upon blocks of wood or bricks. These I have frequently supplemented by shoulder-straps, with axillary pads fixed to the rail at the head of the bed, with the addition sometimes of a chin-strap having the same attachment. These I have used, however, more frequently in cases of spinal disease or injury higher up in the trunk, thereby shifting upwards the point of counter-extension.

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* Read before the South London District of the Metropolitan Counties Branch.

In cases of disease of the upper lumbar or lower dorsal vertebra, or their joints, I believe that I have secured considerable benefit to the patient by the adoption of double extension, combined with aspiration of the abscesses which form, frequently leaving persistent sinuses, which usually go on from bad to worse, and too often cause despair to the surgeon, and inevitable death to the patient. In such cases, persistent extension in the recumbent posture has, as far as I know, not been hitherto tried by the surgeon. Of course, this method, in order to produce any good whatever, and in fact not to produce harm, must be applied equally to both legs. The system introduced by Professor Sayre attempts to effect a certain amount of extension as a continuation of the effects of suspension by the head and shoulders; but my experience of this method (undoubtedly the best hitherto adopted in supporting the trunk by lateral pressure, and modifying, if not altogether preventing, horizontal and lateral motion) does not lead me to think that any appreciable amount of longitudinal extension is kept up. It certainly does not answer well in those severe cases in which the recumbent posture is absolutely necessary in the treatment. The amount of the weight applied to the legs in the cases I have treated has not been great, sufficient only to give relief, and not to cause discomfort to the patient. Relief it certainly does give in the great majority of cases; and it does so, I believe, by protecting the diseased surfaces from the pressure produced by the contraction (spasmodic or otherwise) of the powerful spinal muscles, which are affected just as the muscles are which act upon the joints of the extremities, and produce the startings of the limb with which surgeons are familiar. We thus insure as great an amount of physiological rest to the diseased spinal structures as the problem before us will permit.

Lastly, the brief limits of my design permit me to mention only another class of cases, to which I have applied, I believe, for the first time, double extension to the legs. In a case of fracture of the lower lumbar vertebræ, produced by a fall from a great height, and attended by complete paraplegia, I placed the patient on a water-bed, raised the foot of the bedstead on two blocks of wood eight inches deep, and applied gradually as much weight to the legs, by two of Buck's stirrups, as the patient could bear comfortably. The idea was, as in the cases of diseased spine, to take off from the fractured surfaces, by continued persistent and gentle extension, the pressure of the powerful longitudinal muscles of the spine, and to ensure as far as possible the apposition and rectilinear direction of the fragments of the broken spine itself. If we consider the effect of the simplest movements of the head and arms upon the spinal structures, and not less the effect of the movement of the ribs in coughing, sneezing, and even in ordinary respiration when the trunk is in the recumbent posture, or when we are floating in water, it will not be difficult to understand how this gentle and persistent extension acts on these structures when injured. The use of a water-bed does not prevent it; nay, in spite of its advantages in other respects, such as the prevention of bed-sores, and in the use of the bed-pan, the movement of the fractured surfaces upon each other is necessarily increased by the rolling and billowy motion of the water consequent upon the least effort of the patient, and produced even by the mere effort of respiration. Now, combined with the water-bed (so necessary in the treatment of these cases), we can very easily employ the system of double extension which I have advocated, and thus counteract to the utmost possible extent the injurious movement that I have mentioned. Again, in these cases there is always a tendency for the pelvis and buttocks to sink into the water-support, and thus to give a bend or curve to the trunk at the point of fracture. This is in a great measure counteracted by the extension, in the vertical direction of the body, by the action of the weights and pulleys. Double extension in such circumstances produces much the same effect as horizontal traction upon the body of the swimmer who is being taught to float by his instructors, by traction upon his head and legs.

I have found that patients express themselves as comfortable under its action, and I feel sure that, when properly and judiciously applied, double extension mitigates suffering and places the patient, as far as mechanical measures can, in a position most favourable for recovery.

CERTAIN VARIETIES OF CARDIAC NEUROSIS.*

By THOMAS HAYDEN, F.K.Q.C.P.I.,
Physician to the Mater Misericordiæ Hospital, Dublin.

THE interest connected with cardiac neurosis appertains chiefly to its diagnosis and its etiology. The diagnosis must be made upon evidence partly negative and partly positive; whilst the cause of the affection will be determined by the personal history, and by an acquaintance with the special influence upon the heart of certain agents—medicinal, dietetic, and moral.

The term "neurosis" as applied to the heart is not strictly synonymous with "nervous palpitation"; the latter implies excessive action of the heart, permanent or recurrent; whilst "neurosis" means nervous derangement, and therefore includes every kind of simple disorder of function of the organ. It corresponds to the now discarded title of "functional disease of the heart".

The various causes of neurosis of the heart are anæmia, hysteria, hypochondriasis, dyspepsia, the gouty diathesis, debility from exhausting disease, rapid growth, or the excessive use of mercury, exhaustion from physical labour and protracted anxiety combined, intestinal worms, excessive mental strain and anxiety, worry and loss of sleep, shock, masturbation, the abuse of tea or tobacco, and the habitual use of opium in large quantity. To the last mentioned seven causes only I propose directing attention in this paper.

Under these heads, since the early part of last year, I have noted twenty-eight cases, viz.: hard study and anxiety, 2; worry of business and loss of sleep, 4; mental shock, 1; sexual abuse, 3; excessive use of strong tea, 4; excessive use of tobacco, 2; habitual use of opium, 1; sexual abuse, tea and tobacco, 3; sexual abuse and tea, 3; sexual abuse and tobacco, 2; abuse of tea and tobacco, 1; want of exercise and hypochondriasis, 1; fatiguing exercise and hypochondriasis, 1; in all, 28.

The ages of the patients ranged from fifteen to forty years; seven were under twenty years, fourteen between twenty and thirty years, and seven from thirty to forty years inclusive. Twenty-three were males, and five females. The average age of the males was a little over twenty-five years, and that of the females slightly over twenty-four. None of these patients were treated in hospital; they all belonged to the middle and upper middle classes, and several of them were students.

The general symptoms were a fear or a "certainty" of the existence of "disease of the heart", and an apprehension of sudden death; a feeling of stoppage of the heart's action; sharp pain at the heart; the sounds of the heart audible to the patient in bed; apprehension of loss of reason; a feeling of prostration, sinking, and as if "going to die"; flushing; sudden "jumping" of the heart, with pain in the head and tinnitus; fits of nervous palpitation and dyspnœa occurring frequently in bed, and starting out of sleep; a sensation on standing up as of "fluid rushing to the head"; "tension" of the head; chills; mydriasis; flatulence; abrupt or hammering impulse of the heart; præcordial thrill; local arterial throbbing; venous hum in the neck; small and rapid pulse.

The symptoms and signs of special significance were great and sudden variation in the rate of the pulse, without irregularity, in the sitting or recumbent posture; absence of palpitation and dyspnœa from physical exertion; a metallic or ringing quality in the sounds of the heart; reduplication or prolongation of the first sound, or a faint bellows-murmur accompanying it; reduplication of the second sound.

I have elsewhere described, under the title of "rhythmical irregularity", sudden changes in the rate of the heart's action from emotional influence, as especially characteristic of cardiac neurosis (*vide Diseases of the Heart and Aorta*, page 160). In several of the cases appended to this paper, examples of the phenomenon in question will be found. The rate of the pulse, whilst the patient is at rest in the sitting or the recumbent posture, may undergo sudden and repeated changes in the course of one minute, varying from six to ten beats within four consecutive periods of five seconds. The changes are abrupt, but the pulsation in each series is strictly rhythmical. Irregularity of the heart and pulse of this kind is especially characteristic of neural derangement from the toxic action of tea or tobacco, or from onanism; it is obviously the result of emotional disturbance of the co-ordinating function of the vagus.

To palpitation and derangement of the rhythm of the heart from these causes, Percival, Corrigan, Stokes, Walshe, Da Costa, Flint, and others, have long since directed special attention; but the derangement in question does not constitute irregularity of rhythm, such as that witnessed as a symptom of tissue-change in the heart, and should be carefully distinguished from it. Not only has physical exertion not the effect of increasing derangement of rhythm, or of inducing or aggravating palpitation and dyspnœa in the cases now under notice, as is invariably its result where structural disease of the heart exists, but the reverse; it has, when not excessive, a calmative effect upon the action of the heart and on respiration. The first sound of the heart has, in most of these cases, a sharp or metallic quality; in many, it is prolonged, and not unfrequently accompanied by a bellows-murmur. The second sound is sharp, and occasionally double.

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* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Cork, August 1879.

The foregoing varieties and modifications of sound are all, but in different degrees, symptomatic of cardio-motor irritation, and excessive energy with diminished effective force of the heart. Tonic treatment is thereby indicated, especially iron and strychnia. A double first sound is often associated with the ordinary phenomena of cardiac neurosis; but in all such cases the point of apex-pulsation is displaced outwards, affording evidence of hypertrophy, with or without dilatation, of the left ventricle. Hypertrophy in this connection is strictly dynamic, the result of excessive bodily exercise or of long-continued emotional excitement of the heart, and iron is contraindicated, unless there be likewise spanæmia, and conclusive evidence of ventricular debility and dilatation. The bromides of potassium and ammonium may be given with advantage.

The unhappy subjects of these cardiac derangements are tortured by the apprehension of organic disease of the heart and sudden death. Hence, skilled advice is sought mainly with reference to diagnosis. And indeed, in these cases, diagnosis is of more consequence than treatment; for a positive opinion as to the absence of organic disease, uttered with confidence, will go far towards curing the patient. I would not, however, be understood to convey that the diagnosis of simple cardiac neurosis is always easy of accomplishment. On the contrary, it is sometimes exceedingly difficult, especially where the patient is weak, the pulse rapid, and the subjective symptoms of an exaggerated character. If the apex of the heart be displaced outwards, and a strong impulse with a systolic thrill or murmur, or a prolonged or reduplicated first sound be present, the diagnosis will, of course, lie between dynamic and organic hypertrophy of the left ventricle on the one hand, and adynamic and organic mitral reflux upon the other. In regard to hypertrophy, the diagnosis may be confidently made by the exclusion of valvular, arterial, and renal disease, by means of the appropriate tests, which need not be here enumerated, and by the identification of other typical symptoms of cardiac neurosis. In the event of an affirmative diagnosis of simple dynamic hypertrophy, I would have no hesitation in declaring that, under suitable treatment, including complete abstention from alcohol and a well regulated regimen, the affection is curable, at least in the sense of arrest of its further progress, and I should regard the life as fairly insurable. Adynamic mitral murmur is not often associated with simple neurosis of the heart. When present, it is accompanied with pallor and other evidence of anæmia and muscular debility, to which, and not to the neural derangement, it owes its existence. Hence the frequency of its occurrence in exophthalmic goître and chorea; it is always faint, soft in quality, accompanying or succeeding, not replacing, the first sound; it is not audible at the left scapula, and is for the moment suspended or rendered inaudible by a physical effort, such as the act of assuming the sitting or the standing posture. In all these respects, or rather in the *tout ensemble* of them, as well as in the absence of pulmonary congestion and its consequences, the non-organic mitral murmur differs from that due to lesion of the mitral valve.

In reference to diagnosis, I have known grave mistakes, involving serious consequences, to have been made by well informed physicians in cases of the kind now under discussion; and, not long since, a man presenting the typical phenomena, general and special, of cardiac neurosis, but organically sound, exhibited to me a certificate of discharge from the Navy for organic disease of the heart.

The elements of differential diagnosis to which I would invite special attention, enumerated in the order of their relative importance, are: the absence of vascular congestion and dyspnœa, and of the typical signs and symptoms of valvular and renal disease; the improvement of the pulse and breathing under moderate physical exercise; sudden and repeated variations in the pulse-rate from emotional disturbance whilst the patient is under examination, with flushings and other evidence of vaso-motor erethism; sharp quality of the sounds of the heart; and a disposition on the part of the patient to exaggerate symptoms and sufferings.

In addition to what has been already incidentally mentioned, little needs to be said in regard to treatment. The withdrawal or correction of the noxious agency, whatever it may be, must be the primary object of the physician. Not unfrequently, varicose enlargement of the left spermatic veins will be found to be the immediate cause of habitual seminal emission, and remotely the origin of nervous palpitation. For this, the cold douche, regulation of the bowels, and a scrotal suspensory are the best remedies. For the rest, tonic treatment—medicinal, dietetic, and general—including iron, strychnia, digitalis, pure air, the cold bath, and active exercise, constitute the sum of treatment.

Case I.—Mr. C. C., aged 24, a medical student, some time nervous and subject to emissions, an occasional smoker, florid and healthy-looking, thought he could not sleep, and that he had an enlarged liver and disease of the heart. He was flatulent after meals. The pulse was variable in rate, irrespectively of change of posture; the tongue coated, the bowels confined, the abdomen inflated. Both sounds of the heart were clear, and double at the midsternum, so that four sounds were audible here. Of the first sound, the primary element was dull, and the second sharp and clicking, both being audible likewise at the apex. The second sound was faint, and single at the apex. I assured him that he had no organic disease, urged him to continue his studies, which he had thought of abandoning through fancied ill-health, and prescribed ten grains of bromide of potassium, with ten minims of ammoniated tincture of valerian three times a-day, an aloes and assafœtida pill at night, and tepid or cold showers.

Case II.—A gentleman, aged 31, had been subject to "emissions", and had been an inveterate smoker, but had given up the habit six months previously. He had spent four years in South America. Ten months before I saw him he experienced, whilst taking a brisk walk, a feeling of "swimming" in the head and "sudden stoppage of the heart". This feeling returned once since that date, after a fit of anger. He looked well. He was constipated. His pulse was good, but "rhythmically irregular". The cardiac sounds were normal, but at the apex a doubtful bellows-murmur accompanied the first sound. He was ordered to have five grains of bromide of potassium three times a day; to have a compound rhubarb pill with soda and hyoscyamus at night; and to take exercise.

Case III.—M. D., a large and apparently healthy farmer, aged 23, had neuralgia in the right hip and side. When seventeen years old, he contracted the habit of masturbation, which he continued up to the age of twenty. He had left varicocele and atrophy of the left testis. Pulse abrupt, and varying from 72 to 84 in the minute. The apex-pulsation was in the normal situation; the impulse "hammering", and the first sound prolonged. He was ordered bromide of potassium with ammoniated tincture of valerian, and an aperient pill; and to have a strong solution of tannic acid (100 grains to an ounce of water) brushed over the left testicle and cord every night.

Case IV.—Mr. R., aged 26, an accountant, nervous, and for some years suffering from gastric derangement and flatulence, complained of "shifting" or "gnawing" pain in the spine. His bowels were irregular; appetite and sleep satisfactory. He was robust, but anxious-looking, and disposed to magnify his symptoms. He smoked, and drank beer freely. The pulse was "rhythmically irregular", averaging about 96. The first sound of the heart was double, the first element being dull and the second sharp. He was ordered to take an aperient pill, and a mixture of nitro-hydrochloric acid, with ammoniated tincture of valerian in infusion of gentian; and to give up tobacco and beer.

Case V.—Mr. O. H., aged 16, a student, had practised "self-abuse", and taken strong tea with very little milk twice, and occasionally three times, daily. He suffered from palpitation, headache, flatulence, general debility, and a difficulty in applying himself to study. The apex-beat was half an inch inside the nipple-line; the impulse was strong, abrupt, and accompanied with thrill; both sounds were sharp. The pulse-rate varied from 84 to 108 within a few seconds. He was directed to give up tea, and to take strychnia and iron.

Case VI.—Mr. D., aged 22, law student, took strong tea twice daily. He complained of "tension" in the head, flushing, and palpitation, and also of throbbing at the inner angle of one of his eyes. The pupils were dilated, and he was "generally out of health". The pulse was throbbing, and varying in rate in the sitting posture between 96 and 120 within a few seconds. The apex of the heart pulsated half an inch inside the nipple-line; the impulse was strong and abrupt; the sounds sharp and clear. He was ordered to give up tea, and to take iron with strychnia.

Case VII.—Mr. E. C., aged 28, had never been seriously ill, but had practised "self-abuse" up to two years ago. About that time, he had a "nervous attack", and the heart beat as if it were "going to stop". He was accustomed to take strong tea twice, and often thrice, daily. He had had many such attacks since then. He heard his heart beating when he lay down, and could not lie on the left side; he felt prostration, as if he were "going to die". The heart "jumped up", and he felt sudden pain in the head, and noise in the ears. He was subject to flushings. He was not breathless on exertion. The pulse was abrupt and varying, in the sitting posture, from 84 to 110, these rates alternating within a few seconds. The sounds of the heart were sharp, and the first faintly double. He was advised to give up tea, to take active exercise and cold showers, and to have tincture of nux vomica and iron in a biter infusion.

CASE VIII.—Mrs. M. B., aged 38, a travelling *réligieuse*, had been in good health till she started on a long journey a month previously, since when, having been much worried in mind and body, and frequently deprived of her regular meals, she had taken very strong tea in large quantity, and often without much solid food. Latterly she had experienced fits of dyspnœa with palpitation, accompanied with a feeling as if she were "going to die"; these fits came on in bed. She had pain in the region of the heart; pulse small and rapid (120), but regular; heart's action excited; sounds sharp and clear. She had psoriasis guttata on the front of the chest; this had been always brought out by the free use of tea. She was ordered to have an opium plaster applied to the region of the heart, to take iron and nux vomica, and to give up the use of tea.

CASE IX.—Mr. J. O. B., aged 35, a professional man of fine *physique* and active habits, temperate in regard to alcoholic stimulants, but fond of strong tea, which he had often taken three times, but invariably twice, in the day, and indulged in a cigarette occasionally; had had rheumatism, and was nervous in regard to his heart. Two years previously, he experienced for the first time palpitation and want of breath on exertion. Latterly, these attacks had become more frequent and severe. He was occasionally awakened by anomalous sensations in the region of the heart, accompanied by palpitation and difficulty of breathing. On going up-hill he was similarly affected, but there was no thoracic or brachial pain. The pulse was 84, full and regular, but occasionally accelerated while he was under examination. The position of the apex-pulsation and the impulse of the heart were normal. The second sound was sharp at the right base. He was ordered to take strychnia, quinine, and colchicum; to be exceedingly moderate in the use of tea and tobacco, or to give them up entirely; to continue active exercise, and live on an elevated site (he had been advised by a medical man to avoid exertion and change his residence), and to take showers and cold sea-bathing.

CASE. X.—A general medical practitioner, aged about 50, accustomed to the use of strong tea, and an inveterate smoker up to eight months previously (his ordinary allowance being an ounce and a half of strong tobacco daily), when he ceased to smoke, owing to the occurrence of variation in his pulse, with occasional intermissions, and a sensation of "tightness" and oppression in the region of the heart and left side generally, was apprehensive of heart-disease. He looked healthy; his sleep and appetite were good. There was no dyspnœa on exertion; pulse 84, regular; the sounds of the heart were sharp. He was ordered to give up tea, to take shower-baths, and, thrice daily, tincture of nux vomica, iron, and spirit of nitrous ether. I saw this gentleman a year later, when he came to consult me in reference to his brother. He was then free from all his symptoms, as I judge from his silence in reference to them.

CASE XI.—Mr. B., a solicitor, aged 30, naturally nervous and anxious, had been accustomed to active exercise, which two years ago he gave up entirely. He had excessive professional work and insufficient sleep. He was "certain" he had heart-disease and must die. There was sharp pain in the region of the heart, and palpitation, but no dyspnœa or cough. The heart's action was "rhythmically irregular", varying in the sitting posture from 84 to 120. The pulse was of good volume. The second sound of the heart was double. I assured him he had not disease of the heart, and prescribed quinia and strychnia, bromide of potassium and morphia at night to ensure sleep, and aperients. A week later, he reported himself as "not nearly so nervous", and sleeping well. His pulse then varied from 84 to 96.

CASE XII.—Thomas C., aged 16½, had been addicted to "self-abuse" (but not for the last six weeks), and accustomed to drink strong tea. He had an attack of palpitation five weeks previously; then thought he was dying, and insisted on sending for a clergyman. He had not had rheumatism nor hæmoptysis. There was no dyspnœa. The pulse varied from 72 to 96. The apex-beat was half an inch inside the nipple-line. The impulse was strong and attended with thrill. The sounds (especially the first) were sharp. There was varicose enlargement of the left spermatic veins. He was ordered to take iron and strychnia and aperient pills, to have an opium plaster over the heart and an elastic scrotal bag; to give up tea.

CASE XIII.—J. H., aged 19, a medical student, had been a great smoker since he was sixteen years old, using half an ounce of strong tobacco daily. He had taken tea freely, and had been addicted to masturbation. He complained of palpitation, which was especially troublesome at night. He had visible pulsation of the arteries. Pulse abrupt, 96, but variable in rate. Whilst standing and making a forced inspiration, the pulse-rate descended to 48. A thrill was felt at the apex of the heart, which pulsated in the normal position. The impulse was strong and abrupt; the sounds sharp and clear. There was a faint systolic murmur at the base, louder at the left than at the right base, and not audible in the neck. He was ordered to have iron and strychnia, and an opiate plaster to the præcordia. A month later this gentleman returned, feeling much better. His pulse was then 84 and scarcely variable. There was a venous hum in the neck. He was ordered to have dialysed iron and digitalis.

ON AORTIC REGURGITATION AND THE CORONARY CIRCULATION.*

By T. CLIFFORD ALLBUTT, M.A., M.D., F.R.S.,
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IN the second edition of his work on *The Heart and its Diseases*, Dr. Milner Fothergill takes up and extends an opinion of Dr. Balthazar Foster concerning the relations of aortic regurgitation and the coronary circulation, which opinion seems to me to be erroneous, and to be based upon a not less erroneous conception of the theory of the circulation. Dr. Fothergill's works are so attractively written and give evidence of so much enthusiastic labour, Dr. Balthazar Foster's name again is a name which carries so much lawful weight, that I feel the more bound to protest against the opinion to which I refer, lest it should gain a credence wholly disproportionate to its truth. My two friends are so rich in achievement that they can well afford either to withdraw from an untenable position, if I prove it to be untenable; or, if I fail, to forgive my indiscretion. The subject is one on which for many years I have bestowed more or less unsuccessful pains, and the opinion I shall quote is one which, rightly or wrongly, I rejected long ago. It is expressed most distinctly on page 504 of Dr. Milner Fothergill's second edition. He says, "Aortic regurgitation is, usually, swiftly fatal, from the nutrition of the heart failing early, the blood escaping past the coronary orifices instead of eddying into the sinuses of Valsalva; indeed, Balthazar Foster has pointed, with terrible distinctness, to the effect exercised prognostically, by the fact of which aortic cusp is ruptured—if the one behind which there is no coronary artery, then the prognosis as to duration of life is better than if either of the other cusps are torn down."

Now, that aortic regurgitation is "usually swiftly fatal" is a proposition so much open to qualification as to unfit it for Dr. Fothergill's dashing and effective utterances, but it is when the author rises to the heights of melodrama that I think he is least successful. What if this terrific attitude of Dr. Foster and himself be taken up on a false footing, as I scarcely doubt that it is? Let us see exactly what Dr. Foster and his disciple mean. First, that in all cases of aortic regurgitation the blood "escapes past the coronary orifices, instead of eddying into the sinuses of Valsalva"; secondly, that this ineffective passage and its consequences are diminished if one of the cusps subtending a coronary artery persist. I think this is precisely what is meant; and it follows of necessity that these authors believe that in the normal state the coronary arteries are filled by a sort of squirting action which is incidental to the systemic circulation. Surely, to begin at the beginning, this latter proposition is based upon views of the circulation which all physicists have given up, or would give up, if they applied their present knowledge to the problem of the circulation. Nay, the opening paragraphs of Dr. Fothergill's own book led one to expect a larger view of the matter than this. I extract the following sentences, "Such a power of adaptation (to the needs of the organism) is secured by means of the beautiful nerve-adjustments through which and by which the regular rhythmic action of the heart is maintained"; again, "In order to maintain the balance of the circulation, and a steady equilibrium betwixt the bulk of blood in the arteries and in the veins, constant modifications in the heart are necessitated, including variations in the size of the ventricular chambers; and these are rendered possible by the exquisite nerve-balances amidst which the heart swings". Quite true; in the general allusive sense in which such introductory words are to be taken, nothing could be better. Then how comes Dr. Fothergill to fall from this real point of view to the clumsy notion, that in aortic regurgitation a prominent cusp acts as a shovel would act if held in a running stream? Surely the whole circulation since the time of Harvey has been regarded more and more as a "closed cell", and surely then the pressure upon given square areas of surface above and below the semilunar valves is equal, whether those valves be present and efficient, or be absent. Granting this, how can Drs. Foster and Fothergill refine upon supposed sets given to the current this way, and that as they would reason of water in a closed culvert or in a rain water pipe? Nor again, can I admit the right of the author to find in diminished tension any such explanation as he assumes. Tension does not depend upon the force of the heart-beat, but upon those nervous adaptations to which Dr. Fothergill so eloquently appeals. Moreover, were it not so, he will scarcely deny that tension is equal at any and all points say of the inner surface of the ventricle and of the aorta. This being so, how can the blood thrust itself or be thrust harder into one coronary artery than into another? The most elementary knowledge of hydrodynamics would guard us from so crude a conception as this. I do not hesitate to advance that all elaborate prognoses based upon this conception are worse than wasted.

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Once more, does Dr. Fothergill really believe that hypertrophy of a part bears an exclusive relation to the quantity of blood submitted to it? If blood be denied to the part, no doubt it must starve, but it would be too hardy an assertion to say that in aortic regurgitation the blood is shut off from access to the coronary arteries. Surely they have still the same supply that is given to any other artery in the body, and the cardiac muscle can grow still in obedience to the general laws which govern hypertrophy. We know that fatty degeneration of the heart may be detected during life, and the heart muscle nevertheless recover perfectly, if the coronary arteries be normal. Excessive arterial supply, on the other hand, cannot alone give rise to hypertrophy; so far as we know it is the *vis à fronte* not the *vis à tergo* which is herein concerned. We must look, therefore, to some causes of systolic failure in aortic regurgitation other than differential pressures at the mouths of the coronary arteries. The question is of such direct practical importance that for many years I have sought to solve it. Dr. Fothergill will, perhaps, remember that when he lived in Leeds, I showed him notes, preparations, and specimens illustrative of my views on causation of aortic arteritis and valvulitis by bodily effort acting either suddenly or very gradually. In these I frequently found the mouths of the coronary arteries lessened, and sometimes found them occluded by "atheroma".

It was thus possible in many cases to trace fatty change in the muscular tissue supplied by one coronary artery to atheromatous or embolic blocking and so to arrest of blood-supply. To prove that this cause is the only cause of asystole in aortic regurgitation would be difficult, and probably it is not the only cause: that it is a common cause of it I feel pretty confident. The compensation itself is but imperfect at best, and carries in itself no assurance of permanency. However, the purpose of my present criticisms is rather destructive than constructive. After I had committed these criticisms to paper, I consulted Dr. Stone, in order to secure myself against error. Dr. Stone wrote to me as follows on October 2nd, 1879. "Dear Dr. Allbutt,—My views would be entirely in agreement with yours. Indeed, it is quite unmechanical to suppose that the coronary arteries are filled by a 'squirting' action. Neither do I believe that hypertrophy originates in arterial action, though fatty degeneration may depend on coronary starvation. The regulating power must originate in the beautiful balance of motor and inhibitory centres which the arteries obey. Dr. Fothergill is really going back to the obsolete humorism. Dr. Ottomar Rosenbach's experiments, moreover, show conclusively that tension and propulsion, in the closed cell of the circulation, are perfectly separable factors, and that the pressure is maintained unaffected, even when the aortic or mitral valves are artificially broken down. This I worked out in my third Croonian lecture, which I am now preparing for publication."

AN INQUIRY INTO CERTAIN POINTS CONNECTED WITH ALBUMINURIA.

By ROBERT SAUNDBY, M.D.Edin.,

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RECENT observations[*] have established the frequency with which albumen appears in the urine apart from structural disease of the kidneys or any marked deterioration in the general health. It has been long known[†] that albumen is present in many grave diseases without structural renal disease or the other symptoms of Bright's disease accompanying it.

In an article published last year, on Albuminuria (*Birmingham Medical Review*, July 1879), I reviewed all these facts, and, having defined albuminuria as "the presence in the urine of a body coagulated by heat or precipitated by neutralisation", I showed that there were only two albuminous substances which are likely to be met with giving these reactions—viz., 1. Serum-albumen, and 2. Paraglobulin. I am not aware that any researches have been undertaken to show whether paraglobulin ever occurs by itself in the urine; but Edlefsen, J. C. Lehmann, and Senator found it constantly present, together with serum-albumen, in the urine of Bright's disease. The first part of my inquiry was therefore directed to settle this point.

Chemists tell us that paraglobulin is wholly precipitated from its sodium-chloride solutions by saturation with the latter salt or by carbonic acid. On my applying for information on this point to Professor Crum-Brown of Edinburgh, he wrote to Professor Hoppe-Seyler, who referred me to a paper by Hammarsten (Pflüger's *Archiv*, Band xviii, s. 38), in which magnesium-sulphate is recommended; and this method Professor Hoppe-Seyler informed Professor Crum-Brown he had found trustworthy in his own investigations on milk. In the following experiments, all these methods were used, but in many they were combined.

The method of proceeding was to test an urine for albumen by boiling and adding acetic acid, then taking a fresh portion to precipitate it, filter, and test the filtrate as before; the two test-tubes were then compared. The cases were taken as they appeared in the out-patient room, without any kind of selection, and present most of the conditions under which albuminuria occurs apart from acute disease. In all, forty-two examinations were made; two of these being of the same person in one instance only. They comprised cases which may be thus classified: Chronic Bright's disease, 5; albuminuria of adolescents, 16; epilepsy, 7; morbus cordis, 3; amenorrhœa, 3; phthisis, 3; bronchitis, 3; gastric catarrh, 1; scabies, 1. The albuminous cloud diminished after precipitation as above in a large number of these cases, and entirely disappeared in two. One of these was a case of phthisis; the other presented symptoms of dyspepsia, and has been included among the cases of albuminuria of adolescents. On subsequently examining the urine of the same case, the albuminous cloud disappeared partially only. Hence the existence of paraglobulinuria as an independent condition is certainly rare, and cannot be held to explain the frequency with which the reaction of albumen is given by the urines of adolescents and others supposed to be suffering from merely functional derangements of the renal organs.

The next point alluded to in my article already quoted is the doctrine of "food-albuminuria", originated in modern times by Parkes (*Medical Times and Gazette*, 1852, p. 357, and 1854, p. 395). He found that the albumen was increased after food in two cases of chronic Bright's disease, although it was diminished after food in a case of heart-disease. He inclined to the view that the increase after food was due to the passage of imperfectly digested albumen, analogous to that which occurs when albumen is injected into the veins, or to the albumen undergoing some modification in the digestive process, such as its conversion into an acid albuminate, by which its diffusibility would be increased.

Parkes's facts do not seem to warrant this conclusion; for, while the albumen was increased after food in the two cases of Bright's disease, it was diminished under similar circumstances in the case of heart-disease, so that it is necessary to postulate a peculiar inability to digest albumen in the former cases which did not exist in the latter. On the other hand, if we regard albuminuria as a mechanical process, resulting from increase of the lateral pressure within the vessels to such a degree as to permit transudation, we can easily understand why, in the cases of chronic Bright's disease, the stimulus to the circulation increased the albuminuria in already inflamed organs, while it diminished it in the case of heart-disease, where the transudation was due to passive engorgement of the renal capillaries and veins. But Parkes's views have been adopted by many writers. Dr. Pavy (Gulstonian Lectures, *Lancet*, 1863, p. 573) supports Parkes by giving a table of the amounts of albumen excreted before and after breakfast in six experiments, all showing a marked increase. Dr. Pavy further adopted Parkes's view that this might be due to the increased diffusibility of the urine, and supported it by showing that the albumen in some urines is highly diffusible, but did not attempt to prove that the albumen passed after food was more diffusible than that passed before food, or to indicate to what circumstances this increased diffusibility might be due.

Most physiologists deny that unchanged albumen is absorbed into the blood, and the only piece of direct evidence I know to the contrary is the statement of Brücke, that he has found coagulable albumen in the lacteals. My attention was first directed to the question whether the albumen is increased after food.

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[*] Dr. Moxon, *Guy's Hospital Reports*, third series, vol. xxiii; Dr. Dukes, BRITISH MEDICAL JOURNAL, November 30th, 1878; Dr. Morley Rooke, *ibid.*, October 19th, 1878; Dr. Lauder Brunton, *The Practitioner*, June 1877; Professor Leube, Virchow's *Archiv*, Band lxxii, Heft 2; Dr. Saundby, *Birmingham Medical Review*, October 1879; Dr. Mahomed, *Guy's Hospital Reports*, vol. xxiv; Dr. Geo. Johnson, BRITISH MEDICAL JOURNAL, December 13th, 1879.

[†] Dr. Parkes, *On the Composition of the Urine*, page 186; Dr. W. Roberts, *On Urinary and Renal Diseases*, p. 173; Dr. Quain, *The Lancet*, January 18th, 1879; Dr. Paul Fürbringer, Virchow's *Archiv*, Band lxxi, Heft 3.

The following experiments were undertaken to decide this point.

CASE.—T. B. Chronic Bright's disease with anasarca. Diet: Milk, bread and butter; fish for dinner; and one boiled egg for tea.

Experiment I.—*Before breakfast:* In bed. Urine faintly acid; 1013; contained one-third of a column of albumen.—*After breakfast;* In bed. Urine acid; 1018; two-thirds of a column of albumen.—*Before dinner:* Up. Urine acid; 1018; half a column of albumen.—*After dinner:* Up. Urine strongly acid; 1024; a whole column of albumen.

Experiment II.—*Before breakfast:* In bed. Urine 1012, faintly acid; one-third of a column of albumen.—*After breakfast:* In bed. Urine 1020, acid; two-thirds of a column of albumen.—*Before dinner:* In bed. Urine acid; 1015; half a column of albumen.—*After dinner:* In bed. Urine faintly acid; 1016; one-third of a column of albumen.

Experiment III.—*Before breakfast:* In bed. Urine 1014, faintly acid; contained half a column of albumen.—*After breakfast:* In bed. Urine acid; 1022; two-thirds of a column of albumen.—*Before dinner:* Up. Urine acid; 1020; three-fifths of a column of albumen.—*After dinner:* Up. Urine faintly acid; 1019; two-fifths of a column of albumen.

Experiment IV.—*Before breakfast:* In bed. Urine faintly acid; 1013; two-fifths of a column of albumen.—*After breakfast:* In bed. Urine 1018, acid; four-fifths of a column of albumen.—*Before dinner:* Up. Urine acid; 1021; nearly a whole column of albumen.—*After dinner:* Up. Urine faintly acid; 1022; contained nine-tenths of a column of albumen.

In all these experiments, the urine was collected for one hour before and one hour after the meals in question. If we add up these quantities, we find that the totals are:

Before breakfast	1.56 column
After ,, ...	2.8 ,,
Before dinner	2.6 ,,
After ,, ...	2.6 ,,

Thus, in spite of the assistance of exercise (except on one occasion) in augmenting the excretion of albumen at dinner-time, and in spite, too, of the more albuminous diet at that period, the after-breakfast urine is not only relatively more albuminous than that passed when fasting, but is also more albuminous than that passed after dinner.

At my request, Dr. A. H. Carter made the following valuable observation on a case of Bright's disease, under his care, in the Queen's Hospital, Birmingham. The quantitative analyses were made by Dr. C. A. MacMunn of Wolverhampton, whose competence and care are a guarantee for their accuracy. The observations were made on the 10th, 11th, 12th, and 13th of March, 1880; but, as one of the bottles was broken in transit, only three days are recorded.

Diet.—Breakfast,	5 A.M.,	two slices bread and butter, with tea.
Lunch,	10 A.M.,	,, ,, ,, milk, 1 pt.
Dinner,	1 P.M.,	cooked meat 4 ozs., potatoes 8 ozs., bread and water.
Tea,	6 P.M.,	same as breakfast.
Supper,	7 P.M.,	milk half-pint.

Exercise.—Walking exercise twice daily for half-an-hour, at 12.30 and 2.30 P.M.

Date.	Period.	Quantity of Urine.	Albumen in 40 ccms.	Total Albumen.
March 10......	7 P.M. to 5 A.M.	1620 cc.	.008 grms.	.1296 grm.
,, ...	5 A.M. to 1 P.M.	150 cc.	.016 ,,	.06 ,,
,, ...	1 P.M. to 5 P.M.	180 cc.	.01 ,,	.045 ,,
,, ...	5 P.M. to 7 P.M.	120 cc.	.008 ,,	.024 ,,
,, 12......	7 P.M. to 5 A.M.	870 cc.	.0069 ,,	.1479 ,,
,, ...	5 A.M. to 1 P.M.	180 cc.	.017 ,,	.0756 ,,
,, ...	1 P.M. to 5 P.M.	180 cc.	.0141 ,,	.0630 ,,
,, ...	5 P.M. to 7 P.M.	150 cc.	.009 ,,	.0330 ,,
,, 13......	7 P.M. to 5 A.M.	1410 cc.	.0155 ,,	.5358 ,,
,, ...	5 A.M. to 1 P.M.	180 cc.	.020 ,,	.090 ,,
,, ...	1 P.M. to 5 P.M.	180 cc.	.0166 ,,	.0738 ,,
,, ...	5 P.M. to 7 P.M.	120 cc.	.015 ,,	.0444 ,,

On each day, the relatively greatest quantity of albumen was secreted between breakfast and dinner. The quantity each day fell as the day advanced, in spite of the meat eaten at dinner and the exercise taken in the afternoon. The total quantity of albumen excreted rose steadily under the influence of meat diet, being three times greater on the fourth day than on the first.

This supports the opinion expressed by Dr. Moxon, that in cases of intermittent albuminuria the after-breakfast urine is most likely to contain albumen. It corroborates Dr. Pavy's facts, but weakens his inference, as it shows that the amount of albumen does not depend upon the quality of the food so much as on the period of the day. In illustration of the last observation, it is worth while calling to mind the well known researches of Dr. Edward Smith* on the diurnal variations of the vital processes. He showed that the pulse, respiration, and urea excretion were each influenced to a much greater degree by breakfast than by any other meal, and that the maximum of all these vital processes occurred at this period of the day, although the food taken at dinner was much more nitrogenous.

These facts are opposed to the view that nitrogenous food increases albuminuria, by passing with the urine as unassimilated albumen. They prove that the maximum albuminuria occurs in that period of the twenty-four hours in which the whole of the excretory functional activities are also at their maximum; and the inference is permissible, that the increased albuminuria depends immediately upon the increased functional activity of the kidney during that period.

This relation of albuminuria to a particular period of the day has never before been carefully investigated; and the want of acquaintance with it explains the incorrect conclusions of Parkes and Pavy.

These observations are not opposed to the conclusions of Drs. Sparks and Mitchell Bruce (*Medico-Chirurgical Transactions*, vol. lxii); there can be no doubt of the general influence of nitrogenous food in increasing albuminuria, but they suggest the probability that this relation depends upon the increase of urea, that is, the increase of the physiological stimulus to the kidney, and they show that this effect is greatest at that period of the day in which the renal functions are most easily excited.

The next point was to determine whether the albumen passed after food diffused more readily than that passed before food. In considering this question, it must be borne in mind that acid albumen diffuses readily, and, as is well known, the urine passed during digestion is usually of higher specific gravity and more acid than that passed at other times. The septum used was vegetable parchment; and the time allowed was twenty-four hours in each case.

The following experiments were made on the urine of the same case.

Experiment I.—*Before breakfast:* In bed. Urine faintly acid; one-third of a column of albumen; no albumen in diffusate.—*After breakfast:* In bed. Urine acid; four-fifths of a column of albumen; a trace of albumen in diffusate.

Experiment II.—*Before breakfast:* In bed. Urine neutral; a trace of albumen in diffusate.—*After breakfast:* In bed. Urine acid; a trace in diffusate.

Experiment III.—*Before breakfast:* In bed. Urine faintly acid; one-third of a column of albumen; a faint trace in diffusate.—*After breakfast:* In bed. Urine acid; two-thirds of a column; a trace in diffusate.

Experiment IV.—*Before breakfast:* In bed. Urine faintly acid; one-third of a column of albumen; a trace in diffusate.—*After breakfast:* In bed. Urine acid; two-thirds of a column of albumen; a trace in diffusate.

Experiment V.—*Before dinner:* Up. Urine neutral; a distinct cloud in diffusate.—*After dinner:* Up. Urine acid; a distinct cloud in diffusate, but less than before dinner.

Experiment VI.—*Before dinner:* Up. Urine acid; half a column of albumen; a cloud in diffusate.—*After dinner:* Up. Urine strongly acid; a whole column of albumen; a dense cloud in diffusate.

Experiment VII.—*Before dinner:* Up. Urine acid; half a column of albumen; a faint trace in diffusate.—*After dinner:* Up. Urine faintly acid; one-third of a column of albumen; a faint trace in diffusate.

In two urines, marked neutral, albumen is stated to have diffused; this may possibly be accounted for by an acid fermentation having taken place. As a rule, the albumen appeared to diffuse in proportion to the acidity of the urine. The diffusate bore no relation to the quantity of albumen present in the urine.

Finally, as it might be presumed that the albumen met with frequently in dyspepsia and other functional derangements might be a modified form of albuminuria, I submitted the albuminous urines of twenty-one out-patients to diffusion, and found albumen in the diffusates of nineteen. There was no special frequency in any particular class of case, but diffusion to a moderate extent was plainly the rule. In one case, the diffused albumen disappeared after precipitation by magnesium sulphate. The twenty-one cases comprised six cases of chronic Bright's disease, in all of which diffusion occurred; one of subacute nephritis, diffused; eight of albuminuria of adolescents, of which only one did not diffuse; phthisis, one; morbus cordis, one; epilepsy, one; rheumatism, one; scabies, one; eczema, one, no diffusate.

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* *Health and Disease.* By Edward Smith, M.D., etc. London: 1861. Pp. 27-48.

These observations appear to me to be opposed to the doctrine, that albuminuria is ever due to the transudation of a modified or more easily diffusible form of albumen.

I have shown that the coagulation temperature, as determined by Dr. Lauder Brunton (*St. Bartholomew's Hospital Reports*, vol. xiii) and Mr. D'Arcy Power, cannot be relied upon to afford any distinction between different forms of albumen, if such there be, as it depends upon the quantity of albumen and salts present. "The urine of a case of subacute nephritis, pale, faintly acid, specific gravity 1008, showed signs of coagulation when the thermometer, with its bulb immersed below the surface of the urine, marked 112° Fahr. Coagulation was looked for by the side of the bulb. The urine contained three-fourths of a column of albumen. Diluted five times, the coagulation point rose to 120° Fahr.; diluted ten times, to 130° Fahr.; twenty times, to 145° Fahr.; forty times, to 170° Fahr.; eighty times, to 180° Fahr. The same quantity of fluid and the same apparatus were used on each occasion."*

These facts appear to warrant the following conclusions.

1. The body present in urine which is coagulated by heat or precipitated by neutralisation is almost invariably serum-albumen, rarely paraglobulin.

2. The presence of paraglobulin alone in the urine is still somewhat obscure, and has not been correlated with any clinical group of cases.

3. The maximum amount of albumen excreted by the kidneys is during the after-breakfast period, and this relation is maintained in spite of the more albuminous character of the midday meal.

4. While there can be no doubt that nitrogenous diet increases albuminuria, this is not due to the absorption of undigested albumen, but to the increase of nitrogenous excreta, and the consequent stimulus to the usual functions.

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* *Birmingham Medical Review*, 1879, p. 227.

CASES OF SYSTEMIC ARTERIAL AND PULMONARY EMBOLISM.

By W. VAWDREY LUSH, M.D., M.R.C.P.,
Physician to the Dorset County Hospital.

Case I. *Embolism into the Right Axillary, Left Brachial, and Right Middle Cerebral Arteries: Recovery.*—In December 1873, I saw in consultation a gentleman forty-six years of age. He had had varicose veins for some time, and was then suffering from an inflamed condition of the external saphena vein of his left leg. Subsequently, the right leg became similarly affected. In both, the pain, tenderness, and swelling gradually subsided, and the patient, being apparently convalescent, was left to the care of his usual medical adviser. His pulse was then 68. He was in no pain. His tongue was clean. But, although alkaline remedies had been administered, his urine after his dinner still remained turbid and acid.

On the evening of December 24th, the patient was sitting up in bed rubbing his left leg, the one which had been first affected, when he felt pain in his cardiac region, followed by some difficulty of breathing. His medical attendant was sent for, and examined his heart, also his lungs anteriorly and posteriorly, but could detect no morbid sound; but the pulse had risen from 68 to 98 in the minute. This increased frequency continued for two days. On each day, the patient sat up in his room.

About half-past seven in the evening of December 26th, he was carried by his wife and son from his chair across the room to his bed, supporting himself with his arms round their necks. He stated that, as they laid him on the bed, he felt a little palpitation, then slight giddiness, and then lost the use of both his arms. I saw him with his medical attendant at 10 o'clock. There was no pulse to be felt in either wrist; there was none in either brachial artery; there was none in the right axilla; but pulsation could be felt below the right clavicle, and also in the left axilla and in both carotids. The patient was perfectly conscious; he had no difficulty of breathing. He said he did not feel very ill, but complained of most severe pain in his right arm. There was no loss of motor power. He perspired freely. At one time, neither cardiac pulsation could be felt, nor cardiac sounds heard, but the patient revived on being laid down and given some brandy and water. The pain in the right arm continued for some hours, and then gradually subsided. The passage of an induced galvanic current through the arm seemed to afford relief. He was given five grains of carbonate of ammonia and ten drops of laudanum with some ether every two hours.

At 8.30 the following morning, the patient was free from pain, except at the tips of the fingers of the right hand. He was quite conscious and composed, and related explicitly the circumstances of his attack. He had slept about twenty minutes. At 9.45, the patient appeared faint, and a twitch of the face was noticed. His voice, which had been hitherto clear, became muffled. He was partly comatose. The pulse in the temporal arteries was 84. Respiration was somewhat stertorous, 16.

December 28th. The tongue was pointing decidedly to the left when protruded. The cardiac pulsations were 92; respiration 16. He was taking nourishment well.

December 29th. The cardiac pulsations were 96; respiration 16; temperature 100°. Feeble pulsation was felt in the left radial artery.

December 30th. There appeared to be complete paralysis of the left arm and leg. The tongue still pointed to the left. Hearing was more acute than natural.

December 31st. Pulsation was felt in the right axilla; also in the left wrist.

January 1st, 1874. The pulse counted in the left radial was 84; the heart's pulsations were 84.

January 3rd. The pulse was felt in both wrists.

January 4th. There was perhaps slight movement in the left leg. On the 18th, he flexed it.

From this time, he gradually recovered. Upwards of five years have elapsed, and he is still living, can walk with the aid of a stick, has some power in the left arm, and is able to attend to his business and other duties.

I do not think there can be any doubt that this patient was attacked with arterial embolism. In my opinion, a thrombus had formed in the left auricle or left ventricle, had passed up into the aorta and divided, one portion passing into the right subclavian artery and another into the left, lodging in the one case below the clavicle, and in the other below the axilla. The next day, a portion of this clot was shot into the right carotid, passed into the right middle cerebral, and was followed by left hemiplegia. Eventually, the circulation became re-established, and there was partial recovery from the paralysis, that in the leg being as usual much more complete than that in the arm.

What was the cause of this blood-clotting? I believe, the excessively fibrinous or gouty condition of the blood. We know how prone gouty persons are to attacks of phlebitis; and throughout this patient's illness, his urine, in spite of alkaline remedies, was acid and deposited lithates.

Some who have heard of this case have supposed that the dislodgment of a clot from the veins of the leg would account for the symptoms; but a moment's reflection would show that such a clot would not pass through the pulmonary circulation to the left side of the heart, and be of sufficient size to block an axillary artery. In my opinion, the clot formed in the heart itself, and was thence carried into the arteries.

This case may be contrasted with that of a lady who no doubt suffered from three attacks of pulmonary embolism.

Case II. *Three Attacks of Pulmonary Embolism in One Individual: Recovery.*—Some years ago, I was summoned to London to a near relative, who was dangerously ill. This lady, fifty years of age, had for some time suffered from profuse menorrhagia, associated with an uterine tumour, probably of a fibroid character, and she had had some swelling of her left thigh and leg. One day, just after a profuse catamenial period, she was attacked with pain in the chest, which became intense; her lips and nails became blue; she was apparently dying. On my arrival, she was somewhat better, but her pulse was rapid. There were most painful attacks of dyspnœa, the patient being obliged to sit up in bed, thirsting for air, as Trousseau describes it. This continued night and day; there was phlegmasia dolens of the left leg, which was swollen to a frightful extent. The patient's sufferings were most intense. During nine days and nights, she only once obtained two hours' consecutive sleep. Opium was of no avail, and a dose of chloral-hydrate caused her to leap out of bed.

At first, auscultation revealed nothing; but, on the seventh day, a pleural friction-sound was detected on the left side. She was then seen by my good friend and teacher Dr. James Andrew of St. Bartholomew's Hospital, who diagnosed embolism of one of the branches of the pulmonary artery. At his suggestion, five-minim doses of tincture of digitalis were given, and the patient was supplied with abundance of fruit, so as to lessen the liability to coagulation of the blood. The correctness of the diagnosis will be proved by the sequel. Finding opiates of no avail, I totally discontinued them, and sleep followed.

The phlegmasia of the right leg gradually subsided, and then the left became similarly affected. At length, the patient recovered sufficiently to be wheeled on a chair into an adjoining room, where she lay on a couch and went to sleep. In the evening, she was wheeled back to her bed; and, not wishing to disturb her attendant, endeavoured to get into bed herself, giving her leg a jerk in doing so. Immediately, she was seized with a recurrence of her old formidable symptoms, gasping for breath, her pulse 140 and upwards, rapid respirations, blueness of the nails and lips. This fight for life continued for hours, when she fell asleep apparently from exhaustion, and gradually the distress subsided; and the leg, which had been so swollen, rapidly returned to nearly its normal dimensions.

At that time, there was no repetition of the evil; but, fourteen months afterwards, the patient, who had continued to suffer from her pelvic troubles, awoke from sleep with a third recurrence. This attack, which was sufficiently alarming, but not so severe as the former, lasted for about eighteen hours; and, at a venture, I tried a hypodermic injection of morphia, which appeared decidedly beneficial. Gradually the distress subsided, and there was never another attack.

To summarise: in the case of systemic arterial embolism, we had immediate cessation of the pulse in both brachial and radial arteries, without any orthopnœa, distress of breathing or lividity, but tendency to death by syncope and, later on, hemiplegia. In the case of pulmonary embolism, we had urgent dyspnœa and orthopnœa, the thirst for air of Trousseau, rapid pulse, lividity, and tendency to death by asphyxia.

In conclusion, I would add that, although but too frequently the physician has to deplore that his practice is a "meditation upon death", still recoveries from such grave cases as I have narrated call upon us to persevere and take courage.

NOTES OF A CASE OF RHEUMATIC PERICARDITIS, WITH TETANY.

By W. BEATTIE-SMITH, F.R.C.S.E.,
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THE patient who forms the subject of these "Notes" exhibits features of more than ordinary interest, inasmuch as the affection termed tetany is one not often met with, or at least one which is seldom noted by authors. So far as I can make out, no English writer has described this interesting condition of spasms, almost idiopathic in nature. The subject has been treated of by French authors under varying titles; at one time being called "intermittent tetanus," and at others "idiopathic muscular spasm", "contraction of the extremities", and "idiopathic paralysis with contraction". Trousseau, one of the chief writers hitherto on this point, was at first in the habit of calling it "rheumatic contraction of nerves", but soon gave up that description for one first applied by Corvisart in 1852—viz., *tetany*.

The first mention of the disease in the many authors at my command is that by Dance, in 1831, in the shape of a memoir, entitled "Observations sur une Espèce de Tétanos Intermittent," to be found in the *Archives Générales de Médecine* of that year. It would appear from those writers, particularly Trousseau, that the puerperal and menstrual periods, as also the conditions diarrhœa and rheumatism, were states favourable to the accession of those interesting muscular spasms, though nothing definite is known of the pathology.

With a view to the eliciting of further information, through the medium of the Association's JOURNAL, on this most interesting complication of commonly recurring conditions, I shall detail a few facts ascertained by me in my case, which has been under careful notice since Nov. 28th, 1878.

The patient, E. H., aged 13 years, residing at Stockton-on-Tees, first came under my notice on the above-mentioned date, suffering from pericarditis, with effusion and aortic insufficiency. The symptoms were: pains over the cardiac region, extending over the left shoulder to the scapula and down arm to the finger-tips; tumultuous heart's action, irregular pulse, dyspnœa, inability to lie on the left side; anxious expression, and tendency to syncope. On auscultation, a distinct to-and-fro friction-murmur was to be heard all over the cardiac area; and on percussion, which was most painful, dulness was found to exist over an enlarged area, the extent of which, however, was not ascertainable, owing to the agony caused by manipulation of the left chest. The previous history tells us that the little patient had rheumatic fever two years and six months ago, with which she was confined to bed for five weeks, and on recovery her friends were informed by their then medical attendant that "*her heart was affected*." Four days before I was called in, she had pains resembling subacute rheumatism from the description given me; the reason I was sent for being the presence of intense pain over the cardiac region, and the accession of spasmodic contractions of thumb and fingers of the left hand on the palm. Not knowing what to make of those spasms, I merely treated the case as if they did not exist; that is, at the first; as shortly I had no doubt in my own mind as to the nature of the contractions, attributing them, as I did, to the condition termed tetany, carefully eliminating any symptoms of hysteria and epilepsy. The progress of these spasms was most interesting; the thumb and fingers of the left hand being first affected, then those of the right similarly, the thumbs being forcibly adducted, and the fingers tightly overlapping them. Next, the toes of the right, and then of the left foot were flexed, and the heels somewhat retracted; and on December 9th the condition was, the fingers and thumbs flexed on the palms, the hands on the forearms, and these on the upper arms; the toes flexed, the heels retracted, the legs flexed on the thighs, and a semi-lateral decubitus to the right. Several attacks occurred to-day, lasting for about ten minutes each time, the contractions being forcibly relaxed.

This state of matters obtained off and on, with varying intermissions as regards time, up to January 20th, when the spasms ceased until the 31st, at which time she had three slight attacks, but without contractions. From this time up to February 23rd she had several minor spasms, but on this day she was very ill, having had a series of spasms during her sleep, though being only partially roused. Blueness was observable round the mouth, and extending from the alæ nasi over the cheeks; there was intense cardiac oppression. Up to this time, she has been much better, though not clear of spasms.

The treatment throughout was applied in accordance with the rheumatic condition which obtained, with its consequent cardiac complications and albuminuria, with the result that the patient is now able to do some light household work and take exercise in the open air. I think there can be no doubt but that the rheumatic affection in this instance was the cause of the spasms, there being nothing else to be found at all likely to account for them. There have been no attempts at menstruation.

May 30th, 1880. Her condition is much the same generally. There is a well-marked mitral systolic murmur.

ON APOPLEXY OF THE LUNG FROM CARDIAC DISEASE.

By W. R. THOMAS, M.D., M.R.C.P.,
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I SEND the following cases for publication, as they may be interesting to the readers of the JOURNAL.

The first is a case of bronchitis, with apoplexy of the lung, occurring in consequence of a fatty and much dilated condition of the heart; the other is an example of the same accident arising from mitral-valve disease.

I was sent for by A. B., aged 43, by trade a roller, on June 3rd, 1874. He was a stout well-built man, who had evidently indulged freely in eating and drinking all his life. He had never ailed much before, except from slight attacks of hepatic derangement brought on by drinking too heavily. He was now suffering from great difficulty of breathing and severe cough. He complained of a sense of tightness across his chest. The expectoration was frequent and great in quantity, principally of a mucous character; the pulse was 95 per minute, very weak, almost imperceptible; the tongue was foul; his appetite poor, and bowels costive. The urine was high, of specific gravity 1021, acid, small in quantity; no albumen. The liver was slightly enlarged. There were no head-symptoms, but slight general anasarca. Bronchial *râles* could be heard all over the chest; there was no dulness. The sounds of the heart were hardly audible; its impulse was exceedingly weak. The arcus senilis was evident. On June 8th, his cough was much worse, and he now brought up a large quantity of blood. On examination, I found the lower third of the right lung quite dull in front; and on the following day the lower two-thirds was dull, and respiration was quite bronchial. Bronchial *râles* could be heard as before in the upper third and the whole of the left lung. The pulse was 85, exceedingly weak. The heart-sounds were hardly to be heard, and the impulse was scarcely perceptible. Respiration was difficult and frequent. The skin was moist. He continued to cough up blood every day, and to become weaker. On June 10th, his pulse rose to 120. Breathing became more difficult. The skin became dry; its temperature rose to 103°. He still continued to cough up blood, which was now accompanied by rusty sputum. On June 13th, he died.

On making a *post mortem* examination, I found the heart very much dilated; the walls were exceedingly thick, and the whole organ had undergone fatty degeneration. There was not any valvular disease. The left lung was comparatively healthy, but congested and slightly œdematous. The right lung was large, of a dark colour generally. The upper third was very œdematous. Certain portions of the middle and lower lobes were quite solid and dark, perfectly airless, and blood could be scraped from the surface. In one part of the lower lobe could be seen a portion of hepatised lung. The localised pneumonia was no doubt produced by the clot acting as a foreign body. There was not a trace of tubercular or other deposit to be found in either lung. There was general anasarca.

On February 15th, 1872, I attended a young woman aged 23, who had suffered, when about fifteen years of age, from a severe attack of rheumatic fever with endocarditis. This had left behind chronic mitral regurgitant disease, in consequence of which she had also suffered ever since from chronic bronchitis, which was always worse in winter. She now had a serious attack of hæmoptysis, brought on by nursing a baby. The cough was severe. The quantity of blood brought up was great. The pulse was exceedingly weak, about 95 per minute. There was a loud systolic mitral murmur to be heard, and the lower part of the left lung was dull. The cough, difficulty of breathing, and expectoration of blood continued, and on the nineteenth day the patient died.

On examining the heart, both tongues of the mitral valve were thickened and irregular. The left heart was dilated and hypertrophied. Both lungs were dark and slightly œdematous; the left lower lobe was solid, in some parts almost black; the tubes were filled with blood, and pieces of the lung sank in water. The other organs were healthy.

The first patient suffered from bronchitis; but this was aggravated by the much dilated, flabby, and degenerated heart, which could not with sufficient force pump the blood onward from the left ventricle, and thereby produced engorgement of both lungs, the blood-vessels of which had no doubt undergone fatty changes, and were ready at any time, if the patient underwent severe exertion, to give way. Again, in the lower part of the right lung, a clot acted as a foreign body, and set up inflammation all around. The commencement of inflammatory action was no doubt coincident with the sudden increase of the heat and rising of the pulse. Here we see the necessity there is for us, after lung-hæmorrhage, carefully to watch the pulse and temperature daily, which will surely indicate the setting up of inflammatory action, the products of which, combined with the clot, are apt, by mutual pressure, ultimately to end in destructive caseation and formation of a cavity.

In the second case, the hæmorrhage was no doubt predisposed to, not by a weakened state of the heart, but by the leakage through the mitral opening. The sudden hæmorrhage was immediately produced by severe exertion; but the tendency thereto was present before. The pulmonary, unlike other veins, being destitute of valves, readily permit of regurgitation into the lung in cases of mitral-valve disease; hence the engorgement is chronic; and the walls of the blood-vessels, owing to the pressure upon them produced by the within contained blood, become weak and more apt to give way when there is the slightest exertion undergone by the patient

THERAPEUTIC NOTES, WITH ESPECIAL REFERENCE TO THE TREATMENT OF PHTHISIS BY CHLORIDE OF CALCIUM.*

By JAMES SAWYER, M.D.Lond., M.R.C.P.,
Physician to the Queen's Hospital, and Professor of Materia Medica and Therapeutics in the Queen's College, Birmingham.

A GREAT deal of the art of therapeutics as it is practised amongst us is unwritten. We are sometimes shy about telling what we do for our patients, because we have not courage to brave the risk of being thought common-place. Useful as are our meetings, I believe their profit would be much increased if members would more frequently bring forward and compare their therapeutic experiences. Those of us who are in earnest and who believe that therapeutic art—an art which includes, but is much more than, the administration of combinations of the materia medica—can powerfully modify morbid processes and can powerfully aid the *vis medicatrix naturæ*, and who think of what we do, have done, have not done, and shall do for our patients, must be constantly arriving at conclusions, as the result of observation in our own practices, which modify, confirm, correct, extend or suggest extensions of what I may call our therapeutic conduct. These conclusions may not be able to bear the test of an exhaustive logical scrutiny; perhaps they are no less true, perhaps they are not more true, than John Wesley's belief that sulphur did his rheumatism good (Wesley was probably right in his opinion, notwithstanding the ridicule of Mill, and that grand logician's brilliant exposition of the strict logical limitations of a therapeutic inference); but if these conclusions, which we must be constantly forming for ourselves, are accepted by each of us as reasonable and responsible men as guides to our therapeutic action, they are as worthy of communication to our brethren, and I believe they are as interesting to them as the inspection of a rare case with striking objective manifestions, the demonstration of a pathological specimen, the description of a new operation, the exhibition of an ingenious instrument, or an elaboration of surgical statistics.

Have we a remedy for phthisis? We now know that the term chronic pulmonary phthisis includes a variety of pathological conditions and a variety of textural lesions in the lungs which have long been recognised as distinct, which recent research has done much to unravel, and about which we may still expect to learn more. We know the differing clinical and pathological courses of tubercular phthisis, unresolved lobar pneumonia, chronic catarrhal lobular pneumonia, and pulmonary cirrhosis. All these are included in the generic name phthisis. When I say have we a remedy for phthisis? I mean, have we a remedy for this allied group of conditions, due to varying pathological changes, but marked in common by progressive wasting of the body, by progressing asthenia, by progressing diminution of respiratory capacity, and by fever of a hectic type. Every case of phthisis requires special study, and can be treated by no rule-of-thumb practice because it is phthisis. In one case anæmia is prominent and calls for iron, perhaps for arsenic; in another, continued but small hæmoptysis calls for ergot or hamamelis; in another, a racking and frequent cough calls for opium, morphia, or codeia; in another, dyspepsia calls for alkalies or acids, or bitters, or pepsine; in another, nervous unrest calls for bromides; in another, laryngeal troubles call for special local medication; in another, we have to aim at controlling excessive sweating or checking an exhausting diarrhœa. Apart from these and other particulars, I suppose we are all agreed that cod-liver oil, given alone, or variously combined with other agents which tend to promote its assimilation, as with ether, as suggested by Dr. Foster, stands at the head of remedies calculated to promote the general nutrition of the phthisical. Have we any other general remedy? For a long time I trusted to syrup of the iodide of iron. This I gave up for a mixture of hypophosphites and iron—five grains of hypophosphite of lime, ten grains of hypophosphite of soda, and fifteen minims of syrup of the phosphate of iron, for a dose. This is a good combination, and I still use it. But chloride of calcium is my favourite drug. I have used it for some years in hospital and private practice, and I believe with great advantage. Perhaps you will say, Do you give it alone? I do not. I give it with cod-liver oil, or with cod-liver oil emulsion, or with morphia, or with ergot; but my general impression is, *quantum valeat*, that I get better results with chloride of calcium with these combinations than I do with anything else in the same combinations. My attention was called to the value of chloride of calcium in phthisis by a paper in one of our medical journals, wherein it was stated that the drug was much used by the late Dr. Warburton Begbie. Scarcely mentioned, if noticed at all, in books on drugs, chloride of calcium has an old repute for the cure of strumous glandular swellings. In phthisis, I give ten grains dissolved in a drachm of water and mixed with a drachm of glycerine, in a wine-glassful of milk twice daily, immediately after meals. I think it tends to check night-sweats, to cause increase of weight, and to dry up pulmonary lesions. Of course I do not maintain it does these things in all cases. What I have stated are general conclusions, open, I am aware, to objection on the ground of their insufficient logical basis, but conclusions which have been and are for me grounds of therapeutic conduct. In prescribing chloride of calcium, we must be careful to write the name of the drug distinctly and in full, in order to avoid an error from which one of my patients suffered, namely, the substitution of "chloride of lime".

ON CHAIR-SUPPORTS IN SPINAL CURVATURES.*

By CHARLES STEELE, F.R.C.S.,
Late Senior Surgeon of the Bristol Royal Infirmary, Clifton.

WHEN Dr. Sayre brought before the profession in England his method of treating spinal curvatures, I was strongly impressed with the value of the principles which he enunciated. My appreciation of the sound and practical character of the system has been deepened by a careful study of his valuable works, and also by the success which, in several cases in my practice, has attended the adoption of his plan of first setting (if I may use the term) the diseased or displaced bones, and then keeping them in place with closely fitting and firm splints, which secures to the invalid the power of maintaining the erect position, and the remedial benefits of exercise and fresh air.

The plaster-of-Paris bandages, which alone were available for this purpose at first, I still use where close adjustment is requisite; but latterly I have been glad to avail myself of the advantages of dryness, lightness, and power of removal at will, which are afforded by Cocking's felt jackets.

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* Abstract of a paper read before the Birmingham and Midland Counties Branch.

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cork, August 1879.

I have, however, had to deal with some cases in which, from particular circumstances, the firm and constant support of jackets could not be borne; and with others in which, by early diagnosis and treatment, though they are suitable, their use may be avoided. And it is because I feel sure that many other surgeons must meet with similar cases, and have to devise means for their individual relief, that I venture to bring before this meeting a simple appliance which has proved itself capable of doing good service and of affording much comfort. It is that of adding to an ordinary easy or folding chair, supports for the axillæ, for every patient, and, where needed, a long rod to carry crossbar and straps to support the head also.

The first patient who led me to think of this appliance was a lady, aged 58, a sufferer for several years from increasing lateral curvature, which she had endeavoured, but in vain, to control by wearing an ordinary iron support. She complained principally of severe pain in her right iliac region, caused, I found, by the lower ribs, with every movement, rubbing against the crest of the ilium. When raised by towels passed under the arms, the bones were liberated and the pain was relieved. She could not bear a plaster-of-Paris jacket, and I had axilla-rests fitted to the easy chair which she constantly used. She gladly availed herself of them, and derived so much benefit that she was able to take moderate out-door exercise, and improved in appetite, condition, and appearance. I have adopted the same means in other cases of somewhat similar nature, and with happy results.

In incipient angular curvature, I have found both the axilla-rests and the head-support of great service; and, in illustration of this statement, I will ask your kind attention while I detail the case of the young gentleman to whom the chair now before you belongs.

Master L——, aged 15, came under my care in October 1877. His family history was good; the only fact which could be questioned being that he had lost an uncle by lung-disease, of six months' duration, immediately following a blow on his chest from a cricket-ball. He was a youth of active disposition, fond, as he expressed himself, of jumping from heights and dropping from trees and other eminences. In 1874, in letting himself down from a bank eight feet or more high, he pitched perpendicularly on his head on a soft grassy bank. In the autumn of 1875, after rowing, he complained of severe headaches accompanied by great flushings, and preceded by pain in his neck; and, though he did not mention it till lately, the first thing he noticed wrong was a hot feeling between his shoulders. The same winter he walked three miles to and from skating, and had one severe fall flat on his back, but he thought his head got the worst of that. The headaches and flushings increased, with pallor and exhaustion, so that he lay down during the evenings. His back ached continually; he showed great excitability and general weakness, and was obliged to give up all study for a year, and spend his time lying down flat. He ate but little, slept badly, and had a perpetual cough and deafness. A year's rest did him good, and in 1877 he came to Clifton, and attended an excellent school as day boy, walking slowly a short distance to and from where he resided. He was able to sit up at school, but lay down directly he reached home, and spent his evening on his back, learning his lessons in that position. The slightest fatigue brought on his dreadful headaches, and all the time he patiently endured a hot burning pain in his back.

I saw him in October 1877 on account of a severe sore-throat (the cause of his deafness), and soon heard of his headaches, loss of appetite, cough, which was of a grunting character, and induced by going upstairs or other movement, and asthmatic breathing. He stooped. When I examined his back, I found marked tenderness upon percussion on the first, second, and third dorsal vertebræ, and also slight tenderness in the upper lumbar vertebræ. In both situations he suffered pain, but much more in the upper. Pressure on his head or shoulders intensified the pain, as also did dropping him on his heels when raised from the ground, and pressure laterally on the upper ribs; while raising him by his elbows resting on my hands, or raising him by his head, gave great relief. I subsequently examined his spine with a test-tube containing hot water; this could be borne everywhere except in the parts mentioned, and there acute pain was produced; while a test-tube containing ice and water gave relief in the tender parts. I enjoined strict avoidance of all exercise save the slow walk to and from school, and the prone position all the time he was at home, and prescribed a damp compress covered with oil-silk to the dorsal and lumbar vertebræ, and the syrup of lactophosphate of lime and iron internally. He improved a little for a time, and then began to lose ground. I explained to his aunt, with whom he lived, that he ought to wear a plaster-jacket with a jury-mast. But she asked if I could not suggest a simpler substitute. To prove my assertion, I suspended him with the proper apparatus, directing him to express exactly the feelings he experienced from it. Directly his heels left the ground, he said, "Now that pain is quite gone from my back"; and when I let him down again, and his feet touched, he said, "Now that pain is come back again". I thought of a long curved iron rod to carry crossbar and head-straps, together with axilla supports to be added to his own folding chair; and his upholsterer fitted them. He immediately took to the chair, finding great comfort from its use, and sitting in it every minute he could during the day. All his symptoms improved forthwith, and, what is very remarkable, from the first day he used it he never had an attack of asthma. His headaches lessened, and for some time he has not had one. Last Christmas, he shot rabbits without any ill result. A few weeks ago, he went for his school outing several miles in a break, and did not suffer at all, though formerly any carriage exercise did him great harm. I lately examined his spine carefully, and could find nothing amiss; and now he is gratifying his long-felt heart's desire to become a doctor, by studying to pass the preliminary examination for the Fellowship of the Royal College of Surgeons of England.

I feel I am justified in saying that this was a case of slow inflammation of the upper dorsal vertebræ; that recovery by resolution has been brought about by the simple and unobservable use of this chair, which has at the same time allowed of the application of a local remedy, which has given comfort and been of service.

The chair explains itself. The points to be observed in constructing one are, that the axilla supports are long enough, slightly curved upwards, narrow, padded well above, and fixed to the wooden frame of the chair at exactly the same distance apart as the patient's axillæ are, and at such a height as to support the patient off the seat; the amount of support being easily regulated by the use of cushions. The strong curved iron rod for the head-support must be long enough to clear the head well, and notched on its upper surface in three places, that the ring of the crossbar may be moved at convenience. The chair is more comfortable when in use if the patient's legs are supported either on a leg-rest or on another chair.

This chair was fitted by Mr. Baker, of Messrs. Laverton, upholsterers, Bristol. The crossbar and head-straps are Mayer and Meltzer's; and the photograph, which shows all the construction, was taken by Mr. Guttenburg of Bristol.

CIRRHOSIS OF THE LIVER IN AN INFANT THREE MONTHS OLD.

By THOMAS OLIVER, M.D.,

Physician to the Newcastle-upon-Tyne Infirmary.

On November 13th, 1878, Mrs. M., a well-formed but somewhat cachectic-looking woman, brought her baby, which was three months old, to my house for consultation. The child in question was a well-developed female, with a peculiar sallow but by no means jaundiced appearance. Its belly, which was enlarged, measuring round the navel seventeen and a half inches, contained a little fluid. The child cried when pressure was made over the abdomen. The area of hepatic dulness measured in the line of the right nipple three and a half inches. Her stools were rather pale; and the mother informed me that the child frequently bled at the nose. There was no evidence of alcoholic intemperance on the part of either the father or the mother, nor could any evidence of syphilis be ascertained, either by careful inquiry of the parents or by an examination of the other children.

November 18th. The abdomen measured eighteen and a half inches. The child had bled a great deal from the nose. The superficial veins of the abdomen were prominent. The bowels had acted freely.

November 20th. The abdomen felt softer to-day; it measured seventeen inches. The child did not cry so much when touched. There was slight œdema of the face and feet.

November 23rd. The child had bled very freely at the nose since last report, and is much weaker.

November 30th. The abdomen measured fifteen and a half inches. The child had not bled at the nose for the last three days. The stools were very dark. The mother stated that the child kept crying night and day.

December 2nd. The child died to-day in a convulsion.

I made a *post mortem* examination on the afternoon of the day on which the child died. The fingers of both hands were firmly clenched. The lungs were healthy; the middle lobe of the right lung was congested. The heart, which was healthy, weighed one and a half ounces. The liver was very prominent, occupying about one-third of the abdomen; it weighed fifteen ounces and was pale. The kidneys, which were lobulated, seemed healthy; their capsule was removed with ease;

each kidney was under one ounce in weight. The spleen was enlarged and firm; it was very dark in colour, and weighed more than one ounce. The mesenteric glands were all enlarged, and the peritoneal vessels were hyperæmic. The peritoneum contained a quantity of serum.

Small portions of the liver were removed and set aside for further examination. Sections of the same, when placed under the microscope, were found to present in a well-marked degree the characteristic lesion of cirrhosis. The lobules of the liver were at places separated from each other by strands of a coarse fibrous material, of varying breadth; while, scattered over the supporting framework, many free nuclei were noticed. In addition, many of the hepatic cells contained fat globules. The walls of the various vessels seemed thickened, and at many places the capillaries had ruptured.

The association of cirrhosis of the liver with the immoderate use of ardent spirits is so firmly rooted in the medical mind that, cases occurring in others than tipplers—in those who from age and other circumstances are placed beyond the pale of intemperance as a cause—have attracted a little more than ordinary attention. A few years ago, I reported in the pages of this JOURNAL (1876, vol. ii, page 519), a case of cirrhosis of the liver, which occurred in a girl of twelve years of age. In her, there was the history of an attack of measles, followed by rather a slow convalescence, during which she received a fair quantity of stimulants, but never, it would appear, to a greater extent than that supplied in similar cases. Since then, others have reported the occurrence of cirrhosis of the liver in young people. Dr. Wickham Legg, in a very able *résumé* of the subject (*St. Bartholomew's Hospital Reports*, vol. xiii, page 148: 1877), has brought before the profession the details of two such cases of cirrhosis of the liver: the first occurring in a boy of twelve, in whom the symptoms at first closely resembled those of typhoid fever; the second, in an infant aged seventeen months, in whom, in the earlier part of the illness, the most prominent symptom was purging, but who ultimately died of tubercular meningitis. In both of these children, the microscopical appearances of the liver were those of genuine cirrhosis.*

As Dr. Legg remarks: "These cases have but little interest from the morbid anatomy point of view." Their etiology, however, is all-important; and, first, in regard to sex. Taking the cases collected by Dr. Legg as seventeen, of whom seven were boys, and adding to these his own cases (both of which were boys), we have up till now nine boys and ten girls—to the latter of which this case may be added—making the proportion of nine boys to eleven girls; from which fact we may infer that there is, after all, very little difference in the predisposition of the sexes.

Taking the age of the patients, it would appear that fifteen were between the ages of seven and thirteen; three were between the ages of five and six; the age of Dr. Legg's youngest patient was seventeen months, while my one was only three. Cirrhosis of the liver, therefore, when it occurs in children, cannot be said to choose the age of infancy. Most of the cases on record, it is noteworthy, occurred after the second dentition; and it is out of this fact, perhaps, that one of the difficulties has arisen of arriving at its cause. The association of cirrhosis of the liver in children, born with the marks of syphilis on their body and living for only a few days, as in the cases reported by Schüppel and Dr. Wilks, seems to me to point very strongly in the direction of syphilis as its cause—the postponement of the event till the later years of childhood being quite in keeping with the nature of congenital syphilis, as evidenced by dentition, wherein congenital syphilis, in its mildest form, seems to overleap the primary and stamp itself indelibly on the permanent teeth. The occurrence of such a case as the one I have reported is, it appears to me, a strong fact in favour of the view of syphilis being a cause. We know that syphilis is a disease which often leads to an increased development of fibrous tissue, as evidenced by the thickened periosteum and the proliferation of nuclei in the walls of blood-vessels. And in making this remark as to the etiology of the disease in question, even in the absence of the usual signs of syphilis in either parent, is it not a fact, that a cachexia may be the only symptom in the mother?—a symptom late on in the disease, it is true, but yet a symptom sufficient to generalise in her child what would in herself only give rise to local areas of manifestation in the shape of gummata. Syphilis, however, will not explain all cases of cirrhosis of the liver, even in the young.

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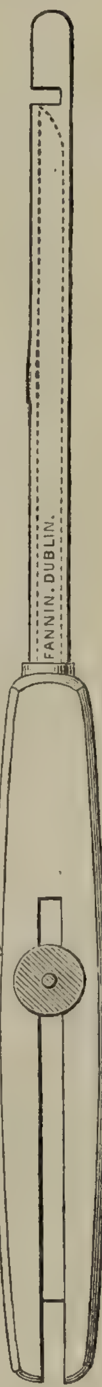
* At the last meeting of the Pathological Society, a specimen of cirrhosis of the liver from a child eight years of age, was exhibited by Dr. F. Taylor. The patient, a boy, is said to have known and liked the taste of brandy and gin.

BENGAL MEDICAL ESTABLISHMENT.—The following promotions have been made. To be Surgeons-Major: Surgeons D. D. Cunningham, H. Whitwell, A. Cameron, M.D., B. Evers, M.D., J. C. G. Carmichael, M.D., A. G. Grant, W. Jackson, G. G. McLaren, J. J. Monteath, M.D.

HÆMORRHAGE IN HERNIOTOMY.

By ANTHONY H. CORLEY, M.D., F.R.C.S.I.,
Surgeon to the Richmond Hospital; Lecturer on Surgery in the Carmichael College of Medicine, Dublin.



IN the number of the BRITISH MEDICAL JOURNAL for May 8th appears an abstract of a paper on the Treatment of Strangulated Hernia, which I had the honour of reading before the Surgical Society of Ireland on the 16th ult. The object of the paper was to urge the necessity of early operation, and to suggest means by which the dangers of such interference might be reduced to a minimum. Amongst those dangers, I alluded to the possible presence of an anomalous obturator artery; and I introduced to the notice of the Society a hernia-knife which I invented some years ago, a woodcut of which, sent by my friend Mr. Hayes of the Mater Misericordiæ Hospital, appeared in the JOURNAL of June 21st, 1879. Mr. Hayes, being unaware of my invention, was struck by the same idea, and had the instrument constructed and figured.

In the discussion that followed my paper, the comparative frequency of the anomaly was dwelt on by several speakers, but most of them seemed to think that the dangers connected with it were trivial. One speaker considered that, by using the ordinary hernia-knife in a particular manner, the section of the artery might be prevented, although Hesselbach has said that, if the vessel take the dangerous course, it must be cut in the usual operation. I cited a case of my own, published some years ago, and quoted in the last edition of Erichsen's *Surgery*, and also one of Mr. Barker of University College; but the impression left by the discussion was that, in the opinion of the majority the danger was not worth considering, or at least of taking any special means of obviating.

By a remarkable coincidence, in the very number of the JOURNAL in which the abstract of my paper appears, there are recorded from one place, and occurring within eleven months, two cases where the anomaly existed, the artery was wounded, and death supervened. It seems to me very probable that the accident occurs more frequently than is generally supposed, but that the cases are not recognised or not recorded. If the bleeding be internal, or the patient so weak that the jet is feeble, the occurrence of the accident might not be suspected; and, as *post mortem* examinations are the exception rather than the rule in the United Kingdom, fatal results are likely to be attributed to collapse or to exhaustion, which a necropsy would prove due to hæmorrhage. The real exhaustion is often such that a small excess of bleeding will turn the scale against the patient, and we all understand the additional danger of escape of blood into the peritoneal sac. To prevent altogether, or greatly reduce, the risk of this hæmorrhage becomes, therefore, a most important object.

The method of using the knife can be at once understood from the woodcut. The sheath being introduced along the surgeon's finger till the blunt end passes into the constricting ring, the wounded edge with the notch must then be turned in the direction necessary to cut. As the instrument is pushed on, the constricting edge will be felt slipping into the notch, and a slight traction will show that it is caught there. The cutting blade is then to be forced across the notch by pressing forward the thumb-screw, and the portion of the fibrous band will be cut through. That they are so divided may be known by the fact that the knife can now be withdrawn. There is no difficulty in repeating the process two or three times if more of the constriction require to be divided, and it is impossible that the artery could get into the notch or be in danger of division. The instrument can be obtained from Messrs. Fannin, Grafton Street, Dublin.

ARMY MEDICAL DEPARTMENT.—The following appointments have been made: Deputy Surgeon-General G. A. F. Shelton, M.B., to be Surgeon-General, *vice* W. G. Watt, granted retired pay; Brigade-Surgeon H. T. Reade, V.C., to be Deputy Surgeon-General, *vice* G. A. F. Shelton, M.B.; Surgeon-Major J. Doran, M.D., is granted retired pay, with the honorary rank of brigade-surgeon.

CLINICAL MEMORANDA.

CONGENITAL SMALL-POX VERIFIED BY MICROSCOPIC INVESTIGATION.

THE Paris correspondent of the JOURNAL, in his letter of the 16th inst., mentions a case of the above. The following case occurred in the Fulham Small-pox Hospital. The disease has been denied by many, and when the eruption has been found, it has been doubted if it were true small-pox.

S. L., aged 25, was admitted on June 10th, 1878, suffering from confluent small-pox. She was unvaccinated, and pregnant about six months. She aborted, the child being dead, but not long, as the epidermis was quite intact. After a prolonged convalescence, suffering from boils and ulcerations, recovery took place, with considerable pitting. The child was well formed, and the scalp, body, and limbs were covered with numerous discrete vesicles. These, examined carefully, were found in the stage of vesiculation. They were of the size of split peas, slightly prominent, of whitish-grey colour, non-umbilicated, and planted on raised inflamed areolæ. I prepared some pieces of skin after Klein's method, and examined numerous sections microscopically. The vesicle was found situated in the rete Malpighii, divided by numerous septa, formed of epithelial cells, into chambers. The division between the epidermis and corium was represented by a wavy line, no papillæ having yet been formed. The "median horny streak", first described by Klein in his paper on Variola Ovina (*Phil. Trans.*, vol. 165, pt. i), and which I also have noticed in a thesis on "The Skin in Human Small-pox", was not present. This helps to confirm Klein's statement, that this "streak" is the cause of the umbilication, as no umbilicus was present, as said above. I have not minutely described here the changes in the skin, as that has been done in my thesis. Dr. Klein saw my specimens, and quite coincided in my view of the identity of the process in the fœtal and adult skin, with the exception of the "streak". Although the eruption was confluent in the mother, it was discrete in the fœtus. The cause of death is difficult of explanation, as the severity of the disease is in proportion usually to the extent of the eruption. Perhaps the fœtus is affected by a smaller dose of the virus. The placenta was not examined. I think the above is sufficient to settle the question of congenital small-pox.

ALEX. S. GREENWAY, M.B.Edin., M.R.C.S.Eng.,
Late Assistant Medical Officer Fulham Small-pox Hospital.
Belvedere, Kent.

ICTERUS AS A SEQUELA TO SCARLATINA.

THE infrequency of jaundice as a sequel to scarlet fever tempts me to report the following case. In the few works I have on Medicine, I find no mention of it, and I have seen a great deal of scarlet fever amongst children, but never met with it previously, although occasionally I have seen jaundice in children under three years of age.

R. W. was attacked with scarlet fever of a simple type on December 14th, 1879. He was a fine healthy child, seventeen months old. He went through the usual course of fever, and commenced to desquamate about the eighth day, and appeared to be getting strong, when suddenly, on June 1st, 1880, the eighteenth day of illness, jaundice appeared. For this, he was treated with salines and grey powder. On January 5th, hæmorrhage from the bowels set in, and also slightly from the nose and mouth. Astringents were administered with temporary benefit. On the 8th, hæmorrhage recurred, and the child became very weak and listless. I ordered two-minim doses of oleum terebinthinæ every three hours, which controlled and kept in check the hæmorrhage; but the little patient never rallied, dying on January 11th.

In passing, I may add that I find oleum terebinthinæ almost specific in hæmorrhages from the bowels and mucous membranes generally. In this case, however, the little patient seemed to have no power to rally, and died from syncope.

WILLIAM BERRY, M.R.C.S.Eng., etc.,
Honorary Medical Officer Royal Albert Infirmary, Wigan.

THE DIAGNOSIS OF RÖTHELN.

I HAVE read with great interest Dr. Tomkins' article upon the above subject, röthelm having been very prevalent here (at least in my practice) during the beginning of this and end of last year.

I quite agree with Dr. Tomkins in regarding rötheln as a distinct complaint from either scarlet fever or measles. My reason for thinking so is that in all my cases, whether occurring in patients who had had both scarlet fever and measles, or only one or neither complaint—and I had examples of each—the rötheln ran a similar unmodified course, was never followed by any of the sequelæ of scarlet fever and *never communicated either scarlet fever or measles to anybody else*, although, practically, no isolation was practised. Dr. Tomkins' description of Mary P.'s case is, I think, a typical one of the disease. The rash is certainly more like that of measles than that of scarlet fever, the patches, however, being, as he points out, smaller and redder, and I may add not so crescentic. Many of my patients were grown up, but in them the symptoms were not in any way different from the same in children. Although congestion of the conjunctiva is common in rötheln I have never seen marked coryza.

A diagnosis of rötheln may, I think, be made from measles by observing the following points. 1. The rash is more vivid and in smaller patches, the patches not being markedly crescentic; 2. There is no coryza nor cough; 3. There are sore throat and strawberry tongue. From scarlet fever the points of diagnosis are these. 1. The rash is in patches and less red; 2. Neither tonsils nor cervical glands are much affected; 3. The temperature rarely exceeds 102° Fahr.; 4. The illness is of short duration (rarely lasting a week) and mild; 5. The patient does not infect others with scarlet fever; and albumen is absent from the urine. Desquamation often occurs about the fifth or sixth day, and is sometimes profuse. In conclusion, I would say that I cannot but think it would be a great benefit to medicine if rötheln were once and for all recognised as quite a distinct disease.

W. GILCHRIST BURNIE, M.R.C.S.Eng.
Bradford, May 31st, 1880.

MONTHLY SANGUINEOUS DISCHARGE IN AN INFANT.

SOME months since, I sent to the JOURNAL some particulars of a case of an infant, fourteen months old, having a monthly sanguineous discharge. The notice led to a correspondence with Dr. Cullingworth of Manchester. I now send more particulars, with some notes of the *post mortem* examination.

The patient was the youngest of three children, girls. At the age of five months, the mother observed a bloody discharge, which continued for about three days, and returned every month till the patient was nine months old. At ten months old, the patient was weaned, and the discharge did not return till the eleventh month; it then returned periodically till the child was fourteen months old, when she died of diarrhœa.

NECROPSY.—The body was well nourished; the complexion fair. There were marks of blood, somewhat dry, on the pudendum, labia, and peritoneum, corroborating the mother's statement that the child had recently had "the monthly discharge". The pudendum was large, covered with fine hair. The vagina was healthy. The uterus was large; when removed, it measured an inch and five-eighths in length externally. The os was very patent; the lips congested. There was nothing abnormal in the cavity. The vessels of the broad ligament were injected. The left ovary was twice as large as the right; it was dilated, forming a cyst of the size of a horse-bean. The right ovary contained a number of small cysts, each about the size of a pin's head. Mr. W. Harle of Hackney made the *post mortem* examination, and has the parts in preparation. C. E. HARLE, Enfield.

SURGICAL MEMORANDA.

THE SURGICAL TREATMENT OF EPISTAXIS.

I HAVE found great assistance in the treatment of this troublesome symptom by the fact of fluid, when injected up one nostril, passing freely through the opposite one. I affix an ordinary nasal nozzle to my Higginson's syringe, and, holding it firmly to the nostril not bleeding, I inject freely some cold water. This drives out all clots in the opposite one, and often arrests all hæmorrhage; if it should not, I inject a weak solution of perchloride of iron, and this is generally successful. These means are so simple and so little annoying to the patient, that, as I have not noticed any mention of them, I thought it worth while to mention them. A jet of water thrown up in the same way is most useful in dislodging foreign bodies in the nostrils. Of course, throwing it up in the patent nostril acts upon the foreign body from behind, and is much less painful than the use of forceps, etc. The instrument which I use, and always carry with me, is one manufactured by Messrs. Maw and Co., and is fitted with various nozzles for the nose, eye, ear, etc.

EDWARD WHITFIELD THURSTON, L.R.C.P.Lond., etc.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt Court, Fleet Street, on June 1st, it was resolved that a petition in their name should be forwarded to the House of Commons in support of the Medical Charities (Ireland) Bill now before the Legislature.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. THOMAS'S HOSPITAL.

COMPOUND FRACTURE OF SKULL: LACERATION AND REMOVAL OF BRAIN: ANTISEPTIC DRESSING: RAPID AND COMPLETE RECOVERY.

(Under the care of Mr. JOHN CROFT.)

THE following case shows very forcibly the advantages of complete antiseptic treatment of compound fractures of the skull. In this case, the wound was compound. The dura mater was lacerated, and about half an ounce of brain was reduced to a pulp, and there were symptoms of fracture at the base. The wound closed with the utmost rapidity, and such complications as inflammation of the brain and its membranes, suppuration, hernia cerebri, erysipelas, etc., were all avoided. Such a result can only be certainly obtained from such a system of treatment. An equally successful issue might result from some other plan than "Listerism"; but on no other known system can the surgeon rely for a succession of such results.

William A., aged 28, a carpenter, was admitted into St. Thomas's Hospital on December 17th, 1879, about 10.30 A.M., suffering from symptoms of shock, compression, and a severe compound depressed fracture of the skull on the left side. The injury was situated over the superior posterior angle of the parietal bone, and consisted of a scalp-wound, three inches long, a depressed insulated fracture of the parietal bone, laceration of the dura mater, and comminution of brain-substance. The piece of bone which had been driven in was larger than a penny-piece, and its internal surface measured so much more than the external that the piece could not be extracted without the help of the saw. The wound was dressed antiseptically in a temporary manner, until Mr. Croft should arrive. There was not any bleeding from the ears. The injury had been caused by the fall of a cogged wheel from a height of from thirty to forty feet. The patient was a sober steady man. Mr. Croft saw him about three hours later; when he was still suffering from symptoms of compression, though he had recovered to a considerable degree from the shock. He was quite unconscious, and did not utter any words. The right arm was powerless, and the right leg responded less to reflex action than the left. The pupils were dilated, but acted to light. The breathing was slow. An operation for raising and removing the depressed island of bone was at once undertaken. The scalp having been shaved and prepared by the application of the one-in-twenty solution of absolute phenol, and other antiseptic precautions having been taken, the wound was enlarged, a piece of bone was sawn out by the trephine and the indriven piece was extracted. This gave escape to about half an ounce of bruised loose brain-substance. By the handle of the scalpel and by the syringe, the loose brain-tissue was cleared away. One-in-twenty solution of absolute phenol was used to wash out the cavity, and then the surfaces of the brain-lesion and the edges of the scalp-wound were brushed over freely with spirit solution, of strength one to ten. A piece of split India-rubber tubing was inserted as a drain, and the wound closed by catgut satures, and dressed with Lister's dressings, viz., oiled silk protective, loose gauze, a large eight-fold piece under mackintosh, salicylic wool over the edges, and a bandage. During the operation, which was performed whilst the patient was under ether, blood escaped from the nose and mouth. This induced the fear that there might be a communication between the nasal passages and the fracture. Whilst being anæsthetised, the patient had resisted and used both arms, though the right arm was weak.

8 P.M. The notes of the case state that he had vomited three times since the operation. An ice-bag was kept to the head. Temperature (five hours after the operation), 99°.

December 18th (morning). During the night, he was restless and gradually became more animated. He recognised his wife, and uttered some sounds which were interpreted into "Mary". He passed urine in bed, and spat up a good deal of mucus. The catheter was to be passed. In the evening, he moaned a good deal and remained for the most part drowsy or unconscious. The head was dressed antiseptically at 4 P.M., and the tube washed and replaced: this was done in order to ensure the escape of secretions from the cavity in the brain. As the bowels had not acted, one minim of croton-oil was given at 4 o'clock. At 7 P.M., twenty-five ounces of urine were drawn off. At 10 o'clock, a second minim of croton-oil was given. Pulse 68; respirations 28; temperature, A.M., 100°; midday, 100.8°; P.M., 100°.

December 19th (third day). The bowels acted freely at 7 A.M. Urine was passed without assistance. He was able to make his wants understood. When left alone he appeared drowsy and unconscious, but turned in bed rather frequently. When roused, he appeared to understand to some extent and muttered unintelligibly. The fingers of the right hand and the arm were observed to move spasmodically, and the left side of the face twitched. These attacks lasted about ten minutes, but occurred rarely. He recognised his wife. Pulse 72; respirations 20. Temperature, A.M., 99.4°; P.M., 100°.

December 20th. His night had not been restful, but he was tranquil this morning. The breathing was quiet and regular. The spasmodic movements and twitchings of the face, which recurred during the night, had lasted on each occasion from twenty to thirty minutes. When spoken to, he appeared to understand readily and attempted to answer. He always said, "Say baby", whatever the question might be. He was annoyed at this, and attempted to correct it, but only succeeded in repeating the same words. Pulse 52; respirations 16. Temperature, A.M., 98.0°; midday, 100°; P.M., 99.4°.

December 21st (fifth day). He recognised his wife and sister more readily, and cried when the former left him. He said "Thank you" and "Beecher", the name of a friend; but repeated "Say baby" in reply to questions. He could not say more, though he was evidently anxious to do so. He spoke slowly. Pulse 72; respirations 18. Temperature, A.M., 98.4°; P.M., 99.8°. The right arm was still motionless; when he wished to move it, he lifted it with the left hand. He could draw up the right leg. The twitchings in the arm and face recurred at intervals, and lasted about thirty minutes.

December 22nd (sixth day). He complained of pain in the head. The twitchings were severe. He looked more intelligent, and took more interest in what was going on. Temperature, A.M., 98.8°; P.M., 99°.

December 23rd. As he was still suffering from spasmodic movements of the right arm and left side of the face, the wound was re-dressed, that the drainage-tube might be taken out and any fluid evacuated from the wound in the brain. The dressings were stained by serum only. The edges were united, except at the meeting of the three lines of incision, where the drain was placed. In the afternoon, he was understood to express a desire for bread and butter, though his appetite was not keen. Temperature, A.M., 101°; afternoon, 97.4°; evening, 99.2°.

December 25th (ninth day). The patient was improving; he could say a few more words with effort. He said his right arm "felt like pins in it".

December 29th (thirteenth day). The wound was re-dressed antiseptically. Only a small button-shaped granulation remained unhealed, at the point of union of the incisions.

Sixteenth day. He tried to stand.

Twenty-first day. He could now count to one hundred, and spoke fairly well. He paused occasionally, and recalled words with effort. He experienced difficulty in spelling, not being able to remember the right letter. However, he recognised the letter when it was suggested to him. Three weeks later still, he was able to write his name and address on paper. The right arm continued weak, and he found difficulty in holding and commanding his pen. He became a little confused now and then over his spelling. He conversed with other patients, and lived in the general ward. The wound was quite healed. About ten days after this, he was able to leave the hospital, having been under treatment and observed for less than eight weeks.

At the present time (May 31st, 1880), he is well, and able to keep a light situation.

REMARKS.—The rapidity with which the lacerated and contused wound of the brain healed is worthy of remark. By the seventh day, the deeper lesions had healed, and only that spot remained unhealed at which the drain had interposed between the edges of the superficial wound. The rapid closure of the wound obviated hernia cerebri. The perfectly aseptic state of the lesions negatived any inflammatory action; and consequently none of the calamities of surgery occurred to mar the progress to recovery. The record of temperature also demonstrated that no feverish condition ensued.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.

A CASE OF OPTIC NERVE NEURITIS, WITH SUBSEQUENT ATROPHY, ASSOCIATED WITH CYST OF THE ANTRUM.

(Under the care of Mr. W. SPENCER WATSON.)

ANN C., aged 29, a servant, well nourished, and with dark hair and complexion, came to the hospital on July 14th, 1879. She had noticed failure of sight in her right eye, with a severe pain in the eyeball for about six days. Under treatment elsewhere, the sight had become much deteriorated. She had pains and tenderness of the shin bones, but no symptoms indicating a syphilitic history. There was an exostosis of the right lower jaw opposite the bicuspid. The eyeball had normal tension, the pupil being round and contractile and the texture of the iris good. When the left eye was covered, the right pupil remained partially dilated, though exposed to strong light. Vision amounted to 20 Jäger. On ophthalmoscopic examination, the optic disc was seen to be blurred, and the surrounding retina œdematous. No note was made of any swelling of the upper jaw at this period of the case.

The treatment consisted of mercurials, by internal doses of liquor hydrargyri perchloridi and Plummer's pill, and the inunction of a mercurial liniment on the brow and temple, with an occasional opiate at night. This was continued with slight variations till the middle of September. No improvement of vision was obtained; but the congested and œdematous state of the retina subsided, and the optic disc became pale. The patient was now put upon a course of iodide of potassium. In January 1880, the eye remained in much the same condition; and there was now swelling of the right upper jaw, visible through the cheek. This swelling she had noticed to be on the increase for the last year, and it had now (January 20th) become extremely painful, the pain extending up to the side of the head. Inside the mouth and opposite the upper molars, a swelling of a fluctuating character presented itself. On puncturing this, a clear yellow fluid exuded; it contained abundant cholesterine crystals. The swelling of the cheek now subsided, and a ragged opening in the antrum could be felt with the point of the finger. The cavity was syringed out from time to time with solutions of sulphate of zinc, and latterly of iodine; and the character of the fluid gradually changed to a mere sero-pus. An opening large enough to admit the point of a probe still remains (May 14th, 1880), and the cavity is still extensive enough to allow an inch and a half of the probe to pass upwards and inwards towards the floor of the orbit. There is still considerable pain of a neuralgic kind in the side of the head and around the eye. The sight of the eye remains as before, the optic disc being permanently atrophied.

REMARKS.—Whether the cyst of the antrum has any causal connection with the state of the optic nerve in this case is a matter of great interest, but cannot be said to be definitely settled at the present stage of the case. It is, however, not improbable that some amount of distension of the antrum upwards towards the optic foramen may, at an early period of the case, have been sufficient to cause pressure upon the nerve, and consequent neuritis, with subsequent atrophy, though at no period was any prominence of the eyeball observed. Up to the present date (May 14th), there has been no improvement in the vision. The nostril on the side affected was not obstructed, nor was there ever any discharge from it.

VICTORIA PARK HOSPITAL.

CASE OF EMPYEMA IN A CHILD TREATED BY PARACENTESIS; SUBSEQUENTLY PROBABLE COMMUNICATION BETWEEN THE PLEURAL CAVITY AND LUNG, AND EXPECTORATION OF PUS FROM THE PLEURA: ENTIRE RECOVERY.

(Under the care of Dr. PEACOCK.)

ERNEST ORAN, aged 6½, was admitted into the Victoria Park Hospital on September 5th, 1878. He was reported to have always been a delicate child, but had been seriously ill for ten weeks before his admission. His illness commenced after exposure to cold and wet, with feverishness and pain in the left side of the chest. At the time of his admission into the hospital, Dr. Peacock was from home; and the case was under the charge of Dr. Eustace Smith, by whose direction, as there were characteristic signs of effusion in the left pleural cavity, the side was punctured on September 27th. The opening was made near the lower angle of the left scapula, between the sixth and seventh ribs, and the fluid was removed by the aspirator. At first, pure pus escaped, but afterwards the matter evacuated was mixed with blood; and in all, about nine and a half ounces of fluid were removed. The child did not suffer in any way after the operation, and the resonant process was improved, and the extent over which the respiratory sounds were heard was extended.

The child was first seen by Dr. Peacock in the commencement of October; and when it was examined on the 23rd, the resonance on percussion when he was lying on his back, had an obscurely tympanitic character at the upper part of the left side, and the stomachal sound was very distinctly elicited below. Behind, there were very marked dulness on percussion over the whole side. Under the clavicle, and at the lower cervical region, the respiration had a somewhat bronchial character; and in other parts of the side, there was marked deficiency or entire absence of the respiratory sound. The pulsation of the heart was very visible between the right side of the sternum and the right nipple; and the left side of the chest was very much flattened and almost immovable while the right side was full and moved freely with the respiratory acts; and the respiratory sounds were loudly heard over the whole of the side. The child had greatly improved in his general condition since the chest had been tapped.

Soon after these notes were taken, after a severe fit of coughing, he became sick and brought up with a gulp a considerable quantity of what appeared to be pus mixed with mucus. When the chest was examined a day or two afterwards, a very marked cracked-pot sound was heard on percussion over a large space at the upper part of the left side, and the breathing was decidedly amphoric in that situation, and the relative levels of dulness and clearness of the sound on percussion varied with changes in the position of the patient. From this time, the child continued steadily to improve; and on April 5th, 1879, the following notes were taken. The left side of the chest is very much contracted, especially under the clavicle; there is a slight spinal curvature, and the left shoulder falls considerably below the right. The point of pulsation of the apex of the heart cannot be distinctly made out, but the heart is probably not materially displaced. The resonance on percussion under the clavicle has a somewhat obscure tympanitic character, but there are no remains of the "cracked-pot sound". Low down, anteriorly, laterally, and posteriorly, the sound on percussion is dull. The respiration under the clavicle and at the lower cervical region has a somewhat bronchial character; and below these regions, the respiratory sound is very feeble. The whole side has very little movement with the respiratory acts, and is obviously contracted; but the right side is full and moves freely, and the respiratory sounds are loudly heard everywhere. He has no cough or expectoration, takes his food well, and is bright and cheerful. He has no apparent dyspnœa; indeed, he counts to ten without drawing a fresh breath, and he can lie on either side or on the back, but he prefers to lie on the left side. Though his general condition is very much improved since his admission into the hospital, his face is still pallid and puffy, and the glands on each side of the neck are somewhat enlarged.

The precise nature of this case is not altogether clear. It seems, however, most probable, that notwithstanding the removal of the pus from the left pleura by puncture, some still remained, which subsequently made its way through the lung, so as to be evacuated by expectoration, while some air escaped into the pleural cavity. It is possible that a large cavity might have formed in the lung, producing the peculiar signs which were noticed at the upper part of the left side; but the rapid improvement in the state of the patient and the disappearance of the physical signs render it more likely that the case was one of empyema opening through the lungs.

LEEDS GENERAL INFIRMARY.

AORTIC ANEURISM: GRANULAR KIDNEY: PLEURITIC EFFUSION.

(Under the care of Dr. HEATON.)

[Reported by Dr. ERNEST JACOB, late Resident Physician.]

P. M., AGED 49, was admitted March 22nd, 1878. He had enjoyed good health, though much given to drink, till three months previously, when, while much exposed to wet, he began to have a cough, with shortness of breath and oppression of the chest, and pain in the sternal region. After a month, he was compelled to lie up, and he had been becoming worse since, his legs and thighs having been œdematous for the last week.

On admission, he appeared to be in a moribund condition; his face was pale, profusely sweating; breathing much oppressed, in short gasps. The left side of his chest was motionless, and the intercostal spaces invisible. On percussion, however, dulness extended only from the base of the lung to an inch above the lower angle of the scapula. Breathing over this area was faint, with bronchial *râles*, and diminished vocal fremitus. There was slight œdema of his legs and the thoracic wall. A hypodermic syringe inserted between the eighth and ninth ribs in the axilla line drew off some clear serum. A trocar with tube was immediately inserted, and rather more than two pints of serum drawn off. The patient was immediately relieved, and breathed easily after the operation. A more extended examination then showed an area of dulness at the upper part of the sternum, of oblong shape, about three and a half by two inches in size, just below a line joining the lower borders of the sterno-clavicular articulations. Over this area there was a loud, high-pitched, double murmur, conducted downwards as far as the third left space, close to the sternum. Over the rest of the front of the chest the resonance was slightly increased. He had a fair complexion, cheeks slightly flushed. The arteries were thickened and visibly jerking. The heart's apex beat in the usual position, but with considerable force, and the impulse was plainly felt over the upper part of the sternum. The urine was copious in amount, of specific gravity 1012, with a trace of albumen.

The next day (March 23rd), he was easy, but with a slight cough. On the 24th, a sudden dyspnœa attacked him, and he appeared in much the same state as on admission. On percussion, there was dulness from the base of the left lung to half-way up the scapula. A trocar was again inserted, and two pints and six ounces of serum drawn off. The patient was again entirely relieved.

On the 25th, he was tolerably comfortable, but had a troublesome cough, with tenacious slightly purulent sputum. There was some pleural creaking audible at the left base. He could lie only on his left side. His appetite was good.

March 26th. He had a slight attack of dyspnœa last night for about forty-five minutes. He was ordered 10 grains of iodide of potassium thrice daily. There was dulness on the left side to the eighth dorsal spine.

April 4th. He seemed pretty well. There was pulsation visible in the third space to the right of the sternum; the right carotid was stronger than the left. The dose of iodide of potassium was increased to 20 grains.

April 8th. He felt stronger and better. The dulness over the left lung had disappeared. There was some creaking at the base. He complained only of shortness of breath.

May 18th. He was still improving, and looked pretty well. The front of the chest was somewhat arched. There was visible pulsation in the region of the heart's apex between the sixth and seventh ribs, one inch and a quarter outside the nipple line, also in the third space to the right of the sternum. The cervical vessels pulsated visibly, but more distinctly on the right than the left. He was made an out-patient on June 3rd.

On June 25th, he again applied for admission, having been in bed with shortness of breath for the past week. His urine also had been very scanty. On admission, his face was pale; breathing oppressed. There was some dulness at the extreme base of the left lung. The urine was of specific gravity 1015; it contained a moderate amount of albumen. The signs otherwise were the same as before.

July 5th. There was a visible pulsation to the right of the sternum between the fourth and fifth ribs, with a heaving impulse and a systolic thrill. The heart's apex beat one inch and a half outside the nipple-line. There was dulness over the pulsating area as well as at the top of the sternum as before. He was ordered 10 grains of iodide of potassium and 10 minims of tincture of digitalis three times a-day.

July 10th. He was rather worse. The pulsation was very severe, and his cough troublesome. The sputum was tinged with blood. He was ordered to take 5 minims of tincture of aconite every four hours. He took this for twenty-four hours, but became rapidly worse. The pulse became rapid and weak; the face bathed with perspiration. It was then stopped, and stimulants given. He then gradually improved, and was ordered increasing doses of iodide of potassium.

November 1st. He felt comfortable, had no pain, and but very slight cough. He was in fair flesh. He took 30 grains of iodide of potassium three times a-day. He was removed to the workhouse infirmary, having been under treatment seven months.

REMARKS.—The principal points about this case are: 1. The sudden accession on two occasions of pleuritic effusion, threatening life although the amount was of small quantity, and did not increase after the second tapping; 2. The very great improvement and comparative ease obtained by rest and potassium iodide; 3. The prejudicial effect of the aconite, which was given in no very large doses to stay the painful pulsation. The hypertrophy of compensation which the heart underwent during his stay in the infirmary must also be noticed; the apex, which beat in the normal position after the first tapping, was found to beat between the sixth and seventh ribs, one inch and a half outside the nipple-line, on his discharge.

HASTINGS.—Mr. Ashenden's annual report is brief, and consists merely of comments on the death-statistics of the year. The death-rate from all causes is stated as 16.84 per 1000, against 16.79 in 1878, and 15.5 in 1877. The mortality amongst infants was lower last year, the number of children dying under the age of five years being 188, against 227 in 1878. Atrophy amongst children is still very fatal: a result ascribed by Mr. Ashenden to the too early administration of patent foods in many instances, and in others to the inability of the poorer classes to obtain cows' milk. Several cases of scarlet fever were carelessly imported into the borough during the year, and, in consequence, infection was carried into some of the board schools, much difficulty being experienced in arresting the progress of the disease. Mechanics' and small tradespeople's families were the chief sufferers; and it is satisfactory to learn that these gladly availed themselves of the sanatorium and the disinfecting apparatus wisely provided by the Town Council. Out of a total of 668 deaths, 114 were those of visitors.

REPORTS OF SOCIETIES.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, MAY 3RD, 1880.

ALFRED WOODHOUSE, L.D.S., President, in the Chair.

Specimens, etc.—Some interesting specimens of abnormal dentition were exhibited by Messrs. F. CANTON, TOD (of Brighton); G. H. HARDING and CRAPPER (of Hanley).—Mr. CRAPPER also sent a lower denture encrusted with a large mass of salivary calculus; it had been worn for five years without removal from the mouth.—Mr. S. J. HUTCHINSON showed a similar plate which had been worn continuously for four years, and Mr. VANDERPANT of Kingston brought forward a third specimen.—Mr. G. H. HARDING described his method of dealing with gutta-percha filling.—Mr. MOON showed a regulation-plate made by Mr. Williams of Leamington.

Nerve-Stretching in Neuralgia.—Mr. A. S. UNDERWOOD read a paper on this subject. Neuralgia was, of course, only a symptom of nerve-irritation; it might be set up by many different causes, and might vary greatly in degree, from the simple case, which might be cured by the extraction of a tooth or by the administration of some simple remedy, up to the terrible form which Trousseau had called "epileptiform", and of which he said that, after thirty-six years of practice, he had never known a single case to be radically cured. Until the treatment by stretching was accidentally discovered by Nussbaum in 1869, the only remedy for these severe cases consisted in division of the affected nerve, an operation which afforded too often only temporary relief, since the morbid condition remained unaltered, ready to reassert its power as soon as the nerve had reunited. Mr. Underwood then related three typical cases of "epileptiform neuralgia"; in the first, drugs only had been tried, ineffectually; in the second, division of nerves gave temporary relief, but, after thirty years of this treatment, the patient's face was seared all over by the surgical operations he had undergone; in the third case, nerve-stretching at once effected a permanent cure. He had found thirty-nine cases of nerve-stretching recorded during the last three years in various papers and pamphlets. In thirty-two of these, the operation effected a complete and permanent cure; two other patients were relieved of pain, but died from accidental causes; whilst in the remaining five cases, the operation was performed for tetanus. In no case, so far as Mr. Underwood could ascertain, had any harm resulted from the operation. Considering that these were all cases of severe neuralgia, in which various plans of treatment had been previously tried without benefit, it was evident that nerve-stretching was entitled to rank very high as a last resource in those cases of obstinate neuralgia in which all reputed drugs had failed, and life had become a burden to the sufferer.—A discussion followed, in which Messrs. COLEMAN, CHARLES TOMES, SEWILL, ENGLISH, BLANVILT, and HUTCHINSON took part.—In his reply, Mr. UNDERWOOD pointed out that the stretching must be performed boldly, and that even such nerves as the small branches of the facial would bear a very considerable amount of pulling without fear of rupture; the operation would sometimes do good, even though the apparent seat of the pain might be situated higher up the nerve than the point at which it could be stretched. The loss of sensation, and sometimes also of motion, which followed the section of nerves, was always a source of inconvenience to the patient. He thought, therefore, that neurotomy should only be performed in the small residue of cases in which the stretching operation failed to give relief.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

TUESDAY, APRIL 6TH, 1880.

Disseminated Sclerosis.—Dr. WITHERS MOORE read the notes of two cases of disseminated sclerosis, and submitted the patients to the inspection of the members. After a brief *résumé* of the nature, causes, pathological appearances, and differential diagnosis of the disease, Dr. Moore gave the details of the two cases, both of which had, for a while, been inmates of the Sussex County Hospital; and one (designated No. 2) had also been for nine months in St. Thomas's Hospital under the care of the late Dr. Murchison. The patients were men, aged respectively 27 and 26 years. The course of the disease had been rapid in each; No. 1 dating his illness from a cold caught last Christmas; and No. 2, who was well advanced in the second stage, from Christmas 1877, the shock of an accident being apparently the exciting cause. Both patients seemed to have been temperate, free from syphilitic taint, and of healthy habits. In each, paresis and tremor came on almost simultaneously, and the leg or legs were first affected. Nystagmus and vertigo were absent in case No. 1, and present in No. 2. Diplopia was absent, and amblyopia present, in each patient. Both were emotional, yet intelligent; memory was defective in No. 1, good in No. 2. In the first case, the characteristic tremor was most marked in the hands and arms, the legs being almost free from it, but there was paresis of the right leg. In the second case, the disease was much more advanced. There was marked paresis of the muscles of the back and legs; he could with much difficulty raise himself from the recumbent position, and lift both legs, crossing them, however, with no loss of co-ordination, and without any tremor, but he could not stand. Sensation and reflex excitability were in this case unimpaired, but voluntary movements of the head, neck, or arms were accompanied by the typical tremor. The speech in both was characteristic, and was early affected in the first, late in the second case. The tongue was protruded steadily, and the optic discs were pale in both. There were no pains, involuntary defæcation or micturition, or loss of sexual power, in either case. Lastly, in both, the digestive organs and the general nutrition were in fair order. Dr. Moore thought it might be assumed that the sclerotic nodules in case No. 1 were located chiefly in and near the pons Varolii and medulla oblongata, with a few scattered patches in the lateral columns of the cord; and that in case No. 2, in addition to the above localities, the lateral columns near the lumbar enlargement were the chief seat of the spinal deposition; for, although he never had marked attacks of rigidity, "the legs, especially the right one, were a little stiff". That the posterior columns were intact was almost proved by the persistence of sensation and the power of co-ordination; and that the anterior cornua were not seriously implicated, was manifest from the absence of trophic degeneration and complete paralysis. Dr. Moore remarked how dark the prognosis was in this disease, no authentic case of cure being on record. The patient No. 1 had been taking iodide of potassium, and improved so much that he had left the hospital believing himself almost cured. His speech was, however, still syllabic, and the hands manifested the characteristic tremor on lifting anything. Dr. Moore attached no great importance to this improvement, believing it to be due rather to physiological rest in the hospital; or that the patient was now in one of the stages of remission, a frequent feature of the disease. Should he return to the hospital, Dr. Moore proposed to try chloride of barium.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

WEDNESDAY, MAY 19TH, 1880.

W. A. N. CATTLIN, F.R.C.S., President, in the Chair.

Instruments.—Mr. W. DONALD NAPIER brought before the Association two instruments. The first was one for the more perfect administration of nitrous oxide gas; by a very simple arrangement, the possibility of the gas running short during an operation was entirely prevented. Instead of one wrought-iron bottle containing the gas in a liquid state being used, two bottles were placed side by side in a light frame, and so connected to each other by an iron tube that, in the event of one being emptied, gas could instantaneously be obtained from the other. The other instrument was the "Polyscope". By its use, the whole mouth could readily be illuminated by the electric light, without the slightest inconvenience or discomfort to the patient; and a most perfect cautery could be obtained, when required, for the destruction of sensitive dentine, nerves, etc. The perfection to which this instrument had been brought was due to M. E. Brasseur and M. Trouvé of Paris.

Peculiar Suppurative Disease of Jaw.—The PRESIDENT narrated the following case. The patient, a gentleman, formerly lived in New South Wales, and, about twenty-five years ago, suffered from "sunstroke"; he was very profusely salivated, but recovered his health, married, and returned to this country. In a letter, dated September 1872, he said that, five years previously, he had a very severe attack of neuralgia in his head and face, which continued with more or less violence for about five months, coupled with intense nervous excitement. He took alteratives in the form of calomel and colocynth in small doses, black draughts, and occasionally Dover's and James's powders. At the same time, he had a carious bicuspid tooth, which could not be extracted. After some time, he tried change of air; and the pain was very much alleviated, but became chronic. Having an idea that the drainage of the village was defective, he left the neighbourhood, and went to the neighbourhood of Horsham in March 1870. At Christmas, 1871, he had a sharp attack of what seemed to be "suppressed bile". The medical man prescribed the same remedies that he had always taken; but, two weeks afterwards, he began to feel a metallic taste, the gums all became spongy, and his teeth loose in the upper jaw. Pus formed rapidly, and culminated in an abscess on the right nostril, which was opened, but afforded relief only for a short time, as matter and bony substance continued to be thrown off. For fifteen years, he had led a steady life, with nothing to complain of except occasional dyspepsia. When Mr. Cattlin first saw this patient, a thick creamy discharge was passing from beneath the gums around the necks of the teeth in the upper jaw. The disease very much resembled one described in Wood's *Practice of Medicine*, and, as far as his experience went, was generally incurable. Perhaps it yielded more readily to the electric cautery, or chloride of zinc, than to any other treatment. The discharge was thicker than healthy pus, and different in colour; it oozed rather than flowed from the alveolar process, and required slight pressure to remove it from beneath the gums. This kind of discharge, coupled with some inflammation of the gums, continued for many weeks, accompanied by distressing pains and neuralgia, until necrosis of the alveolus took place, and healthy teeth with parts of their sockets were removed. Nearly all the teeth in the upper jaw were lost in this way, and the gums then became healthy. There was no history of syphilis; but the patient lived in neighbourhoods where either the drainage or water was not good, and seemed to have been peculiarly susceptible to the action of mercury. Since he was under Mr. Cattlin's care, he had suffered from paralysis of the right side and epileptic fits, from which he was now recovering.

Periodontal Deposit of Mercury.—Mr. H. L. JACOB (Birkenhead) related the following case. On March 21st, 1868, he extracted for M. W. G., aged about thirty-five, the right upper wisdom tooth, which was carious, loose, and painful. On examination, he found the sac of an old abscess round the tooth, and the substance of the thickened fungoid periodontal membrane was studded with globules of mercury, of various sizes, from a diameter of one twenty-fourth of an inch downwards; some being too small to be seen distinctly with the naked eye. The patient stated that the tooth, to his recollection, had never been filled; and that, to the best of his knowledge, he had never been subjected to a course of mercury.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, MAY 5TH, 1880.

FLEETWOOD CHURCHILL, F.C.P., in the Chair.

Vaccinia Gangrænosa.—Mr. WILLIAM STOKES read a paper on a case of gangrenous inflammation, following vaccination, or "vaccinia gangrænosa". The paper was illustrated by a series of admirably executed coloured drawings of the present case, and of one recently exhibited by Mr. Jonathan Hutchinson to the Pathological Society of London, and reported in the BRITISH MEDICAL JOURNAL for December 13th, 1879. Mr. Stokes's patient had been (previously to her illness) a healthy, strong, well-nourished girl of nine months. She was admitted to the Richmond Surgical Hospital on February 17th, 1880. According to her mother's account, she had been vaccinated ten days previously, and, within forty-eight hours after the operation, a number of purple and black spots appeared—first on the buttock, next on the face, and subsequently all over the body. On admission, the child presented the following appearance. The body and face were sparsely covered with spots, each of these covered with a yellow scab, and exactly resembling the crusts to be seen in a mild case of variola that is convalescing. There were large sloughing surfaces on both buttocks, on the back of the right thigh, on the calf of one leg, and on both arms. The largest of these was on the right buttock and back of the right thigh; it was eight inches long and two and a half inches wide at its widest part. In the middle of it was a large black slough separating; it was dry and looked like leather. The slough implicated not only the whole skin, but also the subjacent tissues. The other sloughs were smaller, and those on the calf of the leg and on the arms had not yet commenced to separate. There was no inflammation round these latter. There were three distinct well-marked vaccination vesicles on the left arm, one of which had been ruptured. They presented the appearances usually seen on the ninth or tenth day. They were healthy-looking, but there were large sloughs in their immediate proximity. Under a suitable treatment and nourishing dietary, the child happily made an excellent recovery. Mr. Stokes pointed out that the case presented many features of resemblance to an affection described by the late Dr. Whitley Stokes, in June 1807, in the *Dublin Medical and Physical Essays*, and to which the names of "pemphigus gangrænosus", "the eating hive", and "the burnt holes" had been given—the "varicella gangrænosa" of Mr. Hutchinson. Mr. Stokes admitted that difficulties existed as to the diagnosis of vaccinia gangrænosa in the case reported by him. In the first place, three other children had been vaccinated with the same lymph without injury. Secondly, the great rapidity with which the pemphigoid rash manifested itself after the vaccination raised a grave doubt as to the connection between the vaccination and the development of the eruption. A third difficulty was the fact that the vaccine vesicles themselves did not, either primarily or secondarily, participate in the gangrenous action. Mr. Stokes would be sorry to offer any decided opinion on the point; yet he could not but think, notwithstanding what had been said and published to the contrary by a pathologist and surgeon of such conspicuous ability and powers of accurate observation as Mr. Jonathan Hutchinson, that the weight of evidence was opposed to the view that there was a connection between the two conditions.—The CHAIRMAN, reviewing the evidence brought forward, did not see how any other conclusion could be arrived at than that this disease was merely coincident with, and had no relation to, the vaccination, and that it had been given an exceedingly unfortunate name.—Dr. MONTGOMERY remarked that the vaccine vesicles were stated to have run a natural course in all the cases reported. The vaccination might have made the original disease, whatever it was, take a more serious form than it would otherwise have done.—Dr. SINCLAIR did not think the diseases that occurred in the cases before the meeting had anything to do with the vaccination. The case was made further doubtful by the circumstance that the gentleman who was said to have vaccinated them had denied that he did so.—Dr. DOYLE asked if any lymph was taken from the child, and examined microscopically or chemically.—Dr. DARBY remarked that the doctrine of septicæmia or blood-poisoning had prejudiced the more enlightened classes strongly against vaccination, and they were glad to catch at any case like that brought forward by Mr. Stokes as an argument against having their children vaccinated. Mr. Stokes's case was almost a portrait of a case of pemphigus gangrænosus that he had seen some years ago.—Dr. J. W. MOORE disputed the force of two arguments which had been brought forward by Mr. Stokes, and some who spoke subsequently, against the connection of the skin-affection in these cases with the vaccination. One was, that the skin-affection could not have depended on the vaccination, because other children had been vaccinated with the same lymph and no untoward results had followed. That was an exceedingly injudicious argument. The practical point was that too great care could not be exercised in selecting the children on whom the operation of vaccination was to be performed. It was quite clear that the receptivity of the child in question to morbid processes was exceedingly high. The other argument which had been put forward was that vaccine vesicles, in the cases in question, did not undergo any gangrenous action.—Dr. MACSWINEY concurred with those who dissented from the title attached to the paper. The probable explanation of this case was that some latent disease in the child had been called into activity by the operation of vaccination.—Dr. DUFFEY said Dr. Moore's first argument was fully borne out by what had occurred in the case of an analogous disease: *varicella gangrænosa*. A remarkable case of that disease was lately reported at a meeting of the London Pathological Society. In the course of the discussion on that occasion, it was brought out that, in all the case of varicella gangrænosa which had proved fatal, there was a tuberculous condition of the glands. He would ask Mr. Stokes: Was there any family history of a tuberculous tendency in the child in question?—Dr. HARVEY would be extremely glad to be able to conclude that it was a mere accidental circumstance that this child, after having been vaccinated, had those spots. He could not come to that conclusion absolutely, but would leave the question an open one. He did not think they should speak of such a thing as gangrenous lymph. He did not think they could consider that there were two distinct poisons in the lymph—one giving rise to the gangrene and the other to the vaccine vesicle. He thought that in this particular case, owing probably to some circumstances in the child itself, the disease took on it a gangrenous form. It was a mistake to imagine that the rapidity of the appearance of the spots was a proof that there was not a very distinct connection between the vaccination and the appearance of those gangrenous spots. They knew that pyæmic eruptions appeared very rapidly. He could not approve of the proposition that vaccination had nothing to do with the illness of this child; still he believed that, bad as the disease was, it was a great deal better than small-pox.—Dr. HENRY KENNEDY said the disease under discussion was one that existed independently of vaccination. He put down what occurred in Mr. Stokes's case to the constitution of the child. It might have been better to have headed the paper "A Case of Pemphigus Gangrænosus".—Dr. WRIGHT maintained that there was no analogy between the cases detailed by Mr. Stokes and that reported by Mr. Hutchinson.—Dr. C. F. MOORE spoke of the occurrence of "burnt holes", independently of vaccination, amongst the children of the poor. He quoted statistics to show how very rarely untoward results follow vaccination. He had himself vaccinated more than five thousand children, yet had never met with a case in which there were gangrenous sloughs.—After a few remarks from Dr. CORLEY, Mr. STOKES (in reply) said amongst the difficulties he had in accepting Mr. Hutchinson's views was the fact that three of the children vaccinated were not affected with the disease in question. He could not agree with Dr. J. W. Moore in his opinion as to the vesicles not being affected with gangrene. He could not but think that, if they were the points of introduction of the alleged poison, they would also have been the starting-points of the gangrenous disease. Yet, in both Mr. Hutchinson's case and his, they enjoyed a complete immunity from the gangrenous process. That chiefly made him doubt the desirability of introducing the term vaccinia gangrænosa into their nosology, although he was not disposed to alter the heading of his paper. He did not examine the lymph microscopically, because he did not believe that any microscopical examination of it would throw much light on the subject. He inquired closely into the family history of his patient, and obtained no evidence whatever of tuberculosis or of a scrofulous diathesis.

REVIEWS AND NOTICES.

ANNALS OF CHEMICAL MEDICINE. By J. L. W. THUDICHUM, M.D.
London: Longmans. 1879.

THIS compilation will come under the notice of two classes of readers, medical men and chemists. Both will find the book of much value, as containing accounts of some of the most recent scientific work, and a summary of the opinions and doctrines upon some important questions of many chemists of note, and especially of many German physiological chemists. Both these classes of readers will find the little glossary of "names and synonyms" at the end of the volume of much value. The editor has coined a nomenclature for himself; and even the initiated might be puzzled at reading for the first time of "an admixture felled by sulphuric acid". The glossary informs him, however, that the verb "to fell" is synonymous with the verb "to precipitate"; though it seems probable that to describe a woodman as "precipitating" trees would create as much surprise *primâ facie*, as to talk of a chemist "felling" a solution of lead with sulphuric acid. In some cases, there is a laudable desire on the part of the editor to abolish hybrid words; thus he proposes to substitute hydrothion for hydrosulphuric acid (H_2S); and here we can sympathise with his efforts to amend the language of science, but time alone can obliterate the effects of long-established custom and precedent.

As regards the purely chemical portion of the work, there are certain statements made which appear to be hardly sufficiently warranted by facts. Thus, in the article on new "alkaloids of urine", there are very wide discrepancies between the composition of some of the bodies analysed and those indicated by the formulæ assigned to them, notably at the bottom of page 166, where the theory requires 31.11 per cent. of nitrogen, whilst the amount found was 33.65 per cent. (mean of two analyses), a discrepancy which seems hardly adequately accounted for by the "occluded hydrogen" to which it is ascribed by the editor. Moreover, the source of these alkaloids being abundant and easy of access, we should have thought that they might have been obtained in larger quantities, and their compositions and properties more accurately determined, in spite of the somewhat complicated and laborious processes required for their extraction.

But to the readers of this JOURNAL, the medical bearing of the work possesses greater importance, and the medical reader will find much to interest him. Thus there is a very masterly summary of the most recent views upon the "contagion" question, containing some interesting observations by the editor himself; and there is a special account of the chemistry of antiseptics. There are also some interesting observations upon the contagiousness of the cholera poison; the results of which seem to show that the alvine evacuations of cholera are most contagious (at all events, to mice) after they have undergone a certain period of fermentation; and the time required for the development of the greatest degree of contagiousness (to mice), in the intestinal contents of the human intestine, is less in proportion to the proximity of the portion of intestine from which the contents are taken to the anal orifice: a result of great interest, as showing that, in all probability, chemical processes analogous to fermentation take place in the lower portion of the intestine; and of much practical importance, since these changes evidently render the intestinal contents more virulent in cholera, and point to the necessity of evacuating them as quickly as possible, lest the poison be absorbed in its most virulent form and enter the blood of the patient.

We cannot, however, endorse the pathological opinions of the editor as to the cause of the low temperature in the later stages of cholera. Any attempt to account for this phenomenon by such a purely physical theory as that the loss of heat is due to "liquefaction of colloid elements" in the muscles, appears to us inadmissable.

Neither does the editor's explanation of the high temperature sometimes observed in the "cavities of the trunk" in cholera seem very lucid. He accounts for this occurrence by the hypothesis that there is local stagnation of blood produced by contraction of blood-vessels. It seems to us more rational to account for the low temperature of collapse by stagnation of blood; local, in the first place, in the lungs, and followed, in consequence of resulting deficient aëration, by an arrest more or less complete of processes of oxidation throughout the body; whilst the local rise of temperature in cavities might be more rationally explained by fermentative or other chemical changes occurring in their contents. These, however, are pathological rather than chemical points; and the book contains much valuable and trustworthy information; though perhaps the suggestiveness of much of the work is its greatest value.

EYESIGHT, GOOD AND BAD. By R. BRUDENELL CARTER, F.R.C.S., Ophthalmic Surgeon to St. George's Hospital. London: Macmillan and Co. 1880.

THE author's design in writing this little treatise has been to place clearly and succinctly before the general public some of the most elementary but at the same time important truths relative to the "exercise and preservation of sight". The book is one which, though intended exclusively for lay readers, will perhaps not be altogether unacceptable to many members of the medical profession. Much, indeed, of what it contains has already been for more than half a generation the common property of physiologists. Nevertheless, Mr. CARTER has a peculiar power of placing old facts in a new and interesting light. His style is extremely pleasant, and his subject matter is arranged in a forcible and telling manner. There is not, of course, much room for originality in a book of this sort; nor will any medical man acquainted with the fundamental doctrines of ophthalmology add anything to his stock of knowledge by its perusal. But for all who are wholly ignorant of physiological optics, both theoretical and applied, the book is an excellent introduction to the study of them. It is accurate, lucid, and interesting; it contains a great deal of valuable information, arranged in a condensed and popular form. It can, therefore, scarcely fail to be of service to that large class of readers for whom the author mainly intended it.

The opening chapters of the book are devoted to a consideration of the anatomical structure of the eye and its appendages, to the properties of lenses in general, and to the formation of retinal images. These matters are made thoroughly clear in about fifty pages of well-written description, free from technicalities and unnecessary details. Upon the foundation of the general principles thus laid down the author builds his superstructure. He treats in succession of myopia, hypermetropia, and astigmatism, of asthenopia, and of colour-blindness. The concluding and certainly not the least valuable chapters in the book are devoted to some practical considerations which are deduced as corollaries from the doctrines previously laid down. His remarks on the care of the eyes in infancy and childhood are peculiarly appropriate at the present time; when, with the increased spread of education, the whole subject of refraction in its relation to weak sight must every year assume increased importance. With the author's general proposition, that stupidity and obstinacy in children are, in a great number of cases, due to defective vision, every one who has had much experience in ophthalmic cases will agree. If this little book succeed in attracting general attention to facts which, though long known to every observant surgeon, have strangely been overlooked in some quarters, its publication will have been amply justified.

In the chapter headed "Contrivances for Saving Visual Effort", some very ingenious plans are mentioned, such as Dr. Thursfield's writing frame and the American type-writer, which latter the author himself now uses, to the exclusion of ordinary pen and ink, for almost every purpose for which writing is required.

The last chapter in Mr. Carter's book deals with the very important subject of spectacles. It is not, perhaps, quite so full as it might be, but still contains a good deal of valuable and practical information. This, inasmuch as it aims at placing the buyer somewhat less in the power of the optician than he is at present, cannot fail to be acceptable to that large class of mankind which, from whatever cause, is compelled to wear glasses of one kind or another.

EYEBALL-TENSION: ITS EFFECTS ON SIGHT, AND ITS TREATMENT. By W. SPENCER WATSON, F.R.C.S.Eng., B.M.Lond. London: H. K. Lewis. 1879.

THIS little work is mainly an essay on the treatment of glaucoma, or eyeball-tension, as the author prefers to call it. We cannot, however, agree with him in thinking that the former name is in any respect inferior to the one by which he proposes to replace it. One very obvious advantage it possesses, in the present state of knowledge on the subject, is that of committing those who employ it to no definite theory. It is the name of a symptom, and nothing more. Eyeball-tension may in this respect indeed claim to be upon much the same footing. Nevertheless, cases do occur in which, with all the other symptoms of glaucoma present, the tension remains practically normal. A case of this sort is actually given by the author in Appendix B, in which the tension is registered as T½. Such cases, and they are by no means excessively rare, appear to us to afford grounds for not hastily discarding a time-honoured designation for one in no wise superior to it.

The author deals with the theoretical part of his subject in a very clear, though, at the same time, somewhat meagre manner. He contents himself with a bare statement of that theory of glaucoma, which appears to him to be most satisfactory, and the most in accordance with the clinical and pathological data which we at present possess. The third chapter of the book, which is an "analysis of the causes of eyeball-tension", should be regarded as a practical commentary and a test of the soundness of the views he advances in the first. Mr. WATSON is in favour of a modified mechanical theory of glaucoma, in which increased rigidity of the sclerotic plays an important part. He does not, however, exclude the possible influence of inflammation in certain cases, such as those consecutive to iridochoroiditis, of rheumatic, or gouty, or syphilitic origin, with sequelæ so slight as to have been overlooked. He also believes in an idiopathic—*i. e.*, a non-consecutive acute—form of glaucoma, without true inflammation.

As regards the treatment of eyeball-tension, the author's remarks are valuable and to the point. He prefers sclerotomy to iridectomy in many cases of absolute glaucoma in which the iris is wasted; in cases where an anæsthetic is for any reason contraindicated; in cases of total loss of vision, where the object is merely to relieve pain; and, finally, in cases in which the patient has been affected with eczema or any similar eruption on the head and face. He considers Dr. Argyll Robertson's operation of trephining the sclerotic as worthy of a more extended trial, although the case he gives in support of this view cannot be said to be very convincing. As regards the formation of a cystoid cicatrix after iridectomy, the author considers it rather an advantage than otherwise, in which most ophthalmologists will agree with him.

In conclusion, we may say that this little work is a clear and concise statement of some of the most modern doctrines as to the pathology and treatment of glaucoma. Within his self-imposed limits, the author has done his work well.

INJURIES AND DISEASES OF THE LYMPHATIC SYSTEM. By S. MESSENGER BRADLEY, F.R.C.S., Surgeon to the Manchester Royal Infirmary; Lecturer on Practical Surgery in Owens College. London: J. and A. Churchill. 1880.

MR. MESSENGER BRADLEY'S work is valuable and readable, both as an original production and as a compilation of the latest researches of others. The original portions chiefly comprise the abundant clinical details of cases under the author's observation. The various classes of lymphatic diseases are classified according to the usual arrangement adopted in modern pathological handbooks. The subject of injuries to lymphatics leads the author to the discussion of the few remarkable cases of extravasation of lymph following rupture of the thoracic duct, which by association of ideas demands, as the next object of attention, the morbid escape of lymph from free surfaces known as lymphorrhœa. Of all the chapters, that on septic lymphangitis is the longest and the most important; it is very comprehensive, including, besides some good descriptions of cases of dissection-wounds, the part which lymphatic affections play in erysipelas, anthrax, plague, and other general or local diseases.

A separate chapter is devoted to syphilitic and cancerous infection of the lymphatic system, bubo having been already considered in the section on adenitis. Mr. Bradley has not the slightest doubt of the existence of the *bubon d'emblée*. The author does not reject the possibility of a syphilitic "contagium vivum": the germs found in secretions from specific cases may at present appear identical with others seen in non-specific discharges, yet the microscopist of the future may succeed in detecting a difference.

In the chapter on that general enlargement of the lymphatic glands which has received so many synonyms and is here termed "lymphadenosis", Mr. Bradley endeavours to distinguish a "lymphatic diathesis" as perfectly distinct from strumous and tubercular cachexia.

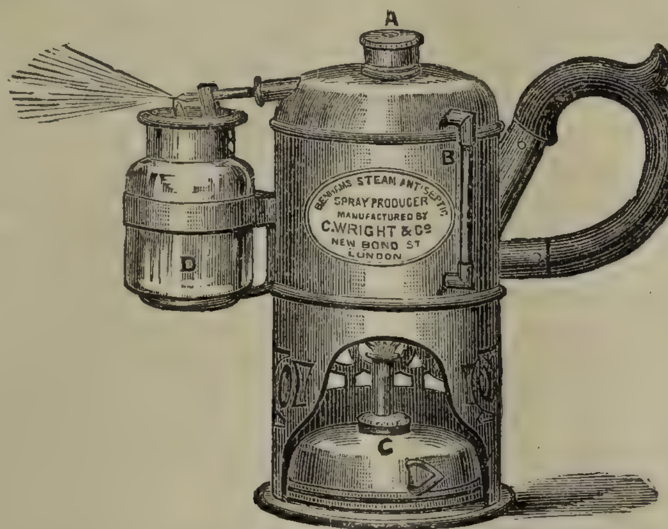
In conclusion, we think it only fair to express a wish that Mr. Bradley's *Injuries and Diseases of the Lymphatic System* may find its way into medical libraries as a valuable addition to contemporary literature.

[Since the foregoing remarks were written, we have heard with much regret of the death of Mr. Bradley.]

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW STEAM ANTISEPTIC SPRAY PRODUCER.

SIR,—The accompanying illustration represents a new form of inexpensive Steam Antiseptic Spray Producer, invented by Mr. Benham, connected with this hospital, and by whose name the apparatus will be known. It is composed wholly of metal, and is provided with an excellent safety valve and glass gauge for ascertaining the contents of boiler; the handle is also of a very convenient form and can be held for a considerable length of time without tiring the hand. The apparatus is constructed to produce an uninterrupted spray for upwards of an hour and a half.



Having already effected numerous successful operations on the antiseptic method with the aid of these sprays, I am able to recommend them to the profession with every confidence. They are both inexpensive and portable, and are well adapted for operating and dressing for hospital or private practice, and their low price should place them within the reach of every country practitioner. They are manufactured by C. Wright and Co., 108, New Bond Street, London.—I am, sir, yours obediently, JAMES ROUSE, F.R.C.S.Eng.

St. George's Hospital, Hyde Park Corner, April 20th, 1880.

HYPOPHOSPHINE.

DR. FREDERICK CHURCHILL, in a paper on the hypophosphites (BRITISH MEDICAL JOURNAL, March 27th, 1880), remarks that, with the exception perhaps of cod-liver oil, no remedy has of late been so largely used as chemical food. He states that the salts contained in this preparation are not in a condition favourable to assimilation, nor the large quantity of sugar present calculated to improve the digestive organs. He recommends a similar preparation, but one containing an actual solution of the salts of the hypophosphites, prepared according to a definite process of chemical manipulation, instead of being merely a suspension of the salts in syrup; and having phosphorus in a higher and more active state of combination, as well as possessing all the therapeutic properties of this drug, without the danger attending its administration in the crude state.

Impressed with these remarks, Messrs. Gale and Sons (of Bouverie Street) determined to combine the solution of the hypophosphites with cod-liver oil, and the wine, etc., Dr. Churchill recommends. The result of their endeavours is an emulsion which commends itself as an elegant and very agreeable preparation, emulsified without the use of gums or alkalies, which might derange the digestion.

Further experiment will no doubt determine the value of hypophosphine as a therapeutic and dietetic agent in the treatment of diseases arising from deficiency of power or the poverty of blood. Its composition appears to indicate it as a "brain and nerve food", and as adapted to the treatment of consumption, hysteria, myalgia, etc.; to enrich the milk of nursing mothers by furnishing elements favourable to the development of bone and tissue, and to counteract the exhaustion of prolonged nursing, or general emaciation. It is agreeably flavoured, does not provoke nausea by any after-taste, and would appear to be easily digestible. The name has been chosen "with a view to brevity and expressiveness".

SELECTIONS FROM JOURNALS.

MEDICINE.

PARACENTESIS OF THE PERICARDIUM.—Dr. C. Hindenlang has reported a case in the *Deutsche Archiv für Klin. Medicin*, Band 24. The patient was a man aged 20, previously in good health, who was admitted into the hospital at Freiburg on account of pericarditis with effusion, from which he had suffered for two and a half months. On admission, there were cyanosis, dyspnœa, frequent pulse, almost entirely intermittent during inspiration, very extensive pericardial dulness, absence of the apex-beat, and the heart-sounds were almost inaudible. On the third day, puncture was made by means of Dieulafoy's apparatus in the fifth intercostal space, two inches to the left of the edge of the sternum; then a *centimètre* (0.4 inch) farther outwards; and again in the fourth intercostal space, two *centimètres* from the left edge of the sternum; no result being obtained on either occasion. The needle was introduced to the depth of about an inch and a half. Next day, the operation was repeated by means of a fine trocar, 0.06 inch in diameter, in the fifth intercostal space, 1.6 inches to the left of the sternum; the instrument being introduced to the depth of 2 to 4 inches. Three hundred *grammes* (more than 10 ounces) of dark red fluid were now removed by aspiration; on microscopic examination, it was found to contain numerous blood-corpuscles, with fibrin in the form of flakes, hyaline membranes, or finely granular masses. The patient's condition improved essentially after the operation; the dyspnœa and cyanosis decreased; the area of dulness was reduced; and the quantity of urine was considerably increased. At the end of six weeks, the symptoms had returned; paracentesis was therefore repeated in the same place, and 500 cubic *centimètres* of nearly clear yellow fluid were removed. This was followed by relief of the symptoms and increase of the quantity of urine, with disappearance of the *pulsus paradoxus*. The patient was discharged relieved at the end of five months, but died two months afterwards. No *post mortem* examination was made. The interesting points in the case were the presence of the *pulsus paradoxus*, which had been already observed by Traube and Bäumler in cases of extensive pericardial effusion, and the increase in the quantity of urine after each operation. In a second case, which had been treated by Professor Kussmaul of Strasburg, and afterwards came under Dr. Hindenlang's care, there was an effusion in the right pleural cavity as well as an abundant one in the pericardium. Puncture in the fifth right intercostal space, about three-fifths of an inch to the outside of the nipple-line, was followed by the escape of clear serum; and, when the needle was introduced more deeply, turbid brownish-red fluid escaped. The pericardium was probably punctured through the pleura. The patient left the hospital before complete recovery. Dr. Hindenlang has collected all the recorded instances of paracentesis of the pericardium (including his own two cases), and concludes that the result of the operation is fairly successful. In 50 cases, the operation was performed 65 times; and was followed by more or less complete recovery in 32.3 per cent. of the cases. The modes of operation were: incision in 7 cases; incision with puncture in 3; puncture (with or without aspiration) by the trocar in 21, and by the hollow needle in 11 cases; puncture with Pravaz's syringe in one case. The situation of the operation was very various. The author recommends puncture with the trocar or with the hollow needle, combined with aspiration, in the fourth, fifth, or sixth intercostal space, three or four *centimètres* to the left of the sternum.

THE DOSIMETRIC SYSTEM.—On the occasion of the visit to London of Dr. Burggraeve, Emeritus Professor of Anatomy and Surgery of Ghent University and Member of the Royal Academy of Medicine of Belgium, several members of the profession met on the 27th, at the residence of Dr. Phipson, F.C.S., to listen to a discourse by the veteran professor, on the history of his researches upon the alkaloids, and their application to the treatment of diseases by what is termed the dosimetric method. Professor Burggraeve, in spite of his seventy-four years, addressed the meeting with great fluency, and without fatigue, for upwards of two hours. He illustrated his remarks by cases taken for the most part from his own practice. His object was to urge that strychnin, hyoscyamin, aconitin, veratrin, digitalin, etc., can be applied in medicine as safely and efficiently as quinia in cases of intermittent fever. He gave his views of their action in fevers and other forms of disease.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 5TH, 1880.

ORGANISATION OF THE INDIAN MEDICAL SERVICE.

WHEN the first note was sounded heralding the new system of medical administration in India, this JOURNAL sang the requiem of the old Indian Medical Service. We were not alone in the belief then expressed. The officers of the service at home and abroad were filled with alarm, and the press of India gave voice to the discontent immediately engendered by the injudicious wording of the General Order announcing the change, which seemed to add "insult to injury". Nor was this all; we observe that one presumably so well informed on such a point as Professor Maclean of Netley, was so impressed with the conviction that utter ruin was about to fall on the medical service of India, that, in his introductory discourse at the opening of the summer term, he embraced the opportunity of sketching its history, showing the immense services professional, educational, and political, rendered to the State; reminding the Government of India that "it has again and again acknowledged that no class of public servants in India have done more to reconcile its people to British rule than its medical officers; a fact," he added, "that does not appear to have been remembered when that Government had under its consideration the terms of an order that dealt a heavy blow and great discouragement to its members". Whatever may have been the intention of Government, as we have already had an opportunity of showing, the cry of Ichabod raised on all sides was a little premature. It may or may not be true that Government was induced to stay the use of the pruning-knife before the tree was utterly destroyed, by the outcry that quickly followed its first pretty free application. This much is certain, if unjust suspicion was incurred and undue alarm created, the Government of India has to thank its own injudicious and ill-considered action in publishing the new scheme of organisation in such a manner that, if the object had been to create distrust and provoke discontent, no more successful method of attaining those undesirable ends was possible than the one pursued.

We have already published the scheme, so far as the distribution of the chief administrative appointments is concerned. Still further to diminish the discontent awakened, and to compensate the service for the abolition of some of the deputy surgeon-generalships and surgeon-general's appointments, it is proposed by the Army Commission, following the lines of the Army Medical Department Warrant, to create twenty-four brigade-surgeons, a rank intermediate between that of surgeon-major and deputy surgeon-general. Departing, however, from the Army Medical Department Warrant, and not improving on it, these appointments are to be divided into two classes. The first class to have an extra staff-salary of 450 rupees monthly; and, after five years' service in that rank, the brigade-surgeon will be entitled to an addition of £150 *per annum* to his pension. The brigade-surgeon of the second class will only draw an extra staff-salary of 250 rupees monthly, and the addition to his pension will be £100. As the first and second class brigade-surgeons will do exactly the same work, and have the same responsibilities, it is difficult to see the justice of dividing them into classes. This system of first and second class was once in use in the British service, and was so unpopular, and gave rise to so much heart-burning, that it was abolished. The selection for these appointments is to be from both the British and Indian Medical Departments. Bengal to have six; two from the British, and four from the Indian Medical Service; Madras, five; one from the British and four from the Indian service; Bombay, three British and four Indian; the Punjab, two British and four Indian.

The separation between the civil and military branches of the Indian Medical Services, so far as administration is concerned, is now complete; but we observe with satisfaction that the new scheme is so contrived that, in the event of war, the medical officers in civil employment can be recalled for military duty. This is a part of the old system that always worked well. The civil surgeons of India enjoy a field of surgical experience second to none in the world. No surgeons, not even those of our great London hospitals, have such opportunities for becoming dexterous operators as the civil surgeons of even moderately sized stations; and thus it has always happened that their services in field-hospitals in war have been especially valuable.

We are glad to see that a system which has of late years caused great discontent in the Indian Medical Service is to be abolished. A candidate for the Medical Service of India is told at the India Office that his pay will be so much; but, on reaching India, he discovers that, no matter how hard the work he is called upon to do may be, he can only draw what is absurdly called "unemployed pay" until he is actually in charge of a regiment. This is, to say the least, an evasion of a positive engagement, and a piece of gross injustice.

There is another scheme which, we gather from the Indian newspapers just come to hand, has been submitted to Government by the Army Commission now sitting at Simla. Its object is to abolish the competition in the market between the British and Indian Medical Services; in other words, to recruit the latter entirely from the ranks of the British service—that is, by voluntary enlistment from it, after passing the usual linguistic tests. The commissioners do not appear sanguine that this scheme will be approved at home, and in this we concur; for, so far as we have the means of judging from the accounts that have reached us, it seems crude and unworkable.

It is much to be regretted that this noble service has been handed over to be pulled to pieces by the unskilled and hostile hands of a Commission that has for its president the Hon. Ashley Eden. It is only too notorious in India that this able civilian is no friend to army medical officers, and, as a natural consequence, he is profoundly distrusted by them. A great mistake was made by the Commission at the outset; and the awkward attempts to remedy this by such patching and cobbling as the above, only adds to the irritation and distrust. The sooner this is understood by Lord Hartington, the better it will be for all concerned. Let the noble lord be warned by what happened to the Medical Department of the Army. India cannot do without a first-class medical service, such as it has always had; and such a service it cannot have if the Hon. Ashley Eden is to be permitted to "improve" it after his method. The sooner this work is taken out of his hands the better: above all, let the authorities understand that until the retiring pensions of Indian medical officers, who have to spend the best years of their lives in a hostile climate, are made at least equal to those in the Medical Department of the British Army, it will be impossible to secure the services of men of a high class in the profession for the Indian Army.

RECENT STUDIES IN THERAPEUTICS.

IV.—GELSEMINUM SEMPERVIRENS.

AT the very outset we are met with a difficulty: Should it be "gelseminum" or "gelsemium"? Both names are used; the former being commonly employed in this country, whilst the latter is the officinal title in the United States *Pharmacopœia*. In case of doubt, it is well to turn to precedent and see what others have said who have gone before us; for, after all, gelseminum is a very old remedy. Professor Amos Eaton, in the fifth edition of his well-known *Manual of Botany of North America*, published in 1829, calls it "gelseminum"; but, on the other hand, Jussieu, in his *Genera Plantarum*, published in 1789, describes it under the name of "gelsemium". On going back still further, we find that Morison, in his *Plantarum Historia Oxoniensis Universalis*, published in 1699, calls it gelseminum; and, on reference to old John Parkinson's *Theatrum Botanicum* (1640), it will be seen that he takes the same view of the matter; for he gives two excellent figures of plants, which he entitles "*Gelseminum sive Iasminum Indicum flavum odoratissimum et luteum Virginianum odoratum scandens sempervirens; the most sweete yellow Indian jasmine and the sweete yellow climbing yellow jasmine of Virginia*". The weight of evidence is certainly in favour of "gelseminum"; and this accords with its derivation from *gelsomino*, the Italian for jessamine. We may mention incidentally, that of the word jessamine itself Parkinson says: "The *Arabians* call the *Jasmine Zambach* and Sambach and *Jasemin*, as it is thought, from the Greek word *Iasme*, which signifieth *Violaceum*. It hath no other Greeke name, unless, as some thinke, it be the *Pothus albus* of Theophrastus."

Gelseminum is in a way a fortunate plant; for it has received no fewer than six different scientific names, and has been claimed as a member of six natural orders. At present, it is "located" with the Loganiaceæ—the strychnia family; but, as it has affinities with the Apocynaceæ, the Scrophulariaceæ, the Bignoniaceæ, and the Gentianaceæ, it is to be feared that its tenure of office is by no means a certain one. The plant is commonly known in America as the yellow, wild, or Carolina jessamine; and also as woodbine. It grows wild on rich clay soils, near small streams, along the seacoast from Virginia to Florida. It is one of the most beautiful climbing plants of the Southern States. It ascends lofty trees, forming festoons from branch to branch; and, in the flowering season, in the early spring, scents the atmosphere with its delicious odour. It is extensively cultivated as a garden-plant in many parts of America, not only for the beauty of its flowers, but for the rapidity of its growth and the shade it affords. It begins to blossom early in March, and remains in flower until the end of May. It is not in any way related to our common garden-jessamine, and is not readily cultivated in this country. It is somewhat unfortunate that the same name should be applied to two perfectly distinct plants; but it is easy to avoid confusion by calling gelseminum the Carolina jessamine. The portion of the plant used in medicine is the root, which is several feet in length and in inch or more in diameter. It is doubtful whether the leaves possess any medicinal properties, and a tincture prepared from the flowers is comparatively inert. The plant is largely grown by the Shakers of New Lebanon for medicinal use. It contains two active principles—gelseminia and gelseminic acid. Gelseminia, when pure, is a colourless odourless solid, having an intensely persistent bitter taste, which may be detected in a solution containing only one-thousandth of its weight of the alkaloid. It dissolves sparingly in water, but freely in water acidulated with hydrochloric acid. Gelseminic acid can be obtained in tufts of acicular crystals, colourless, odourless, and nearly tasteless. It possesses strongly acid properties, completely neutralising bases, and forming with them salts. It is but slightly soluble in cold water, but most freely in hot, and in ether and chloroform. A very remarkable property, and one that promises to be of value in medico-legal investigations, is the magnificent fluorescence displayed by alkaline solutions of its salts. A solution containing a one-thousandth of its weight of the acid appears, by transmitted light, of a greenish-yellow colour, the surface of the liquid having at the same time a deep blue tint. The same effect may be produced by digesting a piece of the root in a tumbler of water for twenty-four hours. The fluorescence is much more intense than that of quinine, from which it differs in immediately disappearing on the addition of an acid.

Gelseminum was first brought prominently into notice as a medicinal agent by a curious accident. It appears that some years ago, a planter of Mississippi, whilst labouring under a severe attack of bilious fever, which had resisted all the usual remedies, sent his servant into the garden to procure a certain medicinal root and prepare an infusion of it for him to drink. The servant, by mistake, collected another root, and prepared an infusion of that for his master, who, after swallowing some, was seized with complete loss of muscular power, and was unable to move a limb or even raise his eyelids, although he could hear, and was cognisant of circumstances transpiring around him. His friends, greatly alarmed, watched the result with much anxiety, expecting every moment to see him breathe his last. After some hours, he gradually recovered, and, to his astonishment, found that his fever had left him. Ascertaining from his servant what plant it was that had acted so marvellously, he collected some, and employed it with success on his own plantation and among his neighbours. The fame of this new remedy spread, and it soon attained a great reputation in America in the treatment of ague, influenza, spermatorrhœa, dysmenorrhœa, neuralgia, and generally as a "pain-killer".

The physiological action of gelseminum has been exhaustively investigated by Bartholow and Ott in America, and by Ringer and Murrell in this country. A frog injected with the liquid extract presented very remarkable symptoms. Soon after the administration of the drug, the animal became apathetic, and there was considerable impairment both of voluntary power and reflex action. When placed on its back, it made no attempt to resume its normal position for a minute or two, and then slowly turned over, stopping, however, halfway, and lying motionless on its side. On touching the eyes, they were closed; some minutes elapsed before they were again opened, and even then the movements were performed with abnormal slowness. The loss of voluntary power and reflex action gradually increased, and the animal soon became perfectly motionless. The whole body was limp and flaccid, and the limbs remained in any position in which they were placed. On pinching, a feeble and ineffectual attempt was made to escape, the animal, in its unavailing efforts, falling on its back or sides. The application of the poles of the battery to the limb excited, in addition to muscular contraction, faint reflex movements. *Pari passu* with these changes in the nervous system, the breathing became hurried and superficial, and, as the paralysis increased, the respiratory movements became more and more shallow, and finally, with the total abolition of voluntary power and reflex action, ceased. The heart continued beating for a considerable time after the cessation of the respiratory movements. By an elaborate series of experiments, it was shown that the paralysis of reflex and voluntary power was not due to the action of the drug on either the motor nerves or the muscles. It was shown, too, that gelseminum exerted no stimulating action on Setschenow's inhibitory centre, and from this it was concluded that it acted directly on the spinal cord.

Gelseminum is not only a powerful motor paralyser, but also a powerful respiratory poison; indeed, it generally, if not always, destroys warm-blooded animals by asphyxia before paralysis becomes complete. It produces no primary quickening of respiration; it does not paralyse the phrenic or intercostal nerves, and it acts after division of both vagi. Dr. Burdon Sanderson considers that the respiratory effects are due to paralysis of the automatic respiratory centre in the floor of the fourth ventricle, and Ringer and Murrell have shown experimentally that, if respiration be maintained until the drug can be eliminated, recovery takes place.

From the action of gelseminum on the cord, it might be supposed that it was indicated and could be advantageously administered in diseases, such as tetanus, characterised by a morbid excitability of the cord. It is doubtful, however, if a dose sufficiently large to exert a beneficial action on the cord could be administered without implicating the respiratory apparatus to such an extent as to endanger the life of the patient. Cases of tetanus are reported which have recovered after the administration of gelseminum; but, on the other hand, in one or two instances, the impression conveyed by the report is that death was due rather to the treatment than to the disease.

THE METRIC SYSTEM IN MEDICINE AND PHARMACY.

A GOOD deal of attention is being directed to the suggestion, which was at the last annual meeting brought under the notice of the British Medical Association, that the time has now arrived when it might be wise to substitute the metric system of notation for the ordinary one in the prescription and dispensing of drugs. Nowhere, perhaps, has the question created so much interest as in America, some of the medical authorities in that country having even already gone so far as to adopt the system. Nor is this wonderful, when it is remembered that Americans are worse off as regards this question even than we in England; since, though they use the same names for weights and measures as the English, they have different values; and while Americans have frequently to convert their own weights into English equivalents, the converse process is not often required. The Americans, therefore, have not only all the disadvantages of the English to contend with, but this additional one besides. A small but interesting pamphlet by an American physician, Dr. T. B. Curtis, urges the question onwards. As he points out, the innovation proposed is of a twofold character. There is first a proposal to substitute a system of weights and measures founded on a single basis which can be accurately determined, and which makes use of the decimal system for calculating multiples and divisions of the unit, in the place of a system involving the employment of at least two different standards of weight, which, though using the same names, have not the same values, and which besides do not coincide with the unit of weight of any other people. The second change suggested is the substitution of weight for the volumetric measurement now employed to compute quantities of fluids. Since the fluid ounce bears a known ratio to the avoirdupois ounce, the methods at present used are not entirely unscientific; and it is hence conceivable that the decimal system might supersede the ordinary one in the measurement of solids, while fluids might still be measured as now by volume. This is not a very probable contingency, however; since, if the new system were adopted for solids, the reasons for retaining the present fluid measures would disappear. It is quite certain, at any rate, that the original framers of the metric system intended the new notation to cover both domains of weight and measurement.

It is unnecessary to refer here to the history of the metric notation, or to say anything on the question whether the *mètre*, the unit of length which gives its name to the system, is really a scientifically accurate and unchangeable basis. Even if it be not, and if it should appear that the earth is shrinking somewhat, and that therefore the *mètre*, which is one forty-millionth part of its circumference, is fractionally less now than it was once, this cannot do more than theoretically affect the value of the *gramme*, which is equivalent to the weight of one-thousandth parth of a cubic *litre* of water at a certain state of temperature and barometric pressure. The *gramme* and its divisions of *centigramme* and *milligramme* are the important features of the notation for medical men; and these divisions suggest at once that one of the advantages claimed for the new system is the employment of the decimal calculation, which makes computation a much simpler process than it is on the received scale. The addition or removal of *zeros*, or the moving of the decimal point to right or left for multiplication or division, as the case may be, is a much easier process than multiplying or dividing by twelve or sixteen to reduce pounds troy or avoirdupois to ounce, and *vice versâ*, or than multiplying by sixty to bring drachms to grains. To express fractions of a grain, again, involves a cumbrous arrangement of figures, and yet is becoming increasingly necessary since the introduction of alkaloids and active principles of great strength into medical practice. It is said, indeed, that one of the hindrances to the improvement of therapeutics in this country may be indirectly traced to the confusion in which our system of weights and measures is, different measures of weight and of volume being used in the preparation of a single officinal article. The consequent calculation of quantities is so difficult, that students and young practitioners avoid it and learn by rote prescriptions of famous or older men, long lists of which are consequently printed in the text-books, to the great detriment of the chances of any advance in rational therapeutics. Let any one, for instance, who may wish to find how much opium and antimony respectively are contained in a tablespoonful of the *mistura glycyrrhizæ composita* of the American pharmacopœia, compare the tediousness of the requisite calculation with the ease with which similar questions can be answered for a French officinal preparation. The results would bring out unmistakably the advantages of the decimal system over the ordinary one.

As regards fluids, as has been said, two courses are open to us. We may adopt the metric volumetric measurements proposed, such as the *centilitre* and *millilitre*, or we may introduce an entirely gravimetric computation, and prescribe all fluids by weight only. In point of fact, as is well known, the volumetric metric measurements bear a ratio to the weights of solids. Thus, a *millilitre* of water at a certain state of thermometer and barometer weighs one *gramme*. But, of course, the different specific gravities of different fluids disturb this simple proportion for those other fluids. This difficulty may be got over, as in point of fact it is, when fluids such as chloroform are sold in quantity by the pound weight, or by the *kilogramme*. The same practice obtains for the mineral acids; and sometimes it is resorted to for syrups. In smaller quantities, such as those used in medicine, it is attempted to get over the difficulty by prescribing drops. This plan also is, however, beset with difficulties, since drops are themselves variable. Sometimes a drop equals only a quarter of a minim, and sometimes it measures as much as a minim and a quarter, the variation being, therefore, as one to five. If, on the other hand, volumetric measurement of fluids be resorted to, other difficulties occur. Not to mention the inaccuracy of many of the graduated measures in use, and not to dwell on the very different measures of capacity called by the common names of tea, dessert, or tablespoon, other drawbacks arise. Thus it is often not easy to measure quantities of fluid by the graduations on glass. The quantity is apt to rise above or sink below the graduated line. Then adhesion may come into play, and, by a sort of capillary attraction, may raise the fluid above the line; and, lastly, volatility may deprive us of an appreciable quantity of our medicament. Probably a gravimetric method might be the best way out of all these difficulties, though some of them, it is evident, depend on physical properties of fluids, and must be dealt with, whatever mode of measurement is adopted. In the case of powerful solutions, the difficulty is often solved by starting with a certain number of drops, and increasing the dose gradually till the desired effect is obtained. By making a slight allowance for fluids heavier than water, the gravimetric method might be employed without greater inaccuracy than at present, and with all the advantages which the metric system has over the common one. Tinctures do not differ much from water in specific gravity; and syrups, since they are generally used not as medicines but for flavouring, are not of much consequence. One drachm of water weighs about 3.89 *grammes*. This might be taken as a basis for tinctures, while heavy fluids, like chloroform, could still, in the few cases where they are prescribed alone, be ordered in drops. If this were done, at the same time that such measurements as tea-spoons and dessert-spoons were either abolished or defined, and graduated measures marked with some stamp guaranteeing accuracy like the hall-mark for silver, the way would become clearer for the introduction of a gravimetric measurement for fluids, not the least advantage of which would be that it introduced no new measurements beyond the simple and scientific units already used in the metric notation for the dispensing of solids. This plan would also fulfil the most desirable indication of making our change once for all, supposing it to be admitted that some change is necessary, rather than by frequent alteration introducing confusion and perpetuating uncertainty. It would, it seems to us, be comparatively easy to introduce the system into those English towns where it is customary for medical practitioners to dispense their own medicines. The purchase of a set of metric weights and measures would be nearly all that would be necessary in order to effect the requisite change. If the gravimetric method is to be employed for fluids, an useful and even necessary addition to the *Pharmacopœia* will be the calculation of the weight of a drachm from the specific gravity of officinal preparations.

ANIMAL VACCINATION.

On Friday, the 11th instant, Dr. Cameron will bring before the new Parliament the question of animal vaccination, the previous discussion of which was frustrated by the dissolution. Dr. Cameron has on this occasion considerably altered and modified his proposals, and, instead of introducing a Bill on the subject, has confined himself to calling attention to the question and to moving a resolution. The terms of the proposed resolution are: "That, as cow-pock lymph direct from the calf, commonly known as animal vaccine, is of at least equal value as a prophylactic against small-pox with the ordinary humanised lymph, and as its use affords an absolute guarantee against the propagation of those human diseases occasionally invaccinated with human lymph, this House is of opinion that, to meet the objections to vaccination founded on the possible communication of other disease through that operation, a supply of animal vaccine should be provided by the National Vaccine Establishment for the use of those who prefer it to the ordinary lymph." It will be observed that this resolution differs essentially from Dr. Cameron's Bills of the last two sessions. Those Bills proposed to give to parents the option of requiring their children to be vaccinated with animal lymph: an option which, however desirable in theory, would obviously have caused considerable difficulties in practice. By the limitation of his proposal to its present dimensions, Dr. Cameron has got rid of the necessity for proposing fresh legislation on the subject; for it is doubtless quite within the competence of the Local Government Board to supply "vaccine lymph" from whatever source (animal or other) they choose. It will be interesting to learn what will be the answer of the new Government to the temperate proposal of Dr. Cameron. It was understood that, if the Bill of the member for Glasgow had actually come before the House in March last, Mr. Sclater-Booth would have been prepared to make some concessions to the growing demand for calf-lymph; and we shall be anxious to know what those concessions, as enunciated by Mr. Dodson, may prove to be.

There is reason for thinking that the occasion of Dr. Cameron's resolution will be seized upon by those members who during the elections pandered to their antivaccinator constituents, to endeavour to cripple the operation of the Vaccination Act. Thus Mr. P. A. Taylor proposes to move, as an amendment to Dr. Cameron's motion, "That, in the present unsettled condition of medical opinion in regard to the safety of using ordinary humanised lymph, as also of the safety, effectiveness, and practicability of the use of animal vaccine, it is, in the opinion of this House, inexpedient and unjust to enforce vaccination, under penalties, upon those who regard it as undesirable or dangerous". Moreover, Mr. Samuelson, the member for Banbury, who is believed to owe his election largely to antivaccination votes, intends to move, "That, inasmuch as it has been shown that vaccination, as performed by certain public vaccinators, has caused the propagation of other diseases, as the reliance on vaccination as a protection against small-pox has been diminished by differences of opinion amongst medical authorities, and as the penalties for non-compliance with the law have in some cases been enforced in an oppressive manner, it is expedient that an inquiry into the whole subject by a Royal Commission should be instituted". We have already (p. 528) expressed our opinion on the mischievous character of the promises of candidates to ask for a Royal Commission into vaccination, for the mere sake of securing certain votes and saving themselves the trouble of personal investigation of the subject. The resolutions of both Mr. Taylor and Mr. Samuelson are ingeniously worded to convey the idea that medical opinion is divided on the question of the usefulness of vaccination. The complete inaccuracy of this statement we need hardly expose to our readers; and we cannot doubt that Mr. Dodson, on behalf of the Government, will at once disclaim any assent to the terms of these resolutions. But, inasmuch as the Prime Minister himself, "when in a position of greater freedom and less responsibility", wrote certain post-cards which have been used with very damaging effect by certain antivaccinators, and as the Home Secretary recently expressed to a deputation of Derby antivaccinators his opinion that "it was very probable that other diseases were conveyed by the vaccine even when great care is taken", and said that the question of the balance of advantages could only be decided upon an investigation of the full evidence, we shall be curious to hear how the Ministry intends to deal with Mr. Samuelson's proposal.

Mr. and Mrs. Flower have issued cards for a reception in the Museum of the Royal College of Surgeons on June 19th.

Sir John Lubbock, F.R.S., has been returned without opposition as Member of Parliament for the University of London.

It is intended to confer the honorary degree of D.C.L. of the University of Oxford on Professor Lister.

One of the deaths registered last week in the St. Pancras Workhouse was of a female inmate whose age was stated to be 100 years.

The prizes in the Faculty of Medicine at University College were distributed on Wednesday last, by Professor Flower, of the Royal College of Surgeons.

During the past eight weeks of the current quarter, the death-rate in London has averaged only 20.1 per 1,000, against 23.5 and 24.4 in the corresponding periods of 1878 and 1879.

The Société de Médécine de Lyon has nominated a commission, consisting of MM. Teissier, Paulet, Perroud, P. Me ynet, and Clement, to study methods of obtaining complete isolation in hospitals of patients suffering from infectious diseases.

Mr. H. Edwards, M.P., has sent a donation of £500 to the Samaritan Fund of St. Bartholomew's Hospital, in acknowledgment of the attention he received at the hospital during his detention there for some weeks, in consequence of a serious accident at the Cannon Street Station.

We postpone till next week the publication of a biographical notice of the late Dr. A. Swaine Taylor, whose lamented death we last week announced, in order to be able to enrich the record of the services of the great medical jurist by reference to the family notes which will then be in our hands.

The finest known specimen of the archeopteryx has just been purchased by the University of Berlin, at the price of a hundred thousand *francs*. It was found in the chalk at Solenhafen, and is in excellent preservation. There are only two equally complete specimens, one in Bavaria, and the other in the British Museum.

By invitation of the authorities at the Royal Indian Engineering College, Cooper's Hill, Staines, Sir Joseph Fayrer, K.C.S.I., M.D., F.R.S., recently delivered a lecture "On the Preservation of Health in India". The lecture was so thoroughly to the purpose that special request was made for its publication. It is now in the press, and will shortly be issued in pamphlet form.

An inquiry is in progress into the alleged faults of administration and circumstances connected with the conduct of lay managers and officers which led to the resignation of the visiting physicians of the General Lying-in Hospital. The inquiry is public, and was opened on Wednesday by a vigorous and effective but temperate statement by Dr. Fancourt Barnes of the occurrences which led him to the conclusion that he could not, with due regard to his professional character and responsibilities, continue to hold office under the existing conditions. The circumstances have been painfully complicated by Dr. Clement Godson accepting the invidious position which Dr. Cory had, when it was offered to him, previously declined.

A LAW of compulsory vaccination has been passed by the Bengal Legislative Council, and now awaits the sanction of the Governor-General. It is made applicable in the first instance to Calcutta, its Port and Suburbs, but may be extended under certain provisions to other municipalities. The carrying out of the measure is to be entrusted to the health officer for the town.

SCARLET-FEVER, of a very violent form, has broken out at New Brompton (near Chatham). Already a number of deaths have occurred, principally amongst children, and about fifty cases are now under treatment. There is no way of isolating the cases so as to stamp out the disease, as there is no infection hospital, and the local authorities have declined to join with Chatham and Gillingham in providing one.

SMALL-POX has for some time past been excessively fatal at Montreal. In a population of 135,000, no fewer than 728 deaths from that disease were registered in 1878, and 472 in 1879. This latter figure represents one-eighth of the total number of deaths from all causes. The epidemic still continues; for we learn that, in January, 33 deaths, and in February, 26 deaths, occurred from the disease.

SIR HENRY THOMPSON has reprinted the excellent articles on Food and Feeding which he published last year in the *Nineteenth Century*, with about an equal quantity of new matter. There is an excellent chapter on *menu* writing; and, in the appendix, there is much valuable matter added, including a good receipt for fish-soup, a kind of soup much neglected in this country. The volume will well repay perusal, for it is interesting as well as instructive.

A CHEMIST'S assistant has been charged, before the Correctional Chamber of Paris, with causing the death of a man by misreading a prescription. The doctor, whose writing is very clear, ordered eight drops of laudanum, which the assistant carelessly read as eight *grammes*, or about a quarter of an ounce. The overdose naturally killed the patient, and the Court sentenced the prisoner to three months' imprisonment. The defendant's advocate very ingeniously urged as an extenuating circumstance that, if the mistake had cost the deceased his life, it had at least provided him with a painless death.

THE Cambridge degree of M.A. has been conferred on Mr. C. Creighton (M.B. Aberdeen), Demonstrator of Human Anatomy, as was to be expected, seeing the importance of his appointment at Cambridge and the value of his researches in pathology, published in the *Cambridge Journal of Anatomy and Physiology* and elsewhere. The recent enlargement of the buildings devoted to human anatomy has given scope to the development of the medical school, not, as our readers are aware, before it was urgently needed. Seventy students have, during the last winter session, been occupied in practical anatomy, and it would be possible to accommodate twenty or thirty more. An assistant demonstrator has been occupied in superintending practical dissection, and thus aiding Professor Humphry and Mr. Creighton.

THE Duke and Duchess of Connaught opened some new wards in the North-Eastern Hospital for Sick Children on the 2nd instant. The institution had its origin as a small dispensary in 1867, since which time 142,000 patients have been relieved. In the wards, 2,700 in-patients have been received during the same period. In 1879, the attendance of in-patients was larger than in any previous year. The new wards will accommodate fifty beds, and in addition to these there are isolation-wards for special cases. The construction of the present buildings has cost £8,500, of which £2,000 remains to be provided for. Purses were then received by Her Royal Highness towards the liquidation of the liabilities now outstanding on the hospital, and subscriptions amounting to £1,122 were announced, including £500 from the President, and £100 from Messrs. Baring.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

MR. RUSHTON PARKER writes to us from Liverpool:—I am able to inform you that Mr. Reginald Harrison has acceded to the proposal made to him by one hundred and seventy Fellows of the College, in the requisition which I have already forwarded to you, and will be nominated for a seat in the Council at the College of Surgeons at the forthcoming election in July. The requisition indicates the existence of a strong feeling, not only that Liverpool should have a representative on the Council, but, further, that the claims of Mr. Harrison for such a distinction are of a nature which cannot be overlooked in the selection of a local candidate.—Mr. T. W. Crosse of Norwich has issued the following circular letter to the Fellows in respect to the candidature of Mr. Cadge.

"My friend Mr. Cadge having, at the request of many Fellows, become a candidate for a seat on the Council of the Royal College of Surgeons in July, I trust it will not be considered intrusive if I state what I conceive to be his qualifications for the office. Mr. Cadge was amongst the earlier applicants for admission to the fellowship degree, his diploma dating as far back as 1848. About this period of his career, he was attached to the teaching staff of University College, as Demonstrator of Anatomy and assistant-surgeon to the hospital. In 1850 (the year of my father's death), he left London and settled in Norwich, where, for the last thirty years, he has been in active practice, and has obtained not only the highest position in his profession, but also the confidence and esteem of all classes of his fellow-citizens. During this long period, he has been, and still is, one of the working body of independent Fellows, and his views of College affairs are probably those of the large majority of them. He comes forward as the representative of no party or section; he is attached to no school, and he recognises no distinction or antagonism between metropolitan and provincial interests. In the more busy period of practice, he has so often been prevented from taking part in these annual elections, that he cannot but be in close sympathy with those who desire to obtain the proxy vote; he thinks that, for obvious reasons, medical and surgical Fellows, even more than other university graduates, are entitled to it, and he would support any reasonable and practicable scheme for obtaining it. I am aware that a very just fear is entertained (see Mr. Curling's letter in the *Lancet*, April 20th, 1878), lest too many non-resident members of Council should entail additional labour on those who reside in London; but I can promise that Mr. Cadge, if elected, will not only give his best attention to College business at the ordinary meetings, but that, being within easy reach of London, he will be ready to take his fair share of the detailed work of the Council. I do not, on his behalf, ask for a requisition to be signed—his age as a Fellow, and his position in the profession would seem to make it unnecessary—but I hope he will receive, none the less for that, a large measure of support from resident and especially from non-resident Fellows."

CLINICAL SOCIETY OF LONDON.

THE last meeting of the Clinical Society of London for the present session took place on Friday evening, the 28th ultimo, when a large number of good papers were read. Several cases were exhibited, and reports read upon Dr. Crocker's case of congenital disease of the scalp, and upon a case of keloid. Dr. Graily Hewitt described a case of acute hysterical vomiting of ten months' duration, caused by displacement of the uterus, and at once relieved by reposition of that organ. Mr. Clutton reported a case of acquired hypertrophy of one limb. Mr. H. Morris read notes of two cases of disease of the mastoid bone, in one of which a severe attack of herpes of the face followed thrombosis of the lateral sinus and jugular vein, and he pointed out the value of trephining the mastoid process, as a palliative measure, even when recovery was not possible. The speakers who followed also thought early interference in such cases was judicious. Dr. F. Taylor read notes of an unusual case of cardio-pulmonary murmur; Dr. Whipman described a case of cancer of the pylorus, with unusual symptoms; and Mr. Streatfeild exhibited and described a rare case of unilateral morphœa, with exostoses and corneal opacity, to which Mr. Hutchinson added some most interesting remarks. The President concluded the session by remarking that the business accomplished during its course had probably been as valuable as that of any of its predecessors. The Committee upon Hip-joint Disease had not yet, he regretted, made its report. The Committee had already held sixteen meetings, and had examined almost all the museums in London. The Committee upon Hyperpyrexia was still sitting; as also was the Committee upon the Incubation of Infectious Diseases. He regretted that the reports of these three Committees must all stand over to the next session.

ZOOLOGICAL GARDENS.

THE first of the series of seven lectures by Fellows of the Society on zoological subjects, given every summer, in the lecture room in the Gardens, was delivered by Professor Flower, F.R.S., the President of the Society, on Thursday, the 3rd instant. The subject of the lecture was the Comparative Anatomy of the Teeth; and an interesting account was given of the forms of the teeth in the various groups of animals living in the Gardens. The following arrangements have been made for the remaining lectures of the course, which are to be delivered weekly, on Thursday afternoons, at five o'clock, and are free to Fellows of the Society and their friends, and to other visitors to the Gardens. June 10th: cats, by Professor Mivart; June 17th: tadpoles, by Professor Parker; June 24th: hawks and hawking, by J. E. Harting, Esq.; July 1st: cuttlefish and squids, by Professor Huxley; July 8th: waterfowl, by P. L. Sclater, Esq.; and July 15th: birds, by W. A. Forbes, Esq.

THE NOTIFICATION OF INFECTIOUS CASES.

WHILST there is no valid reason for excluding the medical men of those towns which have taken special powers for requiring the notification of cases of infectious disease from the penalties attaching to the non-performance of the duty imposed by the Local Act, there can be no sort of excuse for their being vexatiously haled before the justices, because, in a particular case, they have not complied with the exact letter of the law. In two recent prosecutions of medical men, at Huddersfield and Blackburn, the local authority would appear, from the information before us, to have acted with conspicuous harshness and want of tact. At Huddersfield, where the notification of infectious disease is at present restricted to cases "without proper lodging and accommodation" (a restriction that the Town Council propose to remove by their local Bill of this session), a medical practitioner had not reported a case of scarlet fever, which happened to be in the house of a wholesale milk-dealer. The accommodation for the patient seems not to have been in question; but, since milk was being sold from the house, and there was thus a danger of the spread of the disease, the case seems to have been regarded by the Corporation officials (though not by the medical man) as coming within the terms of the Act. The case at Blackburn (the first of its kind) was that of a practitioner who was called to a child five days before it died, when it was suffering from laryngitis, after a disease, for which medical aid had not been sought, but which the doctor regarded as scarlet fever. When the case was first seen by him, he did not think it needful to report it to the local authority; but, considering the laryngitis to be a sequel of scarlet fever, he included the latter disease in his certificate of death. For omitting to report the case as one of scarlet fever, he was prosecuted, and fined ten shillings, with costs. We certainly think that these were both prosecutions that ought not to have been made. The cordial co-operation of the profession is necessary to the harmonious working of the local Acts bearing on the notification of infectious cases; and the irritation naturally caused by such ill-advised proceedings on the part of local authorities may militate very seriously with the practical usefulness of the Acts in question.

THE DOCTOR IN THE KITCHEN.

THE fourth and last of the drawing-room lectures under the auspices of the National Health Society, given last week at the house of Mr. C. Matthews, 23, Hertford Street, Mayfair, was by Mr. Ernest Hart, the Chairman of the Council, who presented to a large audience many facts regarding food, and a number of suggestions respecting its preparation. The *Times* report says: "Mr. Hart altogether disapproved the usual diet in this country, especially what he described as its 'meatiness', and the neglect of nitrogenous vegetables and fish-food which characterises it. Touching upon fish-food, he spoke of the great neglect of river-fish by our population generally, and urged that the pike, the jack, the perch, and other river-fish might be advantageously included in the *menu*, and would form a pleasing change in contrast to the unvaried roll of dishes now presented. The subject of waste in the kitchen was noticed by the lecturer, and he drew particular attention to the great amount of nutrition to be derived from what are now too often regarded as waste substances. He dwelt particularly on the extravagance of roasting, and urged that, by the use of the ventilated closed stove, there would not only be a great saving in the food, but that the quantity of fuel saved would be enormous. He praised highly as a breakfast food the compound known but little in this country as hominy. The bread in England was excellent, and, taken as a whole, the best in the world. French bread was over-fermented, and its crust was over-baked. The drawbacks to the 'whole-meal' bread were the hardness of the crust and its liability to turn sour, while the necessity for whole meal, on account of the phosphates being removed from fine flour, was now removed by improvements introduced by Professor Horsford of Massachusetts. The lecture concluded with suggestions whereby the *menu* of a dinner might be varied each day in each season of the year. These suggestions created much interest, and there were so many expressions of desire on the part of those present to attempt to vary the monotony of the general dinner, that the National Health Society was intrusted with the responsibility of making these suggestions more widely known. Cordial thanks were given to the lecturer and to Mr. Matthews."

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

THE Earl of Carnarvon presided on Tuesday at the annual presentation of prizes and certificates of honour awarded to the successful students in this school. The Duke of Grafton, President of the Board of Governors, and many eminent members of the medical profession, were present. Dr. A. B. Shepherd, the Dean of the School, read the annual report, which gave a good list of students who had passed the examinations of the English licensing bodies; and the statement that some few had gone to Scotland and Ireland was received with slight but suggestive merriment. The report also bore testimony to the strict discipline maintained by the students even in the smallest matters. The prizes were then given by Lord Carnarvon, who addressed a few words of encouragement to each recipient. In the course of an address to the company, he expressed his warm admiration of the noble profession upon which the young men were then entering, and acknowledged his personal indebtedness to it. He warned those students who had completed their course and had passed through the school against supposing that they had finished their education, for they would find that they had only completed the first stage; and he trusted they would press on, so as to add to the list of eminent men who had begun their professional life in that school, the teachings of which were directed to practical, and not to speculative ends. He gave the young men kindly advice as to the necessity of constant perseverance, and impressed upon them the duty of being worthy of the high trusts which were given to them on all hands, saying that he himself had had experience of the enormous advantage it was to the State when the medical men sent abroad by the Government were men of principle and ability, and the enormous disadvantage when it was found that the professional man was animated only by the spirit of a mere trader. On the motion of Dr. Broadbent, thanks were given to the chairman; and, on the motion of Dr. Shepherd, to the governors. The latter vote was acknowledged by the Duke of Grafton.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

THE fifty-seventh annual meeting of this association was held in Birmingham on May 28th; Dr. Nason of Stratford-on-Avon, President, in the Chair. The report showed that the invested funds of the Society were £9,560, and that £395 had been dispensed in grants during 1879. A legacy of £100 had been received by the bequest of Mr. Pye Chavasse, a former trustee. Dr. Nason announced donations amounting to £71. The following officers were appointed:—*President:* Mr. W. H. Sproston. *President-Elect:* Dr. Fitch, Chaddesley. *Vice-*

Presidents: Mr. Batten, Bromsgrove; and Dr. Jordan. *Treasurers:* Dr. Wade and Mr. Bartleet. *Trustees:* Dr. Foster; Mr. W. C. Garman, Wednesbury; and Mr. J. F. West. *Honorary Secretary:* Dr. Sawyer. A vote of thanks was given to Mr. Bartleet, who for five years had assiduously devoted himself to the affairs of the Society as honorary secretary, and whose exertions had yielded a large increase of members. After the meeting, the annual dinner took place at the Grand Hotel, the chair being occupied by Dr. Nason, and the vice-chair by Dr. Sawyer.

ST. ANDREW'S GRADUATES' ASSOCIATION.

THE next anniversary session and dinner of the Association will be held at the Greyhound Hotel, Hampton Court, at 6.30 P.M., on Saturday, June 12th. Dr. Seaton of Sunbury will take the chair. The following are nominated as officers and Council for the ensuing year. *President:* Dr. Richardson; *Treasurer:* Dr. Paul; *Secretary:* Dr. Sedgwick; *Council:* Dr. Henry Day, Dr. C. Holman, Mr. Menzies, Dr. Seaton, Professor Pettigrew, Dr. Kesteven, Dr. Bransby Roberts, Dr. Christie, Dr. Cuolahan, Dr. Cleveland, Dr. Tibbits, Dr. Dudfield, Dr. Mc Intyre, Dr. Royston, Dr. Wiltshire, Dr. Cooper Rose, Dr. Falls, Dr. Mott, Dr. Crisp, Dr. Gramshaw, Dr. Semple, Dr. Samuel Hill, Dr. Whitmarsh, Dr. Dale, Dr. Kershaw, Dr. MacEwen, Dr. Archibald, Dr. Hetley, Dr. Madge, Dr. Cholmeley, Dr. Davey, Inspector-General Gordon, C.B., Dr. Stedman, Dr. Crosby, Dr. W. H. Day, Dr. Griffith, Dr. Wynn Williams.

THE ALIMENTARY VALUE OF ARTIFICIAL BUTTER.

M. RICHE has just presented a report to the Paris Academy of Medicine on the substitution of margarine for butter and lard in the preparation of food. This substance had been highly praised; and the French Minister of Commerce had, therefore, requested the Academy to investigate its real value as an article of food and a substitute for butter. Numerous experiments were tried *in animâ insanorum;* lunatic asylums only having been favoured in this respect. M. Riche's report shows that neither the attendants nor the patients bore well the substitution of margarine for butter; that the change of diet was injurious, because vegetable oils are more difficult to digest than animal oils. The compound known as *margarine-mouriez*, too, being too expensive, is no longer to be had; and the other margarines are, as a rule, impure or adulterated products.

A "CORNER" IN OPIUM.

A WRITER in one of the New York daily papers calls attention to the fact that there is now likely to be a "corner" in opium, gotten up for speculative purposes. For some weeks past, he says, it has become evident that the supply of medicinal opium would fall short of the actual public requirements. It seems that the supply for the last two years has been five thousand to six thousand cases, of one hundred and fifty pounds each on the average; but last year the production fell off to about four thousand cases, and the estimate of the coming crop is reduced to about fifteen hundred or two thousand cases, owing, it is stated, to the unusually cold weather that has prevailed in Turkish Asia. The annual consumption is about five thousand cases; and had it not been for the extraordinarily large crop in 1877-78, which amounted to nearly ten thousand cases, the scarcity of the drug would have been felt during the current year. This unusual surplus, however, is now exhausted, and the visible supply is reduced to about four thousand cases, distributed between London, Smyrna, and New York, of which it is estimated that at least one thousand cases are unfit for use. Such being the statistical phase of the supply and demand of opium, it is not, perhaps, surprising to learn that Wall Street, aided by some London speculators, has appropriated nearly all the available opium in the United States, and that the price has already gone up from four and a half dollars a pound in bond to six and a half or seven dollars. Opium being an article that the public cannot dispense with, it seems altogether probable that, during the present year, it will rise to at least ten or twelve dollars, thus recalling the days of a dozen years ago, when the small supply of the drug was controlled by a few men, and it was sold in jobbing lots as high as thirty dollars a pound. There can certainly be no doubt, if the above statistics be correct and the short crop of opium in Turkey be a fact, that the speculators will have it all their own way, because the American trade cannot look to Europe for a renewed supply, on account of the scarcity of the drug there. But the Wall Street men are, according to the *Boston Medical and Surgical Journal*, not the only ones who are now hoping to grow rich off the necessities of suffering humanity. The wholesale druggists are also very largely interested in this disgraceful and iniquitous scheme of speculation, and the coolness and freedom with which they speak of the unscrupulous operations in which their insatiable greed induces them to engage, affords a melancholy commentary on the boasted civilisation and enlightenment, to say nothing of the Christian spirit, of the age. The situation is described by a member of one of the firms as follows. The stock of medicinal opium in the world to-day is estimated to be about four thousand cases, seventeen hundred of which are in the United States, and thirteen hundred in London. Two months ago, a syndicate of capitalists began to buy up and concentrate the stock. Probably they now control two thousand cases—or half the entire stock in the world—and they have concentrated it in New York and London. The average annual consumption of opium in the world is from five thousand to six thousand cases, and the coming crop from Turkey will be three thousand cases (a considerably higher estimate, it will be noticed, than that of the writer mentioned above). The syndicate unquestionably has a very long purse, it being probable that there are at least fifty million dollars at its back. "If you want to buy any opium", the gentleman remarks in conclusion, "you must go to Wall Street or come to us. They would like to have us come in with them, but we prefer to row our own boat." Probably the only consolation that can be derived from a consideration of this opium "boom" is, our contemporary thinks, that the price of the drug is not likely to reach the extreme high figures that it did twelve years ago, partly because the stock is not so low in quantity as it was then (the entire supply of the world being reduced, it is said, to sixteen hundred cases), and partly because the duty on importation was then two and a half dollars per pound instead of one dollar, as at present.

WOOL-SORTERS' DISEASE.

MUCH satisfaction has been felt at the promptitude with which the Local Government Board have directed an investigation into the circumstances of the recent deaths from wool-sorters' disease in Bradford and its vicinity. Mr. John Spear is actively pursuing his inquiry, in conjunction with Dr. Greenfield of the Brown Institution; but nothing definite has yet been learnt as to its results. The disease is one that has long and pressingly called for independent investigation. Deaths from it occur in the Bradford district every month. To the sorter, it is a dreadful inexplicable shaft of death, which may strike him at any moment; and local medical men have been equally at a loss as to its nature. Dr. J. H. Bell of Bradford, who probably knows more about the disease than anyone else, considers that washing or steaming the wool before sorting would certainly prevent its occurrence. For some considerable time past, he has been strenuously endeavouring to impress upon employers of sorters the necessity of this precaution; but, except under compulsion, the mill-owners will not adopt it. Several coroners' inquests have, during the last year or so, been held on victims of the disease; and, in consequence, some firms have done something towards what is necessary, though not sufficient. As we have already seen, the sorters at one factory have gone on strike because the owners have declined to submit the wool to washing or steaming before being handled. A somewhat similar case was reported last year, with a very dramatic ending. A firm which had been in the habit of steaming its dangerous wool became too busy to afford the time. The sorters refused to work the unsteamed material, and their places were filled by others. Within a few days, three out of the twenty new sorters were dead. At another factory, three men out of nine working in one room died from the disease within about a month of each other. The mortality in the district from diseases of the lungs is enormously high; and, looking to the specific risks of blood-poisoning run by the workers, a strong case certainly seems to be made out for legislative interference with the trade.

THE HERTFORD BRITISH HOSPITAL IN PARIS.

THIS excellent institution, founded and endowed by Sir Richard Wallace, and conducted exclusively under the management of the Physicians, Sir John Rose Cormack and the Hon. Alan Herbert, has done good service during its first year's operations. The number of patients during the year has been: in-door, 322; out-door, 1,741; dental, 60; total, 2,123. The only conditions of admission to this charity are that the recipient should be a British subject and in need of the succour afforded; but all applications from persons able to provide themselves with medical advice are refused. Provision is made for attention to accidents at any time.

THE NEIGHBOURHOOD OF INFECTIOUS HOSPITALS.

DR. BERTILLON has contributed to the *Revue d'Hygiène* an interesting article on the objectionable influence which may be exercised by hospitals in the diffusion of infectious diseases in the adjacent dwellings. Intrusted by the Paris municipality with the supervision of the medical statistics of the city, M. Bertillon discovered that the deaths from variola and diphtheria were not spread throughout the city in an uniform ratio, but indicated more intense foci in certain quarters. A more careful search into the origin of these foci have led him to attribute it to the vicinity of hospitals. The facts are as follows. In the months of January and February, there were 569 deaths from small-pox, of which 59 occurred in the Sorbonne quarter. Taking into account the population of this quarter (which is 32,000) in relation to the whole of the city, a very simple calculation leads to the conclusion that the small-pox mortality was from six to seven times greater in that locality than in other parts of Paris. And not only this: the mortality was not indiscriminately diffused throughout the quarter, but occurred more especially in that part which is situated between the small arm of the Seine and the Boulevard Saint Germain, at which point it has been sixteen times greater. A map, in which the deaths are marked by black points, makes the demonstration of this fact very striking. It is there seen that the deaths are grouped round the annex of the Hôtel-Dieu, situated between the small arm of the Seine and the Rue de la Bucherie. This annex was utilised as a small-pox hospital, and hence the epidemic has spread through the neighbouring houses. A fact worthy of note is that, in the Rue Gallande, which runs parallel to the annex, the cases of small-pox were found exclusively in those houses of which the windows looked in the direction of the hospital. A study of the deaths in the quarter of the Quinze-Vingts leads to similar conclusions, but here the presence of two hospitals, and the arrangement of the streets, cause the deaths to be more equally disseminated throughout the quarter, and less decidedly grouped round the infective sources. The mortality from small-pox has been three times higher in this quarter than in the entirety of the city. The Laennec Hospital, which was also used as a receptacle for small-pox patients, has exercised a scarcely appreciable injurious effect on the inhabitants of the neighbouring houses. Dr. Bertillon sees the causes of this immunity in the following conditions. The Laennec Hospital is only two storeys high, and does not dominate the houses of the quarter like the annex of the Hôtel Dieu, which is four storeys high. The only open windows at the Laennec Hospital look into the internal courtyards; besides this, the hospital attendants have, from convenience and not by order, got into the habit of throwing into the fire all the dust coming from the small-pox wards. The neighbouring dwelling-houses are likewise kept clean, and inhabited by a population who are in easier circumstances, and more careful with regard to revaccination and hygienic matters. The Sainte Eugénie Hospital, which has acquired so melancholy a notoriety in connection with its diphtheria wards, has been also studied in relation to the propagation of this dreaded disease; and the deaths from diphtheria have been found to be relatively four times more numerous in the quarter of the Quinze-Vingts, in which it is situated, than in the city of Paris. A double primary infant-school, containing one school for boys and another for girls, is contiguous to the Sainte-Eugénie Hospital. The boys' school, which directly receives the air from the gardens of the hospital, has had four fatal cases of diphtheria. The girls' school, which lies at the back of the boys' school, and looks away from the hospital, has not developed a single case. Facts of an analogous character with regard to small-pox have (according to the *Lyons Médical* of May 30th) been observed at Lyons. M. J. Rendu, in his paper on an epidemic of small-pox, has thoroughly established facts of the injurious influence of the military hospital, Les Collinettes, in relation to the origin and spread of the outbreak.

ZYMOTIC DISEASES IN LONDON.

THE fatal cases of whooping-cough in London were 76 last week, against 89 and 67 in the two preceding weeks, and exceeded the corrected average by 11. The 68 deaths from scarlet fever showed a marked increase upon the numbers in the two previous weeks, and were 34 above the corrected average. The 30 deaths from measles also exceeded the numbers in recent weeks, and included 5 in Fulham. The deaths referred to diphtheria, which had been but 7 and 5 in the two previous weeks, rose to 11 last week, of which 8 were recorded in South London. The fatal cases of fever, which had been 8 and 18 in the two previous weeks, were 14 last week, and 10 below the corrected weekly average; 12 were certified as enteric or typhoid, and 2 indefinitely as continued fever. The deaths from small-pox, which had been 10, 8, and 10 in the three preceding weeks, were again 10 last week, of which 5 were recorded in the Metropolitan Asylum Hospitals at Fulham and Homerton, 3 in the Highgate Small-pox Hospital, and 2 in private dwelling-houses.

DEATHS FROM CHLOROFORM.

THE *New York Medical Record* reports two deaths from the use of chloroform, used for anæsthetic purposes. Both occurred in Chicago. One was that of a young man undergoing an exploratory operation for necrosis at the Eclectic Medical College. Only a little chloroform was used, and it was given with caution. No heart-disease was found *post mortem*, but the brain was thought to be softer than natural, but, of course, was not in the condition of mallitus cerebri proper, as no symptoms of cerebral disease had preceded. The other was a weakly man, under middle age, with organic heart-disease, who had been an invalid for several years. He received a crushing injury of the hand (thumb), and was taken by a friend to a drug-store kept by a physician, to have it dressed. Amputation being necessary, ether was first tried; but, anæsthesia not being promptly induced, chloroform was substituted. After a few inspirations, the patient died. The quantity of chloroform used was small. The heart was found to be fatty, as well as to have valvular disease.

TRANSMISSION OF SMALL-POX BY RAGS.

AN epidemic of small-pox, which has spread somewhat widely, has broken out at Abenheim, in the canton of Worms, Rhenish Hesse. Amongst the patients at the outset were five women who worked in a rag factory, cutting up and sorting the rags. The causes of this outbreak were investigated, and it was found that a portion of these rags came from Marseilles where the small-pox prevailed to a serious extent. It will be remembered that, in that city, during the year 1879, out of a general mortality of 10,327 deaths, 500 were owing to small-pox, and that, in the first quarter of the year 1880, out of 3,632 general deaths, 264 were due to the same disease. Dr. Ruysch, the medical officer of health for Maestricht, informs the editor of the *Revue d'Hygiène*, that last year small-pox was detected in that city amongst the workmen at a paper manufactory. One of the workmen there employed had been handling rags coming from Liége, where small-pox was epidemic at the time, whilst no other cases were noted at Maestricht. These facts fully justify the representations which M. Gibert of Marseilles has constantly made for several years, as to the necessity for disinfecting rags, which have on several occasions been the cause of outbreaks of small-pox in the city.

INTERNATIONAL OTOLOGICAL CONGRESS IN MILAN.

THE members of the first International Otological Congress held in New York in 1876, decided that the second Congress should take place in the same city in which the International Ophthalmological Congress should meet. As the Ophthalmological Congress is to meet in Milan, Dr. Voltolini of Breslau, Dr. Moos of Heidelberg, Dr. Politzer of Vienna, and Dr. Loewenberg of Paris, have decided that the International Otological Congress shall also meet there from the 6th to the 9th of September 1880. A local committee has been formed, consisting of Professor Rossi of Rome, Dr. Sapolini and Dr. Restellini of Milan. Gentlemen who intend to attend the Congress are requested to communicate with Professor Moos at Heidelberg; and those who intend to read papers are also invited to inform him of the fact.

SCOTLAND.

TYPHOID FEVER IN GLASGOW, AND THE MILK-SUPPLY.

THE Barony Parochial Board, sitting as local authority, last week, heard a most interesting and complete report by Dr. Christie regarding the outbreak of enteric fever at Possilpark. In his report, Dr. Christie, after giving his investigations, made along with Dr. Russell, Medical Officer of Health for the city, stated that there were epidemic circles of enteric fever at Possilpark, St. Rollox, High John Street, and New City Road—all apparently connected with one common source of infection. The suspected source was the milk-supply of a wholesale milk-dealer in the city. Without delay, the various farms from which the milk-supply of this milk-dealer was derived were inspected, and within two days a suspected farm was discovered; and, having been visited by Dr. Russell personally, he saw reason to prohibit the delivery of milk. This line of investigation was pursued by Dr. Russell and his well-trained staff of assistant-inspectors without an hour's delay. It was satisfactory, therefore, to know that the supposed source of infection had been cut off. He pointed out that there was no hospital accommodation belonging to the Barony parish, and no disinfecting or washing station. Regarding the drainage, he said the main sewer discharged itself into what appears to be the channel of a burn which, but for the sewer, would be at present almost dry. In fact, the so-called burn was at present the common-sewer. During rains, there might be a considerable flow of water from surface and field drainage, quite sufficient to flush the channel; but, at other times, there may be absolutely none. At the present time, the daily discharge from at least sixty patients suffering from enteric fever, mixed up with the excreta of the entire population of Possilpark (probably about five thousand), runs into the sluggish channel of Possil Burn. He observed the appearance of a well-beaten path along the side of the burn, and he was informed that the footpath was frequented as the appearance indicated. In the vicinity of the burn or common-sewer, this must always be a potential source of danger; and at the present time, he had no hesitation in stating that its contents were a virulent poison. The Possil Burn in its present condition was a nuisance, and injurious to the public health. It was agreed to remit the report to the subcommittee appointed to confer with the law agent in defending the resolution of the local authority, to form the Barony Special Drainage District; and, in regard to the portion as to hospital accommodation, to instruct the inspectors to inquire at neighbouring local authorities if the Barony Local Authority could, to a limited extent, participate in their existing hospital accommodation, and upon what terms.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending Saturday, May 22nd, it appears that the death-rate in the eight principal towns was 23.7 per thousand of estimated population. This rate is 0.4 above that for the corresponding week of last year, but 1.1 below that for the previous week of the present year. The lowest mortality was recorded in Aberdeen, viz., 18.6 per thousand; and the highest in Perth, viz., 48.7 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 5.1 per thousand, being slightly below that for last week. Whooping-cough continues the most prevalent, and caused deaths in all the towns, except Greenock and Perth. Acute diseases of the chest caused 103 deaths, or 15 less than the number recorded for the previous week. One death from hydrophobia was registered in Edinburgh. The mean temperature was 53.6°, being 5.8° above that of the week immediately preceding, and 4.6° above that of the corresponding week of 1879.

ROYAL INFIRMARY, EDINBURGH.

AT the ordinary weekly meeting of the managers of the Royal Infirmary, Edinburgh, held on Monday, the vacant post of Extra Assistant-Physician, recently created, was filled up by the appointment of Dr. Andrew Smart, F.R.C.P.E. Of the other four candidates, one, Dr. Byrom Bramwell, was disqualified as not yet being a Fellow of the Royal College of Physicians, Edinburgh. The close relation that has always existed between the Infirmary and the College of Physicians, and the active part taken by the College in the establishment and continued success of the Infirmary, are the best warrants for the regulation as to each medical officer appointed necessarily being a Fellow.

MORTALITY OF THE PAST YEAR IN GLASGOW.

DR. J. B. RUSSELL, Medical Officer of Health for the City of Glasgow, issued the mortality tables for the preceding year, last week. During that period, there were 12,450 deaths in Glasgow, equal to an annual mortality of 23 per 1,000; this is 6 per 1,000 less than the average of the previous ten years; 5,224 were of children under five years of age, 1,401 were over five and under twenty years, 3,865 were over twenty and under sixty years, and 1,960 were upwards of sixty. Consumption and other pulmonary diseases caused 4,700 deaths; nervous diseases of children, etc., 1,602; infantile diseases, such as scarlet fever, 1,149; diarrhœal diseases, 288; and fevers, 198. As to the district mortalities in the city, they varied from 15 per 1,000 in Sandyford, to 36 per 1,000 in the High Street and closes.

GLASGOW INSTITUTION FOR DISEASES OF WOMEN.

THE annual meeting of the supporters of the Glasgow Institution for the Diseases of Women and Children was held in the Religious Institution Rooms there last week. Dr. Robert Bell submitted the medical report, which showed that 360 women had been treated during the year, and, during the same period, 230 children. He suggested that the institution should be rendered available for purposes of instruction to students of medicine. The financial report was not so satisfactory as could have been wished.

IRELAND.

IN addition to the new vice-regal medical appointments mentioned in the JOURNAL of the 22nd ult., Dr. A. H. Jacob has been appointed Surgeon-Oculist in Ordinary to His Excellency the Lord-Lieutenant. Dr. McDonnell, one of the Surgeons to the Lord-Lieutenant, should have been designated Ex-President, not *Vice*-President of the Royal College of Surgeons in Ireland, in the former notice.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE annual meeting of this College on Monday last was a largely attended one. With a view of enabling provincial Fellows to vote for the election of the President, the Vice-President, and the Council, without coming to Dublin, Dr. Brunker, a retired provincial Fellow and a member of the Council, brought forward a motion to permit Fellows to vote for these officers by proxy-papers. The proposal, however, was rejected by a large majority. A motion was then made and carried in favour of altering the day for the holding of the annual meeting of the College, in order that the provincial Fellows might be enabled more conveniently than at present to take part in its proceedings. Considerable interest was excited by a resolution brought forward by Mr. Tufnell in reference to consultations with homœopathic practitioners. Instead, however, of any individual imputation being made, as some thought probable there would be, Mr. Tufnell simply proposed a resolution, to be communicated to the Council, to the effect that Fellows and Licentiates of the College should not, directly or indirectly, have any professional communication with homœopathic practitioners. After a division, the resolution was adopted. From the report of the Council presented to the College, we learn that, during the year ending April 5th, 1880, 15 candidates were admitted to the fellowship of the College, and 122 gentlemen received letters testimonial; 9 licentiates obtained the diploma in midwifery; 82 candidates for the junior class examination were rejected, and 29 candidates for the final examination were rejected. Two hundred and ninety-four candidates presented themselves for the preliminary examination; of these, 48 received first-class certificates, 71 received second-class certificates, 95 received pass certificates only, and 80 were rejected.

SMALL-POX IN PARSONSTOWN.

AN outbreak of small-pox has arisen in this town, and several deaths have resulted from the disease. Prompt measures have, however, been taken by the medical officer of the district and the sanitary authorities to stamp out the disease by isolating the cases, and insisting on all those attacked being removed to the hospital set apart for small-pox patients.

FEVER IN LIMERICK.

DR. BARRY, Medical Superintendent Officer of Health for Limerick, in a recent report to the Sanitary Board of that town, states that a severe outbreak of fever (chiefly typhus) took place within the last few weeks. In addition to ten cases reported from the dispensaries, there were twelve cases admitted to the Workhouse Fever Hospital. Many of these cases could have been prevented if the clothing and rooms of the patients first attacked had been properly disinfected. The question of a disinfecting chamber has been for years constantly before the Public Health Committee, but up to the present no steps have been adopted in reference to the matter.

DUBLIN TENEMENT HOUSES.

NO more striking instance of perhaps one of the chief causes which go to swell the high death-rate of Dublin was elicited, at the recent Royal Sanitary Commission, than the evidence given, on Monday last, at a Local Government Board inquiry, by Mr. Dudgeon, an English civil engineer. The inquiry was in reference to a proposed improvement scheme, projected by the Municipal Corporation, under the Artisans' Dwellings Act, for what is known as the Plunket Street area, one of the worst localities in Dublin, and inhabited by the lowest characters. Mr. Dudgeon stated that, in this area, there are one hundred and fifty-six dwelling-houses; of which one hundred and forty-three, or ninety per cent., are tenement houses; and of these, ninety-one per cent. are now unfit for occupation. Sixteen are in ruins, twenty-four are incapable of repair, and only one hundred and thirty-three are in a fair state of repair. The number of inhabitants is 1,619, of whom 1,556, or ninety-six per cent., occupy the tenement houses. Twenty-eight per cent. of the houses are overcrowded, and thirty-six per cent. of the inhabitants occupied overcrowded rooms; five hundred and sixty-two individuals have, on the average, 227 feet of air space, although 301 feet is the minimum fixed by the Public Health Act; and Dr. MacCabe, the Local Government Board Inspector, calculated the density of the population at four hundred and fifty per acre. One need not be surprised to hear, after this, that the place is a focus of disease; or that, if there be an epidemic in Dublin, it fixes itself there, and that a large proportion of cases are furnished to the hospitals from its horrible dens. We feel sure that the Local Government Board will agree with the municipal officers of health in their opinion, that nothing but total removal of all houses in this area will remedy the existing sanitary and moral defects; and that they will shortly authorise the erection of healthy houses for respectable artisans on this infected spot.

THE INDIAN ARMY MEDICAL SERVICE.

A DEPUTATION of the Indian Medical Service Defence Committee waited upon Lord Hartington, at the India Office, on Wednesday, June 2nd. The following gentlemen were present: Dr. Lyon Playfair, M.P., Mr. A. J. Campbell, M.P., Mr. D. F. Gabbett, Mr. J. E. Gorst, M.P., Mr. Synan, M.P., Mr. James Cowan, M.P., Surgeon-General J. W. Mackenzie, C.B., Surgeon-General R. Cockburn, Deputy Surgeon-General Ewart, Sir Joseph Fayrer, K.S.I., Surgeon-Major Partridge, Mr. Alexander Laurie, Mr. Edward Wahad, Sir Trevor Lawrence, M.P., Dr. Robert Farquharson, M.P., Dr. R. D. Lyons, M.P., Mr. Maclagan, Mr. Ernest Hart, Mr. Heffernan.

The committee were introduced to his lordship by the Right Hon. Lyon Playfair, M.P., who called upon Dr. Ewart to explain the grievances experienced by officers of the Indian Medical Service.

Dr. EWART said he proposed to make a few remarks on the grievances experienced by the officers of the Indian Medical Service. The claims of the Indian medical officers, numbering somewhere about six or seven hundred gentlemen, were, he thought, not unimportant. The Indian Medical Service had always been essentially a military service; that was to say, every member of the service was endowed with a Queen's commission. Dr. Ewart alluded to the distinguished services rendered to the country by these gentlemen. The great medical colleges of Bombay and Madras had been founded, in which native medical gentlemen were taught medicine and surgery according to the standard laid down by the Faculty of the University of London. By the means of some distinguished members of the service to which he lately belonged, medical schools had been established, at Lahore in the Punjaub and elsewhere, for training up native medical men in the language of their own country. Some of these were employed in the service of the State; but by far the greater majority were in the pursuit of private practice, and professors in the medical colleges and superintendents of the schools. The members of the Indian Medical Service were engaged in a great mission of humanity and a great mission of civilisation. These were of immense assistance in influencing the good government of the Indian population; and yet, notwithstanding those facts, it was the worst paid service in the State. It seemed now to be passing strange that, by recent orders, that service should be humiliated. He also alluded to the reduction to one deputy surgeon-general, which, by way of parenthesis he would add, did not fail to make the degradation any more complete. The unification of the administrative department of the army in India had always been foreseen. That was not what was complained of; it was the manner in which it had been carried into execution; and, if he might be allowed to make a suggestion, he would say that, though it would be impossible to entirely repair the mischief that had been accomplished, yet satisfaction should be made to the service. Dr. Ewart spoke of the principle of selection, and said it was a most extraordinary thing to promote a man four years in advance to a rank to which he would attain in course after the expiration of those four years, and in so doing to supersede no fewer than sixty-two officers. He had no wish to oppose the principle of selection, provided it was according to merit or promotion according to seniority; but the manner in which the privilege of selection had been used of late was an abuse. The services, British and Indian, should be cognate services: the pensions should be equalised; equal right of rank and honours, he suggested, should be restored—matters which would not cost the Indian Government one farthing of money, and which were necessary not only to the preservation of the service as a service, but for the public interests. The service had always been in a position to render immense services to the country at large. He thought his lordship would see from the foregoing facts that there were serious grounds for an inquiry, and he hoped that he would be pleased to appoint a Committee.

Dr. LYONS, M.P., felt sure that his lordship and the Government would be disposed to give every fair and reasonable consideration to the representations put forward so ably by Dr. Ewart, and thought it would be their desire, as it was the desire of the country at large, that the department in which these gentlemen rendered services with such danger to life, and such credit and distinction to themselves, should be rewarded in a manner commensurate with those services, and certainly not in a manner which would compare unfairly with other public departments. They complained that, by the recent arrangements, they had lost a certain amount of prestige—that was a matter of feeling; but, in dealing with a great public department like that, it was of the greatest possible importance that any claim in that direction should be set right as soon as possible. He had asked some of the most experienced of those gentlemen to give him instances, and he was informed that, in Afghanistan, at present two-thirds of the force employed were Indian. He had no wish to institute any comparison of an unfavourable nature between the claims of the British officer serving in England, and the Indian Medical officer. There was no opposition between the two, but he desired to see the arrangements worked in such a manner that the Indian service should not be put to a disadvantage. They also alleged that they had lost one-half the number of surgeons-general; that was a point which he was sure his lordship would see it necessary to attend to. They also said they had lost in regard to retirement, for now men might be retired at forty-five, and get only £450 instead of £1,000, to which, under the Company's service, they would have been entitled. In regard to the local service throughout the country, it was of the greatest importance that a very high class of men should be induced to go to India, that no inferior grade of men should be selected, but men of the very highest class should continue to discharge the duties in India. The figures were somewhat startling. With regard to education, there were seven principal medical schools, besides some subsidiary. He learned with surprise that from four thousand to five thousand students were annually being educated in those schools; that represented a very large annual amount, and it was of the greatest possible necessity that such a large number should be educated up to the highest possible standard. He further asked those gentlemen to give him, in a small way, what they considered the most important modes of rectifying this state of things; and he was given to understand (and this by no means included all the details) that, what they would especially desire was a surgeon-general selected alternately from the Indian and British services; the seniors, who had been in some way put at a disadvantage, compensated for the loss sustained; and, in the future, that the rank, pay, and pensions should be equalised with that of the British surgeons; and that it might be represented to Her Majesty that, in consideration of the very great danger to life, and the great importance of the service the gentlemen are engaged in, Her Majesty might be pleased in future to extend to them a larger share of the higher honours and honorary distinctions which the other branches of the service enjoyed. It was not to the advantage of the State that, of two gentlemen of equal ability, one should enter one service, and come out decorated with all the honours so justly bestowed on that branch of the service, while the man who joined under similar circumstances the other service, who experienced greater dangers to life, should come home heartily disappointed, his health broken down; the one retiring in comfortable circumstances, decorated, and the other medical man retiring into comparative obscurity, unrecognised by the Sovereign. These gentlemen attached proper importance to the honorary recognition of their services, and it showed that they were working with a high spirit, and men so working were likely to be of the best possible service to the British Government.

Mr. Synan, M.P., said that, looking at the figures, a startling injustice seemed to strike him the moment he read them.

Mr. Ernest Hart supported the application of the deputation, on behalf of the Parliamentary Bills' Committee of the British Medical Association, which anxiously desired that justice should be done to the Indian Medical Service.

Mr. James Cowen, M.P., also made a few remarks.

Lord Hartington, in replying to the deputation, said he could not at that moment refer to the page in the despatch, but he did not think that it was laid down that the appointments to which Dr. Ewart had referred, were to be exclusively held by the British Medical Service; he did not think the members of the Indian Medical Service were excluded. His Lordship could not then go into details in answering what had been said, but he had listened with great attention to the remarks which had been made, and the statement which had been put forward. He was well aware of the high distinction of the Indian Medical Service—distinction in the past maintained up to the present. He was quite sure that no Government in India, or at home, would do anything that would lower the status of that service. It was admitted that reorganisation was necessary, and that a double military administration could not with advantage to the service be any longer maintained. It certainly had been the object, as far as he was able to ascertain, of the Government of India, and the Government at home, to effect that reorganisation, bearing in mind the interests and efficiency of the service, and the rights of each member of the medical profession; he could hardly be expected to go into any discussion on the scheme at present, as he found it had been going on for a great number of years. It was decided upon by his predecessor, after what appeared to have been a very full consideration of the subject. He did not say that mistakes had not been made; but he could hardly suppose that any injustice was intended to be done by the Government of India in regard to its own medical service. But as memorials, he understood, had been presented by the medical profession, which were now under the consideration of the Indian Government and would soon receive the attention of the new Governor-General, it would not be possible for him to take any steps in reference to the reorganisation, or alter any decisions which had been come to, until he was in possession of the views of Lord Ripon. He would bring to the knowledge of the Viceroy that he had received a very important and very influential deputation, and that great interest was taken, not only by the Indian service, but by the medical profession in this country generally, as had been represented to him by Mr. Hart. If it could be hereafter seen that any other inquiry was necessary, he should be glad to give it his most attentive consideration. He should hear the opinion of the Indian Government; and he would confer with Dr. Lyon Playfair and Mr. Cowen, M.P., and other gentlemen who could give him assistance. He should be most happy to meet the views of the profession in the matter; but he could not then say more than that he would give the matter his most careful attention.

The deputation then retired.

THE EUCALYPTUS AND THE ROMAN CAMPAGNA.

[FROM OUR CORRESPONDENT IN ROME.]

About seven years ago, when it was the fashion to speak of the eucalyptus as the one remedy for the malaria of the Campagna, I wrote a series of letters to an English newspaper, then published in Rome, pointing out that very young gum trees would probably not thrive in the Roman Campagna unless artificial measures were adopted to protect the plants for the first two or three winters, and that the expense of doing so on a large scale would be prohibitive. Since that time, the experiment of planting unprotected eucalypti has been extensively tried, and has proved that I was correct in my assertions, which were based on the facts that those plants do not grow well on a cold damp soil, and that, when young, they cannot resist a greater degree of cold than from —4° to —6° cent. (24.8° to 21.2° Fahr.), to which they would often be exposed in the Campagna.

To those who know the Campagna, and its long, bare, though undulating plateau, the first thought which occurs is, how much trees are wanted. On better acquaintance, however, we recognise that it has a solemn beauty of its own, which trees would alter but not improve; and the project for cultivating an extensive zone of land around the city, which was not long since passed by the Chamber of Deputies, will, when carried out, entirely change the character of the landscape near Rome. Although the planting of trees is dealt with in the Bill, the details are left to experts, and no preference is shown for one tree over another; but the impression still seems general that the eucalypti, from their rapid growth and from their absorbent and antimiasmatic properties, are exactly what is needed. As magnificence of foliage is not the characteristic of gum-trees, those who know Australian landscapes will be the first to admit that, should the Campagna ever be covered with them, its beauty would be gone for ever. Our artist friends are, therefore, not likely to be heart-broken when they learn that there seems little chance of this occurring.

From the first, indeed, doubts had been expressed by many botanists and arboriculturists as to the likelihood of the eucalypti succeeding on the Campagna; but the enthusiasm of the supporters of the tree carried all before it, and forced the different Ministers of Agriculture and Commerce, who have come into office since 1870, to provide for the planting of eucalypti in large numbers, by offering the plants gratuitously to proprietors in the Agro Romano and elsewhere. In this way, more than twenty-six thousand plants have been distributed, mostly in Sardinia and the Campagna, where, with the exception of those which have been artificially protected and carefully tended, nearly all have perished, one authority even stating that only three or four per cent. of those planted in the open Campagna have survived. Out of forty eucalypti planted three years ago in the Campagna by a gentleman whom I know, in a full southern exposure, and sheltered from the north and east winds, eight only are now alive, and those in a very sickly state, and requiring support by stakes against the force of southern or western gales. The trees planted along the Maremma railway have nearly all died, and no very marked difference in hardihood has been noticed in such different species as eucalyptus globulus, resinifera, rostrata, amygdalina, etc., any that exists being in favour of eucalyptus resinifera. The truth is, those young non-indigenous trees do not thrive either on a very dry or on a cold marshy soil, and they are unable to resist strong winds or severe frost. No doubt there are spots where the trees grow vigorously, and thus seem to refute the opinion expressed; but though, from their rapidity of growth, the progress they make seems well nigh marvellous, yet, as the thickness of the stem does not increase *pari passu* with its height, they are only the more exposed to any violent storms. In the gardens, squares, and courtyards of Rome, there are many well grown young trees eight to ten years old, but those are the survivors out of many planted. But the Monastery of the Tre Fontane, the reputed and even probable site of the martyrdom of St. Paul, has been the real battle-ground of the opponents and defenders of the tree. It lies in a hollow, rather more than a mile beyond the great basilica of St. Paul, and its name is derived from the Church tradition of the three fountains which issued from the ground where the head of the Apostle of the Gentiles touched it in rebounding, after his decapitation. It is a gloomy, fever-stricken spot, and the old churches seem more dismal, the monks more careworn, from the associations of the place. In 1867, it was handed over by Pius IX to the Trappists, who still inhabit it, as the Italian Government allows them to remain on condition that they should plant with eucalypti more than half of the four hundred hectares of land attached to the monastery. The monks have consequently done everything in their power to grow eucalypti, and many of the young trees now seem most flourishing. In the severe winter of 1876-77, however, hundreds of the young plants perished; and this winter, when the frost was very persistent, and the thermometer fell more than once to —8° cent. (17.8° Fahr.), more than one-third of all the plants under three years of age were killed. When this happens on a carefully prepared soil, and with the use of artificial measures for the protection of the young plants, it is not surprising that the percentage of those surviving in the open, untilled, and undrained Campagna, should be so small. Those trees which have grown have afforded as yet but little protection from the malaria, as two of the brethren died from fever in the autumn of 1879.

The Government, in spite of those discouraging results, have not given up in despair, and they have lately sent about one hundred and fifty convicts to the Tre Fontane, to prepare about two to three hundred hectares of ground for a final attempt to grow the hardiest varieties on a large scale. Some years must elapse before we know the result of this renewed experiment.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-EIGHTH ANNUAL MEETING.

THE Forty-Eighth Annual Meeting of the British Medical Association will be held at Cambridge, on Tuesday, Wednesday, Thursday, and Friday, August 10th, 11th, 12th, and 13th, 1880.

President: DENIS C. O'CONNOR, A.B., M.D., Professor of Medicine in Queen's College, Cork.

President-elect: G. M. HUMPHRY, M.D., F.R.C.S., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

An Address in Medicine will be delivered by J. B. BRADBURY, M.D., F.R.C.P., Physician to Addenbrooke's Hospital; Linacre Lecturer in Physic.

An Address in Surgery will be delivered by TIMOTHY HOLMES, M.A., F.R.C.S., Surgeon to St. George's Hospital.

An Address in Physiology will be delivered by MICHAEL FOSTER, M.D., Hon. M.A., F.R.S., Prælector in Physiology in Trinity College, Cambridge.

The business of the Association will be transacted in Eight Sections.

SECTION A.: MEDICINE.—*President:* George Edward Paget, M.D., D.C.L., F.R.S., Cambridge. *Vice-Presidents:* George Johnson, M.D., F.R.S., London; P. W. Latham, M.A., M.D., Cambridge. *Secretaries:* W. B. Cheadle, M.A., M.D., 2, Hyde Park Place, London, W.; D. B. Lees, M.A., M.D., 2, Thurloe Houses, Thurloe Square, London, S.W.

SECTION B.: SURGERY. — *President:* William S. Savory, M.B., F.R.S., London. *Vice-Presidents:* William Cadge, F.R.C.S., Norwich; John Wood F.R.C.S., F.R.S., London. *Secretaries:* John Chiene, F.R.C.S.Ed., F.R.S.Edin., 21, Ainslie Place, Edinburgh; George E. Wherry, M.B., M.C., F.R.C.S., 63, Trumpington Street, Cambridge.

SECTION C.: OBSTETRIC MEDICINE.—*President:* W. S. Playfair, M.D., London. *Vice-Presidents:* H. Macnaughton Jones, M.D., Cork; Henry Gervis, M.D., London. *Secretaries:* R. N. Ingle, M.D., F.R.C.S., 21, Regent Street, Cambridge; C. E. Underhill, M.D., 8, Coates Crescent, Edinburgh.

SECTION D.: PUBLIC MEDICINE.—*President:* Henry W. Acland, M.D., LL.D., F.R.S., Oxford. *Vice-Presidents:* Arthur Ransome, M.A., M.D., Manchester; Thomas Pridgin Teale, M.A., F.R.C.S., Leeds. *Secretaries:* William Armistead, M.B., St. Mary's Villa, Station Road, Cambridge; Thos. J. Walker, M.D., 18, Westgate, Peterborough.

SECTION E.: PSYCHOLOGY.—*President:* J. Crichton Browne, M.D., LL.D., F.R.S., London. *Vice-Presidents:* G. F. Blandford, M.D., London; P. M. Deas, M.B., Macclesfield. *Secretaries:* G. M. Bacon, Hon. M.A., M.D., Lunatic Asylum, Fulbourn, Cambridge; Henry Sutherland, M.A., M.D., 6, Richmond Terrace, Whitehall, S.W.

SECTION F.: PHYSIOLOGY.—*President:* William Rutherford, M.D., F.R.S., Edinburgh. *Vice-Presidents:* Arthur Gamgee, M.D., F.R.S., Manchester; Robert McDonnell, M.D., F.R.S., Dublin. *Secretaries:* W. H. Gaskell, M.A., M.D., Grantchester, Cambridge; William Stirling, D.Sc., M.B., Marischal College, Aberdeen.

SECTION G.: PATHOLOGY.—*President:* Sir James Paget, Bart., D.C.L., LL.D., F.R.S. *Vice-Presidents:* Samuel Wilks, M.D., F.R.S.; W. Howship Dickinson, M.D. *Secretaries:* W. S. Greenfield, M.D., 15, Palace Road, Albert Embankment; Charles Creighton, M.A., M.D., Anatomical Museum, Cambridge.

SECTION H.: OPHTHALMOLOGY.—*President:* William Bowman, F.R.C.S., F.R.S., London. *Vice-Presidents:* Henry Power, F.R.C.S., London; Henry R. Swanzy, M.B., Dublin. *Secretaries:* W. A. Brailey, M.A., M.D., 38, King's Road, Brownswood Park, London, N.; David Little, M.D., 21, St. John Street, Manchester.

A Subsection of Otology will be formed, of which Mr. W. B. Dalby, F.R.C.S., of London, will be Chairman, and Dr. James Patterson Cassells of Newton Terrace, Sauchiehall Street, Glasgow, honorary secretary.

Treasurer: R. M. Fawcett, M.D., 3, Scrope Terrace, Cambridge.

Honorary Secretary to Museum: G. Wallis, Esq., Corpus Buildings, Cambridge.

Honorary Local Secretaries: Bushell Anningson, M.A., M.D. (Hon. Medical Secretary), Walt-ham-sal, Barton Road, Cambridge; A. P. Humphry, Esq., M.A. (Hon. Reception Secretary), Corpus Buildings, Cambridge.

Letters relating to the strictly medical work (Sections, Museums, etc.) of the meeting should be addressed to Dr. Anningson; other letters to Mr. A. P. Humphry.

TUESDAY, AUGUST 10TH, 1880.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1879-80.
4 P.M.—Short service, with sermon by the Bishop of Ely in King's College Chapel
8 P.M.—General Meeting. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 11TH.

9.30 A.M.—Meeting of Council of 1880-81.
11 A.M.—Second General Meeting. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.
9 P.M.—Soirée in the Fitzwilliam Museum by the Reception Committee.

THURSDAY, AUGUST 12TH.

9.30 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, AUGUST 13TH.

10 A.M.—Address in Physiology.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting.
4 P.M.—Garden party in the grounds of King's College by the Reception Committee.
9 P.M.—Conversazione in St. John's College.

EXCURSIONS.

On Saturday, August 14th, there will be excursions to Ely, Peterborough, and Audley End.

Notice is hereby given, that a motion will be made at the Annual General Meeting of members of the British Medical Association, to be held at the Senate House, Cambridge, on Tuesday, the 10th day of August next, at eight o'clock in the afternoon, that the following regulations for the conduct of Annual General Meetings be adopted.

General Control of Meeting.

1. The programme of the Annual General Meeting shall be under the control of the Committee of Council. The following regulations shall guide the Committee of Arrangement and any local Committee that may be formed.

Necessity of Limiting the Expenditure.

2. The gradual and constant increase of the members of the British Medical Association renders it expedient to express the strong opinion of the Committee of Council, that the medical men of the locality at which the Association holds its meeting should not deem it necessary to incur a large expenditure; as, otherwise, the choice of a place of meeting must be more and more limited to the larger towns of the kingdom.

Annual Dinner.

3. The Annual Dinner shall be under the control of the Committee of Council.

Papers to be Read at Meeting.

4. All papers intended to be read at the Annual Meeting shall be forwarded, ogether with an abstract, to the Secretaries of Sections, ten days before the Annual

Meeting takes place, excepting the Addresses of the Presidents of Sections, or the Addresses to be delivered in General Meeting.

Directions for Sections.

5. The President, Vice-Presidents, and Secretaries of Sections shall form a Committee of Reference, with power to accept, decline, or postpone any paper, and to arrange the order in which the papers shall be read.

Grouping of Papers for Discussion.

6. The papers in each section shall, as far as possible, be grouped together, so as ensure a general discussion on kindred subjects.

Length of time to be occupied by Papers or Speeches.

7. No communication shall occupy more than fifteen minutes, and no person shall be permitted to speak more than once or for more than ten minutes during the discussion thereon.

Resolutions at Annual Meetings.

8. No motion shall be brought forward at the Annual Meeting, unless it has been proposed by the Committee of Council or a Committee of the Association, or notice of the same shall have been given on the previous day, in writing, to the General Secretary, to be entered on the Agenda of the day and printed in the daily journal. This does not apply to amendments moved in due form.

Meeting of Committee of Council. Meeting of Council.

9. The Committee of Council shall meet on the first day of the Annual Meeting, in the afternoon. The Council of the Association shall meet subsequently, and the first General Meeting of the Association shall be held in the evening.

Reports of Committees.

10. All reports of Committees of the Association shall be printed in the JOURNAL before the Annual Meeting.

SPECIAL NOTICE.

ACCOMMODATION IN CAMBRIDGE.

MEMBERS of the Association who propose to bring ladies to Cambridge on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, A. P. Humphry, Esq., 56, Corpus Buildings, Cambridge. The prices at which lodgings will be obtainable vary from three shillings to one guinea per day (inclusive of attendance) for a bed-room and sitting-room.

Hotels.—The following are the principal hotels in Cambridge.

"Bull" (Trumpington Street).—Bed, 3s. 6d.; sitting-room, 6s. to 10s. Attendance, 1s. 6d.; breakfast, from 2s.

"Lion" (Petty Cury).—Bed, 3s. 6d.; sitting-room, 5s. to 7s. 6d. Attendance, 1s. 6d.; breakfast, from 2s. 6d.

"Hoop" (Bridge Street).—Bed, 5s.; sitting-room, 7s. 6d. Attendance, 1s. 6d.; breakfast, from 1s. 6d.

"University Arms" (Regent Street).—Bed, 2s. 6d.; double bed, 3s. 6d.; sitting-room, 5s. Attendance, first day, 1s. 6d.; following days, 1s. Breakfast, with meat, 2s. 6d.; plain, 1s. 6d.

Applications for hotel-accommodation should be addressed direct to the landlords.

FRANCIS FOWKE, *General Secretary,*
British Medical Association.

161A, Strand, London, June 3rd, 1880.

COMMITTEE OF COUNCIL:
NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 7th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, May 29th, 1880.

SOUTH-EASTERN BRANCH.

THE thirty-sixth annual meeting will be held on Tuesday, June 8th, at two o'clock P.M., in the Royal Pavilion, Brighton; W. WITHERS MOORE, M.D., President-elect, in the Chair.

CHARLES PARSONS, M.D., *Honorary Secretary.*

2, St. James's Street, Dover, May 19th, 1880.

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of this Branch will be held at the Assembly Rooms, Free Trade Hall, Manchester, at 2 P.M. on Wednesday, June 30th. Council meeting at 1 P.M.

Dinner, 5.30 P.M., at the Queen's Hotel. Tickets 10s. 6d., exclusive of wine.

Members intending to read papers are requested to communicate at once with the honorary secretary, who will also receive the names of those who wish to take dinner-tickets.

A. DAVIDSON, M.D., *Honorary Secretary.*

2, Gambier Terrace, Liverpool, May 31st, 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE annual meeting will be held at the Hospital, Swansea, on Wednesday, June 30th, at 11 A.M.; T. D. GRIFFITHS, M.D., President-elect.

Members desirous of reading papers, etc., are requested to communicate with one of the Honorary Secretaries without delay.

ALFRED SHEEN, M.D.,
J. HANCOCKE WATHEN, } *Honorary Secretaries.*

May 25th, 1880.

MIDLAND BRANCH.

THE annual meeting of this branch will be held at Nottingham, on Thursday, 24th June. Members desirous of reading papers are requested to communicate at once with Dr. Marshall, *Honorary Secretary*, Nottingham, or with C. HARRISON, M.D.,
Lincoln. *Honorary Secretary of the Branch.*

YORKSHIRE BRANCH.

THE annual meeting will be held at the Town Hall, Bradford, at 3 P.M., on June 16th, 1880; P. E. MIALL, Esq., in the Chair.

Members intending to contribute papers are requested to communicate at once with ARTHUR JACKSON, *Secretary pro tem.*
Sheffield.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

THE seventh annual meeting of this Branch will be held at Curraghmore, Bournemouth (the residence of Dr. STEWART FALLS, the President-elect), on Wednesday, June 16th, 1880. The general meeting will commence at twelve o'clock.

Members desirous of reading papers or other communications at this meeting are requested to forward the titles to the honorary secretary before the 12th of June. No communication must exceed seven minutes in length, and no subsequent speech must exceed five minutes.

The address will be delivered by the President-elect at 2 P.M.

During the afternoon, the members will have an opportunity of visiting several places of interest in the locality.

The dinner will take place at the Exeter Park Hotel, at 4.30 P.M. Tickets, 6s. each, exclusive of wine.

The Committee request that those gentlemen who intend to be present at the dinner will send in their names to Mr. W. D. Hemming, Bournemouth, on or before Monday, the 14th instant.

J. WARD COUSINS, M.D., *Honorary Secretary and Treasurer.*

BORDER COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, June 25th, at one o'clock.

Gentlemen intending to read papers are requested to give early notice to one of the Branch secretaries.

J. KENDALL BURT,
JOHN SMITH, } *Honorary Secretaries.*

Kendal, May 31st, 1880.

SOUTH-WESTERN BRANCH.

THE annual meeting, under the presidency of Dr. HOGARTH CLAY, will be held at Plymouth, on Friday, the 18th instant.

A steamer, starting from Millbay about 11 A.M., will take the members up the river Tamar, and an opportunity will be given for seeing Cothele and other places of interest. The business of the meeting will be conducted during the excursion. Luncheon will be provided by the President.

The dinner will be at the Duke of Cornwall Hotel, at 6 P.M. punctually.

Members who intend to read papers or make any communication are requested to give notice as early as possible to

SUTHERLAND REES-PHILIPPS, M.D., *Honorary Secretary.*

Wonford House, Exeter, June 2nd, 1880.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE annual meeting of this District was held at Rochester on Thursday, May 27th, at 1.30 P.M.; Mr. RIGDEN in the Chair.

The Annual Accounts were audited and passed.

The Honorary Secretary was re-elected.

The Ethical Committee, with the exception of Mr. Reid, who resigned office, were re-elected.

Places of Meeting.—The following places of meeting were chosen for the ensuing year; Folkestone for September, Canterbury for November, Dover for March, and Canterbury for May.

CORRESPONDENCE.

THE NAVAL MEDICAL SERVICE.

SIR,—I desire to draw your special attention to the recently issued advertisement for candidates for the Medical Department of the Navy, and trust you will observe that, as yet, no public result has followed the representations of Mr. Ernest Hart as Chairman of the Parliamentary Bills Committee on the disabilities of the Naval Medical Service, and the requisite reforms pointed out by the Committee to the late First Lord of the Admiralty.

It is true a committee was appointed to consider Mr. Hart's memorandum, as promised by Mr. Smith, and it has inquired into the state of the Naval Medical Service; but this committee has been adjourned for weeks past, and as yet no report has been framed or signed. Even when the report is signed and submitted to the Admiralty, we cannot expect that prompt action will be taken, as we have the experience of the Army Medical Report to warn us of the delay between the committee's report and the issue of the Army Medical Warrant.

It is very desirable, also, and I trust you will urge the necessity of it, that the committee's report should be submitted to the criticism of the medical profession ere the Naval Medical Warrant be issued.

Under existing circumstances, it would seem more than desirable that medical men should abstain from entering a service at present labouring under such serious disabilities, as, by so abstaining, they will not only hasten the removal of existing disabilities, but also cause the service to be made more attractive to those entering it. Were recruits to present themselves now, what chance would there be of reform?

Trusting this subject may again secure your valuable attention, I subscribe myself, yours most truly, DREADNOUGHT.

THE ENGLISH CONJOINT SCHEME.

SIR,—While agreeing with you in deprecating any action of the Council of the College of Surgeons which may seem to throw discredit upon the main principle of the English scheme for a conjoint board, I venture to think that, in respect to one of its most important details, some reconsideration is absolutely required. I allude to the arrangement with regard to examination-fees, which was made, of course, previously to the introduction of the Government Bill of last year, and previously, therefore, to the provision contained in its later editions to the effect that the fees for examination should be the same in each division of the kingdom, and which, in consequence of that provision, would positively fix the amount of fee to be charged in Scotland and Ireland as well as England, if the scheme remained *in statu quo* and approved by the Medical Council, up to the passing of the Government Bill. Now, I think there is some force in the objections urged against that particular part of the English scheme by Professor Struthers of Aberdeen in his evidence before the Select Committee last March. "You will find," he says, "that there are thirty guineas to pay under the English joint scheme, and this is to maintain three corporations in London. Five guineas, I see by the appendix to the scheme, go to the Museum of the College of Surgeons. That museum is, no doubt, a noble museum; I know nothing of its kind equal to it anywhere in Europe. But where is the justice of making a poor Scotchman or a poor Irishman pay thirty guineas because three corporations in London wish to be maintained, or because a London museum requires to be supported?" Again: "The Government Bill requires only one diploma; but, before this English joint scheme will admit the unfortunate student, he is obliged to pay for three diplomas beforehand. No doubt the scheme was drawn up before the Bill; but then this Bill was made to suit the English joint scheme." Unless there be here some entire misapprehension (which I fail to see) of the effect which the Bill and the scheme taken together would have, I think it must be admitted that Irish and Scotch students will be somewhat hardly dealt with in having to pay even five guineas more than would otherwise be required, in order that the Hunterian Museum should be supported out of the English fee; and as, to say the least, such an effect does not seem to have been contemplated when the amount of the fee was fixed, it seems fairly a matter for reconsideration by those principally concerned: I mean the Scotch and Irish bodies, as well as the English. It is also desirable, I think, that the opinion of the profession outside those interested bodies should make itself heard in each of the three divisions of the kingdom, as to the desirability or otherwise of establishing conjoint boards. It was stated before the Select Committee, that even in Scotland there is a strong feeling outside the corporations in favour of a conjoint board. Perhaps an opportunity might be found, or made, at the approaching annual meeting of the Association, for giving audible expression to such feeling if it exist.—Faithfully yours,

The Grove, Dulwich, May 31st. H. NELSON HARDY.

PROVIDENT DISPENSARIES.

SIR,—Dr. Alfred Sheen has done good service by calling attention to the importance of limiting the class for whom provident dispensaries are intended. Unless a line of demarcation is carefully drawn, they may, as he says, become fruitful sources of abuse. Such has evidently been the case in the examples given by your correspondent G. F. But I believe the promoters of the provident movement are fully alive to this danger. Indeed, the medical officers have the remedy in their own hands, for they can at any time call the attention of the committee to any particular case, and an inquiry will at once be made. If the patient be found to be in receipt of more than the prescribed amount, his name can be removed from the list of members. Herein lies one great and important advantage which the provident dispensary has over the sick club.

As regards the co-operation with the friendly societies—a question which is at present under discussion—Dr. Sheen is no doubt right in saying that there ought to be a strict wage-limit. I believe the working men themselves would see the justice of this if the circumstances were explained to them. Perhaps any difficulty that there may be in bringing about such a scheme of co-operation might be met by adopting a sliding scale of higher payments for those in receipt of higher wages. This plan is working well at the Battersea provident dispensary.

I believe that this provident movement is something more than "a fashionable scheme". It has been gradually advancing for half a century, it is well suited to the requirements of the day, and bids fair to become the established means of providing medical attendance for the wage-earning classes of this country.—Yours faithfully,

Southborough, May 20th, 1880. WM. FAIRLIE CLARKE.

CÆSAREAN SECTION.

SIR,—I shall be particularly obliged if you will kindly allow me, through the medium of your very valuable JOURNAL, to ask the favour of any of your readers to oblige me by sending me any case of Cæsarean section which has been performed in Great Britain and Ireland, but which has not been published. I am engaged in preparing a second edition of my *Observations*, which I intend shall contain a complete historical record of all cases of this capital operation which have been performed, up to the present time, in the before named countries.—I am, yours most respectfully, THOMAS RADFORD.

Manchester, May 31st, 1880.

LYING-IN HOSPITALS AND VACCINATION STATIONS.

SIR,—In reference to the question of making a lying-in hospital a vaccination-station, I think there are many serious objections to such a plan, that would far outweigh any advantages derived from it. You state, in this week's issue of the JOURNAL, "We understand that an endeavour is being made, by Dr. Stevens of the Local Government Board, with the concurrence of the St. Marylebone Guardians, to have Queen Charlotte's Lying-in Hospital made a special vaccination-station."

Some short time since, it was proposed to carry out this system at the British Lying-in Hospital, Endell Street; and it was only on forcibly reminding the managing authorities that the patients in the hospital would constantly be subjected to the risk of infection from scarlet fever and other contagious disorders, that the idea was abandoned. The risks incurred from the aggregation of patients in lying-in hospitals is already sufficiently great without submitting them to any extra danger from the importation of contagion from without, at a time when they are more than ever susceptible to its influence.—I am, yours faithfully,

ARTHUR W. EDIS, M.D., F.R.C.P.,
Physician to the British Lying-in Hospital, Endell Street.

June 1880.

⁎⁎⁎ Every one must approve of the principle of Dr. Edis's warning against the adoption of any measures which can increase the danger of the introduction of infectious diseases into a lying-in hospital. But, in the case of Queen Charlotte's Hospital, the proposal is, we are informed, not to make the hospital a vaccination station to which any one may come, but to make it a vaccination-station for the special and exclusive use of the inmates of the hospital, so as to secure the vaccination of the infants born there before they are sent out.

METAPHOSPHORIC ACID A TEST FOR ALBUMEN.

SIR,—I have received several letters with reference to my recent communication on metaphosphoric acid as a test for albumen in urine, asking whether it is an unstable acid in the solid state, and whether it can be easily preserved for practical use, especially on account of the well-known dangers attending the carrying of nitric acid. In reply, I beg to say that it can be kept for months in the solid state, without any deterioration, in an ordinary glass stoppered bottle. I may add to my recent remarks on the mode of employing it, that, for general use, a piece of the size of a split pea dropped into the urine in a test-tube affords, on the application of gentle heat, a ready and certain test. As the metaphosphoric acid dissolves, the albumen forms a white cloud around it.—Yours truly, W. C. GRIGG, M.D.

6, Curzon Street, Mayfair, W., June 1880.

OBITUARY.

SAMUEL MESSENGER BRADLEY, F.R.C.S.,

SURGEON TO THE MANCHESTER ROYAL INFIRMARY.

ON the 27th May, at the early age of 39, Manchester lost, by the untimely death of Samuel Messenger Bradley, a brilliant surgeon, a cultured gentleman, and one of the brightest and wittiest of companions. Mr. Bradley was born in 1841, and qualified for admission to the medical profession by becoming a Member of the Royal College of Surgeons in 1862; and, in the same year, Licentiate of the Apothecaries' Society. He passed the examination for the Fellowship of the College of Surgeons in 1869. After he had qualified, he entered the Manchester Royal Infirmary as Assistant-Physician. For a time, he acted as Professor of Physiology in Stonyhurst College, and was Surgeon to the Ancoats and Ardwick Dispensary. His medical experience was exceedingly varied; for after taking charge of a practice in Bowness, Windermere, for six months, he entered the service of the Cunard Steamship Company, and in twelve months made several voyages between Liverpool and New York. In 1865, he began practice in Longsight; and, directly after this, he had a warm controversy with the then Manchester Board of Guardians, whose treatment of the sick he condemned in unmeasured terms. The consequence was an inquiry by the Poor-law Board, before whom Mr. Bradley was called, and produced, through his solicitor Mr. R. B. B. Cobbett, such strong evidence as to completely justify his position. His action in this matter was well appreciated by his fellow citizens, who by a subscription paid his legal expenses in the matter. Mr. Bradley was Lecturer on Practical Surgery at the Medical School of the Owens College, having previously been Lecturer on Anatomy in that institution.

Mr. Bradley has wielded an industrious pen, and his productions vary from systematic treatises to occasional papers and *vers de société*. His *Manual of Comparative Anatomy and Physiology* was first issued in 1869; and the second edition, issued at the close of 1873, was entirely rewritten. A third edition appeared in 1875. His latest book, *On the Injuries and Diseases of the Lymphatic System*, was published last year, and met with warm approval. In conjunction with Mr. Walter Whitehead, he edited the *Manchester Medical and Surgical Reports* for 1870 and 1871, and remained as one of the editors for some time after the amalgamation of the publication with a similar serial at Liverpool, when it became the *Liverpool and Manchester Medical and Surgical Reports*. To this publication Mr. Bradley contributed several papers of professional interest, and one of more general scientific interest on the "Shape of English Skulls". Mr. Bradley's anatomical studies had led him to the cognate field of anthropology. A note by him on the peculiarities of the Australian crania was read at the meeting of the Anthropological Institute on May 6th, 1872. His observations were based upon an examination of some skulls brought by Mr. G. Roberts, junior, from the borders of Lake Albert, which had belonged to members of a tribe who were "without a superstition of any kind". In these papers, as in one read in November 1871 before the Literary and Philosophical Society of Manchester, his object was to show that the present classification of crania is no longer scientifically accurate. In order to obtain the data for these speculations, Mr. Bradley measured the heads of the male prisoners in the Manchester Borough Gaol. "As these", he says, "were all taken from people in pretty much the same station in life, with the same environments in the past, the differences which they present and their great want of uniformity is the more interesting, as it shows the influence which civilisation has in moulding the form of even the lowest and most uncivilised classes."

Mr. Bradley's professional contributions were numerous, and may be found in various medical journals. Amongst others may be mentioned his papers on Syphilis, Retrospect of the Advance of Modern Medicine, Moral Responsibility, Description of the Brain of an Idiot, the Evolution of Disease, etc. An article in the *Manchester Magazine* of November described his scientific holiday in August last at Ilfracombe, and was delivered, we believe, as a popular scientific lecture and reprinted for private circulation. At the *conversazione* and concert of the Medical Students' Debating Society, held at Owens College in February this year, Mr. Bradley gave an address in facile rhyme, in which many of the professional topics of the day were mentioned. The congratulation about the University charter was coupled with a denunciation of the denial of the right to grant medical degrees. Mr. Bradley was averse to the adoption of the medical profession by women, but deprecated any "legal bar against woman playing man". The address ended with a well known quotation from the "Princess". These casual rhymes reveal also Mr. Bradley's interest in art:

Though here on us no outward sun may shine,
Let inner suns illuminate the mine:
Take all men's thoughts as seed for future lore;
Think none too great, and none too small, to store;
And ever know fair science still demands
Renewed research, fresh from her vot'ries' hands.
Her mine as deep, her realm as wide as space,
'Tis his to win who hourly runs this race:
Wise, too, I count you, that you seek in art
An interest in life from your work apart.

Mr. Bradley cultivated pictorial art with considerable success, and was an occasional contributor to the exhibitions at the Royal Institution. This interest in art led him to deliver, before the members at the Manchester Academy and other artists, a lecture on the "Relationship of Anatomy to the Fine Arts". In this, he advocated the more thorough training in the knowledge of the human form for artistic purposes.

It may not be out of place to reproduce an extract in which he pleaded for a wider appreciation of artistic work. That we were inclined to regard our noblest work frivolously was as true, he said, as that we took our pleasures sadly. "Art should be as much to a nation as science. The man who invented the fiddle did as much for his fellow-man as he who applied the properties of steam to the locomotive or of electricity to the telegraph; for after all, the highest good lies in increasing the sum of happiness in the masses, and raising the mental possibilities of the individual. And do not the concord of sweet sounds and the finest works of art contribute to such ends equally with the rapid rush of the express or the flash along the electric wire? 'What a rogue and peasant slave' is he to whom art is nothing! Like the heathen idol, he has ears, but hears not; eyes has he, but he sees not. To lightly esteem commercial matters would be more pardonable; and I confess to always having admired Rubens' remark that '*il s'amusait à être ambassadeur*'." The esteem felt for him by the professional painters was shown by his election as an honorary member of the Limners' Club; he was also a member of the Literary Club, and took an active interest in its proceedings.

Mr. Bradley was a brilliant conversationalist, and possessed of an extraordinary memory. Amongst his popular lectures, may be mentioned "The Antiquity of Man", "The Human Hand and Foot", "The Ear", "Natural History", "Animal Mechanics", "Physics", etc. Amongst his students, who regarded him as much a friend as teacher, or with a mixed audience, he was equally popular. A description of Mr. Bradley in the *Free Lance* about 1870 conveys a very faithful impression of his appearance: "A man with peculiarly clear-cut features, firm yet kind in expression, slightly aquiline nose, high forehead and massive jaw, he gives one the idea of intellectual capacity of no mean order, of a fine mind finely cultivated; and so he is. Whether in his lectures, his demonstrations, or his friendly intercourse with the students, he is always the same—the able and skilful anatomist and the courteous English gentleman."

Mr. Bradley went to Ramsgate for rest, and to see his two boys who were at school there. His health had not been in a perfectly satisfactory condition for several months; but not the slightest alarm was felt on the subject by his friends here. He caught cold shortly after his arrival at Ramsgate; pleurisy set in; and on Thursday his Manchester friends were shocked and saddened by the totally unexpected news of his death. He was thus cut off at an early age, and when a brilliant career was opening for his talents. In his professional duties, he won esteem and respect by his generosity and courtesy; and the students under his care—at the Royal Infirmary in particular—profited in no small degree by his lucid and skilful explanation of all matters pertaining to their course of instructions. He was a very fair musician, spoke several languages fluently, and was a prolific writer. Endowed with natural gifts calculated to secure success in life, possessed of an amiable, kind, and lovable disposition, of winning manners and varied culture, he bid fair to attain a brilliant position in the profession which he had adopted.

In accordance with his wish, he was quietly interred in Ramsgate last Tuesday. A few of his oldest and dearest friends alone followed him to his grave; but, had he been removed to Manchester, a public funeral had been arranged to do honour to his memory.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, May 27th.

Alkali Acts.—In answer to Mr. W. EGERTON, who asked whether it was intended to introduce a Bill to amend these Acts or to carry out the recommendations of the Noxious Vapours Commission, Mr. DODSON said that, although the time had been very short, he had had, and still had, the report of the Commission under his consideration, and he was sure the hon. member would leave the matter in his hands, as the subject was important, and he was desirous of giving it every attention.

The Local Government Board.—In Committee of Supply, on the vote of £318,417 to complete the sum of £404,617 for the Local Government Board, Mr. DAWSON complained of the insufficiency of the supply of lymph in Dublin, and moved a reduction of the vote by £7,000.—Dr. LYONS hoped that this vote would be increased rather than diminished, inasmuch as it afforded the only opportunity which the Government had of giving aid to scientific bodies. With regard to vaccination in Ireland, it was, in his opinion, very efficient compared with the very small grant which was made for the purpose.—Mr. MARK STEWART hoped that when the proper time came, Scotch medical men would be placed upon the same footing as those of England.—Mr. DAWSON would gladly withdraw his amendment if the Government would give him an assurance that the vote with respect to Irish medical practitioners would be increased.—Mr. DODSON said it was out of the power of the Government to move to increase the vote, and he certainly had no intention of doing so.—Mr. DAWSON, in the circumstances, would press his amendment, to show his sense of the unjust way in which Ireland was treated.—Mr. SCLATER-BOOTH remarked that in many counties the Act referred to had worked exceedingly well, but there certainly remained several matters in connection with this branch of the law which would, he hoped, receive early attention from Her Majesty's Government.—Mr. PELL could not agree in the opinion that the law was working well at present. As far as his knowledge enabled him to speak, nothing could well be more unsatisfactory than the present state and working of the law.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE POOR-LAW MEDICAL OFFICERS' (ENGLAND) SUPERANNUATION ACT.

IT was the intention of the legislature, in sanctioning the Poor-law Medical Officers' Superannuation Act, that such allowance should be granted in all suitable cases; such being those of aged or infirm gentlemen who had reached sixty years, and many of whom had been tempted, to the detriment of the sick poor, to retain their offices long after (owing to physical inability) they were incapable of efficiently performing their duty—solely, as we have too much reason to believe, in many instances, from the want of other means of subsistence.

The Act is permissive only. Owing to this cause, and to the fact that, in its passage through the Lords, it was provided that superannuation allowance should be a local charge—this being contrary to the rule that holds good as regards the salaries, half of which are paid from the Consolidated Fund—in far too many, if not in the majority, of the cases where application has been made, it has been refused. Several instances of great hardship—even of cruel injustice—have been reported to us. Unfortunately, the central department, though desirous, in the interest of the sick poor and their infirm attendants, to use its authority, is legally powerless to interfere. We are pleased, therefore, to notice that Professor Thorold Rogers, M.P. for Southwark, has, at the instance of his brother, Dr. Joseph Rogers, moved for a "return of the number of applications made under the Medical Officers' Superannuation Act (England) to boards of guardians for superannuation allowances; the names of the unions in which such applications have been made; the ones in which such allowances have been made or refused; the number of years' service of the officers; and the grounds (if any) which have been alleged for refusing such application." We are pleased to note that not only was this return unopposed, but that the department feels that the information which will be thereby obtained will have a tendency to strengthen their hands.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At the half-yearly examination for the Fellowship of the College on the 26th May, the following gentlemen passed their primary or anatomical and physiological examination.

Messrs. Herbert H. Back, Charles F. Bailey, and Henry B. Tait, of St. Bartholomew's Hospital: Henry Blatherwick and Walter C. Dendy of Guy's Hospital; William T. Crick and Charles S. Evans, of St. Thomas's Hospital; Frank Hewkley, of the London Hospital; Thomas H. Pounds, of the Charing Cross Hospital; C. Wray, of the London Hospital and Newcastle-on-Tyne School.

The following gentlemen passed on the 27th May.

Messrs. Francis H. E. Voss and D. P. Harris, of the London Hospital; Stephen Chapman Townsend, of St. Bartholomew's Hospital.

Five candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, May 27th, 1880.

Abbott, James Eastal, Darlington.
Benham, Harry Arthur, Clifton, Bristol.
Beckett, Thomas George, Brick Lane, Spitalfields.
Benthall, Winfred, Sherbourne, Dorset.
Furness, John, Hesketneedmarket, Cumberland.

The following gentlemen also on the same day passed their primary professional examination.

Dashwood, Edmund Samuel, Guy's Hospital.
Hodges, James, King's College.
Kilham, Charles Speight, Sheffield Infirmary.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced:—

BEXLEY LOCAL BOARD—Medical Officer. Salary, £30 per annum. Applications on or before June 8th.

BIDEFORD UNION—Medical Officer to the Abbotsham District. Salary, £7 7s. per annum.—Medical Officer to the Hartland and Clovelly District. Salary, £75 per annum. Applications not later than June 7th.

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon to the Aston Branch. Salary, £170 per annum, with furnished apartments, coals, and attendance. Applications, with testimonials, on or before June 21st.

*BIRMINGHAM GENERAL DISPENSARY—An additional Resident Surgeon for the Dispensary, Union Street. Salary, £150 per annum, with furnished apartments, coals, attendance, etc. Applications, with testimonials, on or before June 21st.

CARRICKMACROSS UNION—Medical Officer for Raperagh Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 11th instant.

EAST RIDING LUNATIC ASYLUM, Beverley—Assistant Medical Officer. Salary, £100 per annum, with board, apartments, etc. Applications, with testimonials, not later than June 18th.

GATESHEAD DISPENSARY—Assistant-Surgeon. Salary, £120 per annum, Applications, with testimonials, to the Honorary Secretary not later than the 15th of June.

*KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications not later than June 25th.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY—Surgeon.

MULLINGAR UNION—Medical Officer for Multyfarnham Dispensary District. Salary, £120 per annum, together with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on June 7th.

NAAS UNION—Medical Officer to the Clane and Trinahoe Dispensary District. Salary, £125 per annum.

NEWPORT (Monmouthshire) UNION—Medical Officer to the Marshfield District. Salary, £40 per annum. Applications not later than June 11th.

*OWENS COLLEGE, Manchester—Demonstratorship in Anatomy. Stipend, £150 per annum. Applications, with testimonials, not later than June 30th.

OUNDLE UNION—Medical Officer to the Weldon District. Salary, £70 per ann.

*ST. MARY'S HOSPITAL, Paddington—Assistant-Physician. Applications, with testimonials, to the Secretary on or before June 10th.

*SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Junior Assistant-House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary on or before June 15th.

*SMALL-POX HOSPITAL, Highgate Hill—Resident Surgeon. Applications, with testimonials, to the Secretary on or before June 24th.

SPILSLEY UNION—Medical Officer for the Stockney District.

*WESTMINSTER GENERAL INFIRMARY—Physician. Applications, with testimonials, to the Secretary on or before June 21st.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum, with residence in the Infirmary. Applications, with testimonials, to the Secretary, before June 25th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BERNSTEIN, Meyer Joseph, M.B., appointed Junior House-Surgeon to the Birkenhead Borough Hospital, *vice* H. H. Boucher, M.B., resigned.

*HOLDERNESS, William Brown, M.R.C.S.Eng., appointed Visiting Surgeon to the Royal Windsor Dispensary and Infirmary, *vice* Thos. Fairbank, M.D., deceased.

Johnstone, C. R., B.A., M.R.C.S.Eng., appointed Resident Medical Officer to the Dudley Dispensary, *vice* John Steel, L.R.C.P.Edin., resigned.

*Limrick, O. E. B., L.K.Q.C.P.I., appointed House-Surgeon to the Liverpool Dispensaries, *vice* J. B. J. Bradley, L.K.Q.C.P.I., resigned.

*McEwen, F. Alexander, M.B., appointed House-Surgeon to the Alnwick Infirmary, *vice* James Oliver, resigned.

O'Brien, Russell J., M.B., appointed Assistant House-Surgeon to the Liverpool Dispensaries, *vice* O. E. B. Limrick, L.K.Q.C.P.I., appointed House-Surgeon.

Oliver, James, M.B., appointed Resident Physician to the Queen's Hospital, Birmingham, *vice* W. H. Osborn, M.R.C.S.Eng., appointed House-Surgeon.

Osborn, W. H., M.R.C.S.Eng., appointed House-Surgeon to the Queen's Hospital, Birmingham.

*Phibbs, Robert Featherstone, M.R.C.P.Ed., appointed Visiting Physician to the Infirmary for Consumption and Diseases of the Chest and Throat.

Ralfe, Charles Henry, M.D., appointed Sixth Assistant-Physician to the London *vice* Thomas Barlow, M.D., resigned.

Wilson, Wilfrid, M.B., C.M., appointed House-Surgeon to the Cumberland Infirmary, *vice* W. H. Beverley, L.R.C.P.Lond., resigned.

*Young, Alfred H., M.B., C.M., appointed Pathological Registrar to the Manchester Royal Infirmary, *vice* J. D. Bradshaw, M.B., resigned.

Dr. Richard Radley Leader, of Millstreet, is a candidate for the coronership of the East Riding of the County Cork, vacant by the death of Mr. Daly.

Lord Norton last week presented a petition to the House of Lords, from the Guardians of the Meriden Union, Warwickshire, praying that the appointment of medical officers under the Public Health Act should be made optional instead of compulsory.

Bequests.—The late Mr. Allan Reddoch of Showlands has made the following charitable bequests: Royal Infirmary, Glasgow, £500; Western Infirmary, £500; Orphan and Destitute Children Emigration Homes, £200; Saltcoats Home, £200; Deaf and Dumb Institution, £200; and Blind Asylum, £200.

Loch Katrine Water.—The monthly report of the quality of Loch Katrine water has been issued as prepared by Professor Mills. The results are returned in parts per 100,000, and are as follows: Total solid impurity, 3.02; organic carbon, 0.115; organic nitrogen, 0.016; ammonia, 0.000; nitric nitrogen, 0.006; total combined nitrogen: 0.022; chlorine, 0.61; hardness, 0.95. The water, which was sampled on May 17th, was of a pale brown colour, and contained little suspended matter, but appeared to possess an exceptionally large amount of free oxygen.

Public Health.—During last week, being the twenty-first week of this year, 3,489 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 21 deaths annually in every 1,000 persons living. The annual death-rate was 25 in Edinburgh, 23 in Glasgow, and 38 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Wolverhampton 16, Leeds 17, Hull 17, Portsmouth 18, Leicester 18, Birmingham 19, Plymouth 19, London 19, Bradford 19, Sheffield 20, Nottingham 20, Brighton 21, Bristol 22, Sunderland 22, Oldham 23, Liverpool 23, Norwich 24, Newcastle-upon-Tyne 24, Manchester 26, and the highest rate 29 in Salford. The annual death-rate from the seven principal zymotic diseases averaged 3.2 per 1000 in the twenty towns, and ranged from 0.7 and 0.9 in Leeds and Birmingham, to 7.6 and 8.4 in Salford and Plymouth. In London, 1,333 deaths were registered, which were 107 below the average, and were equal to an annual death-rate of 19.0. The 1,333 deaths included 10 from small-pox, 30 from measles, 68 from scarlet fever, 11 from diphtheria, 76 from whooping-cough, 14 from different forms of fever, and 17 from diarrhœa—being altogether 226 zymotic deaths, which were 7 below the average, and were equal to an annual rate of 3.2 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 286 and 241 in the two preceding weeks, further declined to 208 last week, and were 46 below the average; 116 were referred to bronchitis, and 60 to pneumonia. Different forms of violence caused 53 deaths; 36 were the result of negligence or accident, including 15 from fractures and contusions, 4 from drowning, and 10 of infants under one year of age from suffocation. No fewer than 14 cases of suicide were registered, being nearly double the corrected average number. At Greenwich, the mean temperature of the air was 58.4°, and 2.3° above the average. The mean degree of humidity of the air was 67, complete saturation being represented by 100. The general direction of the wind was south-west, and the horizontal movement of the air averaged 13.5 miles per hour, which was 3.3 above the average. Rain fell on Thursday to the amount of 0.02 of an inch. The duration of registered bright sunshine in the week was equal to 47 per cent. of its possible duration. The recorded amount of ozone showed a marked excess from Monday to Thursday.

Bequests.—Miss Mary Wasey, of Prior's Court, Chieveley, Berks, has bequeathed £3000 to the Berkshire County Hospital, and £2000 each to the Bath Hospital for Strangers, the Consumption Hospital, Brompton, and the Cancer Hospital, Brompton.—Sir Theodore Brinckman has left £100 to the Windsor Infirmary, and Mr. William Cobbett, of Wellmore Square, has left £100 to the Surrey County Hospital, and £10 to the Western General Dispensary. Mr. John Farell, late of Rathdrum, has bequeathed £200 to St. Vincent's Hospital, Dublin, and a similar amount to Jervis Street and the Mater Misericordia Hospital.

Royal College of Surgeons of England.—At the recent pass examination for the diploma of membership of the Royal College of Surgeons, out of the eighty-four candidates examined, thirty-seven (or forty-four per cent) having failed to acquit themselves to the satisfaction of the court of examiners, were referred to their professional studies for six months, and four gentlemen who passed in surgery will be admitted members of the college when qualified in medicine. At the half-yearly examination in anatomy and physiology for the fellowship of the college, which was brought to a close on the 27th, out of the sixty candidates examined—the dates of whose diplomas, when they were members, ranged from May 1860 to November 1878, ten were rejected the first day, seven on the second, nine on the third, and five on the fourth and last day, making a total of thirty-one candidates referred to their anatomical and physiological studies for six months.

Society of Arts.—In connection with the conference on the progress of public health, which, it is announced, will be held by the Society of Arts on the 10th and 11th of next month, it is intended, as in former years, to hold an exhibition of sanitary appliances. These exhibitions, though on a small scale—the society's premises not affording room for a large collection—have been found very useful in former years, as the conferences have always been largely attended by sanitarians from different parts of the country.

Presentation.—Dr. Stephen Monckton of Maidstone has been publicly presented with a very handsome silver salver, inscribed: "Presented to Stephen Monckton, Esq., M.D., J.P., etc., Chairman of the Conservative party in Maidstone, in grateful recognition of his long and valuable services, culminating in the return of Major Ross and Captain Aylmer as Conservative members for the Borough, May 1880."

Royal College of Surgeons.—We learn that, up to Thursday evening last, the nomination papers of only four candidates for seats in the Council, at the ensuing election in July, have been received at the College, namely, those of Messrs. Bryant of Guy's Hospital, Hulke of Middlesex Hospital, T. Smith of St. Bartholomew's Hospital, and Berkeley Hill of University College. We have reason to believe that five other candidates will be in the field, namely, Messsrs. Cadge of Norwich, W. Adams, Lister of King's College, Sydney Jones of St. Thomas's, and R. Harrison of Liverpool. As nominations are only received up till Monday, the 7th, those intending to come forward as candidates should lose no time in forwarding their papers, duly signed, to the Secretary at the College.

Wakefield Rural District.—This district, in common with many others, suffered severely from diseases of the respiratory organs during 1879. Of the total of 846 deaths, no fewer than 65 were due to phthisis, and 194 to bronchitis, pneumonia, and pleurisy: figures which hardly deserved to be passed over in complete silence, as Mr. Wood has done. Excluding the deaths at the West Riding Asylum, the death-rate for the year was 19.5 per 1,000, against 21.2 for 1878. The infantile mortality and that of children under five years of age shows a marked improvement. The only zymotic disease that was seriously prevalent was scarlatina, which caused in all thirty-one deaths. Thirteen deaths from typhoid fever occurred, a smart outbreak of that disease in a property of thirteen houses being still under investigation. Several townships are spoken of as needing better drainage and water-supply; but some progress in these directions is being made.

Tamworth Rural District.—Dr. Fausset's report is a very good one, dealing with the sanitary wants of the district in a practical and comprehensive fashion. It is evident that considerable progress is being made in sanitary work, but the cottage accommodation seems to be generally defective. A large scheme of water-supply is in a forward state of preparation; but the drainage throughout the district seems to be most unsatisfactory. During the year 1879, there were 584 births and 232 deaths registered in the district, equal to rates of 43.9 and 17.4 respectively. Ninety-five of the deaths were those of children under five years of age, of which 26 were from diseases of the zymotic class. Measles was present in an epidemic form throughout the year, and caused 9 deaths. Scarlatina was also prevalent, but was only fatal in two instances. Dr. Fausset, like many other medical officers of health, laments the absence of compulsory notification of infectious disease.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY........	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Odontological Society of Great Britain. Mr. J. R. Mummery, "A Remarkable Case of Strabismus and Blanching of the Hair, arising from a Diseased Tooth; with additional instances of Nervous Disorders arising from Dental Irritation". Also a short paper by Mr. Edwin Canton. Casual communications from Dr. Walker.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Douglas Powell and Mr. R. W. Lyell, "On Basic Cavity of the Lung treated by Paracentesis"; Mr. Henry Morris, "On a Case of Aneurism of the External Carotid, in which, after failure of the ligature of the common carotid, the old operation was successful".

WEDNESDAY.—Royal Microscopical Society, 8 P.M. Professor H. Smith, "The Life-History of the Diatomaceæ"; Mr. S. Holmes, "A New Binocular Microscope with Isophotal Prism"; Mr. W. H. Gilbert, "The Structure and Functions of the Scale-Leaves of *Lathræa Squamaria*"; Mr. J. W. Stephenson, "On the Relative Visibility of Minute Structures when mounted in Phosphorus, Bisulphide of Carbon, or other Media"

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ROYAL COLLEGE OF SURGEONS OF ENGLAND: EXAMINATIONS.

AT the half-yearly examination for the diploma of Fellow of the Royal College of Surgeons on May 21st, when sixty-eight candidates presented themselves, the following were the questions on Anatomy and Physiology submitted to them. They were required to answer three questions out of the four. *Anatomy.*—1. Describe the peculiarities of the Skull at birth. 2. Give a Dissection to expose the Glosso-pharyngeal Nerve from its exit at the base of the skull to its termination. Describe the distribution and connections of the entire nerve. 3. Give the attachments and actions of the Deltoid Muscle, and the arrangements of its Muscular Fasciculi and Tendons. Describe the Structures exposed upon removal of the Muscle. 4. The Left Innominate Bone being removed, describe the Dissection necessary to expose the Anterior Primary Branches of the Sacral Nerves with their distribution and connections inside the Pelvis. *Physiology.*—1. Give an account of the Development of the Eye. 2. Describe the minute structure of the Pancreas. State the mode in which a proteid-digesting extract may be obtained from a perfectly fresh Pancreas. How does the action of such an extract differ from that of a proteid-digesting extract of the gastric mucous membrane? 3. Give an account of the changes that take place in the Uterus during Pregnancy, and describe the mode of formation of the Placenta and of the Membranes enclosing the Fœtus. 4. Describe the structure of Striated Muscular Tissue, and the phenomena attendant upon its contraction.

At the half-yearly pass examination for the Fellowship, the following were the questions in Pathology, Therapeutics, and Surgery. Candidates were required to answer all the questions. 1. Describe the changes which may be found in the Spinal Cord after Death from Injury to the Spine. 2. Describe the structure, development, and course of the various forms of Cystic Tumours of the Mammary Gland. 3. To what causes may a Rise of Temperature, after a severe injury or operation, be due? Describe the circumstances which would influence your view of it, in relation to Diagnosis and Prognosis? 4. What are the Diseases which may cause obstruction of the Nasal Fossæ? How would you distinguish them from each other? Give the Treatment you would adopt in each case.

At the recent pass examination for the membership, the clinical cases on which the candidates were examined were selected from the following hospitals: St. Bartholomew's, St. Mary's, St. George's, University College, Charing Cross, Guy's, Middlesex, King's College, and Moorfields Ophthalmic. They consisted of—Acute Periostitis; Enormously Enlarged Testicle, with Strumous Disease of the Organ in another Patient; Disease of the Upper Jaw-Bone; Cicatrix after Epithelioma, and Eversion of the Lower Eye-Lid in the same Patient; Facial Paralysis; Hydrocele; Chronic Inflammation of the Right Elbow subsequent to Injury; Gouty Effusion into the Knee-Joint; Enlargement of both Testicles; Enlarged Cervical Glands with Protrusion of the Eye-Ball; Ulceration of the Frænum Linguæ; Strumous Disease of the Elbow-Joint; Abscess in the Loin; Strumous Periostitis; Enlarged Carpal Bursa; Chronic Inflammation of the Lid, Gonorrhœa, and Orchitis in a boy aged 14; Iritis; Hernia and Scabies in same Patient; Varicocele; Sarcoma in the Axilla; Epithelioma of the Cheek and Lips; Rodent Ulcer of the Temple; Bursa enlarged and indurated in the Nates, etc.

INQUIRER asks what special works can be recommended to assist him in preparing a course of lectures for nurses and an ambulance class.

A LARGE TAPE-WORM.

SIR,—A few weeks since, a prisoner in the District Jail showed symptoms of tape-worm. After a little preparation, I gave him half a drachm of liquid extract of male fern. He soon after passed a worm ninety-three feet long. Many separate segments and short pieces were lost in the washing. Had all been collected, the total length of the worm would probably have been one hundred feet. The neck was visibly segmented right up to the well-marked rounded head. Under the microscope, the head was seen to be furnished with four suckers; it had no rostellum nor coronet of hooks. There appeared to be a slight depression in the usual position of the rostellum, but I could not make out a fifth sucker. The ripe segments were not examined. The worm appears to have been a specimen of the "tænia medio-canellata". The prisoner had suffered from the disease before his conviction. He was in the habit of eating meat whenever he could get it. He could not well have contracted the disease in jail, as meat does not form part of the ordinary jail dietary.—I am, etc.,

MATTHEW D. MORIARTY, M.B., Civil Surgeon.

Muzuffamagar, N.W.P., India.

MR. JOHN SCOTT (Manchester).—The National Health Society's plain rules for the management of infants are published in cheap broad sheets, and may be had on application to Professor Ray Lankester, National Health Society, Berners Street, Oxford Street.

THE CONTAGION OF TUBERCLE.

SIR,—With reference to your article on "Tuberculosis as a Contagious Disease", perhaps you will allow me to ask whether the contagion-virus of tubercle may not be an altered condition of the corpuscular elements of the parts. If this were admitted, we might still suppose it to be sometimes the offspring of the cell-proliferation of a catarrhal pneumonia, and understand Niemeyer's "secondary tuberculosis".—I am, sir, yours respectfully, DUNCAN J. MACKENZIE, M.D

Glossop, May 22nd, 1880.

Correspondents are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Hospital Flooring.

Sir,—In answer to your correspondent F.R.C.S., regarding the most suitable flooring for a hospital, I believe it would be difficult to find a better substance for that purpose than teak. I am not aware of any English hospital being paved with cement, nor do I think it at all suitable for such a purpose, as most cements absorb, and are difficult to clean. The only means I can suggest to render a cement floor fit for hospital use would be to cover it with linoleum or corticine, or, if a more durable material be desired (for passages), and sufficient money can be obtained for the purpose, to overlay the whole with broken marble mosaic.

As your correspondent may wish to know what my experience in such matters may be, I beg to say that it has been acquired during the construction of a large metropolitan hospital now in process of building.—I beg to remain, sir, yours faithfully, Reginald E. Thompson.

9, Cranley Place, South Kensington, May 28th, 1880.

Sir,—There is a request in the British Medical Journal, May 29th, for information respecting the most suitable flooring for hospitals. I know from experience that flooring done in the way I am about to describe is not only pretty but good and useful.

The wood, if deal, should be narrow boards, and fine-grained, stained a pretty shade of brown, then a coat of size, next a coat of oak varnish, after that a regular rubbing with beeswax and turpentine. The size and varnish prevent slops from sinking into the wood; the wax and turpentine keep the floors pure, and are indeed a good antiseptic. The floors should not be washed oftener than once in four or six months, but must, of course, be swept twice a-day (as, indeed, any hospital flooring should be), rubbed a little with a long handled weighted rubber after each sweeping, and "waxed" once a-week, care being taken not to use too much wax, and to have it thin enough. Oak varnish is quite good enough, if care be taken that it is such as will dry at once; it will not crack, as it is not exposed to the weather, and is constantly rubbed with the wax and turpentine. Old floors may be stained, etc., if the wood be good, and they are planed first. Cement floors are cold, noisy, and so hard that they cause much breakage.—I am, yours truly, A. Dannatt.

Royal Infirmary, Preston, June 1st, 1880.

A Country Practitioner.—In addition to the articles on the subject of the use of fuchsine in the British Medical Journal, our correspondent may consult Feltz et Duclos, *Gazette Hebdomadaire*, 1877; Feltz, *Gazette Hebdomadaire*, 1876, No. 25; *Gazette des Hôpitaux*, 1877, No. 50; *ib.*, 1878, No. 43; Divet, *De la Fuchsine dans la Traitement de l'Albuminurie*, Thèse de Paris, 1879; Dieulafoy, *Gazette Hebdomadaire*, 1879, Nos. 30 et 32.

Ergot Superseded.

Sir,—Unfortunately, I have only just seen Dr. Smith's letter in the Journal of the 15th instant. The answer to his inquiry how the air is to be retained in the pessary, is, by the simple process of folding the tube upon itself, and tying a piece of tape or twine round it.—I am, etc., S. S. Roden.

Droitwich, May 26th, 1880.

A Nervous Candidate.—Reporters have never been admitted to the Fellowship examination at the Royal College of Surgeons. The gentleman who took copious notes was Mr. Gant, a Fellow of the College by examination, doubtless with a view to another edition of his useful little work.

Dr. Harris.—Next Monday will be the last day for nominating candidates for seats in the Council of the College of Surgeons, soon after which their names will be known through the letter to be sent out by Mr. Trimmer. Sir James Paget will take the chair at the annual festival.

Tricycles versus Horses.

Sir,—Some time ago, a very interesting letter was published in this Journal concerning pedo-motive machines in the place of horses, and signed "Vacuus Viator cantabit coram Latronibus". By many readers it was thought to have too much *couleur de rose;* but still, from the many letters that have appeared since, it seems the ball has been set rolling; and the cost of horse-flesh, with its accessories, has led many to seriously contemplate the possibility of employing the bicycle or the tricycle in country practice. I am a small and not a strong man, and I am accustomed to speak the truth. On these very grounds, I believe my remarks will be not only of interest, but of value to some.

Bicycles, I think, are not adapted for the purpose, for the following reasons: 1. Agile young men only can ride them; 2. The best riders are liable to dangerous falls; 3. The rider cannot stop to speak to a person in the road, but must either dismount or fall off; 4. Good roads and good weather are almost essential for the bicycle; 5. There is much trouble in learning to ride them. The tricycle I advise has not one of these drawbacks.

Many, however, consider there is a loss of dignity in riding these machines. A similar argument has often been objected against the use of new and ill-understood inventions; and he was a bold but a sensible man who first walked down the Strand in the rain, protected with the then new-fangled thing now known as an umbrella. That man was laughed to scorn, but he was right.

I have experience of nearly all the tricycles in the market, and give my testimony in favour of the new "Salvo" by Starley of Coventry; this machine is a great improvement on the earlier "Salvo" he brought out; and I consider it outdistances by a long way every other tricycle. The driving wheels are forty-six inches high, and the machine is thirty pounds lighter than the first "Salvo". My country is hilly, but I never dismount, and can easily ascend gradients of 1 in 18, or even steeper. I can get an average pace on the turnpike road of eight miles an hour up hill and down as it comes. I have travelled at the rate of twelve miles an hour; but this is a racing speed, and not required.

As I practise a speciality, and my patients come to me instead of me going to them, my "Salvo" is not much used actually in practice; but it is most easy to ride, requires no trouble to learn, and is ready at any instant for use. Moreover, you are perfectly secure from accident or upset: perhaps more so even than with a pony carriage. My "Salvo" which I first rode had fifty-inch driving wheels; and in adding up the various runs I had made with it, I found I had soon done a thousand miles. The new "Salvo" I ride usually in the evenings, and generally go from ten to thirty miles or more. One can carry thirty pounds of luggage if needed; and the machine is fitted with an oil lamp, which gives a brilliant light and is not jerked or put out by jolting over a rough road, which is a great thing for night travelling.

I fully believe when these machines are known, their use will become far more general than at present. It was from reading the letter to which I have already referred, that I was induced to purchase one of these machines; and I have never regretted having done so.—I am, etc., W. A. Hunt, L.R.C.P.Lond., etc.

Yeovil, May 26th, 1880.

Sir,—As "An Irish Surgeon" is in quest of a thoroughly good tricycle, I wish to bring to his notice the Devon tricycle. It possesses many advantages over most machines, and is certainly an elegant carriage. In the number of the *Exchange and Mart*, published January 30th, 1880, there is an article by Mr. H. Hewitt Griffin describing it in detail.—Yours respectfully, Arthur Kempe.

20, St. Sidwell's, Exeter, May 31st, 1880.

A Country Fellow.—If our correspondent have not received the usual notice, it is simply his own fault, as, on reference to the calendar, his name appears without any address. The last notice sent him was, we are told, returned through the post office endorsed "Gone away, address not known". He should write to the Secretary of the College.

Uterine Hæmorrhage.

Sir,—In your last issue, the treatment of this condition is mentioned in a letter written by Mr. Frank Smith, and he advises the use of perchloride of iron to check the hæmorrhage. This is no doubt effectual; but I would suggest a much readier and less troublesome method, and very efficient, viz., the hypodermic injection of solution of ergotine, which has proved most satisfactory in my practice without any injurious results. I hope to show, on another occasion, that this method of treatment is better than the injection of the solution of perchloride recommended in Mr. Smith's letters.—Yours faithfully, James Thompson, M.D.

Leamington, May 31st, 1880.

The Youngest Fellow.—Having passed the examination on Saturday last, you can record your votes for the candidates for seats in the Council at the annual meeting at the College on Thursday, the 1st proximo. The Secretary will send full instructions.

A Distressing Case.

The following sums have been received by Dr. Heywood Smith for Mr. Dalton since February 28th.

Mar. 31.—Decimus Curme, Esq., Childe Okeford	£0	10	0
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BOOKS, ETC., RECEIVED.

The Diagnosis of Diseases of the Spinal Cord. By W. R. Gowers, M.D., F.R.C.P. London: J. and A. Churchill. 1880.

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LECTURES
ON THE
RELATIONS OF SARCOMA TO CARCINOMA.

Delivered at the Royal College of Surgeons of England,
June 1880.

By HENRY TRENTHAM BUTLIN, F.R.C.S.,
Erasmus Wilson Professor of Pathology to the College; Assistant-Surgeon to St. Bartholomew's Hospital; etc.

LECTURE I (*Abstract*).—TUMOURS OF THE TESTIS.

As the first Erasmus Wilson Professor of Pathology under the present conditions of the trust, the duty devolves upon me, which I cannot but regard with pleasure, of expressing, so far as I can do so in words, the feeling of gratitude which must animate all those who are working in the great field of Pathology towards the founder of this chair. The act, generous in itself, is rendered yet more graceful by his permission to deflect the endowment from the purpose to which it was at first devoted to one which cannot, in the nature of things, be so dear to him as the encouragement of his own favourite study of Dermatology. I trust, however, that the impetus which will certainly be communicated to the study of Pathology, and the knowledge that through his means this impetus has been conveyed, may serve in some sort to repay Mr. Wilson for a sacrifice, of which few of us probably could have been capable, but which I think we all can thoroughly appreciate.

At the present time, the anatomical classification of tumours is almost exclusively employed, because it is more scientific than the clinical method, and is more consistent. Of course, it is not perfect, nor can it be said that it fulfils all the purposes for which it was designed. The difficulties in arranging the malignant and semi-malignant tumours still exist; but Waldeyer's (Virchow's *Archiv*, Band 55 (1872), s. 124) theory of the epithelial origin of carcinoma has served greatly to diminish them. I accept this theory without reserve—chiefly because I have myself been able to trace, in certain varieties of carcinoma, the process by which a carcinoma is developed from epithelial cells; and shall therefore define carcinoma to be a tumour of epithelial origin, having generally an alveolar structure, and sarcoma a tumour of connective-tissue origin, formed generally of embryonic tissues and without alveolar structure. For minor differences, the cells of carcinoma generally resemble those of the epithelium from which it grows, there is little intercellular substance, the vessels run in the fibrous tissue, and multiplication of cells is by endogenous formation; on the other hand, sarcoma is composed of round or fusiform or giant cells, and these are packed in a more or less abundant basis, the vessels are often mere fissures between the cells, and the cells increase in number by division. Sometimes sarcoma simulates carcinoma, but the alveolar structure found in some sarcomata is generally discovered to consist of spindle-cells rather than of fibrous tissue. There is, in most cases, no real difficulty in assigning each tumour to its class; but where the origin of a tumour cannot be discerned and the characters which should be distinguishing are not clearly marked, it must be left unclassed.

The objects of the present inquiry are to discover how far the course of a tumour can be predicted from a knowledge of its intimate structure, whether there exists so little or so large a difference as has been asserted between sarcoma and carcinoma, and whether the microscope is likely to be truly useful in a doubtful case. In pursuing these inquiries, I shall adopt a different method from that generally employed, and shall study not so much similar tumours of different tissues and organs as different tumours of the same tissue and organ, by which means possibly a more correct idea may be obtained of their relative course and tendencies. In to-day's lecture I shall compare tumours of the testis, and in the two following lectures tumours of the bones.

The testis may be the seat either of sarcoma or of carcinoma. The former appears to originate in the tissue between the tubules, which for a long time may still be recognised in sections of the tumour. The new growth consists either of round-celled tissue or of trabeculæ of spindle-cells; and with either of these may be found fibrous tissue or stellate cells in a viscid basis, or cartilage. Carcinoma, on the other hand, is a growth originating in proliferation of the epithelium of the gland. The process by which this is accomplished has been traced by Birch-Hirschfeld (*Archiv der Heilkunde*, 1868, s. 537), who found that the changes were mainly effected by the filling and dilating of the tubules with epithelial cells. The only variety of carcinoma with which I am acquainted is the soft form. Probably many of the cases described as hard carcinoma are in truth fibrous sarcomata. The statement of Kocher (Pitha and Billroth's *Handbuch der Chirurgie*, Band II, Abth. 2, Lief. 7-8, s. 346, 1871-75) that cartilage is of frequent occurrence in carcinoma, does not accord with the experience of most authors, and is not borne out in the cases observed and collected by myself, in none of which was there found cartilage. Of the course and characters of most cases of sarcoma and carcinoma a single description might suffice; for, with a few exceptions, there are no means by which we can distinguish between the two diseases. In illustration of their general course, take the following cases.

The first two were examples of carcinoma.

1. A student, aged 21, single, noticed in 1866 a swelling of the testis, of slow growth and without known cause. In March 1867, it was about as large as an egg, tolerably firm, smooth, and without pain. In February 1868, his legs became œdematous, and in May he died. The tumour was nearly as large as a child's head, not ulcerated nor adherent. It presented a good example of encephaloid disease, affecting the epididymis and body of the testis, but a thin layer of gland-tissue still existed on the surface of the tumour. The other testis was sound. The inguinal, pelvic, and lumbar glands were cancerous, the liver was full of cancerous growths, and the lungs contained secondary nodules. This is the case in which Birch-Hirschfeld (*loc. cit.*) succeeded in tracing the development of carcinoma from the tubules of the gland.

2. A dyer, aged 30, married, noticed, two years before admission, that his testis was as large as an egg, but could not account for the enlargement. He was twice tapped before admission, but at the second tapping only blood discharged. The tumour measured fourteen inches and a half round, was oval, smooth, elastic, and slightly adherent to the scrotum. Deep down in the abdomen were firm irregular masses. Castration was performed, and during the operation, twenty ounces of clear fluid were let out. The tumour consisted of a central soft green-coloured substance, surrounded by a firmer substance of the same colour. The epididymis was destroyed with the testis. The microscope revealed an alveolar structure, with large cells resembling the epithelium of the gland. Ten days after the operation, the patient died of peritonitis, but no necropsy could be obtained.

For examples of sarcoma to compare with these, the following may serve.

3. In November 1876, I received a testis which had been the day before removed from a boy aged 6, who had been under observation six weeks, during which time it had increased one-half in size. The date of its origin was not known. The tumour externally was smooth and quite unbroken; on section, white, and almost homogeneous. It consisted of spindle-cells and coarse fibres, with round and oval cells of large size. The boy recovered from the operation, but, in July of last year (1879), he died with a large mass, of about two years' growth, in the abdomen, reaching from the groin to the ribs, and a smaller and more recent tumour in the situation of the spleen. Unfortunately, no *post mortem* examination was performed.

4. A wood-sculptor, aged 57, was castrated in February 1876. For seven or eight years previously, the testis had been enlarged, but its growth had been rapid only during the last six months. It felt like a large kidney. On section, its upper part was firm and white, its lower red and lobed. Examined with the microscope, it consisted almost entirely of adenoid tissue. In September, the patient died. The cicatrix of the operation was indurated; new growth separated the structures of the cord; the remaining testis was enlarged and hard; the groin and pelvic glands were infiltrated; and growths existed in the sternum, vertebræ, and skull, and in the subcutaneous tissue.

In many points, these tumours differ widely, but they present certain points in common; and, if a larger number of cases be compared, it will be found that the points of resemblance are more numerous. Thus, their histories, and characters before and after removal, are often precisely similar, and social conditions appear to exercise but little influence. Regarding the characters in which they differ, I think it will be found that the cases of sarcoma differ more markedly from one another than do the cases of sarcoma from those of carcinoma. Unfortunately, I have not an equal number of cases of each disease to compare together, and, still more unfortunately, a large proportion of the few cases of carcinoma here collected is incomplete. Of these sixteen cases, although eight are known to have died, complete necropsies were performed only in three, and a partial section in one. Again, the total duration of disease in some of the eight patients who died is uncertain, for two died from the effects of the operation of castration, and the duration of another case up to the time of operation is unknown. Yet it is possible to ascertain some important points which I now may shortly indicate. There is only one patient under twenty years of age, a child of two years. Although after twenty years no age was free from its occurrence, the disease was most frequent between the ages of thirty and forty, or thirty and forty-five. It never affected more than one testis; the tumour was unmixed with other tissues. Affection of the glands was found in every case in which the abdomen was opened, and was strongly suspected in another patient. In two of the three complete necropsies, the lungs and liver were the seat of secondary growths; in the remaining case, these organs were exempt, while the suprarenal capsule was diseased.

CARCINOMA TESTIS.

No of Case.	Age.	Cause.	Duration before Operation.	One or both Testes.	Affection of Scrotum.	Condition of Cord.	Part of Testis Affected.	Tumour, Simple or Mixed.	Total Duration.	Recurrence in Stump.	Affection of Glands.	Lungs.	Other Parts of Body.
1	50	Blow in perinæum.	15 months	1	Adherent	Thickened	All	Simple	—	—	—	—	—
2	30	o	24 ,,	1	,,	Thickened	Body	,,	24 months		? Yes	—	(No *post mortem*)*
3	49	—	36 ,,	1	,,	o	All	,,	42 ,,	—	—	—	(No *post mortem*)
4	24	Kick	16 ,,	1	o	—	All	,,	—	Yes	—	—	—
5	34	? Blow	14 ,,	1	o	o	Body	,,	—	—	—	-	—
6	39	o	6 ,,	1	o	Thickened	All	,,	7 months	—	—	—	(No *post mortem*)*
7	36	—	6 ,,	1	—	Thickened	All	,,	—	—	—	—	—
8	38	—	—	1	—	—	—	,,	?	Yes	Yes	Yes	Liver; right breast
9	55	—	48 ,,	1	o	Thickened	All	,,	—	—	—	—	—
10	2	—	3 ,,	1	o	—	All	,,	24 months	o	—	—	(No *post mortem*)
11	21	o	No operation	1	—	Thickened	All	,,	? 18 mos.	—	Yes	Yes	Liver
12	54	? Friction	11 months	1	—	o	Body	,,	—	—	—	—	—
13	45	—	15 ,,	1	Ulcerated	—	Body	,,	24 months	o	Yes	o	Suprarenal capsule
14	38	o	36 ,,	1	Adherent	Thickened	Body	,,	36 ,,	o	Yes	—	(Partial *post mortem*)
15	72	—	18 ,,	1	—	—	All	—	—	—	—	—	—
16	42	Squeeze	24 ,,	1	o	o	All	,,	—	—	—	—	—

SARCOMA TESTIS.—*Round-celled.*

No. of Case.	Age.	Cause.	Duration before Operation.	One or both Testes.	Affection of Scrotum.	Condition of Cord.	Parts of Testis Affected.	Tumour Mixed or Simple.	Total Duration.	Recurrence in Stump.	Affection of Glands.	Lungs.	Other Parts of Body.
1	35	o	7 months	1	o	(?)	Body	Simple	13 months	o	—	—	(No *post mortem*)
2	19	o	5 ,,	1	o	(?)	All	,,	—	—	—	—	—
3	10	o	No operation	2	o	—	,,	,,	24 months	—	Yes	o	Subcutaneous tissue, bones
4	51	Friction	36 months	1	o	o	,,	,,	—	o	—	—	—
5	50	—	1 ,,	1	—	—	Epididymis	,,	5 months	o	o	Yes	Liver, skin
6	61	o	60 ,,	1	o	o	All	,,	—	—	—	—	—
7	64	? Strain	2 ,,	1	o	—	Body	,,	—	—	—	—	—
8	57	—	12 ,,	2	o	Thickened	All	,,	21 months	Yes	Yes	o	Bones, subcutaneous tissue
9	57	—	12 ,,	2	o	Thickened	,,	,,	42 ,,	—	—	—	(No *post mortem*)
10	3	—	13 ,,	1	o	(?)	Body	,,	24 ,,	o	Yes	o	o
11	5	Bruise	3 ,,	1	o	o	All	,,	12 ,,	o	,,	—	(Partial *post mortem*)
12	34	o	2 ,,	2	o	o	,,	,,	—	o	(?)	—	Bones
13	8 mos.	—	No operation	2	o	—	Body	,,	2 months	—	o	o	Bones, heart, subcutaneous tissue, penis
							Spindle-celled.						
14	10 mos.	—	4 months	1	Ulcerated	—	All	—	—	—	—	—	—
15	25	—	(?)	1	—	—	,,	Cartilage	—	—	—	—	—
16	34	o	3 months	1	o	o	,,	,,	—	—	—	—	—
17	6	—	3½ ,,	1	o	o	,,	Simple	33 months	o	? Yes	—	(No *post mortem*)
18	26	o	14 ,,	1	o	Thickened	,,	Cartilage	24 ,,	Yes	Yes	o	Kidney
19	40	Bruise	8 ,,	1	—	o	,,	,,	36 ,,	o	,,	Yes	—
20	45	? Blow	3½ ,,	1	o	—	Body	,,	—	—	—	—	—
21	40	—	—	1	—	o	,,	Simple	(?)	o	Yes	Yes	—
22	45	o	72 months	1	o	—	,,	,,	—	—	—	—	—
23	37	Bruise	24 ,,	1	o	Thickened	,,	Cartilage	30 months	Yes	Yes	Yes	—
24	10	o	5 ,,	1	o	o	All	Simple	36 ,,	o	? Yes	—	(No *post mortem*)
25	4	o	1 ,,	1	o	o	,,	Cartilage	7 ,,	o	Yes	Yes	Spleen
							Mixed Tumours.						
26	40	o	72 ,,	1	o	—	All	Simple	72 months	—	—	—	(No *post mortem*)*
27	40	Blow	48 ,,	1	—	—	,,	Cartilage & Mucous tiss.	—	—	—	—	—
28	40	o	No operation	1	o	Thickened	,,	Mucous tiss.	2½ months	o	o	Yes	Interior of heart

* Died from causes connected with the operation.

The cases of sarcoma are twenty-eight in number. Most of them are round-celled; only three such as can be classed with neither of the first two groups. Of these twenty-eight cases, we have records of the deaths of seventeen; and on these seventeen subjects, eleven complete necropsies were performed, while in one case the abdomen only was examined. The disease was most frequent at two periods of life, the first period extending from birth to ten years old, the second corresponding with the period during which we have just found that men are most liable to carcinoma. I do not pretend to explain why both classes of tumour occur so frequently during the third decade of life, a time during which inflammations of the substance of the testis are perhaps less frequent. But I imagine before the age of ten, two causes concur to render carcinoma rare; first, the little liability to cancerous degeneration of epithelium of any part at so early an age; second, the inactive condition of the epithelium of the testis before the age of puberty. Both testes were occasionally affected by sarcoma. Many of the tumours were mixed with cartilage or other tissues. The glands were not diseased in every case in which examination was made, but were enlarged and sarcomatous in nine of twelve cases in which the abdomen was opened, and the supposition of their enlargement was so strong in two other cases as to amount almost to certainty. Secondary growths occurred in the lungs in more than half the cases; in the liver, only in a single case. The bones or skin, or both, were affected in five instances. If, now, instead of thus comparing all the cases of sarcoma with those of carcinoma, we compare separately the round-celled and the spindle-celled tumours with the carcinomata, the results are more striking.

The *round-celled* tumours occurred in persons of age between eight months and sixty-four years, but most often before the age of ten or between fifty and sixty years. Both testes were not infrequently affected. None of these tumours contained cartilage or any organised tissue other than fibrous. Glandular affection was absent in two of the six cases in which necropsies were performed, and the lungs were the seat of secondary growths only in a single instance; yet in five cases there was widespread generalisation in the bones and skin or subcutaneous tissue. And with the skin the liver was in one patient affected. Several of these round-celled tumours, especially in those cases in which both testes were affected and generalisation was extensive, were examples of what has been called lympho-sarcoma or lymphadenoma of the testis, on account of the delicate reticulum which can be discerned amid the cells.

The subjects of *spindle-celled* sarcoma were from ten months to forty-five years old; but the disease was far most frequent in patients under ten or from thirty-five to forty-five. In no case were both testes affected. Cartilage was present in greater or less quantity in more than half the cases. The total duration of disease was rather longer in patients with spindle-celled than in those with round-celled sarcoma; several of the former lived three years; most of the latter only two. Affection of the glands occurred in every case in which the body was examined after death, and in two cases in which no examination could be made a like affection was indicated by the presence of a large tumour in the pelvis and abdomen. The lungs contained secondary growths in every case but one, and in that case a large tumour occupied the situation of the kidney. In no instance was there extensive generalisation similar to that occurring in the fatal cases of round-celled tumours.

A summing up of the chief differences shows that, apart from those of structure and of age of occurrence, they are for the most part differences in the manner of their generalisation. One noticeable feature is the absence of glandular affection in three cases of sarcoma, which may perhaps be explained by their extremely short duration. In two of the cases, this was only about two months; in the third case, five months. With one exception, all the other fatal cases were of more than a year's duration. One cannot but think, therefore, that these three patients died ere sufficient time had elapsed for glandular affection to be developed.

In connection with the frequent occurrence of cartilage in spindle-tumours, let me draw attention to the so-called malignant enchondroma of the testis, cases of which are related by Paget (*Medico-Chirurgical Transactions*, vol. xxxviii, 1855, p. 247), Dauvé (*Mém. de la Société de Chirurgie*, tom. vi, p. 291), and De Morgan (*Pathological Transactions*, vol. xviii, p. 182, and vol. xx, p. 331). In the first two, the primary tumour consisted in each case of nodules, tubes, and cylinders of cartilage, and of softer masses without cartilage in the spermatic cord. In each case, death occurred from secondary affection of the glands, with, in the former, large growths in the lungs; but in the latter a suppurating tumour of the kidney. In Paget's case, the secondary growths were mainly cartilaginous; in Dauvé's, they contained cartilage, but only the smallest quantity. De Morgan's patient died two years after the removal of a cystic tumour of the testis, in which were small plates and patches of cartilage. The glands and lungs were the seat of secondary tumours, which contained more cartilage than the primary disease, but were chiefly formed of spindle-cells.

The first two of these cases are such as would generally be termed enchondroma; but the third is a cystic tumour containing cartilage, and ought not to be described as a cartilaginous tumour. Yet I believe all three are of the same nature, and should be regarded as sarcomata, not as enchondromata; for cartilage and sarcoma tissue both belong to the connective-tissue series. The material from which one of them is formed may equally be transformed into the other. But, even when this occurs so largely that most of the tumour is composed of cartilage, the course and tendencies of the growth are not proportionately affected. It is still a sarcoma, the characters of which are altered, but whose course remains unchanged. The description of these three tumours shows that neither of them consisted solely of cartilage. Each had a softer part, consisting of spindle-cells, or "fibrous elements", or "connective tissue". This soft tissue extended up the cord in the first two, and in the second and third cases formed nearly the whole of the secondary growths. Compare these cases, first with one of pure cartilaginous tumour, and next with those of the group of spindle-tumours, among which I have taken the liberty to include them as Nos. 18, 19, and 23. Here is an example of pure cartilaginous tumour, of small size, and containing no softer tissue except a thin layer of fibrous tissue around and between the portions of cartilage. It had been growing four years in a man twenty-two years old. Castration was performed in 1875, and less than a year ago the patient was quite well. On the other hand, the age of these three patients is that at which sarcoma frequently occurs; and they agree with the sarcomata in their relation to the scrotum, their position in the testis, their total duration, and their affection of the lymphatic glands.

On the question of operation in cases of sarcoma and carcinoma, I can say but little. As the operation of castration is not very dangerous to life, and as the disease is probably certainly fatal unless interfered with, the balance of opinion must be decidedly in favour of castration, especially as the good health of a few fortunate persons is recorded long after operation.

PRESENTATION.—On recently resigning the office of medical officer to the West Derby union workhouse, Mr. W. O. Deacon was presented by the officials, patients, and nurses of the workhouse with a gold chain and locket, a silver-mounted meerschaum pipe and case, and an inkstand, together with an address.

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By GEO. GRANVILLE BANTOCK, M.D., F.R.C.S.Ed.,
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WHILE my last paper was awaiting publication, a case illustrating another of the disadvantages of the clamp came under my notice. The patient was sent to me to have a second ovarian tumour removed, and gave the following history. Six years ago, she underwent ovariotomy in one of the general hospitals, and made a good recovery. The pedicle was secured by a clamp, which came away in about a week. Last years when with child, she entered another hospital, and was supposed to be suffering at the same time from ovarian disease. She was advised to get through her pregnancy before having anything done. Two month, before applying to me, she was confined; the labour was rather tedious. She complained to me of pain and a sense of dragging in the left side, and said she had a small tumour in the hypogastrium. On examination, I found a globular swelling there with the line of the cicatrix very much stretched laterally, passing upwards over it. This tumour was as large as the head of a child about a year old. Careful palpation led to the diagnosis of ventral hernia. At the lower end of the cicatrix, there was some thickening, with a dull sound on percussion. The vagina was funnel-shaped, and the uterus was drawn up to such an extent that I could only just reach the os, and direct the point of the sound into it. (There was nothing abnormal in the form of a tumour in the pelvic cavity.) Although I depressed the handle as much as the perinæum would allow, I could not introduce more than an inch and a half. I then pressed the hypogastric swelling backwards and downwards, and immediately I felt the cervix descend and the body of the uterus slip over the instrument until its point could be felt close under the external hand. The case was now quite clear. The pedicle had evidently been a very short one, so that the fundus of the uterus was closely applied to the parietes. In course of time, the recti muscles had become separated, and what may be termed a hernia of the uterus was formed. Now, cases of ventral hernia after ovariotomy are by no means rare, and especially after the use of the clamp. I have seen several. It is one of the things also which may happen after the use of the drainage-tube. It has occurred in two of my cases. The first was a very severe operation (No. 11) requiring drainage, and the accident might be owing to a variety of causes, viz., first, the separation of the muscles by the tube; second, the early removal of the sutures (silk) to avoid suppuration; and, third, the getting up of the patient too soon—viz., on the eleventh day. In the second case (No. 21), I could only attribute it to the early removal of the sutures (likewise of silk) which were beginning to produce irritation. Yet it had no unfavourable influence on her subsequent labour with twins, under two years after the operation. These two cases occurred, as I have indicated, in the days when I used silk. Then the sutures were generally taken out within the week, most frequently about the fifth day. If they were left longer, there was more or less irritation in their tracks, and sometimes distinct suppuration, or even a small abscess. Although I have always been in the habit of including in the loop of the suture the peritoneum, the muscular aponeurosis, and the whole thickness of subcutaneous connective tissue and fat; yet, while using silk, I have felt that support was not given for a sufficient length of time to ensure thorough union of all the parts. Now that I use the silkworm gut, I have no fear on this score. I never take the sutures out under ten days, and often leave them for a fortnight. This is a matter of great importance when the drainage-tube is used. By leaving the sutures in for some days after the tube is removed, a firm cicatrix is ensured.

I first employed the silkworm gut in my twenty-seventh case, and then only for the sutures on each side of the drainage-tube. The remaining sutures were of silk, and, on the fifth day, there was a small red circle around each of their openings, while the gut punctures presented no trace of irritation. In my next case, I used five silkworm gut sutures and two silk, the latter at the top of the wound. A small abscess formed in the track of these, and they were removed on the fourth and fifth day. The gut sutures, on the contrary, were so far from producing irritation that they might have been left in much longer. I feared, however, that the mischief might extend to them, and the test was sufficient. From that time I have exclusively used the silkworm-gut for sutures. I find that many surgeons are not aware of the difference between this material and catgut. There is nothing in common between them. The catgut softens, swells up, and melts away in the course of a few days, whereas the silkworm-gut remains unaltered for

TABLE *of Fifty Cases of Completed Ovariotomy.*

The Capital letters, R. and L., in Treatment of Pedicle column, mean respectively Right and Left Ovary.

No.	Previous Medical Attendant.	Age.	Condition.	Children.	Previous Tappings.	Date of Operation.	Adhesions.	Side and Treatment of Pedicle	Weight of Tumour.	Duration of Operation.	Drainage.	Result.	Cause of Death.	Remarks.
26	Mr. Lloyd, Shanklin	27	S.	0	0	Oct. 24, 1877	Parietal, omental, intestinal (many ligatures)	R. Ligature (1)	7lb	45 m.	Glass tube, 6 days	Recov.	..	Dermoid cyst; adhesions unusually firm and vascular
27	Dr. Fletcher, Camden Road	41	S.	0	1	Nov. 7, ,,	Parietal, omental	L. Ligs. (2) R. Ligs. (2)	19lb 2 oz.	60 ,,	Glass tube, 5 days	,,	..	Infection of pelvic peritoneum. Small uterine fibroids. Died of malignant disease, 1879
28	Dr. Granville Bantock	48	S.	0	0	,, 15, ,,	None	L. Ligs. (2)	20lb	25 ,,	..	,,	..	Experiment with silk and silkworm gut-sutures, former suppurating on sixth day
29	Dr. Robertson, Dulwich	56	M.	9	1	Dec. 6, ,,	None, ascites	R. Ligs. (2)	13lb	30 ,,	..	,,	..	Highest temperature, 99.6 deg.
30	London Hospital	36	M.	7	1	,, 28, ,,	Universal, parietal, omental, intestinal, pelvic	R. Ligs. (2)	21lb	60 ,,	Glass tube	Death	Septicæmia, 25 hours	Heart weighed only four ounces. Liver fatty, spleen pulpy
31	Dr. Bradshaw, Nottingham	33	M.	6	0	Feb. 13, 1878	None	R. Ligs. (2)	19½lb	40 ,,	..	Recov.	..	Done under thymol spray, etc.
32	Mr. Parker Young, Delamere Crescent	49	M.	3	0	,, 20, ,,	Parietal, intestinal, (very vascular, many ligatures)	R. Ligs, (4)	15lb	60 ,,	Gls. tu., 4½ dys.; elastic tu., 1 day	,,	..	Inflamed cyst; high temperature before and at time of operation
33	Mr. Cockey, Frome	48	M.	4	2	,, 27, ,,	None, ascites	L. Ligs. (2)	17½lb	45 ,,	..	,,	..	Injection of pelvic peritoneum, very short pedicle. Died five months after
34	Mr. Redmayne, Bolton	36	M.	6	0	Mar. 2, ,,	Omental, uterine (many ligatures)	L. Ligs. (2)	23½lb	75 ,,	..	,,	..	
35	Mr. Cheatle, Burford	45	M.	0	0	,, ,, ,,	None	R. Ligs. (9)	3lb	60 ,,	..	,,	..	Tumour sessile. One of the ligatures discharged some months afterwards
36	Dr. Brunton, Euston Rd.	40	S.	0	0	,, 13, ,,	Parietal	L. Ligs. (5)	9½lb	65 ,,	..	Death	Septicæmia	Colloid tumour; very short pedicle. Very fatty heart and liver. *Cheyne-Stokes's* respiration
37	Dr. Wynn Williams	47	M.	3	0	,, 20, ,,	Pelvic	L. Ligs. (4)	15½lb	35 ,,	..	Recov.	..	First operation under carbolic acid
38	Mr. Fowke, Charwelton	51	S.	0	1	,, 27, ,,	Parietal, omental, epiploic (many ligatures)	L. Ligs. (5)	33½lb	75 ,,	..	Death	Acute congest. of lungs	Abdominal cavity perfectly healthy, and all ligatured tissues
39	Dr. Cole, Bath	23	S.	0	0	,, 28, ,,	Omental (6 ligatures)	R. Ligs. (4)	13lb	60 ,,	..	Recov.	..	Dermoid, almost sessile, slight oozing from ligature-hole, and hæmatocele in broad ligament
40	Mr. Thomson, Ramsgate	41	M.	2	0	Apr. 10, ,,	None	L. Ligs. (7)	7¾lb	90 ,,	..	Death	Septicæmia, 5 days	
41	Dr. Jeafferson, Wandsworth	37	S.	0	2	,, 11, ,,	Parietal	R. Ligs. (2)	17lb	20 ,,	..	Recov.	..	Urine contained one-third albumen before operation; disappeared in three days
42	Dr. Horne, Scarborough	27	S.	0	0	,, 24, ,,	Parietal	L. Ligs. (4) R. Ligs. (2)	37lb 1 oz.	60 ,,	..	,,	..	
43	Dr. Parnell, Wells	35	M.	3	0	May 1, ,,	Parietal, omental (about 20 ligatures)	R. Ligs. (3)	17½lb	90 ,,	..	,,	..	Bleeding from torn adhesions so free that many of the ligatures had to be applied by transfixing
44	Mr. Plewitt, Fenchurch Street	58	M.	0	1	,, 22, ,,	Parietal, omental	R. Ligs. (7)	17¾lb	50 ,,	..	,,	..	
45	Dr. Jones, Clapham	24	M.	Twins	3	,, 29, ,,	Parietal, pelvic, uterine, vesical (many ligatures)	R. Ligs. (5)	16lb	105 ,,	Glass tube, 5 days	Death	Obstruction of ileum 7th day	Suppurating cyst; bladder ruptured; uterus torn; knuckle of intestine confined by patch of lymph or decolorised blood-clot
46	Dr. Shephard, Bristol	45	M.	0	1	July 10, ,,	Parietal (very extensive), omental, epiploic (4 ligatures)	R. Ligs. (5)	23½lb	75 ,,	..	Recov.	..	
47	Mr. Hewby, Notting Hill	39	M.	2	0	,, 17, ,,	None	L. Ligs. (4) R. Ligs. (2)	18½lb 6 oz.	30 ,,	..	Death	Acute Bronchitis	Peritoneal cavity normal. Chronic pneumonic consolidation
48	Dr. Briggs, Jersey	23	S.	0	0	,, 19, ,,	Universal	L. Lig. (1)	10lb	60 ,,	..	,,	Shock	Patient moribund at time of operation
49	Dr. Haughton, Mount Street	38	S.	0	0	,, 24, ,,	Parietal, omental (5 ligatures)	R. Ligs. (5)	34½lb	35 ,,	..	Recov.	..	Suppurating cyst
50	Dr. Mackern, Longeaton, Derbyshire	14	S.	0	0	,, 26, ,,	None	R. Ligs. (5)	4½lb	20 ,,	..	,,	..	Dermoid
51	Dr. Swift Walker, Hanley, Staffs	19	S.	0	0	Oct. 17, ,,	Parietal, omental	R. Ligs. (5)	16lb	40 ,,	..	,,	..	
52	Mr. Evans, Tir Phil, Cardiff	32	M.	0	0	,, 23, ,,	Omental (2 ligatures)	L. Ligs. (2)	28½lb	40 ,,	..	,,	..	Consolidation of base of right lung. Rupture of cyst, spontaneous evacuation through umbilical protrusion. Died of malignant disease, March 1879
53	Mr. Jas. Ceely, Aylesbury	36	S.	0	0	,, 30, ,,	None	R. Enucleation	14lb	75 ,,	Gls. tu., 2 days; elas. tu., 9 days	,,	..	Papilloma lining cyst
54	Mr. Alban Doran	32	M.	2	0	Nov. 2, ,,	Pelvic (3 ligatures)	L. Ligs. (5) R. Ligs. (3)	15½lb 1 oz.	45 ,,	..	,,	..	
55	Mr. Pocock, Kensal New Town	32	M.	Twins	0	,, 20, ,,	Parietal, omental, intestinal, and iliac fossa (many ligs.)	R. Ligs. (2)	21½lb	105 ,,	Glass tube, 3½ days	,,	..	
56	Dr. Spooner, Blandford	19	S.	0	0	,, 29, ,,	Universal, almost enveloped in oment., and to append. cæci (many ligatures)	R. Ligs. (2)	17½lb	75 ,,	..	,,	..	
57	Mr. Manser, Tunbridge Wells	26	S.	0	0	Dec. 4, ,,	Intestinal, about a foot of ileum, opposite Fallop. tube (6 ligatures)	R. Ligs. (2) L. Ligs. (5)	2 oz. 7½lb	55 ,,	..	Death	Rupture of intestine	Suppurating cyst, gastro-enteric catarrh, ulceration and rupture of intestine

TABLE *of Fifty Cases of Completed Ovariotomy—continued.*

No.	Previous Medical Attendant.	Age.	Condition.	Children.	Previous Tappings.	Date of Operation.	Adhesions.	Side and Treatment of Pedicle.	Weight of Tumour.	Duration of Operation.	Drainage.	Result.	Cause of Death.	Remarks.
58	Mr. Sam. Berry, Birmingham	31	S.	0	0	Dec. 11, 1878	Parietal	L. Ligs. (5) R. Ligs. (5)	30℔ 13 oz.	80 m.	Gls. tu., 5½ dys.;	Recov.	..	
59	Dr. Wynn Williams	45	W.	8	0	,, 18, ,,	Parietal, omental (2 ligatures)	L. Ligs. (5) R. Ligs. (3)	33℔ 1 oz.	45 ,,	..	,,	..	
60	Mr. Nason, Stratford-on-Avon	27	S.	0	0	Jan. 2, 1879	None	L. Ligs. (5)	17℔	50 ,,	..	,,	..	
61	Mr. Ruttley, High Wycombe	28	M.	5	0	,, 8, ,,	To omentum, pelvis, opp. Fallop. tube, uterus (many ligatures, uterine applied by needle)	L. Lig. (1) R. Ligs. (3)	10½℔ Norm.	40 ,,	Glass tube, 7 days	,,	..	
62	St. Thomas's Hos.	41	M.	4	3	,, 30, ,,	Pelvic (3 ligatures)	L. Ligs. (3)	14℔	75 ,,	..	,,	..	About 14 pints of ascitic fluid
63	Dr. Robinson, Huddersfield	45	M.	7	0	Feb. 12, ,,	None	L. Ligs. (4)	19½℔	40 ,,	..	,,	..	
64	Mr. Bradshaw Smith, Hinckley	45	M.	7	1	,, 19, ,,	Parietal, omental, epiploic, many ligatures	L. Ligs. (2)	14℔	45 ,,	..	,,	..	
65	Dr. Galabin	31	S.	0	0	,, 26, ,,	Extensive parietal	L. Ligs. (2)	19℔	60 ,,	..	,,	..	
66	Dr. Cremen, Cork	19	S.	0	0	,, 27, ,,	None	L. Ligs. (4)	16 lb.	45 ,,	..	,,	..	
67	Dr. Rowland, Malvern Wells	57	M.	5	1	Mar. 12, ,,	Very firm and extensive parietal	L. Lig.	28½ lb.	50 ,,	..	,,	..	Disease of 30 years' duration, 18 years' since tapping
68	Dr. Granville Bantock	26	S.	0	0	,, 19, ,,	Omental, extensive	R. Lig. (3)	12 lb.	40 ,,	Glass tube	Death, 25 hrs.	Exhaustion	Soft sarcoma of ovary; infection of lumbar glands. High temperature before operation
69	Mr. Alban Doran	39	M.	6	0	,, 26, ,,	Omental, pelvic, uterine (many ligatures)	L. Ligs. (5) R. Ligs. (3)	8 lb. 1 oz.	80 ,,	Glass tube	,,	Carbolic nephritis	Intense congestion of kidneys. Fatty heart
70	Dr. Colbeck, Dover	39	M.	8	0	Apr. 2, ,,	Recent parietal	L. Ligs. (4) R. Ligs. (3)	28 lb. ½ oz.	45 ,,	..	Recov.	..	
71	Mr. Gilbertson, Aberystwith	55	W.	4	0	,, 7, ,,	None	R. Ligs. (2)	9 lb.	25 ,,	..	,,	..	
72	Dr. Fowler, Cirencester	55	M.	4	10	,, 10, ,,	Extensive parietal, omental	L. Ligs. (4)	51 lb.	35 ,,	..	,,	..	Carbolic nephritis. Temperature 107. Cold pack
73	Mr. Ingoldby, Finsbury Square	49	M.	3	0	,, 16, ,,	None	R. Ligs. (4)	15 lb.	20 ,,	..	,,	..	
74	Dr. Blake, Reigate	44	S.	0	0	,, 30, ,,	Omental	R. Ligs. (4)	17 lb.	40 ,,	..	,,	..	
75	Dr. Bulmore, Falmouth	32	M.	0	2	May 3, ,,	Omental, pelvic	R. Ligs. (3)	40 lb.	60 ,,	Gls. tu., 3½ dys.;	,,	..	Enucleated from meso-colon and broad ligament

weeks, so long as any portion of it is exposed to the air. When totally shut in, it is probable that it disappears by absorption. In one case, I left in two of the loops, merely cutting the knot away; in another, at the end of a fortnight the knot had buried itself into the tissues, and I merely cut off short one of the projecting ends of the suture; and, in a third case, where the parietes were very thin, I accidentally cut both sides of the loop close to the knot. For several days, the point of one end of the loop could be distinctly felt, but it finally disappeared. In not one of these cases has the suture been heard of again. Several times, when taking them out at the end of a fortnight, the deeper portions of the loops have presented the appearance of becoming blended with the tissues, and they have required an unusual amount of force for their extraction.

I am glad to find that silkworm-gut is making its way in professional estimation. I have taken every opportunity of urging its adoption, and it is satisfactory to me to find other workers in the field, such as Mr. Bryant, Dr. Heywood Smith, and Mr. Walters of Reading. A short time ago, I removed five of these sutures from the vagina of a patient whose perinæum I had restored three weeks previously; not one of them had cut its way out, and there was absolutely no irritation about any of them. They might have been left in indefinitely, but for the chance of being a source of inconvenience in the case of a married woman. I repeat that I know of no substance which yields such satisfactory results in the closing of wounds.

I think that, after gastrotomy, there is an undoubted advantage in including the peritoneum in the suture. But it is not sufficient merely to take this up with just the thickness of the skin; such a practice tempts the formation of a hernia. In a sufficient number of *post mortem* examinations of patients, dying at various periods beyond three days after operation, in which the parietes have been reflected so as to show the peritoneal aspect of the wound, not once have I seen any of the sutures exposed. They have been invariably covered in by lymph. Kœberlé distinctly objects to the inclusion of the peritoneum. He says: "Spencer Wells believes it to be of the highest importance to include the peritoneum in the suture. Evidently this importance is exaggerated, since I have never done it, and the general results of my operations, as well as the results obtained during the later years, are in nowise inferior to those of my eminent *confrère*. On the contrary, one can reproach this suture with interposing the peritoneum between the fibrous tissues, whose juxtaposition becomes impossible, and with disposing to abdominal hernia" (*Maladies des Ovaires et de l'Ovariotomie*, par E. Kœberlé, 1878). This is a valid objection where the imperfect practice above referred to is observed; yet I cannot conceive anyone preferring the complicated method of Kœberlé to that of including the whole of the tissues in the simple suture. Kœberlé's method consists in leaving the peritoneum, and in applying sutures to the muscular aponeurosis alone, bringing the ends out in pairs between the lips of the wound, and then closing the skin by hair-lip pins. It is impossible to get union by first intention in this way, for these sutures come away by sloughing. Is it not better to adopt a method by which primary union is not only possible, but almost certain?

It is curious to notice the strong conservatism which reigns amongst French surgeons, with reference to the management of the ligature applied to bleeding points. The practice appears to be almost universal, of bringing out the ends of the ligatures through the wound, as in the early days of ovariotomy. It would seem as if they had not emancipated themselves from the old notion, that the portion of tissue beyond the ligature must necessarily die. They seem to be unacquainted with, or at least not to accept, the experience of British and American surgeons on this subject, of which I treated fully in my last paper. But perhaps we may attribute to their incredulity the actual gain from the use of forcipressure, introduced and perfected by Kœberlé, Péan, Verneuil, and others. No one who has tried it can be insensible to the great value of forcipressure as a definite hæmostatic; yet there are many instances in which it is found to be insufficient, such as bleeding points, sometimes on the parietes, sometimes in the great omentum, etc. The former often require that the ligature should be passed under the vessel by means of a fine curved needle. This, also, is very often necessary in the case of a torn uterus, in which bleeding points cannot be secured either by the ordinary ligature or by forcipressure. As, then, it is not at all uncommon to see a dozen or more ligatures applied in a bad case of ovariotomy, one can imagine how much the chances of recovery are diminished when the ends of these are brought out through the wound, some of them from distances of several inches, and in various directions.

The occurrence of a sanguineous discharge from the vagina after ovariotomy has been frequently observed by all operators. The explanation hitherto offered is, that it is due to an effort of nature to compensate for the sudden reduction of the area of blood-distribution. Were this so, we ought to find some definite relation existing between the size and vascularity of the tumour and the occurrence of metrorrhagia; that is to say, the larger and more vascular the tumour, the more certain the metrorrhagia. But, in fact, this is not the case. I have paid some attention to this matter, and the result of my observation is that, in nine cases out of ten, it will be found to occur in the case of short pedicles. This is my personal experience, and, where mention is made of it in published cases, I find the same condition. In a case—to take one of the most recent—on which I operated on October 30th last, removing both ovaries, the patient had metrostaxis from the third to the seventh day. Both pedicles were very short, and the ligatures almost involved the uterine cornua. I now regard metrorrhagia as a matter of course, either when the ligature is close to the uterus, or when the Fallopian tube is enlarged. I have not seen it occur in the case of a long and slender pedicle. That it may be due to mechanical irritation of the ovarian nerves I am not prepared to deny; but I have not observed this. I am of opinion that, in the great majority of cases, it is traumatic, and this opinion is confirmed by what I observed *post mortem* in a case of fibroid tumour of the uterus, which I extirpated under strict antiseptic precautions last year. The patient died of septic poison, derived from something under an ounce of blood, which must have slowly oozed into the peritoneal cavity from the surface of the stump. On examining the interior of the uterus, there was observed, corresponding with the line of constriction near the internal os, a well marked congestion of the mucous membrane from which the blood had evidently flowed. On looking over my cases of ovariotomy, I find that, of the first hundred, metrostaxis occurred in 31. Of these, one ovary only was removed in 23 cases; and in these, either the pedicle was so short that the ligature actually or very nearly involved the uterine cornu, or the Fallopian tube was very much enlarged. Eight of the 31 cases were double ovariotomies, and one or both pedicles presented the same condition. In 2 cases, the discharge appeared within twenty-four hours after operation. One of these was a double case, and the discharge lasted for five days, the uterus being somewhat hypertrophied. In 16, it occurred within forty-eight hours; in 10, within seventy-two hours; in 2, on the fourth day; and in 1, on the fifth day. The duration of the flow also varied; thus, in 7 cases, it was under two days; in 12, under three days; in 5, under four days; in 3, under five days; and in 4, it lasted over six days. That the metrostaxis, either in quantity or duration, bore no relation to the size of the tumour, the analysis makes quite evident, and it will be enough to state the fact. The longest duration was in the case of a tumour which weighed nine pounds only. It also appears that, when the uterus was large, the flow was more abundant. This was particularly so in the case just alluded to. One patient was fifty-six years old, and had not menstruated for twelve years, and this case furnishes conclusive evidence, as far as one case can be said to do so, in favour of my view. The tumour weighed only thirteen pounds. That the flow is not due simply to irritation of the uterine nerves may be assumed from the fact that, when the uterus has been torn so as to require ligatures (which I have usually applied by passing the thread under the bleeding point by means of a fine needle), it has not occurred; nor have I seen it once happen in a case of a long pedicle, where the ligature has been placed more than an inch from the uterine cornu, however large the tumour might be. The occurrence for a long time puzzled me, but the frequent association of a short pedicle with a metrostaxis led me to the conclusion here presented. I am seldom now at fault in anticipating the flow, and look for it more confidently in proportion to the nearness of the ligature to the body of the uterus.

The effect of tapping previously to ovariotomy, not with a view to immediate operation, has been discussed by Spencer Wells, Peaslee, Stilling, and others. Peaslee says: "According to my own table, tapping does apparently somewhat reduce the percentage of success." The late Mr. Baker Brown was of opinion that patients did badly who had been tapped very many times. Founding his remarks on the results of five hundred cases, Mr. Wells says: "It may be taken, then, as almost certain, that the mortality of ovariotomy is but little affected by tapping; that the fact of a patient not having been tapped, or having been tapped very often, is by itself of little or no value in prognosis...... Such adhesions as are apt to follow tapping have no appreciable effect upon the mortality after ovariotomy......In some of the patients who had been tapped most frequently, there were no adhesions, and there were firm adhesions in some who had never been tapped" (*Diseases of the Ovaries*, p. 275). This is all very true as far as it goes, but it does not answer the question, Ought tapping to be practised by a surgeon who contemplates recommending the radical operation at a future, more or less remote, period? This is the question it behoves us to ponder over. It is not what proportion the mortality after operation bears to the number of previous tappings. In considering the question, one must not overlook the cases that die after or because of the tapping, nor those which are refused operation in consequence of recognised adhesions or other unfavourable conditions, nor those other distressing cases in which a previous tapping has led to infection of the peritoneum, and the patient, after recovering from the ovariotomy, dies in a few months of the secondary disease. My list includes three cases in which inoculation appears to have taken place in this way, and the patients died at varying periods after operation, from four months to eighteen months. On the other hand, take the following case. I removed both ovaries from a patient aged 33, on October 30th last. Both tumours were studded in their larger cysts with abundant papilloma. Neither had been tapped, and the peritoneum was to all appearance perfectly healthy. It needs not that I should state the probable result of tapping such a case as this. And it is worthy of special mention that the true unilocular cysts of the parovarium are not wholly free from this form of disease, those cysts which we are often counselled to tap rather than remove. Such a case was No. 53, in which I enucleated a parovarian cyst, whose base was too extended for any other method of treatment. This may be contrasted with another, not included in the table, as not being a case of extirpation, in which, for the same reason, I could not remove the cyst in the ordinary manner, but was enabled to treat it in a much more simple way. I stitched the cyst-wall to the parietal wound and drained, with the most satisfactory result. My first death was fairly attributable to the tapping. Inflammation in the large cyst followed, causing extensive parietal adhesions, and I operated during this process. My patient died of septicæmia. I did not then know the value of the drainage-tube; nor can I withhold from previous tappings the blame of causing the adhesions which, in most of my incomplete cases, rendered my efforts unavailing. I am sure I am expressing the experience of every ovariotomist when I say that I have repeatedly had to regret, during an operation, that my patient had ever been tapped. One gets impressions in the course of a long experience which no statistical table can express, and these impressions are of great value. But the immediate and palpable results of tapping are not the only ones we have to consider. A patient arrives at that stage in which it is necessary something should be done. She is tapped. The cyst refills, it may be slowly or it may be rapidly, and becomes the seat of an acute or subacute inflammatory process; irritation of vital organs is set up, especially of the kidneys, insidious in inverse proportion to its acuteness; and, when the time comes for the radical operation, the patient dies, because her kidneys are unequal to a little extra elimination. This is a condition, so fatal to the hopes of the surgeon, which does not declare itself in the state of the urine. It has unfortunately happened to me in several cases to find, *post mortem*, fatal organic disease which has not been revealed by the usual tests. Such are cases 30 and 36 of the table.

Stilling has written very forcibly on the subject of tapping. He says: "No surgeon should ever puncture an ovarian cyst. Tapping is a crime. ......Ovariotomy becomes more difficult the oftener a patient is tapped before it, and the patient is made worse by every tapping." Had Stilling said: "No surgeon should *voluntarily* puncture a *multilocular* ovarian cyst", I almost think I could agree with the remainder of the above quotation. However, avoiding such extreme language, I would strongly urge that tapping should not be resorted to as a means of putting off the evil day (of operation). Of course, the surgeon has no choice when a patient refuses the radical operation. He is bound to give relief by the only alternative. But the more certain he is of the multilocular nature of the tumour, the more strenuously he ought to urge the radical operation in preference to tapping. There are few patients who will not prefer the former when the matter is put plainly before them.

As a preliminary to ovariotomy, tapping stands on a different footing. Dr. Keith appears to be rather fond of this procedure, and I have myself recently had proof that, as a preliminary step, it is sometimes of the greatest service, in the case of a patient aged 65, from whom I removed a large (40 lbs.) tumour on December 3rd, 1879. The breathing was much oppressed; the urine contained a small quantity of albumen, and the specific gravity was only 1015. The removal of thirty-seven and a half pints of fluid by aspiration gave great relief to the dyspnœa, and enabled me to demonstrate that the albumen and low specific gravity were due to the pressure of the tumour, and not to organic disease of the kidneys. I have also no doubt that there was much less shock from removing the collapsed cyst than would have resulted from the radical operation without the preliminary aspiration. This preliminary tapping can only be of service where there is one very large cyst.

One of the strongest arguments against tapping arises from the fact that very large tumours are very often already adherent to the parietes. In these, the cyst cannot collapse, fluid is rapidly poured out, sometimes bleeding takes place within from rupture of vessels in the cyst-wall, and inflammatory action is set up, as indicated by the rise of temperature and pulse. Consequently, the condition of the patient is rendered more unfavourable for operation than it was previously.

I have no belief in the theory that the danger from tapping arises from the introduction of the elements of putrefaction into the cyst, and the consequent infection of the system. Every ovarian cyst is full of the elements of putrefaction or necrosis, which is not the generator of septicæmia. Case 91 in my fourth series will be found a case in point. About six weeks before operation, I had to tap her (it was not possible to do ovariotomy at the time), removing by the aspirator about twelve pints of very offensive purulent ovarian fluid. I need not say that the patient had the usual symptoms of irritative fever, and that they continued till the date of the operation. The contents of the cyst were still of the same character, and the tumour was universally adherent to the parietes, omentum, pelvis, etc.; yet the high temperature went down, the other symptoms of irritative fever gradually subsided, and the patient made an excellent recovery, thanks to the drainage-tube. Such, too, is a case not included in the tables. The patient had been previously tapped (in the ordinary way) of several pints of purulent ovarian fluid. When I attempted to remove the tumour, the fœtor of the contents was almost unbearable, and the adhesions were so firm and extensive in the pelvis, and the cyst-walls so rotten, that I had to desist from further efforts after breaking down the parietal, omental, and intestinal adhesions, and rest content with draining the putrescent cyst. The result was a complete success. Here, then, we have the evidence of constitutional disturbance of the most marked kind, but, as far as I can see, it had nothing to do with the entrance of germs or elements of putrefaction.

The most remarkable case in the second series is No. 45, in which the bladder was ruptured in the course of the separation of the adhesions. The patient was a married woman, aged 24. She had been already tapped three times. I first saw her at her own home, as she was too ill to bear removal to the hospital. She was very much emaciated and enfeebled, had an aspect of great suffering, and her stomach rejected all food. The abdomen was so distended, that she could with difficulty turn in bed. I at once tapped her of thirty-three pints of purulent ovarian fluid, leaving a large mass projecting forwards between the umbilicus and pubes, evidently adherent. Twelve days later, she entered the Samaritan Hospital. She then showed considerable improvement; her appetite was good, her tongue was clean, and the bowels acted regularly.

The operation was performed on May 29th, 1878, with the usual observance of Lister's method. There were extensive parietal adhesions. These were broken down over the upper part of the tumour by passing the hand through them; but below, this was impossible. I therefore emptied the large superior cyst, and broke down as much of the mass as I could, giving exit to about fourteen pints of a mixed purulent and gelatinous fluid. The tumour was now drawn out as far as the inferior adhesions would allow. After a little examination, I found the pedicle on the right side, and at once secured it in three divisions, with a separate fine ligature to the outer edge. I then divided the pedicle, and secured the vessels on the distal side by forceps, to prevent return bleeding. Still the tumour remained fixed inferiorly, and it seemed, so intimate was the connection, that there was no alternative but to leave it to be drained. With this intent, I broke up more of the small cysts, so as to reduce the mass to the greatest extent possible. This enabled me to examine more thoroughly the attachments, and I came to the conclusion that, in spite of its close connection with the uterus and bladder, separation might be effected, and should at least be tried. After making an incision at what appeared to be the line of adhesion, I proceeded with the separation. Bleeding points were secured, as they presented themselves, either by ligature or compression forceps. The separation was effected partly by the fingers and partly by means of the sponge; and as it proceeded, it became evident that the uterine tissue was being extensively exposed; but this was a minor matter in view of the accident which occurred at a later stage. After the separation was effected over the whole anterior face of the uterus, the greatest care was taken, as I knew the bladder was just beneath. But all my care was not sufficient to prevent a rupture of this organ transversely, to the extent of about an inch and a half. A small piece of sponge was passed into the bladder, and the separation proceeded with until the tumour was set free. Two bleeding vessels near the edge of the tear were ligatured, the sponge was removed, and the wound closed by a continuous suture of fine silk, avoiding the mucous membrane. Several bleeding points on the uterus were secured by passing a fine ligature under by means of a suitable needle. Still some oozing went on from the torn uterus. Projecting from the fundus there was a ragged wing of membrane, part of the outer cyst-wall. I took advantage of this to keep the uterus close to the parietes, and to double the raw surface over the bladder upon itself, by catching it up with the second abdominal suture. After the peritoneal cavity was cleaned out as thoroughly as possible, I put in a drainage-tube six inches long, communicating with the bottom of Douglas's pouch, and coming out between the second and third sutures (counting from the lower end of the wound). After her removal into bed, a catheter was passed into the bladder and secured there, and to it was attached a long piece of India-rubber tubing, which conveyed the urine into a bottle containing a 10 per cent. solution of sulphurous acid, *B. P.*, into which the end of the tube dipped. The operation occupied one hour and three-quarters.

Nothing could have been more satisfactory than the progress of the patient for three days. By that time, the urine had lost all trace of blood, and was clear and normal. On the fourth day, the temperature began to rise above 99°. She was sick, and, to my surprise, the fluid from the tube increased in quantity. I thought I had met with an instance of irritation of the peritoneum by the tube, and as the fluid was now quite pale, I removed it, substituting a small piece of India-rubber tubing, to prevent too early closure of the opening. There was no perceptible distension of the abdomen, and I hoped the sickness was due to some other cause than obstruction. However, she grew worse, and died on the sixth day, with undoubted symptoms of obstruction of some portion of the small intestine.

The *post mortem* examination showed that there was not a trace of peritonitis along the whole course of the tube; the small intestines were moderately distended, and the ends quite free; the torn parts between the uterus and symphysis pubis were well united, though now easily broken down. On drawing up the intestines out of Douglas's pouch, there was brought to view about the last foot of the ileum, firmly contracted and cord-like. The constriction began at a point where a knuckle of intestine was caught and bound by a patch of what looked like slightly stained lymph, and which I believe was nearly decolorised blood-clot. I now saw that, had I had the courage to open up the wound and search for the obstruction, nothing could have been easier than to undo it. But I was deterred from the attempt by feeling that any injury I might do by disturbing the uterus would be irreparable, and that, in trying to remove one source of evil, I might be inflicting a worse. Moreover, the passage of small quantities of flatus induced me to think that the obstruction would give way, and the absence of decided distension led me to temporise, and then delay, till it was too late.

Now I would not have this mishap set down to the drainage-tube. Without it, the patient would not have had the remotest chance. A large quantity, more than half a pint, of blood more or less coagulated came away through the tube, and my explanation is that a small clot had become attached to the intestine, which lay at the bottom of the pouch and prevented its uncoiling. There was no true constriction.

More recently, Dr. G. Eustache of Lille has sent me the particulars of a case in which he wounded the bladder in making the abdominal incision. His patient recovered. Two drainage-tubes were used (*Journal des Sciences Médicales de Lille*; and BRITISH MEDICAL JOURNAL, October 25th, 1879).

No. 41 was interesting from the fact that, before the operation, the urine contained a very large quantity of albumen—one-third. Otherwise it was normal, *i.e.*, specific gravity was normal and the quantity average in amount. As the patient looked healthy, I had no hesitation in operating, as I believed the albumen was due to pressure, and not to organic disease. Dr. Marion Sims was amongst the spectators. The result confirmed my diagnosis. She never had a bad symptom, the albumen gradually decreased and disappeared by the fourth day. The patient is now in the most robust health.

A word or two about the fatal cases in these two series. No. 30 was that of a patient in a condition of great debility—anæmic and emaciated—whose heart weighed only four ounces, and whose kidneys were in a state of fatty degeneration (unrevealed by signs). The operation was one of the most severe I have been called upon to perform. She died of the most rapid septicæmia in about twenty-five hours. No. 36 was a case of ruptured colloid. It was my sixth case done under thymol spray. She died on the fifth day. Both heart and kidneys were in a state of fatty degeneration. No. 38 died of acute congestion of the lungs, the peritoneal cavity perfectly healthy. This case was done under Lister's system with carbolic acid. No. 40 was a case of cancer, and which might be regarded as an incomplete case, because of the amount of cancerous diseased tissue left behind—notably a confused mass of mingled omentum, parietes, and cyst wall. The lumbar glands were also extensively affected. No. 45 has already been dealt with. No. 47 had not recovered from an attack of pneumonia contracted some months previously and died of superinduced acute bronchitis. No. 48 was actually moribund at the time of the operation and should not have been touched; but I did my task as an operator in accordance with the decision of a consultation. It was a case of universally adherent suppurating cyst. The patient died before the operation was concluded. This really might be included among the incomplete cases, but I put it in the table at the time, and there it must now stand. No. 57 afforded an interesting specimen of rupture of intestine, which was exhibited at the Pathological Society by Mr. Alban Doran, at the meeting of February 18th, 1879. It was an unfortunate accident, for which I have nothing to reproach myself. No. 68 was a case of soft sarcoma of the right ovary with extensive glandular infection, and the operation was undertaken at the express desire of the patient and as a *dernier ressort*. She died within twenty hours. No. 67 succumbed to an attack of acute nephritis caused, as I believe, by the carbolic acid. In connection with this, I may here state that I nearly lost another from the same cause. I purpose publishing these two cases in detail. So far, January 1880, I have not lost a single uncomplicated case.

ON CASES OF ATHETOSIS.

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ATHETOSIS (ἀθέτος, without fixed position) is the name given by Dr. Hammond of New York to a peculiar motor affection described by him in the year 1871 in his work on *Diseases of the Nervous System*. Some years before, Charcot and Heisse had described phenomena analogous to those defined by Hammond; and since then several other observers in England and America have written on the disease. In the former country, Drs. Clifford Allbutt, Claye Shaw, Gairdner, Gowers, and Ritchie, and in the latter, Drs. Clymer, Jewell, Hay, and Seguin, have published papers on or alluded to it; and, quite latterly, Dr. Oulmont of Paris has brought out a book on the subject. The affection, however, is little known as yet; and, as some cases have lately come under my notice, I have thought it well to bring particulars of them before the Association.

The disease, according to Hammond, is "mainly characterised by an inability to retain the fingers and toes in any position in which they may be placed, and by their continual motion". Dr. Gowers, in an able paper published in the *Medico-Chirurgical Transactions* for the year 1876, has sought to ally it with the condition of slowly changing spasm occasionally seen after hemiplegia; and Dr. Claye Shaw has described seven cases which he has met with in imbeciles. Certain head-symptoms, tremulousness of the tongue, numbness on the affected side, pains in the spasmodically affected muscles, and especially complex movements of the fingers and toes, with a tendency to distortion without paralysis, are the symptoms which Dr. Hammond found in his cases, both of which came on after epileptic attacks. He does not lay much stress upon the preceding epilepsy, however; for he says "it is by no means certain that the relation is anything more than accidental". In both of Dr. Gairdner's cases, which are recognised by Dr. Hammond as those of athetosis, the disease was not preceded by epilepsy, and many of the symptoms above mentioned were absent. On the other hand, Dr. Gowers relates a case which came on after hemiplegia; and he remarks that it is a question of position and extent of lesion whether motor weakness does or does not precede the spasm. If this be so, then we must consider the morbid motor phenomena present, without the paralysis of the limbs, as the chief characteristics of the disease.

The three cases on which my paper is founded are imbecile children, aged respectively 18, 11, and 17. Two are girls and one a boy. In the first case, both sides of the body as well as the head and face are affected; in the second and third, the left side alone. The condition of the limbs as to spasm in the first and second cases has remained much the same while under observation; but in the third the spasm has increased, and there is less voluntary power than before. This case also differs from the preceding ones in the movements being quicker, in the scapular and forearm muscles being also affected, and in there being some anæsthesia on the affected side. There is no evidence of hemiplegia or epilepsy having occurred in the first case, and, in fact, the cause is obscure; in the second, convulsions came on when the child was only six months old, and, soon after recovery from them, the hand presented the peculiar movements; in the third, the movements followed a series of epileptic attacks during the residence of the patient in the Clapton Asylum. The following is a description of the symptoms present.

CASE I.—E. H., a girl aged 18, of low type, well nourished with the exception of the lower extremities (which are somewhat atrophied), is of a cheerful and affectionate disposition. The teeth are good; the palate normal (that is, not vaulted); the pupils medium in size; no squint. The head is fairly symmetrical in shape, as shown by the outline (exhibited); and the measurements show it to be of fair size. The circumference is nineteen and a half inches; the transverse diameter from tragus to tragus, twelve and a half inches; the antero-posterior diameter from the root of the nose to the occipital protuberance, thirteen inches; the width of the forehead, three inches and three-quarters. There is no sign of rickets, syphilis, or scrofula. The heart-sounds are normal. The child sits in a chair in her usual position, with her left hand resting on her lap, the right hanging by her side. The left forearm is flexed at right angles with the arm, and the wrist with the forearm; the thumb projects upwards; the fore, middle, and ring fingers are extended; and the little finger semiflexed. The fore and middle fingers are widely separated from one another, and constantly moving slowly and rhythmically in alternate slight flexion and extension. The thumb also undergoes the same movement, though not quite to so great an extent. Occasionally the ring-finger moves too. Often the metacarpal joints are flexed when the others are extended. At times, the fore and middle fingers are drawn far back, so as to form an oblique angle with the back of the hand. The spasmodic action of the extensor muscles of the forearm causing these movements can be plainly seen. The arm and shoulder muscles are unaffected. Sometimes the hands grasp one another, both wrists being flexed, and the right arm and wrist pronated and abducted. While I have been writing the latter part of this description, the fingers have all been drawn firmly into the palm, with the thumb placed over them; and there is now alternate up and down movement of the whole flexed hand, which is fixed halfway between the supinated and pronated position. On telling her to take hold of an object, she raises with a jerk her left arm at right angles to the body; the forearm being flexed at right angles with the arm, and the wrist at right angles with the forearm; the thumb and all the fingers being extended and widely separated. Sometimes, when making vigorous efforts, the right hand is raised and spread out in the same way and at the same time as the left. In the endeavour to seize the object, her hand is carried round it and past it; but, after one or two attempts, she succeeds in taking it between the thumb, ring, and little finger; the fore and middle finger at the time becoming extended. At other times, she takes it in her hand with all the fingers firmly clenched over it. The object is not taken quietly in the ordinary way, but with a sudden dart and clutch. While playing with it, the fingers open and close every now and then like the claws of a crab on its prey. When the attention is attracted, the fingers are less firmly closed over it, and a contractile movement of the thumb, fore, and middle fingers is visible. Small objects she cannot pick up. She has considerable power in the hand and arm; for, on attempting to take away from her anything which she wishes to keep, she holds on with such tenacity—the fingers being tightly clenched over it—that it is impossible to remove it from her grasp. The right hand is less affected than the left, and at times is quite still, so that nothing abnormal would be suspected until an attempt to use it is made; then movements of the same character, though less marked than those of the left hand, are seen. When she is quiet—that is, when she is not exerting her will—the left foot rests on the ground quite flat and without movement; but, on the slightest change of position of the body, the foot is raised, so that only the heel touches the ground. When she brings the hand into use, the foot becomes greatly extended. All the time she has been playing with the object above mentioned, the foot has been moving, and at times the great toe has been drawn upwards, projecting; while the others have been flexed and pointed downwards, the endeavour to control the hand-muscles causing increased spasm in the feet. Sometimes the foot is raised on its outer edge, the sole pointing inwards. Often the right foot is affected at the same time as the left, as when both hands are put into use at once; and then the soles point towards one another. Sometimes the right hand will be clenched, and the fingers of the left extended; and then both feet undergo movement. The right foot, however, as in the case of the hand, is less affected than the left; and, when the right hand alone is put into use, the foot as a whole is drawn up, and not the toes separately. She cannot stand, and has no power of support herself in the least; yet, on raising the legs and exerting extension on them, there is found to be considerable resistant power. When put on the ground and supported under the arms, she will step out with her legs; the knees being drawn inwards and pressed closely together, and the feet drawn upwards, so that only the heels touch the ground. While walking in this way, both hands become first extended, and then firmly clenched; and they remain in the latter position the whole of the time. Her head is usually bent down, and moves constantly, though slowly. Sometimes it is drawn down; then it moves towards, and occasionally over, the right shoulder; afterwards, downwards and to the left towards the left shoulder; then directly backwards. It is never still even in these positions. She notices what is going on in the ward, and can raise her head and hold it straight for a short time when interested; but it soon subsides into the drooping position. The nurse's description of it is, that "it bobs all kinds of ways, as if it had no fixture at all". The muscles of the neck do not appear to be hypertrophied. On opening her mouth, the tongue is seen to be continually moving, alternately being projected towards and then drawn back from the teeth. Sometimes the mouth is seen to open and shut, the tongue protruding without deviation; saliva accompanying it, so that she dribbles. At other times, the mouth remains half-open for a while; and every now and then, especially when she is pleased, there is slight twitching of the mouth and semiclosure of the eyelids. In some cases, the mouth is drawn wide open. The movements above described cease during sleep, are unattended with pain, and are not increased by attention being directed towards them. She is emotional, readily pleased, and often smiles at the antics of the young children in the ward. She is exceedingly nervous, a sudden noise or sound by any of the patients making her start violently. She understands what is said of and to her; but she cannot speak or utter a word, though she can make an articulate sound. She gets out of temper at times, and then becomes sulky and refuses her food. She has little power in the back, and cannot raise herself into the upright position. When put on the ground, she sits leaning forwards, her head drooping on her chest. Sensation is deficient, as is usual in low-class imbeciles; but, as far as one can make out, there does not appear to be any difference in this respect between the two sides of the body. Weber's apparatus cannot, however, be used, as her intellect is deficient. Reflex action is normal. The circulation is feeble, and the feet and legs are cold to the touch. Careful measurement shows that there is no hypertrophy of the upper extremities. Though the muscles are constantly moving, they do not appear to be abnormally firm. With respect to the lower extremities, they are, as above stated, to some extent atrophied, from her inability to walk. This is not true paralysis; but, as in the case of some other patients here of low type, in consequence of their mothers not being unable to look after them when young, the legs have become more or less contracted and atrophied from disease. The following are the measurements.

Circumference of arms, 4 inches above elbows	6⅞	inches.
,, forearms, 4 inches above wrists	6	,,
,, thighs, 5 inches above knees	12	,,
,, legs, 4 inches below knees	7½	,,
Length of arms from point of shoulders to elbows	11¼	,,
,, forearms from elbows to wrists	7½	,,
,, hands from wrists to end of middle fingers	5½	,,
,, thighs from inferior spinous processes to external condyles.	12⅞	,,
,, legs from external condyles to external malleoli: right ..	11¼	,,
left ..	11⅜	,,
,, soles of feet..	7½	,,

CASE II.—L. H., a girl aged 11, is considerably above the preceding one in the scale of intelligence. There is no family history of neuroses; but the mother and aunt have died of phthisis. The mother was nervous and excitable. Both parents were temperate, and not connected by consanguinity. Nothing was noticed about the child until she was six months old, when she had a number of fits while cutting her teeth. The fits lasted, on and off, the whole of the time the teeth were coming. Soon after the first fits, the curious movements in the left hand came on; and, as soon as she began to walk, the left leg was noticed to drag. At times, as she has grown older, she has suffered a good deal from headache. At other times, her face would get flushed; she would scream and holloa, and bang the left hand against the wall. This is said to have continued nearly up to the time of her admission. Formerly she was a very excitable and destructive child. The movements of the hand, as time went on, increased, and she dragged the leg more. Her intellect was noticed to be dull when about two or three years old. She has never had chorea. There are eight children in the family; one has died, and the rest are strong and without mental defect. (Fig. 1.)

She is well nourished, of fair complexion, with grey eyes. The teeth and ears are normal. The palate is not arched. The head is symmetrical (outline exhibited) and of fair size; its circumference is nineteen and three-quarter inches; transverse diameter, twelve and a quarter inches; antero-posterior diameter, twelve and a half inches. The width of the forehead is four inches. She goes to school in the asylum, and makes fair progress. Her temperament is cheerful. In this case, the movements are confined to the left side. Her hands are usually crossed one in the other; the left wrist is flexed at right angles with the forearm; the latter extended firmly on the arm. In this position, one sees occasional slow movements of the thumb and forefinger. In their absence only, the position of the wrist, which is flexed at right angles with the forearm, would excite attention. On uncrossing her hands and stretching out the left hand on her lap, palm downwards, no movement is visible; but when the palm is placed upwards, occasional movements of the thumb, which is directed upwards, and of all the fingers, more especially the first and second, are seen. On telling her to close her left hand, she does so with the right. If this be prevented, she pronates her arm and then shuts it. She is unable to do so in the supinated position without the assistance of the other hand. When the hand is stretched out in a direct line with the shoulder, the thumb turns out, and the fingers are extended and widely separated. She cannot bring the fingers together, and the hand moves up and down, swaying backwards and forwards in a pronated position. The metacarpal joints are not extended when the others are flexed, as in the first case. The fingers become flexed and the thumb drawn into the palm when the forearm is bent. (See Fig. 2.) She takes hold of an object usually with the thumb, ring and little fingers, sometimes with the middle one also, the forefinger being extended. Her habit is to help her left hand with her right, sometimes holding the forearm, sometimes the hand. The forearm is very firm from the almost constant action of the flexors, the tendons of the thumb especially standing up above the others. This state of the forearm was absent in the preceding case. One arm and

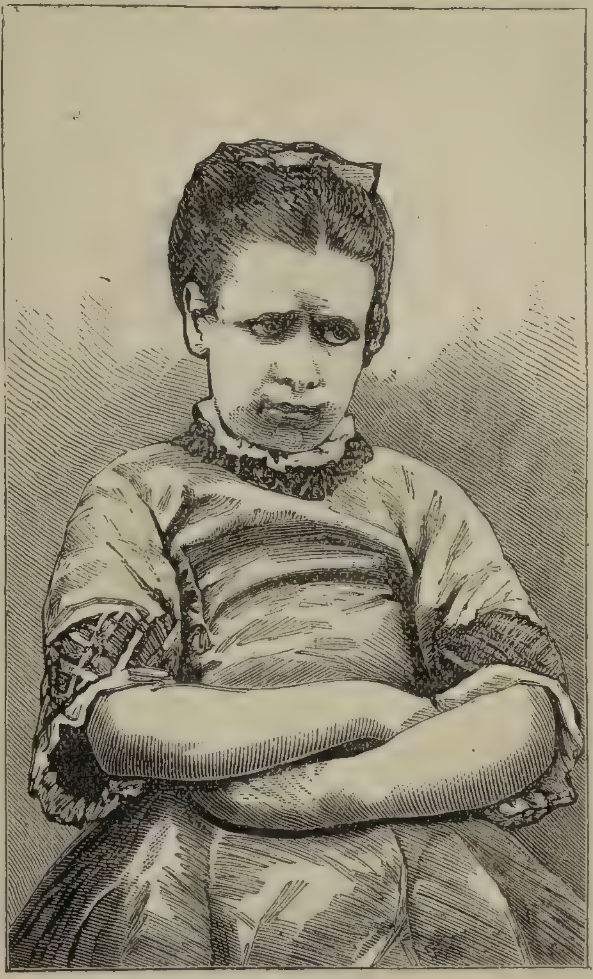


Fig. 1.

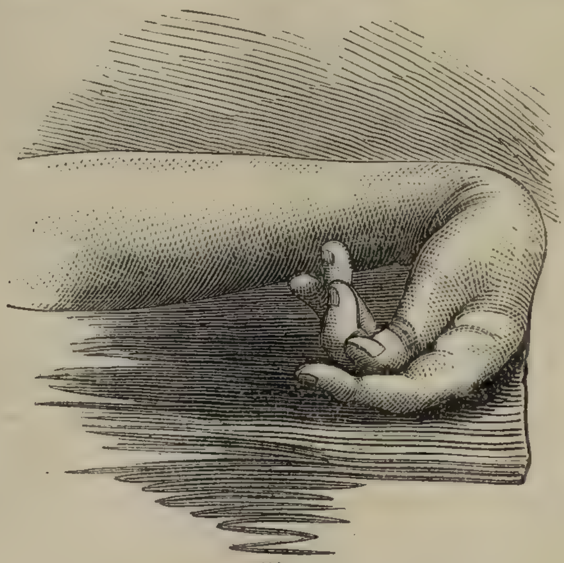


Fig. 2.

scapular muscles are unaffected. The left great toe is usually extended; the others, especially the smaller ones, being drawn into the sole of the foot. On her extending the leg, the great toe is drawn into a perpendicular position; the second and third toes are stretched directly forwards, the foot at the same time being drawn inwards. When at rest, the foot is turned inwards from the action of the tibiales muscles. When she walks, the movement is "halting" in character, and she treads on the outer side of the foot, the great toe being directed upwards, and only the little and next toe touch the ground. When she takes hold of anything with her left hand, the left foot, which has been quietly resting on the ground, is brought into action; the great toe is directed upwards and the other toes are firmly flexed. (See Fig. 3.) On the other hand, when she is walking, the left arm is either drawn behind her back and partly pronated, the thumb drawn into the palm and the fingers flexed, or the hand is flexed and held in the other. There are no movements of the head, as in the first case; but the left corrugator supercilii muscle is now and then drawn up. She is not emotional nor nervous. She plays with the other children, holding her left hand in the right, with the wrist flexed on the forearm. She cannot pick up small objects; in her endeavour to do so, the hand becomes stretched out and the arm supinated, so that the extensor surfaces of the fingers are placed in contact with the object. Her speech is clear, but there is a slightly tremulous movement of the tongue when she puts it out. There is no pain in the affected limbs, whose movements (as in the preceding case) cease during sleep, and are not increased by attention. Heart-sounds normal. No sign of rickets. Sensation and reflex action unaffected. Although the muscles of the left arm are firmer than those of the right, there does not appear to be any hypertrophy of the muscles. The following are the measurements.

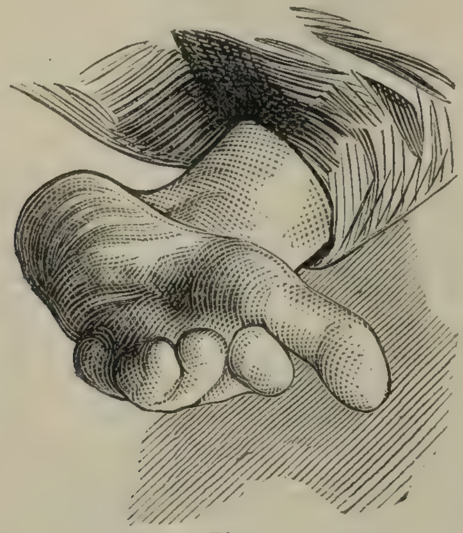


Fig. 3

Circumference of arms 4 inches above elbows .. .. .. 7 inches.
,, forearms 4 inches above wrists: right, 6½; left 6¾ ,,
,, legs 4 inches above knees .. .. 8½ ,,

This corresponds with the observations of Dr. Gairdner in his cases.

The extremities of the left side of the body, however, are shorter than those of the right. Thus, the left arm measures, from the point of the shoulder to the tip of the middle finger, twenty-two inches; the right, between the same points, twenty-two and a half inches. The left leg measures, from the inferior spinous process to the external malleolus, twenty-six and a half inches; the right, between the same points, twenty-seven and a half inches. This shortening of the affected limbs is found also in cases of hemiplegia in the young, where the paralysis is complete.

CASE III.—F. P., a boy aged seventeen years, may be placed in the same class as the preceding case, as far as his intelligence is concerned. His parents are healthy, temperate, and not connected by consanguinity. His maternal grandfather and a cousin on the mother's side are paralysed. He is the eldest of six children, of whom two are dead, one succumbing from scarlet fever, the other soon after birth. The rest are healthy. His mental condition is said to have been good up to the age of ten years, when, in a fight with a boy, he was struck with a key in the face. Disease of the jaw followed, and, on recovery, he was noticed to be not so bright as before the accident. Twelve months afterwards, he was knocked down and remained insensible for a time. Four years ago, he had an epileptic fit, affecting both sides of the body. He was taken to the Hospital for Epilepsy and Paralysis, and while there had two fits. He became excitable and tried to stab a patient, and his removal became necessary. After his removal, he became quiet for a time, but the excitability reappeared. He was taken to the Hampstead Asylum, and soon afterwards was admitted at Clapton. He is well nourished; dark in complexion. The head is symmetrical, as shown by the outline (exhibited), and of fair size; the circumference, twenty-two inches; transverse diameter, fourteen and a quarter inches; antero-posterior, fourteen and a quarter inches. Width of forehead, four and a quarter inches. There is no sign of rickets, syphilis, or scrofula. He is good natured and obedient. Since his admission, he has had at times epileptic fits, which at first did not produce any loss of power on either side. About nine months ago, he had a number of very severe ones, and, on recovery, the left side was found to be weaker than the right. There was no spasm, and gradually the arm and leg gained power. Six months ago, another series of epileptic fits came on, leaving him with some loss of power in the left side. Soon afterwards, the spasmodic movements of the hand and arm were noticed. As he sits in a chair, he holds the tremulous left hand in the right. On uncrossing them, and letting the left hand and arm hang by his side, the whole arm is seen to be continually in action, and the hand is undergoing rather quick spasmodic movements. The thumb is extended and the fingers flexed, the fore and middle ones completely into the palm, the ring and little fingers to a less extent. The position of the fingers sometimes changes, and the ring finger is at times less flexed. He can extend his arm and hand, and when he does so the movements increase. The fibres of the flexors of the fingers, of the biceps, triceps, and some of the scapular muscles can be felt twitching; and the scapula, arm, forearm, and fingers are constantly moving. Sometimes, the triceps pulls the arm backwards; at other times, the biceps does so forwards. The movements are not attended with pain, cease during sleep, and are not increased by attention. The hand is not pronated, abducted, or adducted, but hangs by the side of the body in a straight position. When he takes hold of an object, the hand is brought forward with all the fingers extended, and the fore and middle fingers widely separated; but they soon become spasmodically clenched. They go round the object, but cannot at first get close to it. After repeated trials, they do so; he then, by an effort of the will, opens the hand, though only for a moment, and grasps the object with a clutch. He has a fair amount of power in the left hand and arm, and can grasp my hand and pull me towards him. There is, however, considerable loss of power when compared with the opposite (unaffected) side. All the toes, but especially the third and fourth of the left foot, now and then twitch, but to a much less extent than the hand. When he attempts to use his hand, the great toe is drawn upwards and the other toes flexed into the sole, as in the preceding cases. The movements of the hand, however, do not increase when he walks. There is a good deal of power in this leg, but not so much as in the other one. He walks as steadily with his eyes shut as when they are open. His speech is fairly clear, and has not been altered by the attack. His tongue is tremulous when he puts it out, and very often while doing so his head is drawn backwards and looks upwards. It does not move at any other time. There are no movements of the face, as in the preceding cases. Sensation is diminished on the affected side and the limbs measure less in circumference. A comparative measurement, taken at the same points in both arms, shows the left arm to be one inch and the forearm half an inch less than the right. There is, however, no shortening.

Athetosis may be unilateral (hemi-athetosis), or double, just as we may have hemi-chorea or general chorea. Here, however, the similarity ends. The movements distinctive of athetosis are very different from those of chorea. They are less jerky and less incontrollable than in the latter disease. Moreover, they are not increased by attention being directed to them. Athetosis is also not a true paralysis. In all the cases, there is considerable power present. The disease is really a mobile spasm, and is no doubt due to some change in those portions of the brain which experiment, as well as disease, have shown to be concerned in the movements of the upper and lower extremities. That the muscles of the head, mouth, and tongue should be sometimes affected, we might *à priori* expect, since the centres for the movement of those parts are in close proximity to those of the extremities. A curious feature noticeable in the first and second cases, and to a less extent in the third, is this: as soon as one set of muscles are brought into action, increased spasm overtakes others. When the muscles of the hand were brought into use, those of the feet became more affected with spasm, and *vice versâ*. The first two cases have been treated with electricity, but without effect. In the third case, with the exception of some doses of mercury, given for a disease of the eye from which he was suffering, no treatment has been adopted.

About two months after the writing of this paper, the patient (F. P.) experienced another attack of epileptic convulsions. A semi-conscious state followed. He took no notice of what was going on around him; but would answer "Yes, sir" and "No", in answer to questions spoken in a loud voice. He lay in bed with his legs extended rigidly, and his arms and hands stretched out on each side of him. The movements before described ceased. At the end of a week, he became quite unconscious, passed urine and fæces under him, and died.

NECROPSY, thirty-six hours after death.–The body was well nourished; rigor mortis persistent; the thumb of the right hand was drawn into the palm. The cranium was symmetrical; the calvaria thicker than normal. The dura mater was congested, but easily removed; it was not adherent to the cranium or the cerebrum. The subarachnoid fluid was turbid and in excess; the vessels running over the surface of the brain were congested and the pia mater injected; there was no thickening or opacity of the membranes. A little fluid drained away in removing the brain from the cranial cavity. The brain weighed three pounds and half an ounce; it was firm in consistence. The parietal lobes were thought to be more resistant to pressure than the others. The convolutions were normal in size, with the exception of those in the parietal and temporo-sphenoidal regions. In the former situation they were slightly, in the latter very coarse in character, *i.e.*, not highly developed. The occipital convolutions were very firm and hard, those on the right side being a little harder than on the left. On slicing through the brain, it was found to be firm; but the white matter was, if one may so say, "greyish" in appearance. There was a little excess of fluid in the ventricles. The corpus striatum and optic thalamus appeared normal. The white matter of the first temporo-sphehoidal convolution, and of the inferior parietal lobule on both sides, on a level (vertically) with the middle part of the lateral ventricles, appeared fibrous. The same appearance was noticeable in the white matter of the occipital convolutions at the same level.

NOTES ON THE CROTON-OIL TREATMENT OF RINGWORM.

By ALDER SMITH, M.B.Lond., F.R.C.S.,

Resident Medical Officer, Christ's Hospital, London.

I SEE in the JOURNAL of May 29th, that *the artificial production of kerion* is advised as a cure for chronic ringworm. As I have been using croton-oil (in imitation of Nature's cure) for the last six years, and have already fully described my method of producing kerion in my paper on the Diagnosis and Treatment of Ringworm, published in the *Lancet* of January 10th, 24th, and 31st, I think it right to advise the profession to be very careful in selecting proper cases for this treatment. In that paper, I strongly recommended the production of an artificial kerion by croton-oil; *i.e.*, "that swollen, raised, inflamed, and infiltrated state of the scalp which sometimes accidentally occurs during treatment, and *which always results in a speedy cure of the disease.* Kerion should be produced, if possible, *in old chronic small patches of ringworm that have resisted all other treatment for many months*, but not in those cases where the disease extends over a large extent of surface. The great aim of this treatment is to cause inflammatory swelling and effusion into the tissues around the follicles, so that the stumps, which otherwise would break off on attempted epilation, will now come out with the discharge, or can easily be extracted; in fact, very often in a short time an inveterate patch of ringworm, that has withstood every other treatment for years, can be transformed into a smooth slightly raised place, utterly destitute of all hair and stumps, and practically well." "Even if the swollen condition of kerion cannot be produced, this treatment very rarely fails in loosening the stumps and curing the disease."

I republish these observations of mine, as I should be sorry for the profession to think I advocated the production of kerion *indiscriminately* in chronic ringworm, especially where a large extent of surface is involved. In fact, the chief cases for which I urge it are those I so constantly see, where, after ordinary treatment for a time, the hair has grown again on the patches, and then the child has been neglected for months or even years, until some special reason brings it under treatment again. "Here the difficulty is not to find some parasiticide that will destroy the ringworm-fungus, but to bring the remedy into contact with it. In recent ringworm, the conidia only penetrate a certain distance into the follicles, and therefore the disease is easily cured by almost any remedy; *but after a time they penetrate to the very bottom of the follicles*, which, it must be remembered, are even below the true skin." In such cases, it is impossible to reach the fungus by any of the usual remedies applied to the surface of the scalp. Ordinary chronic forms can generally be cured without producing kerion. Painting the places with croton-oil liniment is a good plan; but other remedies will often cause a moderate amount of inflammation, and even slight suppuration, and thus cure the disease. Citrine ointment with carbolic acid (as advised in my paper) will frequently produce this result, especially in young children.

The following, in my experience, are the most suitable cases in which the production of kerion may be attempted.

1. Inveterate cases that have resisted all other treatment for months or years, if not very extensive; especially those where the inveterate parts of the patches have been marked out and reduced in size by other treatment, as by oleate of mercury.
2. Any small patch of ringworm, not larger, say, than half-a-crown, where time is of the utmost importance, and a cure is desired as quickly as possible.
3. Such a case as where ringworm has been detected and properly treated for a time, until the new hair has made its appearance; after which, it has been discontinued, although many diseased stumps remained. Months, or even years, have passed, and the child is perhaps rejected at some public examination. One or more patches are to be seen where the hair is growing freely and firmly, but, on close inspection with a lens, some scurfiness and broken hairs or stumps are observed, scattered among the long hairs on the patches.

Pustulation in minute spots should also be attempted, as probably the only cure for that variety of the disease I described as *disseminated ringworm;* "one rarely diagnosed, and the most chronic and difficult to cure. The hair is growing freely and firmly all over the head; there are no patches to be seen, although probably they have existed at an earlier stage of the disease; the skin appears generally healthy, and perhaps almost free from scurf, but numerous isolated stumps, or groups of stumps, are seen in every direction, often scattered all over the scalp. This variety is almost always overlooked, and can only be detected by very careful examination. The stumps in these old chronic cases are very brittle, and almost always break on attempted epilation, showing, after soaking some little time in liquor potassæ, under the microscope a most extensive implication with fungus, even down to the root of the hair."

I have often succeeded in curing cases like this when they have resisted all other treatment for years, but they require great care and patience. The entire scalp must be subjected to a very close inspection with a lens, and an attempt made to pull out each stump as it comes into view, and then if it break off, which is most probable, a drop of oil should be applied at once to the follicle, with a very fine sable brush. At the next examination, the oil must again be put on any stumps that break off, as well as upon any fresh ones that appear.

A deep pustular rash alone will often cure chronic ringworm, but certainly not all inveterate cases. My knowledge of such is great, and I know full well, from painful experience, that croton-oil may be painted on time after time, and a pustular rash repeatedly set up, and yet diseased stumps will reappear.

I must remark that it is useless for medical men to attempt to cure very chronic ringworm, especially the disseminated variety, unless they thoroughly realise how intractable some forms of the disease are, possess a good lens and good eyesight, and have plenty of time and patience.

Ringworm must never be considered cured, although the hair has grown again on the patches, as long as a single stump remains affected with the fungus, or any black dots are seen. These black dots are the orifices of diseased follicles, in which the stumps have been broken off on a level with the surface of the scalp by friction, or are the apertures, filled with dirt, left by the retraction of the broken and shortened stump into the follicle after attempted epilation.

It is most difficult to certify that any case of ringworm is absolutely well. Time after time, stumps that were not visible at one examination will crop up again, breaking off when any attempt is made to extract them, and reappearing again and again for months after the case in other respects seems cured. Nor must it be forgotten that stumps are not removed when they only break off, and that no reliance for diagnosis or prognosis can be placed on the microscopical examination of short ordinary hairs taken from a patch, but only of the stumps.

In conclusion, I would warn medical men not to apply croton-oil without due consideration for ordinary cases of chronic ringworm. If they do, they will be sure to get into trouble sooner or later. The oil often causes much inflammation, and parents get frightened, and imagine the doctor has made the disease ten times worse. Sometimes they will seek other advice, and are told that their former medical attendant has been overtreating the case, and has been using too strong remedies. Under soothing applications, the little patient gets well, and the second attendant gets the credit of curing the ringworm, which was practically well when he first saw the case. I always explain to parents beforehand the reasons for adopting this treatment, and the results to be expected from it. It is also important to bear in mind that simple remedies will generally be efficacious in eradicating ringworm in young children, and that stronger ones in such cases should never be employed.

SURGICAL MEMORANDA.

REMOVAL OF HORNY GROWTH FROM WRIST.

On April 23rd, 1880, Mrs. E. was admitted to the Stockton-on-Tees Hospital, under my care, presenting the following peculiar appearances. On the dorsum of the right wrist there grew "a horn", dense in structure and slightly curved backwards, measuring in height one inch and a quarter, and in circumference at its base three inches. This had been growing for twelve months, and appeared, from the patient's story, to have taken its origin from a small warty sore, the result of an abrasion. The skin of the entire back of the same hand looked like an indurated ulcer, healed in parts of its surface and edges, and somewhat horny in character; this latter condition was also attributed to a scratch, and though subjected for two years to treatment at the hands of recognised practitioners and old women pursued its course inveterately. The day after her admission, chloroform was administered, and the growth removed by means of an elliptical incision wide of the base, along with the whole skin from which it grew, the wound being left to heal by granulation, which it did perfectly within a fortnight. The ulcerated surface of the back of the hand is improving under the use of glacial acetic acid, applied twice a week, very freely, with poultices between times.

W. Beattie Smith, F.R.C.S.E.

Stockton-on-Tees.

OBSTETRIC MEMORANDA.

TWO CASES OF INVERSION OF THE UTERUS.

Case i.—Mrs. T., a primipara aged 38, was delivered of a living child by means of Barnes's forceps. There was a fair, but not an unusual, amount of difficulty in bringing down the head. After the expulsion of the child, the uterus appeared to be normally contracted and in its usual position above the pubes. The placenta was removed in the usual manner, and came away without any trouble—my assistant, Mr. Dale, in the meantime making pressure over the uterus. The binder was just being applied, when a sudden outburst of hæmorrhage occurred, the blood streaming away *pleno rivo*. Pressure was made over the abdomen, and cold water was dashed upon and about the pudenda, without avail. I then introduced my hand and found the uterus partially inverted, the globular fundus being within the os. It was easily reduced, and the hæmorrhage ceased. Pressure on the uterus from without was continued. After a short interval, the flooding set in again, and the uterus was again found to be inverted as before. It was reduced, the pressure was continued, and, for the third time, inversion took place. I now reduced the inversion, and directed the pressure on the abdomen to be discontinued. No further inversion took place; but, as the uterus did not seem well contracted, I placed my hand on the abdomen, over the neck of the organ, and gradually moved my hand upwards towards the fundus, making gentle pressure all the time, and it soon assumed its normal size and feel, and the hæmorrhage ceased. I should add that I had kept the interior of the womb and the vagina clear of clots and had injected cold water. The woman made an excellent recovery.

Remarks.—The first inversion which took place would probably usually be looked upon as *spontaneous*, although it may have been caused by pressure upon the abdomen. But there can, I think, be no doubt that its occurrence for the second and third time was caused by the pressure which was being made over the fundus; so that this favourite method of restraining hæmorrhage may occasionally be the cause of flooding by producing inversion, as in this case.

Case ii.—Mrs. W., a primipara, was delivered by Barnes's forceps of a living child. She had been very long in labour and was becoming exhausted. The forceps was applied at the brim. After the birth of the child, I waited about ten minutes before extracting the placenta, making gentle pressure on the abdomen. The after-birth came away quite easily. It was immediately followed by severe hæmorrhage. I introduced my hand and found the uterus inverted. I reduced it without difficulty by gently pushing the fundus upwards with the tips of my fingers, and there was no further trouble. The patient did well.

Samuel Hague, M.D., Camberwell.

Donations.—The trustees of the late Mrs. Carr of Roseville, Dundee, have intimated the following donations: Dundee Royal Infirmary, £1,000; Baxter Convalescent Home, Broughty Ferry, £1,000; Dundee Orphan and Dundee Female Society, £1,000 each. The total donations already made by the trustees out of Mrs. Carr's residue of estate amount to over £20,000.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.

SYPHILITIC THROMBOSIS OF BASILAR ARTERY: NECROBIOTIC SOFTENING OF THE PONS VAROLII: DOUBLE HEMIPLEGIA AND ANARTHRIA.

(Under the care of Dr. Althaus.)

There is now a case under observation at this hospital, in which Dr. Althaus has made the diagnosis of necrobiotic softening of the pons Varolii from syphilitic thrombosis of the basilar artery, the principal symptoms being double hemiplegia, bilateral paralysis of the lower branches of the portio dura, and bilateral paralysis of the hypoglossus nerve. This case appears to be unique. Nothnagel (*Topische Diagnostik der Gehirnkrankheiten*, Berlin, 1879, p. 115), who has given a complete analysis of cases of pontine lesions, says that up to the present time no case of stationary pontine softening has been recorded in which both legs, or all four extremities, had been paralysed, although it was *à priori* reasonable to expect that a bilateral lesion, or rather a large area of softening spreading transversely through the pons, might produce such symptoms. The patient now under the care of Dr. Althaus has survived the lesion for about eighteen months, and does not even now appear in immediate danger of life.

Case.—B. A., aged 40, single, admitted April 25th, 1880, enlisted in the army when seventeen years of age, and served during the Indian mutiny, where he received a shot in the right arm, which hit the median nerve, some branches of which have ever since remained in a semiparalytic and semianæsthetic condition. This, however, did not cause sufficient trouble to necessitate the patient's discharge from the service. His health has on the whole been pretty good, but five years ago he had gonorrhœa and syphilis, for which he was treated with mercurial inunction. No secondary symptoms have since then appeared in the skin or mucous membranes, etc., but he has occasionally suffered from congestion of the liver, and had an attack of cholera three years ago. He took part in the last campaign in Afghanistan, and suffered a good deal from exposure to cold during the time he was there. Shortly before Christmas twelvemonths, when he was living in a tent, at a high elevation, the cold being extremely severe, he began to suffer from headache, giddiness, and general *malaise*. This continued for about a week; and one night, being too restless to sleep, and feeling very unwell, he got up to walk about, but found that he had great difficulty in moving. He therefore went back into bed, and presently felt himself becoming insensible. On waking in the morning, he was paralysed in the left side of the body, and the excretions had passed under him. He could not put out his tongue, had great difficulty in speaking, and the pupils were very large. Five days afterwards he gradually began to lose power in the right side as well, and at the end of ten days there was complete right hemiplegia, with loss of speech. All this time, he did not lose his consciousness, but suffered terribly from headache and giddiness. He was put on iodide of potassium, and within a month from the beginning of the illness commenced to improve. The speech returned, and he recovered a degree of motive power, more especially in the right side. He soon got sufficiently well to be invalided and sent home, and bore the journey fairly well. Since then, he has been off and on better and worse, and now presents the following symptoms.

He is of spare habit, and has a sallow complexion. There is no pain in the head, and the giddiness, which was most distressing at the earlier period of the complaint, has left him. Cranial percussion shows no particular tenderness anywhere. The intellectual faculties, which are naturally acute, seem perfectly normal. It is true that the patient complains of his memory having become worse since the attack, yet he is able to remember a variety of incidents of his somewhat chequered career without an apparent effort. His temper is calm; yet he is often moved to tears from sheer nervous exhaustion. He sleeps well without sedatives. The peculiar condition which Kussmaul has called anarthria, in contradistinction to aphasia, is markedly present; although, as the patient is able to speak, it should be called *dys*arthria rather than *an*arthria. The patient does not experience any difficulty in expressing his thoughts or forming his sentences; he is never at a loss for a word, nor does he ever substitute one for another; but he has the greatest difficulty in articulation, and the efforts he has to make for pronouncing words are so great as to exhaust him in a short time. He speaks very slowly, in a faltering tone, pauses between the different syllables and words, and the voice is husky.

This peculiarity of speech is intimately connected with the condition of the tongue, which appears wasted, and is moved with difficulty. The patient cannot protrude it beyond the edge of the teeth, and moves it only with much trouble from one part of the cavity of the mouth to another. It is, however, perfectly straight and not tremulous. The faradic and voltaic current, applied directly to the tongue, cause a decided sensation, the former one of pricking and vibration, and the latter a metallic taste and a feeling of heat, but the tongue does not move very well under the influence of either current. There is a good deal of difficulty in eating, not so much in the act of mastication, which is performed by the muscles under the influence of the fifth nerve, as in moving the food inside the mouth and forming the bolus, which is done by the tongue under the influence of the hypoglossus nerve.

The senses of smell, sight, taste, and hearing, show no deviation from health. The third, fourth, and sixth nerves are likewise healthy, as the eyes can be moved in all directions. There has never been double vision or strabismus; and the pupils, which are somewhat large, contract and dilate fairly well by light and shade. The sensation in the skin and the mucous membranes of the face is quite normal.

Bilateral paralysis of the lower branches of the portio dura is another marked symptom. This nerve and the muscles supplied by it offer some impediment to examination, on account of a profuse growth of beard; yet the following particulars were ascertained. The upper branches of the nerve are acting as well as ever, and have never shown loss of power at any period of the disease. The patient is able to frown, close the eyes, and blow his nose; but he is utterly unable to purse up his mouth and whistle. When he attempts to do so, it is seen that both lips are unable to act, while in an ordinary case of facial palsy only one side is deficient in this manner. Faradisation and galvanisation of the nerve cause the usual muscular movements. On applying faradism locally to the individual muscles, it appears that the upper muscles respond well to the current, while those above the lips and chin answer more sluggishly. There is no pathological increase of galvano-muscular excitability (degeneration-reaction, Erb, wasting-test, Althaus). There is some difficulty of swallowing, which, in the absence of any lesion of the glosso-pharyngeal and pneumogastric nerve, must be put down to the affections of the hypoglossus and portio dura.

The head can be well moved in all directions, showing that the spinal accessory nerve has not participated in the affection. The patient has, however, great loss of power in moving the body, and at an earlier period in the history of the case could not sit up at all. At present, he has difficulty in raising himself from the horizontal position, and cannot turn over in bed, so that in the morning he is found to occupy the same position as he did when put to bed in the evening.

All four extremities are in a state of paresis, which is more marked in the right than in the left side, and more in the lower than in the upper extremities. The right arm is very powerless, and has been weaker than the left since the gunshot-injury received in 1857. Thus, while the patient can squeeze the dynamometer up to 55 with the left hand, he only brings it as far as 31 with the right. He cannot put the right hand to his forehead or the back of the neck; and this is not owing to muscular contraction, but purely to paralysis. He has also much difficulty in using his fingers for eating, dressing, etc., buttoning being particularly troublesome, yet he can write a letter fairly well, although he is a long time about it. He can move the left arm pretty well in all directions, but there is no strength in any of the different sets of muscles of this limb. The legs are very powerless, from the hips downwards, the right being at present the worse of the two. He can only just lift the feet from the ground, but cannot cross one leg over the other, and cannot get up from a chair or walk a single step without assistance. The galvanic and faradic response of the muscles and nerves of the extremities is normal. Their temperature is also normal; and, although the patient is altogether thin, there is no wasting of muscles.

On testing the sensibility, it is found that there is no anæsthesia anywhere, but a somewhat considerable degree of hyperalgesia. Touching or squeezing the limbs is painful, and even more so the tapping of tendons, when this is done for the purpose of exciting reflex phenomena. Reflex excitability is enormously increased, not so much in the mucous membranes and skin as in the tendons; for reflex movements may be elicited from giving a tap to almost any tendon. In that of the rectus femoris, the effect is particularly violent, and speedily passes into "spinal epilepsy". Any muscular exertion is also liable to be followed by uncontrollable tremor, more especially in the lower extremities. The tremor there passes often into clonic convulsions, and the patient (according to his own saying) sometimes stamps the ground so violently "as to nearly bring the house down".

The appetite is fair, tongue clean, digestion easy, the action of the bowels sluggish, but controlled by mild aperients; pulse feeble, compressible, of low tension, 80 per minute; respiration occasionally sighing; there is a kind of gasping as for breath, although the patient does not suffer from dyspnœa, and the movement seems to be purely one of increased reflex excitability. The urine contains neither albumen nor sugar, and no excess of phosphates or urea. The action of the bladder is uncertain, there being sometimes difficulty in emptying the viscus, while at other times the desire for this is so suddenly experienced that the patient, whose fingers are clumsy, cannot quickly enough unbutton his trousers to prevent involuntary evacuation. Incontinence of the fæces has only rarely occurred. Nocturnal emissions of semen, however, are frequent, and followed by great general prostration.

REMARKS.—Regarding the nature of the lesion, Dr. Althaus has pronounced against hæmorrhage, embolism, and tumour, and for thrombosis and consecutive necrobiotic softening. In hæmorrhage and embolism, the onset of the symptoms is sudden; moreover, embolism does, for anatomical reasons, not occur in that artery to which the symptoms point as the seat of the lesion. In tumour, again, the symptoms come on much more slowly than they did in the present instance, one motor and sensory path after another becoming affected; while, where the tumour grows very slowly, and does not actually destroy the nervous matter, but merely pushes it aside, no paralysis at all may be present as long as the continuity of the fibres remains uninterrupted. A sudden lesion has different effects from one which is slowly produced, just as sudden anæmia of the pons and medulla will cause epileptic convulsions in an animal, while these are absent when such anæmia is more slowly produced.

Concerning the seat of the lesion, Dr. Althaus had no hesitation in saying that it must be in the basilar artery, involving softening of the pons Varolii. Thrombosis of this vessel is known to occur after constitutional syphilis, and of this the patient had suffered a few years before the occurrence of the paralytic seizure. Considering that he was hardly thirty-nine at the time of the attack, non-specific thrombosis appeared very improbable. The extreme cold and fatigue to which the patient was exposed acted probably as the exciting cause simply. That the artery plugged was the basilar, and the softening affected the pons, is conclusively shown by the simultaneous occurrence of paralysis of the portio dura and the hyoglossus, with hemiplegia. This combination of symptoms does not appear in softening of the central ganglia, or other parts of the brain. Softening of the pons on one side only is not unfrequent, and is shown to exist by Gubler's "alternate paralysis" of the limbs and the portio dura, the extremities being paralysed on the side opposite to the lesion, and the portio dura on the same side with it. It is most probable that this condition existed in the present case at the commencement, when the left side only was affected; but, as the disease soon afterwards spread to the other side of the pons, it appears now impossible to determine whether it really was so. The same holds good for the hypoglossus, which, in unilateral pontine softening, is also alternately paralysed with the limbs. The tongue is then deviated to the paralysed side, while, in the present case of bilateral hypoglossal paralysis, it appeared to be straight. The fifth and sixth nerve have occasionally been found alternately paralysed in pontine softening, but had escaped in this instance, which need not surprise us, since there is such a number of centres and conducting paths in the pons Varolii that, according to the precise locality of the lesion, the symptoms may vary to a considerable extent. As the paths for the conduction of sensation are situated in the external fibres, and the paths for the conduction of motion in the internal fibres of the pons, the more precise seat of the disease in the present case would appear to be in the centre of the pons, extending transversely for some distance to the right and left side, leaving the external portion of it on both sides untouched; for, while there was paralysis of motion in all four extremities, there was no anæsthesia anywhere.

The patient is being treated by bark, iodide of potassium, and the constant voltaic current.

LIVERPOOL LYING-IN HOSPITAL.

A CASE OF ADDISON'S DISEASE.

(Under the care of Mr. R. A. H. WOOD.)

[FOR the notes of this case, we are indebted to Mr. HENRY GORST, House-Surgeon.]

E. C., aged 30, a small spare-made woman, always enjoyed good health, and had a good family history. She had been married seven years, but never been pregnant. Nine months ago, she noticed her face becoming of a yellowish-brown colour; this at first was most marked at the angles of the mouth and over the nose, but soon became equally distinct over the whole face. At this time, she considered herself in good health; the discoloration became gradually darker for the next four or five months. She first came under our notice on June 2nd, 1879, when she became an out-patient of the hospital, the catamenia having ceased for three years; she was also troubled with irritability of the stomach, vomiting occurring occasionally, but not every day. On vaginal examination, we found a retroverted uterus; for a time, a Greenhalgh's pessary relieved her trouble. In less than a fortnight, however, she returned, complaining of having had frequent attacks of sickness. On examination, it was found that the pessary was not effective in retaining the uterus in good position; therefore, in addition, an intra-uterine vulcanite stem was introduced. These for a time acted well, and the sickness was undoubtedly relieved, so that we thought the vomiting was only sympathetic, depending on the uterine trouble. Her apparent improvement, however, was only temporary; she attended at the dispensary from time to time; the sickness became more constant; she was suffering much from general weakness. She was, therefore, admitted into the hospital, on September 1st, under the care of Mr. Wood.

On admission, her face presented the appearance of a person very much burnt from exposure to the sun; the discoloration was equally distinct over the whole face, and not anywhere in patches; there was no discoloration over any other part of the body. There were great debility and weakness, and loss of appetite; the pulse was very small and feeble, about 90. She had an anxious expression of countenance; the tongue was clean, but rather dry; temperature 97°-98°. The urine was natural in quantity and colour, and contained no albumen nor sugar. The sounds of the heart and lungs were healthy. Hepatic and splenic dulness were normal. She had pain in the back, neuralgic pains in the legs, stiffness and pain in the arms, so that for one week she was unable to bend the elbows. There was no abdominal pain or fulness, not even tenderness on pressure. She vomited very frequently; everything taken was rejected, occasionally remaining in the stomach as long as an hour, but generally a much shorter time, before vomiting took place. Tonics were given, and mustard poultices applied to the epigastrium, but with little relief to the vomiting; the bowels were confined, and were relieved by simple enemata. On September 6th, the vomiting was incessant. A mixture composed of bicarbonate of soda, bismuth, and hydrocyanic acid, in effervescence with citric acid, was prescribed; but this was generally rejected. A few days later, everything, even small quantities of milk and lime-water, being vomited; nutrient enemata were administered every four hours, and all medicines stopped. From this time, she gradually grew worse; the pulse became more feeble and quicker (100 to 120 occasionally); it could not be felt at the wrist; the temperature remained the same (97°-98°); the tongue became dry and cracked; she complained much of thirst, to relieve which, ice and small quantities of milk, brandy, and lime-water, were given, but were almost invariably immediately rejected. When food was not given by the mouth, no vomiting or retching took place. The discoloration of the face did not change in the least from the time when she came under our notice (sixteen weeks ago), nor did it extend over any other part of the body. Death occurred gradually, the patient becoming weaker and the heart feebler daily; muttering delirium came on thirty-six hours before death, which occurred early on September 24th.

Post Mortem Examination, thirty-six hours after death.—Rigor mortis was present. The body was considerably emaciated. The face was deeply discoloured; the rest of the cutaneous surface was of natural colour. With the exception of the suprarenal capsules, all the internal organs, including the stomach, were found to be free from disease. The following report of the condition of the capsules is by Mr. Paul, pathologist to the Royal Infirmary. The suprarenal capsules were each of them considerably above normal size; the right being about six times, and the left about four times, as large as usual. On section, they consisted entirely of a tough yellowish-white caseous matter made up of large irregular nodules separated by a little connective tissue. The microscope showed the usual ill-defined structure of caseous substances, amongst which a good deal of swollen fibrous elements could be recognised, and several small deeply stained foci of still further degeneration. The connective tissue separating the nodules was vascular and infiltrated with small cells. Just within the capsule, amongst the small cell-infiltration, were a quantity of cells, which, from their appearance and arrangement, seemed to constitute the remnant of the glandular structure.

THE state of discord at Guy's Hospital is still unchanged. A further meeting of the medical staff took place last Monday evening.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 28th, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Pigmented Mole.—Dr. R. CROCKER exhibited a case of large pigmented mole, with papillæ much hypertrophied.

Congenital Disease of the Scalp.—Dr. CROCKER read the report of the committee appointed to investigate this case, which was shown by Dr. Crocker early in the session. The committee, having seen the case, and having, owing to the child's subsequent death, had the opportunity of examining some of the affected skin, had arrived at the following conclusions. The disease had not materially altered in size or development since birth. Though the family history afforded no corroboration, there was some evidence in the child of congenital syphilis. That no connection between the lesion and syphilis was, however, demonstrable. The microscope showed diminution in the size of the papillæ, absence of hair-bulbs and sweat-structures, and increase of the fibrous tissue of the corium, bands of which passed between the lobes of the sebaceous glands, and sometimes completely separated them from the rest of the gland, while in other cases the lobes were still connected together, but fibrous septa passed up between them and produced a distinct racemose appearance. The glands, as a whole, were abnormally large. The committee thought that this might perhaps be due to an intra-uterine inflammation of the corium, which led to a proliferation of the fibrous tissue, atrophy of the hair-bulbs and sweat-structures, and development of fibrous septa between the lobes of the sebaceous glands. Whether this inflammation was specific or not, there was not sufficient evidence to show.

Keloid.—Dr. GOODHART presented the report of the committee appointed to consider the occurrence of a case of keloid. The report stated that the committee considered the case exhibited at the Society to be correctly designated keloid, the tumours presenting all the characters of the disease. The patient had been twice examined by all the members of the committee at an interval of five months, and frequently in addition by Dr. Goodhart. As a result of the varied observations, the committee concluded that the keloid growths were all slowly changing and disappearing. The committee drew up a series of questions to guide them in gleaning information as to the nature, duration, etc., of keloid, and the results were detailed at considerable length. The conclusion arrived at was to the effect that the great majority of cases of keloid met with clinically originated in scars. The cases recorded as spontaneous could not be disproved, but it was possible that some of them, like other recorded cases, might have originated in minute scars; and the committee purposed, therefore, to regard it as a disease of scar-tissue, and to discard altogether such terms as true and false keloid. They were, however, of opinion that it was possible that there were conditions which might morphologically be allied to keloid, and which were more deeply placed. It did not appear that any marked differences could be maintained between keloid proper and syphilitic keloid. When present in syphilitic scars, it was only less well pronounced than when occurring in simple scars. Other observations followed upon the duration of keloid, and some interesting cases not hitherto recorded were presented in the report. They concluded by referring to the pain of keloid, the manner of its appearance, and the time of life at which it most often appeared.

Acute Hysterical Vomiting of Ten Months' Duration caused by Displacement of the Uterus.—Dr. GRAILY HEWITT read notes of this case, which was related as a typical and extreme instance of an affection not uncommon in gynæcological practice. The patient was a lady aged 20. She had always been very active, but not accustomed to take food in fair quantity—much the reverse. Menstruation, before the onset of the illness, had been irregular. The present illness dated from February 1879, ten months prior to treatment. Since that date, there had been a gradually increasing severe and constant sickness. She had now for some time been unable to retain food in the stomach, and took only a small quantity of koumiss. Menstruation had entirely ceased for the ten months. There was very extensive emaciation. She believed she had lost four stones in weight during the past year. She had no sleep; all attempts to walk produced exaggeration of the symptoms; the weakness was very great. Her previous medical attendant had, it was stated, surmised existence of uterine displacement. On admission in December 1879, she was constantly sick; the pulse was very feeble; there was a commencing bedsore over the sacrum. The uterus was low down in the pelvis, much swollen, and in a condition of acute anteversion, with considerable flexion; the uterus wide from side to side. The sickness was considered due to this displacement. Later on, it was elicited that just before the sickness had begun, the patient had jumped from a height of six feet, and felt sick after it. Probably the uterus was displaced by this leap. A friend of the patient took the same leap, and was also made sick; but laid up for it and recovered, whereas this patient did not. Nutrient enemata were ordered to be given thrice daily. The patient was ordered to be placed in the knee and elbow position every hour for two or three minutes. At the end of the week, there was improvement; the sound was now used, and the uterus elevated; there was slight temporary increase of sickness, then much improvement. A cradle pessary at the end of a fortnight was introduced, and had since been retained undisturbed. After this time, food began to be tolerated by the stomach; sickness was entirely gone at the end of the third week. Afterwards, improvement became rapid; appetite, sleep, and general condition were all good. The pulse changed from 50 to 80. After the fourth week, the patient was literally ravenous. Seven weeks after admission, she was discharged. Her weight increased two stones during this time. Menstruation had since returned. Her general health, and strength, and activity were quite restored. The uterus was weak at the time of the leap. It became severely displaced. The displacement set up, in a reflex way, sickness. Reposition of the uterus at once relieved the sickness.

Acquired Hypertrophy of One Limb.—Mr. CLUTTON read notes of this case. A boy, aged 11, came to the out-patient room of St. Thomas's Hospital, in October last, complaining that the whole of the right leg was swollen. It had been noticed for two months, and was unaccompanied by any pain; but he found that he was rather lame. His mother was quite sure that previously there was no difference between the two limbs, and that he was never lame before. He had had no illness except scarlet fever at six years of age. This was not followed by any weakness of limb or lameness. On stripping the patient's trunk, so that he stood quite naked, it at once appeared that the left lower extremity was in proportion to the rest of the body, the normal limb, while the right seemed too large. This was especially apparent on comparing the two sides of the body; the left arm and leg seemed in natural proportions to one another, while the right leg seemed too large for the corresponding arm; the two arms were evidently of the same size. As he stood, there was slight lordosis and tilting of the pelvis. The measurements taken by Mr. Acland showed that the right limb was longer than the left by one inch, of which the thigh and leg took about equal shares. The circumference of the two limbs showed a corresponding disproportion, the right being from one to three inches larger than the left. There was no difference in the measurements of the two upper extremities. The temperature, taken frequently with the surface-thermometer, showed that the right limb was always from one to three degrees higher than the left. Dr. Kilner examined the patient, and found that to the interrupted current the limbs reacted equally and normally; but the right always offered less resistance than the left to the continued current. Mr. Clutton remarked that, if this were a congenital case, it would not be so remarkable as he believed it to be, for he believed the deformity to be an acquired one. To be congenital, one must disbelieve both the mother and the boy, or believe them to have been themselves deceived. They could have no object in the former, and the latter one could hardly conceive possible on looking at the two limbs; and the fact that he had only lately become lame corroborated their statements. The muscles alone were not enlarged, as in pseudo-hypertrophic paralysis; but every structure entering into the formation of the limb seemed to have gone a stage further in its development than the rest of the body. The limb itself seemed to possess its normal relative proportions when viewed alone; but, considered with reference to the rest of the body, it certainly appeared abnormally large. It would be of great interest to note whether this increased rapidity of growth on the part of one limb over the rest continued as the boy developed. He was still only eleven years of age. Should any change occur, Mr. Clutton hoped to be able to bring him again before the Society.—Mr. BRYANT asked if the temperature of the lower limbs had been compared with that of the rest of the body. He thought the case was one of lessened temperature in the smaller limb.—The PRESIDENT appointed Messrs. Bryant, Clutton, Marsh, and Morris, as a committee to examine and report upon the case.—Mr. HUTCHINSON considered the arguments adduced by Mr. Clutton in opposition to the congenital origin of the deformity were not conclusive. The child might have had at birth an unappreciable difference in the size of the limb, or the arteries supplying it increased in size. A small amount of articular disease would produce an increase of temperature of the joint and its surroundings.—Dr. BRISTOWE was of Mr. Hutchinson's opinion. When he had seen the case some months since, the leg was natural in all points excepting its size.—Dr. GLOVER thought the committee should also investigate the question of the general inferiority in size of the right limb compared with that of the left, as recognised by American surgeons. His views respecting the points of Mr. Clutton's case agreed with those of the two previous speakers.—Mr. CLUTTON had not taken the temperature of other parts of the body, and had thought it enough to examine the muscular action of the left limb for the sake of comparison. Possibly, the case was one of congenital origin, but it was not so regarded by the patient's mother; who, however, could not know the size of the nutrient arteries.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 5TH, 1880.

SIR JOSEPH FAYRER K.C.S.I., M.D., President, in the Chair.

Removal in Cholera.—Surgeon-General JOHN MURRAY, M.D., read a paper on this subject. He began by submitting to the Society some statistical tables, showing the prevalence of cholera in India since the beginning of the present century. These tables showed that cholera scarcely appeared in the medical returns whence the tables were drawn until 1817, when it broke out in Bengal and spread over India. Since then, the disease had continued to appear at irregular intervals in all the provinces until 1862, but from that date there had been a marked diminution. Dr. Murray's experience of the benefits of removal commenced while in charge of the Central Prison at Agra. In 1851, there was a severe outbreak of cholera among the native prisoners, beginning on July 25th, and ending on August 29th. On July 30th, half the prisoners were removed into the ancient buildings at Secundra. From July 30th, there were 54 attacks and 16 deaths, whilst among the 1,500 who remained in the jail, there were 199 cases and 59 deaths. In 1856, there was another very severe outbreak in the same prison. The first case occurred among the prisoners on May 30th, and the last on July 20th. There were 50 cases and 21 deaths up to June 12th. On June 13th, 600 men were moved into old buildings in the vicinity, 500 into tents on June 28th, and 700 more on July 3rd. Out of a strength of 3,704, there were were 349 cases in the jail, and 215 among those sent out. In 1860, a severe outbreak of cholera occurred at Agra, in which the European troops suffered much, and Dr. Murray moved them into tents and into the old buildings which had been occupied by the prisoners in 1851 and 1856. These buildings were not, therefore, available for the prisoners who were attacked on August 8th, and their removal into tents was delayed by rain until August 25th. In these sixteen days, there were 754 cases and 158 deaths. On August 26th, there were 30 cases; but in the following seven days, there were only 38, and only 3 more up to September 8th, when the disease disappeared. Out of a strength of 2,063, there were 807 admissions and 172 deaths. In 1861, another severe outbreak occurred in the same jail on July 7th, and lasted till August 10th; 850 of the prisoners were moved into tents on July 10th, after 50 cases had occurred, and there had been 16 deaths. There were only 4 cases in the camp. Out of a strength of 2,959, there were 173 cases and 65 deaths. The measures of removal which he had advised, and thus carried out, were guided by the principle that cholera is communicable from the sick to the healthy, either directly or indirectly, by vitiating the locality in which they reside, and the remedy consisted in removing the healthy from that locality, and isolating the sick. This was effected in the most thorough manner by removal into tents, and afterwards by frequent changes of ground to short distances, until the disease entirely disappeared. The epidemic of 1861 was very general in the north-west provinces and Punjaub, and the mortality amongst the European troops extremely high. A special commission was, therefore, appointed by Government to investigate and report on the subject, of which Mr. (now Sir John) Strachey was President. They made a minute and searching investigation, and the result was that they approved the measures of removal that had been adopted at Agra, and recommended the issue of regulations enforcing the same in future, on the appearance of similar epidemics amongst the European troops in India. These regulations were much objected to by several parties in the year which followed, and in 1868, a special commission was appointed at Simla to revise them, of which Dr. Murray was a member. The medical objections urged before the commission were, that removal was needless, as the disease was not contagious, and that it was dangerous, as living in tents during the hot and rainy seasons was likely to induce other diseases, as sunstroke, fever, and dysentery, which are as fatal as cholera, and to which the men are less liable in barracks. In answer to these objections, it was stated that no increase of sickness had hitherto been induced by removal, properly conducted; that, on the contrary, there had in many cases been a decided improvement in the health of the men, and their health subsequently had been better than that of the men who had remained in cantonments. Objections were also urged against removal by the military authorities. They did not approve of the responsibility of taking this measure resting with the medical officer; but, as it is a medical question, it was thought that that department was best qualified to form an opinion of its necessity. Other objections to removal were of great practical importance. It gave great and serious trouble to the executive officers who had to make the arrangements. The officers with the regiments suffered much inconvenience and discomfort in moving from their houses into tents in the hot and rainy reasons. The liability to be recalled from their temporary leave was also disagreeable. These were doubtless all real objections, but, when the measure in question was for the benefit of the men, they must be set aside. The expense of removal was certainly considerable, but that was more than compensated by the saving of life among the soldiers. A return of the instances of removal that had taken place the previous year, 1867, showed that, out of 198, in 118 instances there had been no case of cholera after removal, and in only 59 instances had there been any case after the fourth day. The deliberations of the commission were followed by the Revised Regulations, published on August 3rd, 1870, and to be found in the sixth annual report of the Sanitary Commissioner with the Government of India. They differed in no essential point from those previously issued, but were more complete in details, which further experience had proved to be useful. These details comprehended the strictest attention to all sanitary and hygienic rules; enforced the selection of high well drained ground for camp, to be if possible near trees; and if the troops could be taken across the river, the advantage would be great.

The German Medical Commissioners' Report of the Plague during the Winter of 1878 *and* 1879 *in Russian Astrakhan.*—Mr. J. LAWRENCE HAMILTON read this paper. The official German medical report was mainly the work of the celebrated authority and expert Dr. August Hirsch of Berlin, whose general account, especially of the etiology or causation of the plague in Russian Astrakhan, widely differed from the previously published remarks, views, and theories of the British Commissioners, Surgeon-Major Colville and Dr. Payne. 1. Between the commencement of October 1878 and the close of January 1879, a malignant disease prevailed in the province of Russian Astrakhan, visiting six districts, only in one of which an epidemic spreading took place. In all, 450 to 500 deaths occurred. 2. This highly contagious disease presented the distinctive characters of oriental plague, sometimes attended with buboes and sometimes without buboes. 3. The origin of this attack of the plague was not certain. Plague was neither indigenous to, nor a native of, Astrakhan, where, until 1878, the plague had not appeared since 1808. Nor could it be proved that the plague in Astrakhan had been imported from plague-stricken Resht in Persia, which suffered from an epidemic of plague during the winter of 1876 and 1877. Dr. Hirsch and his German colleagues attributed the outburst in Astrakhan to importation of infected effects from the Asiatic seat of war recently fought out between Russia and Turkey. The plague in Astrakhan was a further illustration of the difficulty, even after elaborate investigation, to trace out and to discover the origin of the plague. 4. Owing to the imperfect and faulty reports of the nature of the disease in Wetljanka (a town on the river Volga in Astrakhan), the Russian Government could not avail itself of preventative nor precautionary measures till the plague had attained its maximum intensity, and was already approaching towards its natural termination. Even then, the Russian executive was only prevailed upon to take up the matter after foreign nations and neighbouring powers had stopped the traffic from Astrakhan, and after medical experts had been sent by foreign powers to examine into and to investigate the plague in Astrakhan.

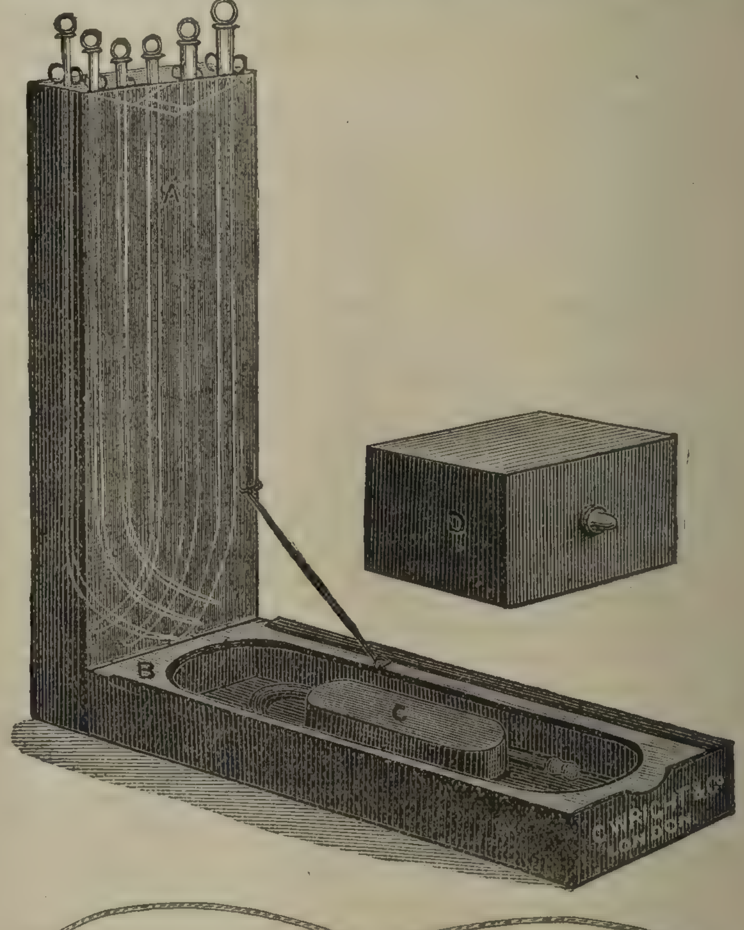
CHELTENHAM.—Dr. Wright calculates the death-rate of Cheltenham for 1879 as 15.55 per 1000; but inasmuch as he has excluded the deaths occurring in 1878 but not registered till 1879, the correct death-rate for the year would probably be somewhat higher than this figure. But little is said as to the mortality of the year, though the particulars of sanitary work are unusually full. From these latter, it would seem that Cheltenham is in several respects in a much more unwholesome condition than should be the case in a health-resort of such pretensions. Of the zymotic diseases, measles caused one death, diphtheria two, and typhoid fever no fewer than five deaths. Certain cases of small-pox which Dr. Wright records are interesting, as showing the advantages of hospital accommodation for infectious diseases. A young man, who had contracted small-pox in Kensington, came down to Cheltenham for his convalescence before he was free from contagion. The mother of a family that he visited caught the disease, but the case was not suspected at its onset, as the woman had her three children in bed with her, even after the eruption had appeared. The mother was sent to the Delancey Fever Hospital, and the father and children went into lodgings, when they were daily visited and narrowly watched. As soon as symptoms of the disease appeared, which happened in the father and one of the children, they were also sent to the hospital, where they all perfectly recovered, and the disease was completely arrested.

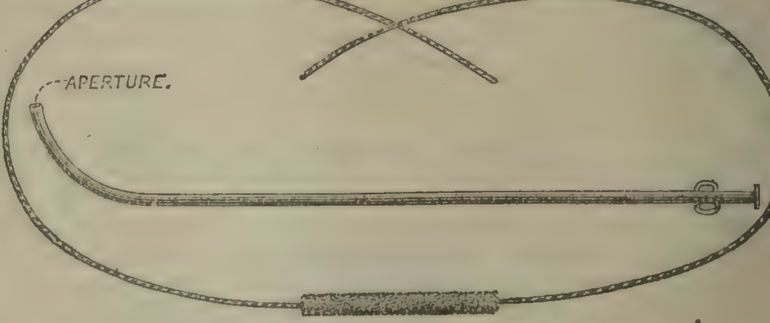
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW SURGICAL INSTRUMENTS.

By RICHARD DAVY, M.B., F.R.C.S., Surgeon to the Westminster Hospital.

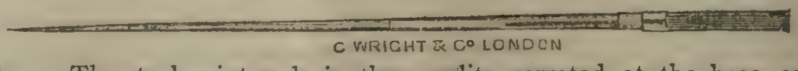
1. *Catheter Case.*—The diagram shows the case open. A is an oblong tin, open at the top, and capable of holding half-a-pint of warm water. Six silver catheters (with apertures at their tips) rest inside this tin. Each number of the catheters is marked legibly, so that the surgeon can select any *in situ*. The tin can be easily filled or emptied. B is a tin tray for holding soft bougies, catgut, and cleaning brushes. C is an oval box for plugs, pills, or suppositories. The cover of C acts as a small tray for oil or soap. D is the cover of the whole box, and contains within it a receptacle for oil, which can be cleanly expressed. If not in use, the steel wire which fixes the box open is depressed; the tray B folds on A; and the cover D caps both, leaving an oblong box (12½ × 3¼ × 2 inches), and weighing, when furnished, two and a quarter pounds.





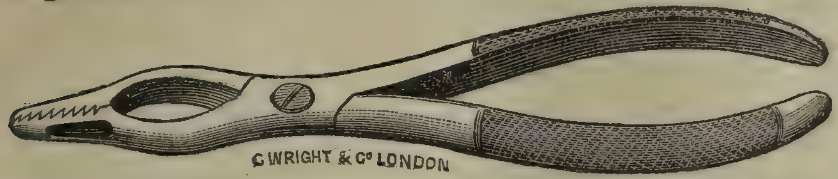
Specimen of Catheter and Cleaning-Brush.

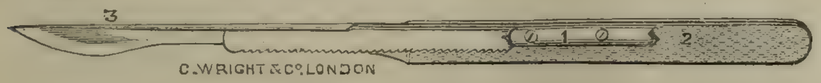
2. *Needle for Carrying Drainage-Tubes.*—I have found the needle represented very convenient for the insertion of India-rubber drainage-tubes. The steel point ends in three splits, serrated at the base, and uniting to grasp the tube by the pressure of a sliding ring. When



closed, the three splits at the eye of the needle (or its base) make a Y-shaped figure. I lately tapped an œdematous scrotum with this needle, and drew off one gallon two fluid ounces of serum at one sitting. The length of the needle is nine inches.

3. *Sharp-pointed Lion-Forceps.*—This slight modification of the late Sir William Fergusson's lion-forceps has the advantage of the surgeon being able to thrust the blades into cramped areas; I have used this pattern especially in my operations on club-foot; where the lion-forceps, by reason of their rounded blades, are inapplicable. The forceps here represented will hold hard or soft tissues.





Grooved Knife for the Reception of the Saw in Ogston's Operation.—I have experienced some difficulty in making the saw traverse the valvular wound into the knee-joint; but can now recommend this grooved knife; for I have used it in my last fourteen operations for genu valgum with advantage. 1. Rose's saw. 2. Handle of knife. 3. Groove in blade, at its back. The handles of the knife and saw are one-sided only, and alternately so.

These instruments have been made for me by Messrs. Wright and Co., 108, New Bond Street, W. The firm will gladly show them to any surgeon.

SELECTIONS FROM JOURNALS.

MEDICINE.

Subphrenic Pyopneumothorax and Abscesses.—Under the name of subphrenic pyopneumothorax, Dr. E. Leyden describes, in the *Zeitschrift für Klinische Medicin*, Band 1, cavities full of air and pus formed beneath the diaphragm, and extending more or less into the thoracic cavity so as to produce physical signs very closely resembling those of genuine pyopneumothorax. These abscesses may be formed either on the right or on the left side. The mechanism of the origin of these air-containing suppurating cavities is closely connected with a history of perforative peritonitis; they are most frequently the result of perforating ulcers of the stomach or duodenum. Their tendency, when left to themselves, is almost without exception towards death. It appears that they most frequently perforate the lung: but they may discharge in other ways. Perforation of the stomach or of the transverse colon may end favourably. Dr. Leyden's observations have shown him that the diagnosis of subphrenic pyopneumothorax may generally be made with certainty; and the diagnosis is of great practical importance, as life may be saved by operation. The following are, according to Leyden, the diagnostic characters of subphrenic pyopneumothorax. 1. The development of the disease is preceded by symptoms of general (perforative) peritonitis or discharges of pus by the bowel. 2. An exudation takes place in the lower part of the thorax (right or left) with symptoms of inflammation: cough and expectoration being absent, at least for a long time. 3. There are distinct symptoms of pyopneumothorax in the lower part of the chest: viz., complete resonance on percussion as far as the border of the ribs, and dulness in the lower and posterior part: in this region the respiratory murmur and vocal fremitus are absent, and metallic tinkling is heard on simultaneous auscultation and percussion: the succussion sound is distinct. 4. At the same time, examination shows that the lung above is unaffected, and that it descends during deep inspiration. Beneath the clavicle, there is vesicular respiratory murmur; and the vocal fremitus reaches as far down as the third or fourth rib. On deeper inspiration, however, the normal respiratory murmur is heard as low down as the fourth or fifth rib; while at the same time all respiratory sound is sharply cut off below this limit. 5. The dulness on percussion, corresponding to the exudation, is rapidly and distinctly altered by changes in the position of the body; but the change is limited to the lower part of the chest (*i.e.*, beneath the diaphragm). 6. The signs of increased pressure in the pleural cavity are either absent or very indistinct. The corresponding half of the thorax is scarcely distended, the heart is but little pushed aside. On the other hand, the liver reaches as low down as the umbilicus or even lower. 7. In the further progress of the case, any doubt that may have existed as to the diagnosis may be removed by the sudden and abundant expectoration of ichorous pus, indicating perforation into the air-passages. 8, Finally, the diagnosis may be confirmed by manometric examination of the pleura. Pfuhl had already remarked, that, in puncture combined with the use of the manometer, when the cannula is in a cavity beneath the diaphragm, inspiration is attended with an increase, and expiration with a diminution of pressure; being the reverse of what occurs when the cannula lies in the pleura.—*Wiener Medicin. Wochenschrift*, May 15th.

Local Antiseptic Treatment of Small-pox.—Dr. Ernst Schwimmer of Buda-Pesth, having obtained no result from the internal administration of carbolic acid, salicylic acid, and thymol in small-pox, has tried the external use of carbolic acid and thymol. The formulæ which he employed were the following; a soft paste being made in each case. 1. Carbolic acid, 4 to 10 parts; olive oil, 40 parts; finely powdered prepared chalk, 60 parts. 2. Carbolic acid, 5 parts; olive oil, very pure starch, of each 40 parts. 3. Thymol, 2 parts; linseed oil, 40 parts; prepared chalk, 60 parts. His principal object was to prevent the disfigurement of the face as much as possible. For this purpose, when the patients were admitted into hospital and the presence of an eruption of intense or confluent variola on the face was ascertained, the paste was applied to the parts on a linen mask, in which openings were cut for the eyes, nose, and mouth. The greatest amount of success was obtained from the paste No. 1, which was used in 177 cases. Under its use, the drying of the pustules took place some days earlier than usual, and in several cases no great amount of suppuration occurred on the face. That it was the carbolic acid which produced this favourable result, the author considers proved, not only by the fact that other ointments had been used on previous occasions without effect, but also by the circumstance that carbolic acid could be detected in the developed pustules after the paste had been applied four days, and that the urine gave the characteristic reaction of carbolic acid. Dr. Schwimmer strongly recommends the local application of carbolic acid in variola.—*Deutsches Archiv für Klinische Medicin*, Band 25; and *Deutsche Medicin. Wochenschrift*, May 8th.

SURGERY.

Osteoplastic Resection of the Elbow-Joint.—Under this name, Dr. O. Völker describes, in the *Deutsche Zeitschrift für Chirurgie*, Band 12, a temporary resection of the olecranon, the object of which is to make the cavity of the elbow-joint freely accessible. He first performed the operation in a case of old imperfect lateral displacement of the left elbow-joint, in a boy thirteen years old. The head of the radius projected on the radial side, and the inner condyle of the humerus on the ulnar side. The joint was almost stiff; and sensation and motion were considerably impaired in the region of the ulnar nerve. Before operating, Dr. Völker made an attempt at reduction, but without success. Two parallel incisions were made along the sides of the olecranon, and were joined below by a transverse incision at the level of the articulating surface of the radius; the bone was then sawn through. The adhesions of the ends of the joint to one another were then divided, partly by a knife, partly by a blunt instrument; and the fore-arm could now be replaced. Two splinters of bone lying close to the ulnar nerve, and one which had become adherent to the supratrochlear fossa, were removed; the olecranon was then brought into its normal position. The articulating surface of the head of the radius, which projected a little, required removal. The wound was treated antiseptically, and healed without any other accident than the sloughing of a small piece of skin. Four weeks after the operation, passive movements were commenced; the joint could soon be bent beyond a right angle, and almost completely extended, by the voluntary action of the patient. Pronation and supination were quite free; and the disturbances of the ulnar nerve had altogether disappeared. The result of the operation was thus perfect restoration of the form and function of the joint. Dr. Völker believes that osteoplastic resection of the elbow is indicated in cases of irreducible dislocation (recent and old), of foreign bodies introduced into the joint, of broken-off pieces of articular cartilage and other substances lying free in the joint. He says that it is most important to restore the bony union of the olcranon with the ulna. Antiseptic treatment of the wound is indispensable; and cases in which the olecranon is not certainly intact, as well as most cases of caries, are not fitted for the operation.

The number of persons who die from small-pox is increasing daily in Paris. Statistics prove that 858 died in 1879, and not fewer than 1,038 in the four first months of 1880.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 12TH, 1880.

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EDUCATIONAL PRESSURE.

Is it true that complaints of overwork may safely be brought against many of the teachers of the present day? that parents are becoming alarmed at the weight of "educational pressure", more especially in our girls' schools? and that serious injury is being done by unduly forcing the mind at the expense of the body? These are some of the problems discussed in a recent correspondence which attracted deservedly much public and professional attention, and at two meetings of the Social Science Association, where a large mass of important evidence was furnished by authorities whose opinions are worthy of every respect. We cannot divest ourselves of the conviction, that this controversy partakes more or less of the nature of the well known periodical social scare. The British public have been trained to look for the first symptoms of this interesting phenomenon with as much regularity as for the birds in spring or the fruits in their seasons; and they can diagnose pretty accurately the kind of letter which will inevitably bring forth an abundant crop of replies. Athletics, alcohol, tobacco, and other topics innumerable have thus been severally passed in review; and whilst the actual addition to our knowledge in some instances has been *nil*, in others, the clearing away from our mental horizon of the mist of ignorance and superstition has enabled us to see clearly the everlasting hand of knowledge and truth. Mr. Skey's well-known attack, for instance, on boating produced the admirable work of Dr. Morgan on University oars; and the discussion to which we are about to direct the attention of our readers will be of real service to the community at large, by showing them that evils may, and perhaps do, exist, and by pointing out what the proper remedies are; so that, if some of the elements of "scare" were present, they were combined so effectually with good sound sense and solid reasoning as to justify the social authorities most amply in devoting two evenings to the consideration of a topic of vital importance to the future welfare and development of our female population.

Mrs. Garrett-Anderson, by special request, provided the text in a very temperate and able paper on "Educational Pressure", in which she spoke entirely of girls' schools, and largely from her own experience, giving it as her decided opinion that parents' fears have some justification, and that there is a real danger of overwork even in the best day-schools. Teachers are apt to think that accusations of this sort are merely a doctor's "fad"; but she is convinced of their truth, and believes that much of the evil arises from too long morning work, an unbroken attendance to lessons from 9 to 1, often in bad air, being a prolonged mental strain of an almost necessarily injurious nature. If work begin at 9.30, it ought to stop at 12, and be followed by something more substantial than the bun or biscuit type of lunch, which she looks upon as a positive evil, or by coffee, which may actually do harm by unduly stimulating nervous energy. Dinner should be at 12.45 or 1 o'clock, preceded by rest and followed by play; and school-work should then be resumed until 5 o'clock, after which tea and home-preparation may usefully fill up the interval until bedtime at 8.30 or 9. Playgrounds ought to be provided in every school. Games should be carefully encouraged. We should aim at reducing examinations and the amount of writing in home-work; and, above all, the idea must be discouraged that it is necessary to complete the education at the age of eighteen.

The speakers who followed were not much impressed with the idea of actual overwork, believing that unsanitary conditions often prevailed, which might render almost any mental effort oppressive, and that the forcing system might even do good by counteracting sloth and indifference. It is most requisite that teachers should make allowance for physical incapacity; that girls should not be compelled to take up all the subjects included in their curricula, but that, following the example of Mr. Thring at Uppingham, the various details of work should be adapted to the mental powers of the learner. Mr. Roundell said, most truly, that much of the fault lay in the lamentable deficiency of girls' education before they entered the higher schools; and objected very specially to over-examination and the excess of competition in recent times.

On May 24th, the proceedings were opened by Miss Buss, who pointed out, in an interesting paper founded on her own special experience of twenty years, the many advantages of the day-school system, and the success it had met with in her hands. A double attendance every day is open to many natural objections; and the plan of dining at school, as suggested by Mrs. Garrett-Anderson, could only be managed with difficulty on a large scale, and would lead to serious expense. Four hours' work, in her experience, was not too much at one time, if sufficiently varied, if the attention were not strained too long on one subject, and if a change of room and air could be effected every forty minutes. Playgrounds were often of little use to girls in wet and muddy weather; but it would be a great boon if every school could be provided with some sort of covered ground, where recreation of an active sort might be regularly pursued irrespectively of the season. Mrs. Garrett-Anderson objected to gymnastics as injuriously exhausting nerve-force, but all she insisted on was a series of gentle extension movements carried on to the accompaniment of sparkling dance-music, and serving to stretch the cramped muscles and direct the thoughts from actual book-work.

A variety of other papers from ladies actively engaged in school-work followed, the general concurrence of opinion being that, if proper arrangements were made, the dangers of probable excess of educational pressure had been greatly exaggerated.

Having now heard the evidence, what is the summing-up to be? Is overwork a real and tangible evil, not a mere doctor's bogey, constructed out of half-sided observation of the facts—a sort of convenient formula for expressing a specific physical condition which it is perhaps difficult to explain in any other way? Is the system itself at fault, or is it an abuse of the machinery, probably a diminution of food, or good air, or play, rather than an excess of real mental strain? We believe that we may best get at the truth by pursuing this suggestive line of thought, and by agreeing that work, or what is by a process of assumption often called overwork, is seldom injurious if carried out under perfectly favourable conditions. Let us see what the principal deviations from these most generally are.

In the best appointed boys' schools, evidence goes to show that the evils now under consideration rarely if ever exist. The hours of study are long, but are judiciously broken up by change of various kinds. The food is varied and abundant, the sleeping accommodation excellent, and, above all, the lads are thoroughly happy and interested in their work and play. But take the other side of the picture, and study the class of children coming under the care of the out-patient physician; pale and feeble and depressed, badly fed and clothed and housed, and surrounded by all the most depressing influences of sanitary neglect. School-work is often too much for these badly nourished brains; and Mrs. Garrett-Anderson and others have noted the weary look, the headache and the languor, and the sleepless nights, which only too surely indicate that the feeble mental powers are being unduly overtaxed. Girls' schools of the less sensibly managed type may be said to hold a middle place between these two extremes. The female constitution is naturally less strongly developed than the male, and the mind at that early age is perhaps more acute, certainly more impressionable; and the exciting influence of stimulating, and probably competitive work, is not balanced or counteracted by any definite system of play. Cases such as these, far as they deviate from the healthy physiological standard from which we ought to derive any real judicial opinion on the question of overwork, form food for anxious reflection; and it is our duty to try to see how far they are frequent, how far preventable, and how far their occasional occurrence justifies any widespread feeling of uneasiness or apprehension.

Taking girls' day-schools, which have principally come under discussion, we must first inquire whether four hours' continuous morning work is too much. The answer must be entirely regulated by the arrangements adopted at each particular institution. No one would for a moment maintain that sitting for that period at a stretch in the same air, without mental or physical change, can be defended for a moment; but, at Miss Buss's admirably conducted establishment, we had the opportunity of seeing how much can be compressed into the forenoon with real benefit to the pupils. Each lesson lasts forty minutes, and is conducted in a different room, free ventilation being effected between each change, and the girls being drafted from time to time into an adjoining hall, whose spacious proportions make it at all times pure and fresh. A light luncheon is provided about 11 o'clock; and, although this is of the "bun and biscuit" type, so abhorrent to Mrs. Garrett-Anderson, we hold that this is amply sufficient in view of an early dinner, more especially if milk be provided, or coffee, which can only act injuriously as a nerve-stimulant when taken in excess. The occasional gymnastics, which are conducted in a specially constructed hall, are, to our thinking, entirely beneficial as supplying a judicious variety of muscular action, and, being both brief and gentle, they can in no degree tend to that exhaustion of nervous energy which is the principal drawback of more vigorously conducted athletics. Girls, as a rule, have no faculty for that organised play in which boys delight; and, even were special grounds for the purpose provided, it would be difficult to establish anything which would counteract the bad effects of purposeless hanging about in cold or damp weather. No doubt improvements in this respect will come in time, and we will eventually see girls playing cricket, or fives, or racquets, with the same skill which has made them such formidable competitors of the other sex in lawn-tennis; but all these changes necessarily imply great expense, and we must in the meantime cut our coat according to our cloth.

One of the great faults of modern education undoubtedly is to run things too much into one uniform groove, to treat every constitution and mind as though it were exactly alike, and to compel every child to come up to the same uniform standard all round. Our large public schools have seen the necessity for alteration in this respect, and allow boys some little latitude in their learning. The establishment of "modern sides" has been of good service in this direction, and, above all, the permission to choose natural science in place of the dreary Latin verse-making which used to be the great abhorrence of so many boys. But, in schools of smaller size and resource, there are many difficulties in the way of observing various capabilities and idiosyncracies, and treating each case entirely on its own merits. The study of hereditary tendencies is of most importance, for every medical man well knows the dangers of unduly pressing forward the too precocious offspring of tubercular parents, or the many evils following in the wake of school-work vigorously presented to those of marked neurotic tendencies. An official doctor ought, if possible, to be attached to every school, his main duty being to investigate the family history of each child, and to ascertain by frequent inspection that no undue strain is having an evil influence on body or mind. All sanitary arrangements must be under his control, and he must see that the ventilation is good, the arrangements for seats and light satisfactory, that the food is regular and abundant, that due intervals for play are allowed, and that any excess of evening work must specially be discouraged. Working hand in hand with the educational authorities, he must put his veto on too frequent and stringent examinations, and see that the competitive element is not permitted to cause worry or discouragement, the teaching being clear and practical, and partaking as little as possible of the old-fashioned lecture type. All this may seem to be Utopian; but it is only by striving at a high ideal that we can attain to real improvement of the proper type; and it is only by the strenuous and repeated enforcement of sound principles that we can hope to see education conducted on a really satisfactory sanitary basis. Training is as necessary for mental as for active bodily work; and we cannot expect the feeble and badly nourished brain to compete on equal terms with better balanced and supported nervous organisations, or to go through the same amount of work. We must look to the wider spread of physiological knowledge to remove many of those evils which result not from overwork, but from foolish and defective rules and arrangements; and we believe that Mrs. Garrett-Anderson, and those who followed her, have done a real service, by pointing out the faults and suggesting the remedies.

RECENT STUDIES IN THERAPEUTICS.

V.—Gelseminum Sempervirens *(continued)*.

The action of gelseminum on man, when given in doses sufficient to produce decided toxic effects, is very remarkable. To induce characteristic symptoms, it is usually necessary to give as much as a drachm of the tincture hourly for four hours; although sometimes, especially in the case of young and delicate women, marked effects are produced by much smaller doses. The first thing noticed is usually pain in the brows, followed by giddiness, pain in the eyeballs, and dimness of sight. There is distinct ptosis, the patient being quite unable, by the greatest possible effort, to open his eyes fully. Diplopia is another constant symptom, the sufferer being often much puzzled at seeing everything double. After a time, a feeling of weakness is experienced in the lower extremities, the patient staggering and swaying from side to side as he walks. Gelseminum produces the symptoms of intoxication without any incoherence or mental excitement, and hospital patients sometimes complain that they "have been made drunk without any of the pleasure of it". If the administration of the medicine be now discontinued, the symptoms quickly pass away. When the administration of the drug is continued, or larger doses have been given, more serious symptoms speedily ensue, and, unless active steps be taken, a fatal issue may result, death being caused by paralysis of the respiratory centre.

There are several cases of poisoning by gelseminum on record, many of them having occurred from the use of the drug by irregular practitioners in America. About twenty years ago, considerable attention was attracted to the subject in consequence of a charge brought against a doctor in the States of having committed the crime of manslaughter, by unlawfully killing his coloured servant "by administering to her a certain noxious substance, to wit, gelseminum sempervirens". At the inquest, the accused stated that, shortly before supper, he gave the deceased, with her full consent, about fifteen drops of tincture of gelseminum, "with the view of investigating its physiological action". He continued: "After supper, I went upstairs to the second storey front room, and sat down at my writing-table. When I was thus engaged, Margaret hurries upstairs from the basement, comes into my room breathing very hard, exhibiting in her countenance intense fear, and exclaiming, 'Oh, doctor, I'm dying! I'm dying! Do something for me!' She attempted to lie down upon the bed, but her head barely touched the pillow when she sprang up, convulsively calling out in a loud whisper, 'My breath! My breath!' She clapped her hands across her breast rapidly, and seemed unable to retain one position for more than a few minutes. She rallied for a few minutes, then struggled as if for breath, and cried out. Presently she was seized with excruciating pain in the chest. In a suffocative spasm, she sat down upon the floor, went into an apoplectic stupor, breathing hard, foaming freely at the mouth, and died within ten minutes of the onset of the spasm. From the time of her coming into the room to her death was less than half an hour, and she died within two hours of taking the medicine." At the trial, an attempt was made to prove that the deceased had died from angina pectoris, or fatty degeneration of the heart; and, after a good deal of contradictory evidence had been heard, a verdict of "not guilty" was returned.

From an analysis of twelve cases of gelseminum-poisoning collected by Ringer and Murrell, it would appear that the minimum fatal dose of the liquid extract is about two drachms, this quantity having caused the death of a man aged 24 in three hours and a half. There is little or no evidence to show what would be the fatal dose of an ordinary tincture of gelseminum. It would appear that twenty minims given in a quinine mixture killed a boy three years old, but we have no information as to the strength of this tincture, and, for aught we know, it may have been a very strong one, practically equal to the liquid extract. At all events, in the case of adults, twenty minims of a one-in-four tincture may be given every three hours, or even oftener, with perfect safety.

There is no known antidote to gelseminum sempervirens. As we have already stated, it causes death by paralysing the respiratory centre. It is stated, on the authority of Bezold and Bloebaum, that large doses of atropia stimulate this centre and accelerate breathing; so that, on theoretical grounds, belladonna should be the antidote, although we are not aware of its having been employed for this purpose. In many cases, brandy and carbonate of ammonia have been administered, evidently on the supposition that the heart was at fault; but there is no real indication for their employment, as the heart-trouble is secondary to the disturbance of respiration. It is stated, too, that quinine has been used with success as an antidote, but on what grounds it is difficult to say. The only treatment on which absolute reliance could be placed would be the maintenance of artificial respiration, until the poison had been eliminated from the system. As this procedure might have to be continued for some hours, it would be necessary to obtain relays of people to afford the requisite assistance. Hot-water bottles or hot bricks should be applied to the feet, and the surface should be rubbed with some stimulating liniment, such as hartshorn and oil. In fatal cases, death generally ensues in about two hours. It is probable that, in the slighter forms of gelseminum paralysis, the interrupted current applied to the limbs would do good, but it would not be safe to rely on it for one moment if the respiratory centre were involved and the patient in danger of being asphyxiated.

Unfortunately, we have at present no officinal preparation of gelseminum. In the United States *Pharmacopœia*, there is a fluid-extract, each ounce of which represents an ounce of the root. No statement is made as to the dose of this preparation, and it should be employed with considerable caution. In this country, the tincture is generally used, but for this we have no recognised formula. From a comparison of the formulæ used at the principal London hospitals, we find that a tincture of the strength of two ounces of the dried root to sixteen or twenty ounces of proof spirit is in pretty general use. The dose of this is from fifteen to twenty minims. The so-called gelsemin is prepared either by evaporating the tincture or by precipitating it with water. It consists of the resin of the root with a varying proportion of the active principle.

Gelseminum has been used with considerable success in America in the treatment of ague and other forms of fever. It is the active principle of an once popular nostrum called the "electrical febrifuge". It probably possesses the power of reducing febrile temperatures, although, as Ringer and Murrell have shown, it in no way affects the temperature of health either in man or the lower animals.

Of late, gelseminum has been extensively used as a remedy for neuralgia of the fifth nerve, it apparently succeeding best when the pain depends on decayed teeth. From ten to fifteen minims of the tincture, given every two or three hours in a little water, will usually speedily effect a cure. It has also been used with success in intercostal neuralgia. The great objection to its use in these affections is that it is often necessary to induce the physiological action of the drug before relief is obtained. It is a noteworthy circumstance that, in healthy people brought fully under the influence of the drug, no loss of sensibility can be detected over the region of the gums or lower jaw.

In 1876, Dr. Ringer and Dr. Murrell called attention to the curious fact that, whilst the internal administration of gelseminum contracts the pupil, its local application dilates it. The tincture and American liquid dilate the pupil only slightly, and give rise to considerable irritation and smarting. A one-in-twenty solution of the alkaloid causes hardly any irritation, and is convenient for use. Mr. Tweedy and Dr. Macnaughton Jones have shown that, with solutions of moderate strength, the pupil slowly dilates, and attains its maximum in from fifty to seventy minutes, and, when once fully dilated, remains fixed and immobile for many hours. No sooner does the pupil begin to dilate, than evidences of impaired power of accommodation appear, and, by the time dilatation is complete, the normal range of accommodation is shortened by several inches. Accommodation is, however, only fully abolished when the solution is frequently reapplied. Gelsemina has one great advantage over atropia; sufficient accommodation returns within ten or twelve hours to enable ordinary newspaper print to be read with ease, whilst, with atropia, eight or ten days will elapse before accommodation returns to its normal state. Another point is that the mistiness and confusion of vision when the eye is fully under the influence of gelsemina is nothing like so great as when atropia is applied. Gelseminum is undoubtedly destined to play an important part in the therapeutics of diseases of the eye.

From its action on the respiratory centre, gelseminum has been found of service in the treatment of certain varieties of cough. It answers best when, in consequence of an over-excitability of the respiratory centre, a small secretion of mucus suffices to set up violent and frequent cough. In the Pharmacopœia of the Chest Hospital, there is a gelseminum mixture, containing fifteen minims of the tincture to an ounce of infusion of cascarilla. Dr. Bartholow of Philadelphia has witnessed excellent results from the use of gelseminum in acute inflammation of the lungs and pleura. In pneumonia, he considers that it affords rest by diminishing the activity of the respiratory function; it allays cough, he says, and, by depressing the cardiac movements, lessens stasis of the pulmonary capillaries, and lowers the temperature. He gives it in medium doses every two hours, so as to maintain a constant effect within the limits of safety. It favours, when exhibited in this way, the occurrence of an early crisis, and assists in the production of one critical evacuation—the sweat. He advises a similar mode of treatment in pleurisy, and also recommends it for whooping-cough, spasmodic asthma, and the nervous cough of hysterical subjects. Gelseminum is frequently given in certain pelvic disorders of women, and it has been found of great service in the treatment of ovarian neuralgia. The pains of dysmenorrhœa are alleviated by it, and there is evidence to show that it relieves "after-pains". By some, it is held to be of service in quieting the "nagging" pains of the first stage of labour. It is highly spoken of by American writers for "inflammatory and irritable conditions of infantile life". In the treatment of "horrors" from alcoholic excess, and for simple wakefulness and the insomnia resulting from over-excitement or excessive physical exertion, it has obtained a high reputation.

PAYING PATIENTS AT ST. THOMAS'S HOSPITAL.

It has been an open secret for the last few years, that the balance at the bankers against the treasurer of St. Thomas's Hospital was growing larger and larger. The present agricultural depression has necessarily increased the difficulties incident to this condition of affairs; and unless something is speedily done to increase the available income, additional wards will have to be closed. In this state of affairs, two schemes have been under consideration; one to admit remunerative and poor paying patients to the hospital wards, as proposed by the treasurer, Mr. Alderman Stone; and the other (Mr. Simon's), to appeal to the public for £100,000, to put the finances of St. Thomas's Hospital upon a sound basis. In an able memorandum, Mr. Simon showed, nearly a year ago, that the treasurer's scheme partook of the nature of a speculation, "well adapted for private enterprise, but utterly uncongenial with the present functions of the governors of the hospital". The treasurer's scheme would, in Mr. Simon's opinion, be "a most serious addition to the responsibilities of the Grand Committee", as, by adopting it, they would "undertake to supervise the working of a new and necessarily uncertain commercial venture. The Committee have no adequate means of judging what demand there exists on the part of the public for such accommodation as the scheme would supply, and are not entitled to assume that the proposed accommodation would be freely marketable at the proposed price."

Mr. Simon is eminently qualified to give an opinion on such a question as this; and his memorandum so damped the enthusiasm of the treasurer and his supporters, that it was determined to refer the scheme in the first instance to the Charity Commissioners for their sanction and approval. After a necessary delay, this approval has been obtained, and it has been decided to open No. 2 Block of St. Thomas's as a pay hospital, to be known henceforth as "St. Thomas's Home for the Reception and Treatment of Paying Patients". It is further proposed that the patients in the general wards who are willing or who may be able to pay for the cost of their maintenance, shall be expected to do so. These arrangements will be carried out before the end of the present year, and will, it is believed, be based upon the new principles of hospital management so earnestly advocated by Mr. Burdett, the founder of the Home Hospital Association for Paying Patients.

Briefly, Mr. Stone's scheme, as embodied in the report of the House Committee which Mr. Simon has so cogently criticised, is as follows. It combines the reception of remunerative paying patients and the admission of patients who shall be willing to pay the whole or any part of the actual cost of their maintenance in hospital. To effect this twofold object, two of the four wards in block No. 2, viz., Alice and Adelaide, will be fitted up, at a cost not exceeding £500, for the reception of remunerative paying patients, whilst the remaining wards in the same wing will still form part of the general hospital; but "such a number of poor paying patients as are equal to the capacity of the last two mentioned wards will be received into the general ordinary wards throughout the hospital, upon their agreeing to pay the actual cost incident to their reception and treatment" (estimated at three shillings a-day, or one guinea per week). St. Thomas's Home will be placed in charge of a resident medical officer and an assistant "of superior medical and surgical qualifications, and aged not less than thirty years, who should neither be holding other office in the hospital or school, nor be engaged in any outside business". It will be a fundamental rule for all patients coming into St. Thomas's Home, that they will for their ordinary medical and surgical treatment be patients of the resident medical officer, and of him exclusively. It will be understood, however, that whilst he is their ordinary attendant or general practitioner, they can at any time, if they so choose, employ at their own cost, as consultant with him under the ordinary usages of consultation practice, and subject to the rules of the establishment, any legally qualified practitioner, whether attached to the hospital or not, whom they may individually prefer. It is estimated that the medical superintendent and his assistant will receive from £450 to £600 a year between them as salary for their services.

The treasurer's main object being to make money for the hospital, he has very carefully considered what rate each remunerative paying patient in St. Thomas's Home should be charged. On this principle, the charge for each patient, in a ward containing twenty beds and upwards, will be eight shillings per day, or nearly £3 per week; whilst twelve shillings per day, or four guineas a week, will be charged for single rooms. The Home Hospitals Association, which will open Fitzroy House, Fitzroy Square, on the 1st of July next, do not intend to charge so high a rate as this, considering the additional advantages they are enabled to offer to the public and the profession. It, therefore, remains to be seen how many people will be inclined to seek admission to a large ward in St. Thomas's Hospital, when they can procure, for an equal or smaller payment, greater privacy and comfort at the Home Hospital. In our opinion, the charges are much too high for the advantages offered; and, unless they can be reduced to something like one-half their present amount, the chances of success will, we fear, be small. Even at the proposed rates, the income available, if two-thirds of the beds are constantly occupied, will be under £1,000 *per annum.*

On the other hand, the poor paying patients will be charged a guinea a week; they will be received into the general wards of the hospital as vacancies occur, and will be treated in the same way as ordinary patients are at present. This involves the attendance of the honorary staff without remuneration for their services; and we are not surprised to hear that it is likely to be resisted by them. It is manifestly impossible that the medical staff can take any other course, and we shall watch the further development of the scheme with considerable interest.

A MEETING of the General Medical Council has been summoned for Wednesday, July 7th, at 2 P.M. An elaborate scheme of business has been drawn up, but we do not see anything in it of much importance or interest.

AT the Oxford Commemoration on Wednesday last, the honorary degree of D.C.L. was conferred on Sir Alexander Grant, Principal of the University of Edinburgh, and Joseph Lister, F.R.S., Professor of Clinical Surgery in King's College, London.

ON Tuesday, June 15th, a special discussion will be held at a meeting of the Epidemiological Society, at University College, Gower Street, at 8 P.M., on papers on Continued Fever in India, read during the session.

MR. E. C. STIRLING has resigned his post of assistant-surgeon to St. George's Hospital. His object in doing so is, we understand, to return to Australia, where he has estates, and to practise there.

THE fatal cases of measles in Plymouth, which had been 2 and 10 in the two previous weeks, were 9 last week, making 318 that have been recorded since the middle of November last.

THE Wigan Chemists' and Druggists' Association has passed a resolution requesting the Council of the Pharmaceutical Association to take such steps as might be necessary to repeal that portion of the Act of 1868 which excludes patent medicines from its operation.

The inquiry concerning the discovery of the body of a woman in Harley Street has been adjourned for a week. Mr. Pepper of St. Mary's Hospital said he had come to the conclusion that the body was that of a woman, whose age was certainly over thirty, perhaps over forty. The probable cause of death was a stab just above the heart. Death could not have been from suicide. The woman had, he thought, been dead about two years.

THE *Reale Istituto Lombardo di Scienze e Lettere* at Milan offers the following prizes: For a treatise on Miasma and Contagions, to be awarded on May 31st, 1881, a prize of 1,500 *lire* (£60), and a gold medal worth 500 *lire.* For determining by experiments whether the virulent principle of hydrophobia is an organised germ or not, a prize of 6,000 *lire* (£240), to be awarded on February 28th, 1882. For a descriptive treatise on the Motor-centres of the Periphery of the Brain, the sum of 2,000 *lire* (£80), to be awarded on April 1st, 1881. For the illustration by new research of the etiology of cretinism and idiotism, 2,000 *lire*, to be awarded on May 31st, 1882. Further details can be obtained by application to the Secretary of the Institution.

A TOUCHING ceremony was recently performed at Versailles, when a monument, erected to the memory of the late Professor Hirtz in the Jewish cemetery there, was inaugurated in the presence of a large number of his friends and colleagues. The monument was due to the exertions of a private Committee of friends, with whom some of Hirtz's former pupils had spontaneously associated themselves. M. H. Roger, in the name of the Paris Academy of Medicine, pronounced an eloquent eulogium on his late colleague; and M. Lereboullet enlarged on the services he had rendered to science. Dr. Thorens, who had been delegated by Professor Hirtz's former pupils to be present on the occasion, spoke a few words with an emotion which showed the affection he bore to his former teacher.

SIR JOHN LUBBOCK ON THE DENTAL BILL.

SIR JOHN LUBBOCK, the new member for the University of London, on Wednesday last week, in addressing his constituents, made the following statement, which was omitted in the reports of his speech.

"Since I have had the honour of a seat in Parliament, I have taken a considerable interest in medical legislation, and have succeeded in passing Bills for the Royal College of Surgeons of England, the Apothecaries' Society, and the Dental Reform Association. The latter Bill has recently been subject to some adverse criticism, arising, I think, from misapprehension. It has been said that the Bill gave persons who had not a proper qualification the right to call themselves surgeon-dentists. This is quite a mistake. The Bill did nothing of the sort. It is also said that under the Bill persons were able to place themselves on the *Register* without sufficient qualification. This, however, is confined to those who, before the passing of the Bill, were actively engaged in dentistry. The clause was drawn on the lines of the Medical Act (1858), and Parliament would never consent to deprive persons actually practising of their right to do so. The Bill was brought to me by Mr. Tomes, President of the Dental Reform Association; was supported almost unanimously by the dental profession, and had been submitted to and approved by the three great surgical colleges. It is true that, as you have been told, some eminent medical men expressed themselves as opposed to the Bill, but I think you will be surprised to hear that several of them afterwards withdrew their opposition, and having looked further into the matter, expressed their full approval of the Bill, and hoped it would become law. Under these circumstances, I think you will agree with me, that having the sanction of the recognised medical authorities, I was fully justified in considering that I acted in accordance with the wishes of the medical profession. I know that there are still some few who object to the Bill, but even doctors will, we know, differ. I believe their objections are founded on misapprehension, and hope that eventually they will themselves admit that it has worked well."

THE NIGHTINGALE FUND.

THE annual assemblage of the pupil-nurses in the Training School for Nurses, established by this institution at St. Thomas's Hospital, was held on May 27th, at the hospital, in the "Nightingale Home". Addresses were delivered to the assembled pupil-nurses (thirty-five in number) by Sir Harry Verney, Bart., M.P., the Chairman of the Nightingale Fund; Mr. W. Bowman, F.R.S., and Mr. W. Rathbone, members of the Council; and also by the Treasurer of St. Thomas's Hospital, Mr. Alderman Stone; and the Secretary of the Council, Mr. Henry Bonham Carter. There were present also Dr. Bristowe, Dr. Ord, Mr. Croft, and Dr. Bernays, members of the medical staff; the Chaplain; Mrs. Wardroper, the Matron of the Hospital and Lady-Superintendent of the Nursing School; Miss Crossland, the "Home Sister"; besides several visitors, among whom were Lady Verney; the Rev. Dacre Craven and Mrs. Craven; Mr. and Mrs. Robert Wigram; Miss Williams, the Matron of St. Mary's Hospital; Miss Machin, the Matron of St. Bartholomew's Hospital; as well as most of the ward-sisters of St. Thomas's Hospital, and many other ladies and nurses who had received their training in the School. Mr. Bowman gave expression to the thanks of the Council for the services rendered to the School by members of the medical and surgical staff, in delivering lectures and clinical instruction to the pupil-nurses. Dr. Bristowe (in responding) took occasion to advert, in terms of high praise, to the manner in which the nursing of the hospital had always been conducted under the matron, Mrs. Wardroper, and to the cordial feeling which existed between the members of the medical and surgical staff and the nursing staff. The Treasurer also bore testimony to the advantage which the hospital derived from the school, and to the harmonious action of the authorities of the hospital and the school. The school has been now established for twenty years, having been opened in the old hospital, near London Bridge, in June 1860. Up to the end of last year, a total of five hundred and sixty-five candidates had been admitted, and three hundred and sixty-two probationer-nurses had left the school as certified nurses, after completing a year's training, and had taken service in some public hospital or infirmary, or otherwise, in nursing the sick poor.

THE LATE MR. MESSENGER BRADLEY.

AT a meeting of the Manchester Medical Society on June 2nd, Dr. David Little, President, in the chair, the President alluded in feeling terms to the lamented death of Mr. Bradley, which had occurred since the last meeting, and proposed: "That this Society has heard with the most unfeigned sorrow of the sudden death of Mr. S. M. Bradley, whose loss will be keenly felt, not only by the Society, to whose interests he was warmly attached, and to the debates at which his sparkling eloquence always made him a welcome contributor, but also by the whole profession, of which he was acknowledged to be one of the highest ornaments". This resolution was seconded by Dr. Wm. Roberts, and supported by Mr. Whitehead (representing the surgical staff of the Royal Infirmary, the senior members of which were, to their great regret, unavoidably prevented from being present), and Dr. Lloyd Roberts, and unanimously adopted. Dr. Lloyd Roberts then proposed: "That the President, Mr. Whitehead, and the Honorary Secretary, be requested to prepare and forward to Mrs. Bradley, in the name of the Society, a letter expressing the profoundest sympathy of the Society with her in her sad bereavement, and its deep sense of the irreparable loss which it has itself sustained". This was seconded by Mr. Stocks, supported by Dr. Noble, Mr. Cullingworth, Dr. Simpson, Dr. Leech, and Dr. Meacham, and carried unanimously. It was then decided at once to adjourn the meeting by the unanimous vote of those present.

ST. JOHN'S AMBULANCE ASSOCIATION.

THE annual conference of lecturers and examiners of this association was held on June 2nd, at St. John's Gate, Clerkenwell; Dr. Sieveking, Physician to the Queen, presiding. Several gentlemen referred to the remarkable success of the movement, chiefly in consequence of the labours of Major Duncan on its behalf. A Subcommittee, consisting of Mr. Casson, Mr. Young, and three other gentlemen, to be chosen by the Ambulance Medical Committees of Westminster, St. Mary's, and Charing Cross Hospitals, was appointed to revise the late Surgeon-Major Shepherd's handbook, of which more than 15,000 copies have already been sold by the association. Other matters of detail were discussed.

THE PRIZES OF THE ROYAL COLLEGE OF SURGEONS.

IN admitting candidates to the membership of the College, it is the custom of the President, in congratulating them on their success, always to urge on them to continue in their good work, to seek the higher distinction of Fellow, and to compete for the collegiate triennial and Jacksonian prizes. Yet few avail themselves of the suggestion. How little ambition inspires the present generation is exhibited on reference to the Calendar of the College of Surgeons, where, under the head of "Prizes" in reply to practical subjects for competition, there frequently appear the words "No dissertation received"; or, in other cases, "No award". It is interesting to look down the list of those who have taken prizes, to see that many of them have subsequently distinguished themselves by being elected Presidents of the College, members of the Council, and of the Court and Board of Examiners. Among such have been Lawrence, Hodgson, Stanley, Curling, and Birkett, all of whom have been Presidents of the College; Swan, Stafford, Phillips, Callaway, Hulke, Wood, and Heath.

A NEW DEVELOPMENT OF CO-OPERATIVE STORES.

"THE People's Co-operative Store and General Aid Society" has recently issued its prospectus. Among other advantages, we read that "It is proposed to establish sick, benevolent, and burial funds; also a provident dispensary and savings bank, and purchasers can pay to these from the profits on their purchases, thus avoiding actual outlay". This is a new feature in co-operative stores, and we shall be glad to learn how it is to be carried out. "The rich", we are told, "by joining this company will have the prospect of a fair dividend, and will also be developing among the working classes sound principles of co-operation." It is obvious, therefore, that the company looks for its supporters among all grades of society, the rich as well as the lower and middle classes. If every ticket-holder and shareholder is to be invited to join the provident dispensary, the People's Co-operative Store is not likely to find much favour with the medical profession.

A MONSTROSITY OF THE SIAMESE-TWINS TYPE.

IN answer to inquiries, we have been kindly favoured by Dr. C. S. Thompson of Bideford with notes of this case for the benefit of our readers. He says: "The case is of interest as illustrating fœtal development—from an ovum containing a bipartite germ—and as showing the accommodation of nature in overcoming seemingly insurmountable mechanical difficulties to parturition. On the evening of May 30th, I was summoned to attend a woman in labour at Instow, North Devon. On arriving, I found the midwife had accomplished the delivery without any laceration of the maternal parts, and that the mother was the happy possessor of a twin of the type above alluded to. The attachment, commencing at the umbilicus, is continued to the ensiform cartilage, comprising both the integuments and cartilages of this region. The children, facing each other, are free from other deformity, and are both female. They present one lateral surface of greater length than the opposite; thus a transverse section of both bodies would be kidney-shaped. Their weight at birth was twelve pounds, and both crania are well developed. The spine of one child is somewhat more curved than that of the other, but otherwise they are similar, and have a fair claim to be considered good-looking children. They enjoy an independent individuality, one often being awake when the other is asleep; and, on irritating one, the other is unaffected, unless it occur in the immediate neighbourhood of the junction, when both resent interference. Digestion, circulation, and respiration are all separately performed; in fact, one child thrives, and is heartier in taking the bottle than her sister. The placenta, which required the introduction of the hand into the uterus for its removal, was of the natural size and appearance. The funis attached to one extremity contained the normal supply of vessels, and the children were contained in one bag of membranes. The midwife informed me that labour commenced naturally; one head presented—it was that of the child with the stronger spine—and was born; but, as it failed to advance further, she did her best, and cleared its legs, after which she became aware of the attachment. The abdomen of the second child presented, and she was able to hook down and clear its legs, and finally its head, and then recognised the extent of the difficulty she had overcome, and with what a happy result to the maternal parts it had been effected. I have this day, June 9th, seen the 'twins'. The mother is doing well, but is unable to nurse them at the breast, on account of the difficulty caused by their position. For some days, they were supplied with the mother's milk from a bottle; but, this proving insufficient, they were fed on cow's milk, diluted with one-third of water. Finding they still lost flesh, I have to-day ordered them to be fed on cow's milk slightly sweetened with white sugar, and to be enveloped in flannel saturated with cod-liver oil. In this way, I hope to add to their bodily heat, which is below normal, and aid nutrition. There appears but little chance of their ultimately surviving, and their frequent exposure to the gaze of the curious has undoubtedly lessened it. From examinations I have made, I should think there is vascular connection between them, of a fœtal type; a band being felt stretching subcutaneously from the liver of the one in the direction of that of the other. The mother is thirty-eight years of age, a well-formed woman, and has borne without misadventure four children previously to their birth, and can assign no cause for the present occurrence. The father, a labourer, is also healthy." Dr. Thompson says that he shall be pleased to furnish any further particulars that may require investigation, and will report progress of the case in the BRITISH MEDICAL JOURNAL.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

FOUR lectures on some of the surgical aspects of gout and rheumatism, and two lectures on the etiology of true leprosy, will be delivered in the theatre of the college, on Mondays, Wednesdays, and Fridays, at 4 P.M., commencing on Monday, June 14th, 1880, by Professor Jonathan Hutchinson, F.R.C.S. The following is the syllabus of the lectures.—*Lecture 1. General Pathology of Arthritic Diseases:* Introductory remarks and definitions of terms. (Arthritis. Gout. Rheumatism. Rheumatic Gout.) Importance of the subject in reference to surgical practice. Facts as to clinical history of arthritic maladies generally. Non-suppurative; painful; paroxysmal; prone to disappear and to relapse; much influenced by weather and season. Facts as to pathological anatomy. The synovial membrane. Vascular fringes. Pedunculated bodies. The cartilage—ulceration—absorption—fibrous hypertrophy and ossification—lips. The bones—induration—eburnation—absorption. Extensive softening of ligaments, etc. Dislocations. Anchylosis. Deposits of urate of soda in relation to other changes. Reasons for believing in the existence of an arthritic diathesis. Its relationship to the various maladies included.—*Lecture 2. The Various Influences which modify Arthritic Maladies:* Arthritic diseases in the lower animals. Influence of race and country. Age. (Senility.) Sex and associated influences. Diet. (Gout.) Climate. Season, weather, and occupation. Exposure to wet and cold. Temperament. Inherited diathesis. Modification of diathesis in transmission. Acquired diathesis. Hybridity of diathesis acquired in transmission. Influence of the genito-urinary system and of the abdominal organs (gonorrhœal rheumatism, etc.). Defect of nerve-tone. Diseases of the nervous system, and partial anæsthesia. Catarrhal influences.—*Lecture 3. The Clinical Subdivisions of the Arthritic Family:* Rheumatic fever—threatened, abortive, acute, subacute, protracted. Neurotic and Humoral theories of. A catarrhal neurosis. Chronic rheumatism of many joints. Crippling rheumatism (the Thomson type), an important subdivision of "rheumatic gout". Single-joint rheumatism—transitory, protracted, permanent. Hydrops articuli. Morbus arthriticus senilis. Importance of local causes. Its relation to other arthritic maladies. Gout and gouty rheumatism. The paroxysmal form. The chronic form. Gout without tophi. Nodosities of the digits. Nature of the association between "gout" and "rheumatism". Transmutation in transmission. Gout with rheumatic antecedents, and rheumatism with those of gout. Certain associated maladies occurring now with one, now with the other.—*Lecture 4. The Arthritic Diathesis in reference to other parts than Joints:* Iritis. Many varieties. Ophthalmitis. Retenitis hæmorrhagica. Neuritis. Sciatica. Lumbago. Muscular Rheumatism. Neuralgia. The relationship of gout and rheumatism respectively to these various maladies. Diseases of the skin in possible association with arthritic causation. Summary. Importance of the doctrine of the arthritic diathesis in respect to treatment and prevention. Conclusion.—*Lecture 5. The Cause of Leprosy:* General facts as to the nature of the disease. Its local prevalence. Its disappearance from some countries and persistence in others. Conditions favouring disappearance. Extremely varied conditions of climate, etc., under which it persists. Its sameness in all regions. Its heredity and non-contagiousness. Summary of argument in favour of its depending upon some article of ordinary food. The fish-hypothesis.—*Lecture 6. The Cause of Leprosy:* The fish-hypothesis stated in detail and explained. Facts in its support. The known variability of fish-food as to unwholesomeness. Prevalence of leprosy in cold climates in ratio with the use of fish as food, and in hot ones with its unwholesomeness. Disappearance of leprosy with advancing civilisation. No other hypothesis of cause tenable. Sameness of the malady implies sameness of cause. Objections to the fish-hypothesis answered. Summary and conclusion.

SMALL-POX IN LONDON.

THE deaths from small-pox, which had been 10 in each of the two preceding weeks, declined to 8 last week, of which 5 were recorded in the three Metropolitan Asylum Hospitals at Fulham, Homerton, and

Stockwell, and 3 in private dwelling-houses. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily increased from 186 to 218 during the three preceding weeks, further rose to 227 on Saturday last; 39 new cases were admitted to these hospitals during last week, against 36, 45, and 50 in the three previous weeks. The Highgate Small-pox Hospital contained 19 patients on Saturday last. Small-pox last week caused 18 deaths in Dublin, but not one in either of the nineteen large English provincial towns.

THE HOSPITAL FOR SKIN-DISEASES.

In the Queen's Bench Division of the High Court of Justice, on June 7th, before Mr. Justice Field and Mr. Justice Bowen, Mr. Montague Williams appeared to show cause against a rule *nisi* for a *certiorari* to remove two indictments against Dr. Hoggan and Mr. Tindall for libel from the Central Criminal Court into this court, for trial by a special jury. The alleged libel was contained in a series of letters written by Dr. Hoggan, and published originally in the *Standard* without comment. The letters were subsequently republished, with leading articles referring to them, in the *Medical Press and Circular*, of which the defendant, Mr. Tindall, was the proprietor. Serious reflections were contained in the letters in respect of the management and appropriation of the funds of St. John's Hospital for Diseases of the Skin, of which institution the prosecutor, Mr. Mercier, was secretary. Amongst the assertions made were that the management of the hospital had got into the hands of a ring, which had put between £2,000 and £3,000 into their pockets, and that the accounts of the hospital had been "cooked". The managers of the hospital were most anxious that no delay should be allowed to exist in the trial of the case. It would be at once tried if it were not removed; but if the *certiorari* were granted, the trial could not take place before November, and might not till next year. The contributions of the public had already greatly fallen off, and it was feared would become *nil* if the *certiorari* were granted. A Royal personage who was patron of the hospital had intimated that if the charges were not refuted he must cease to be patron. If the trial could take place in this division of the High Court without delay, the removal of the case would not be opposed. The Court held that the rule should be made absolute. It would be necessary to examine the books and accounts of the hospital, and otherwise the case was a proper one to be decided by a special jury.

THE OPENING OF LINCOLN'S INN FIELDS.

We deeply regret to find that the Committee of the Metropolitan Board of Works appointed to examine the question of opening the gardens of Lincoln's Inn Square to the public has reported that as the right to throw open the gardens could not be acquired without a special Act of Parliament, it was not for the Board to interfere. We can only hope that, as time rolls on, the trustees of the garden may become sufficiently awake to the real necessity for the concession requested to take steps to obtain the required Parliamentary sanction.

THE GENERAL LYING-IN HOSPITAL.

We have received from Dr. Clement Godson a copy of a letter which he has addressed to the committee of the General Lying-in Hospital, Lambeth, in which he informs them that, when he consented to take temporary charge of the hospital, pending the inquiry which is now taking place, he acted under the belief that he was doing a service to the physician who has resigned; he also thought it would be the means of the hospital not being closed against the poor patients who had been promised admission. He had since been informed that, not only was Dr. Hayes willing to continue his attendance until fresh physicians were appointed to the hospital at the close of the inquiry, but Dr. Moullin was also attached as physician to the out-patients; and as such, it was his part, when called upon to do so, to undertake the charge of the in-patients during any temporary absence of the in-patients' physicians. Under these circumstances, he has at once placed his resignation in the hands of the committee, and takes the opportunity of expressing his great regret if (under misapprehension) he has done an injustice to the physicians (Dr. Hayes and Dr. Fancourt Barnes), to whom he believed he was doing a service. We are, of course, of opinion that it is to be regretted that Dr. Godson did not take the obvious precaution of informing himself directly from the physicians who had retired of their views, before accepting the post. Had he done so, he would have spared himself the pain of being placed in a false position. He has, however, some excuse, in that he was applied to by Dr. Playfair; and he has made a very full *amende* in this letter, in which he announces his resignation; and it is but right that the credit of this should be freely accorded to him.

BIRMINGHAM HOSPITAL SATURDAY COLLECTION.

At a meeting of the distribution committee of the Hospital Saturday Collections at Birmingham it was announced that receipts on account of the present year's collection amounted to the sum of £3,745 3s. 1d., and it was decided that the sum of £3,500 should be divided among the medical charities of the town on the same principle as in previous distributions—viz., in proportion to the ordinary current expenditure in the last published report of each institution.

DR. GRANT BEY OF CAIRO.

We are glad to see that, by a decree dated May 17th, the rank of Miralaï or Bey has been conferred by the Khedive of Egypt on our countryman Dr. Grant of Cairo; and we feel assured that all his friends and patients, both among residents and visitors to Egypt, will join with us in congratulating him on his well deserved reward. We learn from the *Egyptian Gazette* that Dr. Grant went to Egypt in 1865 to assist the late lamented Dr. Ogilvie Bey at Alexandria, whose kindness of heart and genuine disinterestedness are still well remembered among his old friends and patients in Egypt. Dr. Grant was in Alexandria during the epidemic of cholera in 1865; and, for the services he then rendered, he subsequently received the Order of the Medjidieh. Since then, he has been in Government employ, and he has also an extensive private practice in Cairo. In 1875, Dr. Grant established a Home for invalids, with the hope of making Egypt more attractive as a health-resort, and we understand the advantages offered in this Home have been greatly appreciated by many who have placed themselves under his care. We are glad, says our contemporary, to see the services of an English medical man thus acknowledged by the Khedive, and trust his Excellency Dr. Grant Bey may long be spared to carry on his useful work. Dr. Grant's skill and kindness are by no means too highly spoken of in these observations. He has carried high the standard of professional honour, character, and skill in the country of his choice; and has deservedly earned the confidence and respect of his *confrères* both in Egypt and in Great Britain.

DRUGS IN EPILEPSY.

In the twenty-eighth annual report of the Derby County Lunatic Asylum which has just been published, Dr. Murray Lindsay records the results obtained from the administration of certain drugs — sumbul, bromide of potassium, zinc, arsenic, nitrite of amyl, and nitro-glycerin —to a group of confirmed epileptics. The trials made of these drugs have not been sufficiently numerous nor long continued to warrant any definite conclusions, but they have certainly afforded some interesting and suggestive results, and must encourage to further experiment. As might have been anticipated, Dr. Murray Lindsay has found that bromide of potassium is the remedy from which benefit is most surely and generally derived in chronic epileptics, and by which the frequency and severity of the fits is most certainly diminished. But, while according to this remedy the first place in the *rôle* of medicines useful in epilepsy, he assigns positions of subordinate but still material usefulness to nitrite of amyl and nitro-glycerin. The latter drug has not before been tried in epilepsy, and much interest therefore attaches to the provisional conclusion of Dr. Murray Lindsay and his colleague Dr. Thompson respecting it, that, while in some cases it decidedly aggravated the malady and increased the number of fits, in other cases—those in which there was marked anæmia—it conferred benefit and diminished the frequency and severity of the seizures. It was administered in doses of from one to ten minims of a one per cent. solution, and was pushed in some cases until its physiological effects, quickening of the pulse and throbbing of the arteries, were established. Even when taken continuously for three months, it had no ill effects upon the general health. Nitrite of amyl is, Dr. Murray Lindsay thinks, most useful when bromide of potassium fails to act. From sumbul, arsenic, and zinc, he obtained no appreciable effects.

THE JOHN HUNTER GOLD MEDAL.

THIS beautiful medal by Wyon has been struck at the Royal Mint for Dr. George Arthur Woods of Southport, to whom it was awarded by the Council of the Royal College of Surgeons of England for his essay on the third, fourth, and sixth nerves, as illustrated by observation and experiment. The dissertation, which is now the property of the College, is profusely illustrated. The subject is one to which the author has devoted considerable attention; and for a kindred one, we believe, he obtained the Astley Cooper prize of £300 in 1877. The medal is a very large one; it has on the obverse an excellent likeness of the illustrious man after whom it is called, struck in very bold relief, with the simple words "John Hunter"; on the reverse is a shield surrounded by a wreath of laurel, with the name of the prize, and of its recipient. This medal is the first which has been struck.

PRIZE ESSAY ON OPIUM-SMOKING.

IT will be seen by an advertisement which we publish in another column, that a benevolent gentleman offers a premium of £50 for the best essay on the medical means of counteracting the effects of opium-smoking in China. The President of the Royal College of Physicians in London, Dr. Sieveking (Senior Censor), and Sir J. Fayrer, have consented to act as adjudicators. We desire to add to the chances of the project securing attention by especially bringing it under the notice of our readers. The donor is a gentleman interested in China from having lived in the country.

INSANE CONVICTS.

IN the annual report of the Bristol City and County Lunatic Asylum, Dr. George Thompson, the Medical Superintendent, calls attention to the case of a male patient recently admitted, who, after undergoing a long term of imprisonment, was, on the expiration of his sentence, sent home to his widowed mother, in the charge of a warder, in a state of hopeless insanity. Dr. Thompson is of opinion that, had this man been sent to Broadmoor, and submitted to skilful treatment at the outset of his illness, he would have recovered; and he properly deprecates his detention in a convict prison when thus afflicted, involving the sacrifice of his reason. He has felt it his duty to communicate with the Secretary of State for the Home Department on the subject, who, it is to be hoped, will inquire fully into the effects of the present system, by which convicts, becoming insane, are kept in lunatic wards of convict prisons, under the care of medical officers with no special knowledge of insanity, and without the supervision of the Commissioners in Lunacy, which has been regarded as essential for all other classes of the insane.

THE HYGIENIC AND THERAPEUTIC RELATIONS OF HOUSE-PLANTS.

IN a paper read before the auxiliary department of Medicine in the University of Pennsylvania, and published in the *Philadelphia Medical Times* for May 8th, Dr. J. M. Anders discusses the question of the effect produced on the health of those who inhabit rooms in which plants are kept. It has generally hitherto been a popular belief that plants in a room are injurious, especially in the sleeping-room and sick-room. Dr. Anders has, however, arrived at a very different conclusion from his investigations. He regards the three functions of plant-life—the absorption of carbonic acid, the exhalation of oxygen, and the generation of ozone—as of inferior importance (for the present purpose) in comparison with transpiration, or the exhalation of moisture by the leaves; and he believes that we possess in plants a valuable means of increasing the humidity in rooms warmed by dry air. "In all instances in which artificial heat is used, but particularly in the case of dry air, as that furnished by furnaces, plants become, under proper regulations, hygienic agents of special value." Dr. Anders further says: "Of course, it is chiefly in diseases of a chronic nature, and particularly those affecting the lungs and air-passages, that we should expect to derive good results from such a measure as stocking the sick-room with growing plants, for it is in such cases that dry heat does the most harm. Still, they would prove beneficial also, in a less degree, in acute diseases, especially the continued fevers, and perhaps membranous croup, where moisture in the air is so desirable. House-plants have, however, a sphere of usefulness which is independent of atmospheric humidity. In nervous disorders of the functional class, such as melancholia and chlorosis, in diseases of the mind proper, and other allied conditions (excessive grief, ennui, etc.), where it is necessary to divert the mind or relieve tension, nothing is more efficient than the pleasing occupation of studying and caring for plants." It is, however, in phthisis that Dr. Anders expects the greatest success from plants as therapeutic agents. In order to obtain information bearing on the point, he asked his brother practitioners for a statement of their observations on the effect of plants on the sick. Almost universally, the reply was that their attention had never been directed to the subject. Dr. Hiram Corson, however, informed him that three of his brothers and a sister died of consumption, the disease having been inherited from the mother, who herself, her sisters, and brother, with other members of the family, all fell victims to the malady, which, however, in several instances did not appear until they were advanced in age. One of Dr. Corson's sisters was reported, when fifty years of age, to be in a hopeless state of tubercular consumption. She was, however, ardently fond of plants and flowers, and cultivated them both in her garden and in her room, to which she was confined during the winter. She lived—notwithstanding that threatening phthisical symptoms occurred every winter—to the age of eighty-five. To obtain further information, Dr. Anders questioned the gardeners and florists of Philadelphia. The general result was, that he found them to be in good health, except in cases where rheumatism or cold could be traced to exposure to cold and wet; and that, in some cases, the pursuit of gardening appeared to arrest consumption in persons of phthisical tendency, while the abandonment of the pursuit in other cases led to the development of the disease. He does not believe that the keeping of plants will cure confirmed phthisis, but that it may prolong life and ameliorate the distressing symptoms. In selecting plants for cultivation in rooms, the chief points to be borne in mind are these. 1. They should have soft thin leaves. 2. Plants having extensive leaf-surface are to be preferred. 3. Those which are highly scented should be avoided, as they often give rise to headache and other unpleasant symptoms. Dr. Anders recommends a room well stocked with plants as a complete and agreeable "health-resort", free from the inconveniences of travelling and the anxiety of separation from home. He has opened up a most interesting subject for investigation.

SMALL-POX IN THE UNITED STATES.

IN consequence of the introduction of small-pox into the United States, and its spread from one State to another, by immigrants from Europe, the National Board of Health, at its annual meeting held on the 4th to the 10th ultimo, passed a series of resolutions, stating their opinion that it is of the first importance that personal inspection of all immigrants should be made at the several ports which they enter, with a view to secure their proper vaccination before landing; directing their executive committee to ascertain what inspections and vaccinations are now made, and what additional rules and measures are required at the several ports at which immigrants arrive; and authorising the committee to take such steps in the matter as it may deem fit. This seems to us quite a step in the right direction.

PERITONITIS FROM SWINGING.

A CASE in which death was attributed to peritonitis caused by prolonged swinging has lately formed the subject of a coroner's inquest. A girl named Charlotte Lovelock, ten years of age, amused herself by swinging for an unusual length of time. She afterwards became unwell, and died. Death was the result of peritonitis, and had, according to the medical attendant, been caused by incessant swinging, the movement of the legs and body inducing the injury which brought on death. A verdict in accordance with the testimony was returned, the coroner remarking that he had never had a similar case before him, though he could quite understand that fatal results might attend constant swinging.

POISONING BY LINIMENT.

AN inquest was held at Guide, Blackburn, this week, touching the death of the wife of a stonemason named Gabbott, who succumbed to the effects of poison. She had suffered from a cough for some days, and her husband went to a doctor, who understood that she had rheumatism, and gave a bottle of liniment. A spoonful was administered by Gabbott, who thought it was medicine, and it proved fatal. The jury returned a verdict of death through misadventure, and expressed an opinion that no liniment containing poison should be sent out without the word "poison" on the bottle. It is strange, indeed, how often such fatal occurrences emphasise the necessity of this simple precaution, to which we have over and over again called attention, and yet how largely this precaution is neglected.

THE HANTS COUNTY ASYLUM.

IN the annual report of the Hants County Asylum for 1879, Dr. Manley, its able medical superintendent, comments on the strong tendency to the recurrence of the malady in those who have once suffered from insanity, and on the strong predisposition there is among the insane to impart the disease to their descendants. Forty per cent., he says, of the patients who have been discharged recovered from the asylum have been brought back on the return of their insanity; and in twenty-three per cent. of the patients admitted last year, the existence of a hereditary tendency to insanity was ascertained. The asylum now contains 822 beds. The Committee of Visiting Justices have just marked their appreciation of Dr. Manley's services, by increasing his salary from £750 to £800 *per annum*. The county, they observe in their report, is greatly indebted to him for the admirable condition of the asylum and for the comfort of the inmates.

DEATH UNDER CHLOROFORM.

AN inquest was held on May 31st, at the Radcliffe Infirmary, before Mr. Hussey, coroner, on the body of James Adcock, a waiter at Brasenose College, who died in the institution on the previous day while under the influence of chloroform. Mr. Hussey said he had been informed that the deceased met with some injury to his shoulder by a fall on Thursday last. Although in much pain, he did not apply to any medical man. He came to the Infirmary on Sunday, and a dislocation of his shoulder was detected. Chloroform, as is usual in such cases, was administered to relieve the pain during the necessary operation of putting the bone into place. The deceased died suddenly during the operation, or immediately afterwards. Mr. Edward Vachell, house-surgeon, stated that the deceased was admitted to the Infirmary about half-past nine o'clock in the morning. He was suffering from a dislocation of the left shoulder, and extensive bruising and effusion of blood of the chest, arm, and forearm. He was perfectly sensible, and said he had fallen down on Friday. He stated that he had fallen on some bricks, and did not attribute blame to anyone. He was sent to bed at once. It was not a simple case, and he waited until the arrival of Mr. Horatio Symonds. They succeeded in getting the bone replaced. Chloroform was administered by Mr. Vachell. Deceased breathed it. There was no difficulty in his taking it. The action of the heart suddenly failed. The usual restoratives were applied. The pulse stopped before his breath ceased. He had repeatedly given chloroform before, and he gave it on Sunday on a single fold of linen. The body had been examined that day. He found his opinion was right, that the shoulder was dislocated, evidently with great violence. There was great effusion of blood from the large vein of the armpit. There was no other wound. The heart was large, with much fat in the substance of it. The lungs were emphysematous; the liver was fatty. He had seen four persons previously die under chloroform. As far as he knew, no medical man could tell the state of deceased's heart when it was in the condition in which the deceased was. The work could have been done more easily if the deceased had come to the house at once. The cause of death was paralysis of the heart. The injuries were not sufficient to cause death without chloroform.

SCOTLAND.

OF the crew of the Dutch ship *Libraal*, which arrived at Greenock from Java last week, the captain reports that, during the voyage, ten men died from dysentery. The vessel had to be brought to this country mostly by Lascars.

HEALTH OF EDINBURGH AND GLASGOW.

IN Edinburgh, last week, the mortality decreased to 20 per 1,000. There were 16 deaths from zymotic diseases, of which only 3 occurred in the New Town. At the Fortnightly meeting of the Glasgow Police Board, on Monday, the medical officer's report showed that, during the fortnight ending May 24th, there were registered 522 deaths, as compared with 608 in the preceding fortnight; this gave a mortality equal to 23 per 1,000. Twenty-five deaths were from fever; 100 cases of fever were registered; 104 cases of measles, 57 of scarlet fever, 45 of whooping-cough, and 6 of diphtheria, were brought under the supervision of the department. There were at present in hospital at Belvidere 199 cases of enteric fever, 65 of scarlet fever, 20 of measles, 18 of typhus, and 7 of whooping-cough; in all, 316.

THE REGISTRAR-GENERAL'S REPORT.

FROM the return of births and deaths in the eight principal towns of Scotland, for a week ending Saturday, May 29th, it appears that the death-rate in the eight principal Scotch towns for the week ending Saturday, May 29th, 1880, was 22.8 per 1,000 of estimated population. This rate is 0.4 under that of the corresponding week of last year, and 0.9 under that for the previous week of the present year. The lowest mortality was recorded in Aberdeen, viz., 15.6 per 1,000; and the highest in Paisley, viz., 28.7 per 1,000. The mortality from the most familiar zymotic diseases was at a rate of 4.3 per 1,000, being under the rate for the previous week. Acute diseases of the chest caused 106 deaths, nearly the same number as for the previous week. Glasgow and Edinburgh appear to have suffered most from these diseases. The mean temperature was 50.9, being 2.7 below that of the week immediately preceding, and 2.5 above that of the corresponding week of 1879.

DEATH FROM HYDROPHOBIA.

ON Sunday morning, near Airdrie, a young miner, residing at Upper Ballochney, died in terrible agony from hydrophobia. About two months ago, he was bitten on the mouth by a dog, which was running about the country in a rabid state. He paid little attention to the wound, as it speedily healed up. He was able to attend to his work, and appeared to be in his usual health until Wednesday, the 2nd instant, when pains in the head, accompanied with spasms, began to manifest themselves; and, as they increased in intensity, medical advice was obtained. Drs. Rankin and Cullen, from Airdie, visited him several times, but so desperate had the patient's condition become, that nothing could be done beyond adopting soothing treatment. A few hours before he died, he recovered consciousness, and recognised his friends.

STRAY DOGS.

THIS week, an order has been promulgated by the authorities of Edinburgh, Leith, and county of Midlothian, that all dogs that are not led must be muzzled till September 1st. This is the first time such an order has been in force in Edinburgh, or at least the first for a very long time. It is understood to be in consequence of the number of stray dogs existing at present, and the occurrence of severe cases of rabies. Such an order, to be effective, must be carried out thoroughly. In Glasgow, it has been decided by Sheriff Clark that the owner of a dog is liable for the injury done by his dog biting anyone, even although he plead ignorance of a knowledge of its viciousness, and he allowed £10 damages against a dog's owner who pleaded in that way.

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IRELAND.

We are informed that our distinguished Associate, the Rev. Professor Haughton, M.D. of Trinity College, Dublin, F.R.S., and D.C.L. of Oxford, is to receive the honorary degree of LL.D. from the University of Cambridge.

The Ex-President of the Queen's College, Belfast, was last week presented with an address from the graduates and students of the Queen's University who had been students of the Belfast College. The address was illuminated by Messrs. Marcus Ward and Co., and the volume containing it, which was handsomely bound, was embellished with a view of the College buildings.

THE ROTUNDA HOSPITAL.

We regret to find that a paragraph in the last report of the Registrar-General, to the effect that "no births or deaths had been registered in the Rotunda Hospital since the 16th April", has given rise to a report that that hospital has been closed in consequence of the prevalence of puerperal fever. This is altogether erroneous. The hospital was not closed for a day, nor though, from the unhealthy state of the very poor of Dublin, from whom its patients are drawn, many have been admitted already seriously ill, and as a consequence the mortality has been heavier than usual, has there been anything like an epidemic of puerperal fever. The non-registration is due to a dispute between the Registrar and the hospital authorities, the former departing from the course hitherto adopted, and requiring the master of the hospital to take certain steps which he deems prejudicial to the well-being of the patients.

HEALTH OF IRELAND: QUARTERLY REPORT.

The births registered in Ireland during the quarter ended March 31st last amounted to 35,208, being equal to an annual ratio of 1 in every 38.1, or 26.3 per 1,000 of the population. The birth-rate was 0.9 per 1,000 under the average for the March quarter of the previous five years. The deaths numbered 30,654, affording an annual ratio of 1 in every 43.7, or 22.9 per 1,000, against an average rate of 21.9 per 1,000 for the corresponding quarter of the five years 1875-9. The reports of the registrars are more favourable than might have been anticipated, considering the privations which the people in the more remote rural districts of Ireland have suffered for some months; and it is gratifying to find that, up to the present, there has been no appearance of any pestilential outbreaks such as might be expected after a season of distress. The number of deaths reported from the eight principal zymotic diseases amounted to 2,985, or 9.7 per cent. of the total deaths recorded, and equal to 55.7 in every 100,000 of the population, against 2,807 from the same causes in the first quarter of 1879. To small-pox, 94 deaths were due, 64 of which took place in the county and city of Dublin; measles, 361; diphtheria, 76; diarrhœa, 497; and simple cholera, 5. Scarlatina caused 610 deaths, the disease being prevalent more especially in Cork, Dublin, and Drogheda; and whooping-cough, 554, being an increase of 95 over the preceding quarter. Seven hundred and eighty-eight deaths were ascribed to fever as contrasted with 526 in the preceding quarter. During the three months, 654 inquests were reported to the registrars, a number equal to 1 in every 47 of the total deaths registered.

HEALTH OF CORK.

The report of Dr. Wall, medical superintendent officer of health for Cork for the four weeks ending May 22nd, shows that the mortality for that period amounted to 29.79 per 1,000. It is satisfactory to learn that the urban death-rate, though still somewhat high, has been diminishing steadily and almost uninterruptedly for the past five months. More especially is this referable to the epidemic of scarlatina, which, although lurking in the city, has now ceased to assume its once formidable aspect, the mortality in the city due to this disease for the four weeks already alluded to being 3.65 per 1,000.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

The annual meeting of the Fellows of the College to elect a President, Vice-President, Secretary, and Council for the ensuing year was held on Monday last, being the first Monday in June. Alfred H. McClintock, M.D., Ex-Master of the Rotunda Lying-in Hospital, was elected President; Samuel Chaplin, Surgeon to the Kildare County Infirmary, Vice-President; William Colles, M.D., Secretary; and the following nineteen Fellows Councillors: William Colles, George H. Porter, George H. Kidd, William A. Elliott, T. Joliffe Tufnell, Edward Hamilton, Rawdon Macnamara, Robert M'Donnell, F.R.S., John K. Barton, Edward D. Mapother, Archibald H. Jacob, Philip C. Smyly, John Denham, Anthony H. Corley, Henry R. Swanzy, William Stokes, W. Thornley Stoker, William I. Wheeler, F. Alcock Nixon. In addition to the outgoing Councillors, all of whom sought re-election, there were five new candidates for office, including two provincial Fellows. The only change, however, made on the constitution of the former Council was the election of Mr. F. Alcock Nixon of Mercer's Hospital and the Ledwich School, who takes the seat that Mr. Brunker has lost.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

The thirty-eighth annual meeting of the Society was held on Monday last in the Hall of the King and Queen's College of Physicians in Ireland; Dr. Head, the President of the College, occupied the chair. It is to be regretted that this excellent Society is feeling the effects of that financial depression which has prevailed for the last twelve months and upwards. This has been evidenced in a twofold manner; first, by an increase in the number of applicants; and, secondly, by a falling off in the income of the Society. The income of the Society derived from subscriptions in the past twelve months was below the average; whilst the amount received in the shape of donations was also much less than it has been for several years—in fact, only £30, viz., £5 from Dr. John M'Donnell, and £25 from Dr. Robert M'Donnell—which donations were the generous renewals of what these gentlemen had yearly given to the Society for a length of time. The total number of applications for relief during the year was 115, and exceeds by ten that of any former year since the foundation of the Society. Twenty-two were new applications, of which seven came from medical men, thirteen from widows, and two from orphans. A number of applications in each of these classes had to be refused. The total amount awarded in grants during the year was £1,445 7s. 6d., which exceeds the grants of the previous year by £101, and leaves the Society £32 10s. in debt to the Honorary Treasurer. As stated in the annual report read at the meeting, this may not be considered to be consistent with financial prudence. It certainly is stretching to the utmost the available resources of the Society in order to fulfil the merciful objects for which it was founded; but, as the past year was an exceptionally severe one as regards distress, the Committee felt they were justified in trying to mitigate that distress as far as possible by disbursing the funds of the Society with an exceptional liberality. From past experience, the Committee confidently hope, however, that, when these facts are known, there will not be wanting among the prosperous members of the profession some whose generous hearts and warm Christian sympathies will move them to respond to an appeal so direct and so powerful. It is much to be regretted, and the fact was alluded to by several speakers at the meeting, that there is a great want of practical sympathy with the Society shown by the majority of the members of the profession throughout Ireland, especially in country districts. But it is some matter of congratulation, on the other hand, that the Society has a sum of nearly £17,000 invested in the names of its Trustees.

PROFESSOR FLOWER ON SCIENTIFIC TRAINING.

In our issue of last week, we were only able, from want of space, to announce that the prizes gained by students in the Faculty of Medicine at University College had been distributed by Professor Flower, F.R.S., P.Z.S., Conservator of the Museum of the Royal College of Surgeons, on the 2nd June, the chair being taken by Lord Kimberley, President of the College. The annual report was read by the Dean, Professor Christopher Heath, which showed the school to be in a most satisfactory and flourishing condition. Appropriate mention was also made in it of the losses sustained during the past year by the deaths of Professor Sharpey, Dr. Tilbury Fox, and Mr. Enfield.

In the course of the address following the distribution of the prizes, Professor Flower spoke at some length on the advantages of a scientific training as a preliminary to the more professional studies, and recommended the example set by the University in London in requiring a preliminary scientific examination as an introduction to its medical degrees. He contrasted the examination at the Royal College of Surgeons of England as it was formerly, when he was a student, and what it is at present; stating that rejections then were quite the exception, whereas now a student considers, if he get through his primary examination the first time he goes up, that he has met with an unusual stroke of good luck. This he attributed to the feeling of discredit attached to failure which existed in former days having passed away, and to the standard of requirements of the examiners having been raised more rapidly than it has been overtaken by the student. He deprecated the use by students of the plates to be found in every library attached to a medical school, and of the beautifully dissected specimens which adorn the museums, as a means of getting up anatomy, instead of dissection. Those specimens are only intended to refresh the memory of those who have already learned the anatomy of the parts from dissections made by their own hands, and for reference. For such purposes they are invaluable, but, when used by students as a substitute for dissection, they become dangerous and deceitful, and the knowledge obtained from them will be of such a kind that will almost certainly vanish away when most required.

Passing next to the value of comparative anatomy and zoology as a part of a course of education for the medical profession, Professor Flower stated that he felt most strongly that the teaching of human anatomy should, both for the advantage of the teacher and the student, be based upon that of some other animal forms. He considered that little advantage was gained by the short courses of comparative anatomy which are ordinarily given as part of a medical education. What was required is a practical course such as that given annually at the South Kensington Science School, or such as could be obtained in the admirably arranged laboratory of University College. Upon such a foundation the teacher of human anatomy should build, not starting, as at present, from a totally different standpoint, but illustrating the anatomy of man by reference to that of the lower animals. The student, after such a course, would begin the study of human anatomy with a fair knowledge of the general principles of anatomy, and of the structure and functions of the various tissues and organs; he would understand how to display them for examination, and have a general idea of the organisation of a vertebrate animal, and a more detailed knowledge of one at least of the mammalia. The opportunities of obtaining an elementary biological training were still few, but we should look forward to the time when an examination in chemistry, physics, botany, and zoology, shall be indispensable as an entrance to the medical profession. This scientific training should come after a good general education, and before the more strictly professional studies begin. The first stage, that of general education, was carried on in the public schools; the second, that of scientific culture, should be conducted at special schools of science, such as University College and the Universities of Oxford and Cambridge, but should not be attempted by the smaller medical schools. The urgent need for a conjoint scheme of education rather than of examination was strongly represented. The reason why anatomy and physiology and the kindred subjects were not taught in London as they were in Scotland and the continent, by men who made the study and teaching of those subjects the primary business of their lives, and why there were no schools of original investigation in those subjects, was solely because there was no career for such men, and the opportunities and emoluments, which, if concentrated upon two or three chairs, would enable men of high abilities to devote their whole energies to the work, were, by the unfortunate system of keeping up, both in London and in the provinces, a number of small but so-called "complete" medical schools, frittered away and wasted. The cultivation and teaching of these subjects was by this system relegated to men who could only find the work one of temporary and subordinate interest.

The address was listened to very attentively by the large number of students who were present, and frequently applauded. After votes of thanks to Professor Flower and the Chairman had been moved and carried, the proceedings terminated.

IRISH MEDICAL ASSOCIATION.

In accordance with long established custom, the annual meeting of the Association was held on the 7th instant, the first Monday in June, being the day the President and other annual officers of the Irish College of Surgeons are elected. This election always brings a number of provincial medical men to Dublin; and the occasion is wisely utilised by both the Irish Medical Association and the Royal Medical Benevolent Fund Society of Ireland by holding their annual meetings on the same day. In the morning, the members of the Association breakfasted together at the Shelbourne Hotel, but the attendance thereat was much smaller than in former years. The annual meeting was held at the Royal College of Surgeons at twelve o'clock, when the chair was taken by Dr. Kidd, President of the Association. There was a good attendance of both the metropolitan and provincial members.

Dr. Chapman, honorary secretary, read the report of Council for the past year. As showing the amount of work done by the executive, it may be mentioned that the Committee of Council held no fewer than forty-two meetings during this period. The report detailed the active part taken by the Council in connection with the enactments which had become law in the last session of Parliament, viz., the Vaccination (Ireland) Amendment Act, the Dispensaries (Ireland) Act, the Disqualification by Medical Relief Act, and the Public Health (Ireland) Amendment Act. The importance of some of these measures—notably the Vaccination Amendment Act—is very considerable; and the Council expressed its warmest thanks to Mr. Meldon, M.P., through whose exertions chiefly the last named measure became law. Other matters alluded to in the report were, "The Medical Act, 1858", Amendment Bills; a Medical Charities Bill, drafted by the Council with a view to amendment of the Medical Charities' Laws of Ireland, and introduced into Parliament by Mr. Meldon and Mr. Errington; the remuneration of medical officers of health, and the abolition, in several instances, without compensation, of consulting sanitary officers; the frequent abuse in the admission of paying patients to Union hospitals; the superannuation of medical officers; the abuse of dispensary medical relief; the reduction of the salaries of their medical officers by at least one board of guardians, as an economical measure on their part; and various other matters, showing the watchful view the executive body of the Association takes of all matters affecting the general and individual interests of the profession in Ireland.

In addition to resolutions on the subject of superannuation of medical officers, and the indiscriminate issue of medical relief-tickets, similar to those proposed at last year's annual meeting (*vide* JOURNAL, June 14th, 1879, p. 909), the following resolutions, among others, were unanimously adopted by the meeting.

"That, in the opinion of this Association, the imposition of a fixed limit to the salaries of medical officers of health is gross injustice towards those officers; and—inasmuch as the Association is advised that the scale so created is altogether at variance with the law, and with the understanding arrived at with the representatives of the Government—the Association requests the Council to renew its protest against this injustice on every fitting occasion, and to take such steps as are necessary to obtain a reconsideration of the matter."

"That this Association regards the admission to gratuitous treatment in workhouse hospitals of persons who are able to pay for medical attendance as a great injustice to the medical officers, and that the Council are hereby requested to direct their attention to the subject, with a view to the redress of this grievance."

"That the Irish Medical Association maintains its approval of the principles enunciated by the Council in reference to the Medical Act (1858) Amendment Bills, now before Parliament; and declares its opinion that no alteration of the existing law can be satisfactory which does not provide, by conjoint examination or otherwise, for a sufficient degree of professional competency, guaranteed by a curriculum of study and examination, uniform throughout the kingdom; and the Association furthermore believes that no such reform could be effectively carried out unless the General Medical Council be reconstituted, and adequate provision be made for the representation of the profession at large in that body."

The following members were elected to the under-mentioned offices for the year ending May 31st, 1881:—*President:* Dr. John H. Chapman, Dublin. *Vice-Presidents:* Leinster—Dr. Chaplin, Kildare; Ulster—Dr. Bagot, Enniskillen; Munster—Dr. Molony, Tully; Connaught—Dr. Coates, Portumna. *Council:* Dr. Berry, Mallow; Dr. R. Browne, Rathmines; Dr. S. Browne, Belfast; Dr. H. G. Croly, Dublin; Dr. Darby, Bray; Dr. Drapes, Enniscorthy; Dr. Duffey, Dublin; Dr. R. Gray, Armagh; Dr. J. R. Harvey, Dublin; Dr. A. H. Jacob, Dublin; Dr. D. Jacob, Maryborough; Dr. J. B. Kelly, Drogheda; Dr. Kidd, Dublin; Dr. Kinkead, Galway; Dr. J. Martin, Portlaw; Dr. R. McDonnell, Dublin; Dr. F. V. McDowell, Baltinglass; Dr. G. Morrogh, Dublin; Dr. Nolan, Gort; Dr. E. Peele, Dublin; Dr. Perceval, Stradbally; Dr. Pollock, Blackrock; Dr. G. H. Porter, Dublin; Dr. T. Purcell, Dublin; Dr. J. Ridley, Tullamore; Dr. Sharkey, Ballinasloe; Dr. H. J. Smith, Donaghmore; Mr. Speedy, Dublin; Dr. Tagert, Monkstown; Dr. W. Thomson, Dublin; Dr. Whistler, Bray. *Auditors:* Dr. Mayne, Ballybrack; Dr. Boyce, Stillorgan.

Dr. J. H. Chapman, the newly elected President, having taken the chair amid much applause, the thanks of the Association were tendered to the late President, Dr. George H. Kidd, for his dignified conduct as President, as well as for the great interest he had taken in the welfare of the Association.

In the evening, the annual dinner of the Association was held in the Albert Hall of the Royal College of Surgeons. Covers were laid for sixty. Dr. Chapman presided. On the right of the Chairman were, Dr. Gordon; Mr. C. H. Meldon, Q.C., M.P.; Mr. T. Purcell, Q.C.; the Registrar-General; Mr. Tufnell; Mr. Hamilton; and Dr. Hayden. On the left were, Mr. Chaplin, Vice-President R.C.S.I.; Dr. Kidd; Dr. Mapother; Dr. Croker King; Mr. G. H. Porter; Sir George Owens, J.P.; and Dr. Duffey. Among the toasts proposed was that of "The British Medical Association and its Dublin Branch". In the unavoidable absence of the President of the Branch, Dr. Robert McDonnell, F.R.S., the toast, which was most cordially given and received, was ably responded to by Dr. Hayden, President-elect of the Branch.

Everything connected with the meeting passed off most satisfactorily, as could hardly fail to be the case, considering the great assiduity and ability shown by the late excellent Honorary Secretary, now the honoured President, of this valuable Association, in arranging every detail.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE PEOPLE'S CONTRIBUTION FUND IN AID OF UNIVERSITY COLLEGE HOSPITAL.

The object of this fund is to obtain the appointment of annual and life governors of the hospital amongst tradesmen and the working classes, in order to place in their own hands facilities for obtaining hospital treatment, and to increase the annual income of the charity, by creating an interest in the prosperity of the hospital amongst those for whose benefit it is intended. This is carried out by 1. The formation of "Annual Governor Societies", to collect, weekly or otherwise, contributions of 1d. and upwards, each Society to nominate one of its members as an annual governor for each guinea, or for every two guineas, or three guineas, paid in annually to the "People's Fund"; 2. The formation of "Life Governor Societies", to collect annual subscriptions, say of 5s. or upwards, each Society to nominate one life donor for every ten or twenty guineas, or one life governor for every thirty guineas paid into the "People's Fund". One hundred and eighty collecting-boxes have been fixed in public-houses, workshops, etc., since the last report, bringing the total number of boxes posted up to five hundred. The Committee, in 1878, received from Blundell Maple, Esq., of the firm of Messrs. Maple and Co., Tottenham Court Road, a donation of £105, to be used as a "Guarantee Fund" in the following manner: "Publicans to be supplied with a collecting-box, and to be at once made annual governors upon their signing a form of agreement that they will use their best endeavours to collect in twelve months, from the date of signature, one, two, or three guineas, as the case may be". So soon as a memorandum is signed, the amount promised to be collected is at once drawn from the "Maple Fund", and paid to the hospital. The "Maple Fund" has been so successful in bringing grist to the mill, that Mr. Maple has again given £105 as a "Guarantee Fund", to be used upon the same basis as the former liberal gift, in order that the exceptional advantages enjoyed by publicans may be extended to the foremen, etc., of factories and workshops. After the payment of all working expenses, the Committee have handed to the Hospital Committee the sum of £240, being £55 more than the sum paid over last year. It is confidently expected, now that the collecting-boxes have been purchased, the work of the Fund well known and thoroughly appreciated, that, with the revival in trade, the donations to the Hospital for this year will be much larger.

This Fund is one amongst many proofs that there is a desire amongst the working classes to contribute towards their own medical relief. But the form which it takes is, we think, open to various objections. It is wiser to encourage the working classes to enrol themselves in those organised associations whereby they obtain medical attendance for themselves as a right and not as a matter of charity. We trust the Metropolitan Provident Dispensaries Association will soon furnish them with increased facilities for this form of self-help.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:
NOTICE OF MEETING.

A meeting of the Committee of Council will be held at the offices of the Association, 161a, Strand, London, on Wednesday, the 7th day of July next, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary.*

161a, Strand, London, May 29th, 1880.

LANCASHIRE AND CHESHIRE BRANCH.

The annual meeting of this Branch will be held at the Assembly Rooms, Free Trade Hall, Manchester, at 2 p.m. on Wednesday, June 30th. Council meeting at 1 p.m.

Dinner, 5.30 p.m., at the Queen's Hotel. Tickets 10s. 6d., exclusive of wine.

Members intending to read papers are requested to communicate at once with the honorary secretary, who will also receive the names of those who wish to take dinner-tickets.

A. Davidson, M.D., *Honorary Secretary.*

2, Gambier Terrace, Liverpool, May 31st, 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

The annual meeting will be held at the Hospital, Swansea, on Wednesday, June 30th, at 11 a.m.; T. D. Griffiths, M.D., President-elect.

Members desirous of reading papers, etc., are requested to communicate with one of the Honorary Secretaries without delay.

Alfred Sheen, M.D.,
J. Hancocke Wathen, } *Honorary Secretaries.*

May 25th, 1880.

YORKSHIRE BRANCH.

The annual meeting will be held at the Town Hall, Bradford, at 3 p.m., on June 16th, 1880; P. E. Miall, Esq., in the Chair.

Members intending to contribute papers are requested to communicate at once with Arthur Jackson, *Secretary pro tem.*

Sheffield.

SOUTHERN BRANCH.

The seventh annual meeting of this Branch will be held at Curraghmore, Bournemouth (the residence of Dr. Stewart Falls, the President-elect), on Wednesday, June 16th, 1880. The general meeting will commence at twelve o'clock.

Members desirous of reading papers or other communications at this meeting are requested to forward the titles to the honorary secretary before the 12th of June. No communication must exceed seven minutes in length, and no subsequent speech must exceed five minutes.

The address will be delivered by the President-elect at 2 p.m.

During the afternoon, the members will have an opportunity of visiting several places of interest in the locality.

The dinner will take place at the Exeter Park Hotel, at 4.30 p.m. Tickets, 6s. each, exclusive of wine.

The Committee request that those gentlemen who intend to be present at the dinner will send in their names to Mr. W. D. Hemming, Bournemouth, on or before Monday, the 14th instant.

J. Ward Cousins, M.D., *Honorary Secretary and Treasurer.*

BORDER COUNTIES BRANCH.

The annual meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, June 25th, at one o'clock.

Gentlemen intending to read papers are requested to give early notice to one of the Branch secretaries.

J. Kendall Burt,
John Smith, } *Honorary Secretaries.*

Kendal, May 31st, 1880.

SOUTH-WESTERN BRANCH.

THE annual meeting, under the presidency of Dr. HOGARTH CLAY, will be held at Plymouth, on Friday, the 18th instant.

A steamer, starting from Millbay about 11 A.M., will take the members up the river Tamar, and an opportunity will be given for seeing Cothele and other places of interest. The business of the meeting will be conducted during the excursion. Luncheon will be provided by the President.

The dinner will be at the Duke of Cornwall Hotel, at 6 P.M. punctually.

Members who intend to read papers or make any communication are requested to give notice as early as possible to

SUTHERLAND REES-PHILIPPS, M.D., *Honorary Secretary.*

Wonford House, Exeter, June 2nd, 1880.

EDINBURGH BRANCH.

THE annual general meeting of this Branch will be held at 5, St. Andrew Square, Edinburgh, on Tuesday, June 29th, at 4 o'clock P.M.

CHAS. E. UNDERHILL, *Honorary Secretary.*

NORTH OF ENGLAND BRANCH.

THE annual meeting of this Branch will be held in the Lecture Room of the Literary Society, Fawcett Street, Sunderland, on Wednesday, June 30th, at 3 P.M.

Dinner at the Queen's Hotel, Fawcett Street, at 5 P.M. Tickets, 6s. 6d., exclusive of wine.

T. W. BARRON, M.B., *Honorary Secretary.*

Durham, June 9th, 1880.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE second annual meeting of this District will be held at the Forest Hotel, Chingford, on Thursday next, the 17th inst.; Professor WOOD, F.R.S., President of the Branch, in the Chair.

Business and Communications:

1. Election of Honorary Secretary.
2. On some of the Conditions liable to be mistaken for Acute Glossitis. By Stephen Mackenzie, M.D.
3. On Congestive Dysmenorrhœa. By G. E. Herman, M.D.

At 7 P.M., the members will dine together. Tickets, eight shillings each (exclusive of wine), may be had on application to the Honorary Secretary.

A. GRANT, M.D., *Honorary Secretary.*

370, Commercial Road, E.

GLASGOW AND WEST OF SCOTLAND BRANCH.

THE annual meeting of this Branch will be held on Thursday, June 24th, at 2 P.M., in the Faculty Hall, 242, St. Vincent Street. The President-Elect (Dr. BRUCE GOFF) will give an address. Thereafter, the members will be conveyed to the Western and Royal Infirmaries, where demonstrations will be arranged by the physicians and surgeons.

The annual dinner will follow, at 5.30, in the Bath Hotel, 153, Bath Street.

JOSEPH COATS, M.D., } *Honorary*
JAMES G. LYON, M.D., } *Secretaries.*

MIDLAND BRANCH.

THE annual meeting will be held in the Board Room of the General Hospital, Nottingham, on Thursday, June 24th, at 2 P.M. *President:* J. WRIGHT BAKER, Esq.; *President-Elect:* T. WRIGHT, Esq., M.D. After the transaction of the usual business of the Branch, the following papers will be read and discussed.

1. By J. F. Goodhart, M.D.: Stray Observations on the Rheumatic Diathesis in Children.
2. By William Newman, M.D.: A few words on cases of "Latent Pneumonia". Dr. Newman will exhibit a man who has had large Syphilitic Osteitis of Olecranon and Shaft of Ulna: recovery after excision of three inches of bone.
3. By W. Legge, Esq.: Results of one thousand cases of Midwifery.
4. By William Milligan, Esq.: On Morphœa; a case will be shown.
5. By C. B. Taylor, Esq., M.D., Nottingham: Notes on certain cases of Supposed Incurable Blindness in which sight was restored; and
6. On the best method of operating in cases of Senile Cataract.
7. By George Elder, M.B.: Remarks on a case of Uterine Flexion simulating Ulceration of Stomach; and
8. Note on Chian Turpentine in Uterine Cancer.
9. By L. W. Marshall, M.D.: Cases in the Surgical Practice at the Children's Hospital.

Dr. Marshall will show three case of Amputation at the Hip-Joint by Furneaux Jordan's method, and other cases at the Children's Hospital, at twelve o'clock.

Luncheon will be provided by the President-Elect at the General Hospital. Dinner at the George Hotel at five o'clock.

C. HARRISON, M.D.,
Lincoln, June 7th, 1880. *Honorary Secretary Midland Branch.*

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the Grand Hotel, Birmingham, on Tuesday, July 6th, at 3 P.M. An address will be delivered by the President, Mr. R. PROSSER.

The annual dinner will also take place at the Grand Hotel, at 5 P.M. precisely, for the convenience of country members. Dinner tickets (exclusive of wine), five shillings each. Members intending to be present are requested to communicate with the Honorary Secretaries on or before July 3rd, in order that suitable arrangements may be made.

E. MALINS, M.B., 8, Old Square, } *Hon.*
E. RICKARDS, M.B., 14, Newhall Street, } *Secs.*

Birmingham, June 9th, 1880.

CORRESPONDENCE.

THE LATE MR. MESSENGER BRADLEY.

SIR,—I think it will be of interest to many of the friends who were so much attached to the late Messenger Bradley to see in your columns a few particulars of his last illness.

I first saw him at the Granville Hotel between two and three o'clock in the afternoon of Monday, May 24th, and heard that, while walking about on the pier, he had been slightly wet by a wave, had gone home tired about one o'clock, and had been seized with a rigor followed by acute pain in the side. I found him suffering violent pain in the right side depending upon pleuritic inflammation; pulse very rapid, countenance anxious, temperature 104°. He was most restless and excited, feeling the pain unbearable. Some relief was quickly obtained by a morphia injection. He told me his illness was a relapse of an attack of acute rheumatism, which he had quashed with salicylate of soda. At 7 P.M., the temperature had gone down to 101°, but the urgent symptoms were only partially relieved: at this visit, the rheumatic character of the perspiration, which was most profuse throughout, was first noticed, and was most unmistakable. The salicylate of soda had now no control over the inflammation, which rapidly spread over the right pleura and to the left; on Wednesday the pericardium was violently attacked; and on Thursday, soon after midday, he sank under the severity of the disease, only seventy-two hours from the onset of the second set of symptoms. Frequent injections of morphia gave some relief to the violent pain, but he never from the beginning had any considerable amount of quiet sleep. On Monday, May 17th, he had been delirious with acute rheumatism at Manchester. On Friday, May 21st, he travelled to Ramsgate. On Saturday and Sunday, May 22nd and 23rd, he exerted himself much, but each day collapsed towards evening, and went to bed early. On Monday, May 24th, the violent outbreak took place which carried him off on the Thursday.

It was not my good fortune to know Mr. Bradley until I visited him on his death-bed; but I saw enough of him to appreciate the charms of his character and the brilliancy of his powers of conversation, and to mourn, in his early death, the loss of a star of the first magnitude.

What an instance we have here that the salicylate of soda too often scotches the disease without killing it.

Pray excuse the length of my letter, and believe me, yours truly,

Ramsgate, June 9th, 1880. SAMUEL WOODMAN, F.R.C.S.

P.S.—I believe, in the initial attack at Manchester, there was much pain and swelling in the joints; but there was none in the final attack.

TREATMENT OF RHEUMATIC FEVER BY SALICYLATE OF SODA.

SIR,—In the report of the Clinical Society's meeting given in the JOURNAL of the 29th ult., it is stated that I recommended the reduction of the dose of salicylate of soda after the relief of the urgent symptoms, and that I would "*then give good diet*". I should be sorry to be misunderstood upon so important and practical a point in clinical medicine. The report should have conveyed the opinion, which I think I properly expressed, to the effect that, while reducing the dose, I would make *no alteration in the diet* till all the pains had been subdued for some time. I have heard that the late Dr. Sibson used to employ "full diet" in his treatment of rheumatic fever; but I have never seen my way to copy his practice in a single case. The rule is to find that a premature return to solid food is followed by relapse of the disease; and of this fact I am as convinced as I am in respect of any clinical certainty whatever.—I am, sir, your obedient servant,

DYCE DUCKWORTH.

11, Grafton Street, Piccadilly, May 31st, 1880.

THE INDIAN MEDICAL SERVICE.

SIR,—The able leader in your last number, on the Organisation of the Indian Medical Service, was (in some particulars) evidently based on incomplete information.

The recommendation of the Simla Commission, to appoint twenty-four brigade-surgeons, was not made with any view to compensate the service for loss of superior administrative appointments, but exactly the reverse, the motive being solely and avowedly one of economy, the proposed brigade-surgeons being intended to take the place of the nineteen deputy surgeons-general (nine of whom are British and ten Indian officers) in the military department, as fixed provisionally by General Order No. 13 of January 2nd, 1880.

That this is the case, is apparent from the fact that some of the Indian deputy surgeons-general have received demi-official notice that they will be permitted to retire before the expiration of their tour of office.

This was to be the second move in what Sir Ashley Eden terms his root-and-branch reform of the medical service. The next one meditated was the conversion of the service into a subordinate native and Eurasian department, to be wholly or for the greater part recruited in India.

It is not probable that either of these measures will now be carried out. The action taken by the Indian Medical Defence Committee will certainly prevent any further infringements of the privileges of the late East India Company's officers, and will demonstrate that the reductions already made have not been of a very economical character after the guaranteed officers are compensated for loss of promotion.

As to the contemplated break up of the old Indian Service, the British nation will assuredly not sanction it, if the medical corporations are true to their trust, and enlighten the legislature and public opinion generally regarding the disastrous consequences that must accrue from such a retrograde step.—I am, sir, yours faithfully,

June 8th, 1880.

INDICUS.

THE NAVAL MEDICAL SERVICE.

SIR,—I was not aware of the issue of any advertisement by the Admiralty for candidates to compete for commissions in the Medical Service of the Royal Navy till I opened the pages of last week's JOURNAL. It seems very like a waste of public money inserting such advertisements under existing circumstances, when the last *competitive* examination produced three candidates to fill eighty vacancies; but perhaps they are in hopes of picking up a proportion of the residuum when other services are replete. Although natural enough, I think the warning note sounded by your correspondent is hardly required, as young medical men of the present day are sufficiently competent to guard their own interests and refrain from entering a service where they are solicited to join under false impressions (*vide* Par. 7, Circular 7th October, 1875), and when, in point of pay and retirement, they occupy a far inferior position to any other medical service under the Crown. With regard to the Warrant, which seems to require much incubation, and which it is to be hoped may not rival the celebrated mountain in labour in its results, the Admiralty will do well to consider, before its issue, the utter uselessness of tentative measures. They would perhaps be surprised to hear, but it is nevertheless true, that nothing less than £2 2s. *per diem* for fleet-surgeons will place the service in a position to compete favourably with civil practice; this I heard from the lips of a medical professor in one of the universities, not longer ago than last week.

I am, etc.,

June 1880.

THUNDERER.

HÆMORRHAGE IN HERNIOTOMY.

SIR,—In the JOURNAL of the 7th instant, under the above heading, a communication from Dr. Corley appears, containing the following sentences. "I introduced to the notice of the Society" (the Surgical Society of Ireland) "a hernia-knife, which I invented some years ago, a woodcut of which, sent by my friend Mr. Hayes of the Mater Misericordiæ Hospital, appeared in the JOURNAL of June 21st, 1879. Mr. Hayes, being unaware of my invention, was struck by the same idea, and had the instrument constructed and figured."

Lest the above observations should lead to any misconception, I beg to say that the knife figured in the woodcut which accompanies Dr. Corley's communication was devised by me; that I lent the woodcut to Dr. Corley; and that the instrument was first introduced to the notice of the profession in a paper from me, which appeared in the JOURNAL of June 21st, 1879.

After the publication of my short article, I learned from Dr. Corley that he had previously worked out a similar idea, and he sent me an instrument, different indeed in construction from the knife devised by me, but resembling it in principle. I forwarded at once a letter, which appeared in the ensuing number of the JOURNAL, wherein full recognition was accorded to the priority of Dr. Corley's idea. I am happy the instrument made in accordance with my instructions has been approved of and adopted by him. I may add that it has been tested in practice, and found to work perfectly.—I am, sir, your obedient servant,

Dublin, June 8th, 1880.

PATRICK J. HAYES.

OBITUARY.

ALFRED SWAINE TAYLOR, M.D., F.R.S.

BY the death of Dr. Alfred Swaine Taylor, we lose the greatest medical jurist whom this country has produced, and perhaps the greatest in Europe. Dr. Taylor did much to create the department of medico-juridical science in which he became so distinguished; for, when he first began to lecture on Medical Jurisprudence at Guy's Hospital, at the age of twenty-five, his was the first English course on this subject, and many leading members of the bar, and even judges, attended his teaching. He lectured for forty-six years at Guy's Hospital, his lectures being always interesting in style, accurately detailed, and strongly impressed with a spirit of individuality and conviction, which was markedly characteristic of all his conduct. He was lucid in his exposition, conservative in his theories, and elaborate in his investigation. Lacking on the one hand the high chemical attainments of Orfila, and on the other the extended antiquarian and scientific research of Casper, he may yet be considered by anyone who fairly reviews the history of medical jurisprudence and the place of Alfred Swaine Taylor in its progress, to have contributed more than either to the establishment of this subject as a coherent whole; to have laid down the limits within which scientific data are available for the guidance and application of legal principle; and to have combined the whole mass of legal precedents, of judicial rulings, of anatomical and chemical data, into a code of instruction which stands quite unsurpassed in the literature of any country. The peculiarity of his mind which stood him in greatest stead throughout life was his ardent and sincere love of truth, which made him incapable of advocating the side which he did not believe sincerely to be that of justice, and which relieved him from any tendency to that scientific partisanship, or that traffic in testimony, to which medico-legal witnesses have sometimes been alleged—not without truth, we believe—to have descended. Dr. Taylor could never be bought, or induced by prayer or by any specious and plausible argument to maintain a thesis which he did not believe to be not only conscientiously supportable in itself, but truly applicable to the case under consideration. So strenuous and sincere was he in his character, that he abhorred all the arts of the advocate; and to have secured the assistance of Dr. Taylor on the side of either prosecution or defence in a criminal trial was in itself already a great point gained; for it was certain that he would only lend his assistance to that side which, after a conscientious examination, he had satisfied himself was apparently in the right. And, if his career be reviewed, it will be seen that in cases such as those of Palmer, Smethurst, and Tawell, from the beginning to the end of his life, he fought always on the side of what appeared to him to be absolute justice; and that he never aimed to procure either the conviction or the defence of any prisoner because he was engaged on the one side or the other, but only consented to give assistance in a case when he had previously satisfied himself that the facts of the case demanded that he should do so. Commanding in stature, of fine expressive feature, calm, earnest, and decided, but persuasive in manner, he was powerful in influencing judges and jurymen. His unrivalled experience was greatly enriched and aided by the habit which he acquired of daily noting in a systematic manner every detail, every fact, every suggestion, which he came across in his reading which could subsequently be made available for his work. His commonplace-books and diaries are not only voluminous and varied, but accurately catalogued and indexed; and the new information gained was so arranged as to be made available for the next edition of his works. His *Principles and Practice of Medical Jurisprudence* and his *Handbook on Poisons* are standard works not only in this country, but throughout the world.

It is now many years since Dr. Taylor retired from the active practice of his profession. Throughout that time, he has been repeatedly tempted to present himself in the witness-box, but has often declined. He long ago became dissatisfied with our English system of engaging medical scientific witnesses for and against an accused person, and with a habit of partisanship which it tends to engender. He was an ardent advocate of the adoption in courts of law of a system of experts or assessors, who should, by the nature of their position, be removed from the temptations aught to extenuate or to set down aught in malice. He was repeatedly consulted in his retirement by the Government in difficult cases; and for many years our readers will not have failed to recognise the valuable lessons which he drew in the many leaders and editorial articles which he contributed to these pages on the current medico-legal cases of the time. Of the many eminent masters whose pens anonymously enrich the editorial columns of this JOURNAL, Dr. Taylor's was perhaps that which, by its distinctive style and in virtue of the stores of learning and calm recent judgment which distinguished it, would be least likely to escape attention; and we believe, indeed, that the fact was known for many years that the medico-legal articles of the BRITISH MEDICAL JOURNAL were due to the pen of Dr. Alfred Swaine Taylor, and it was a fact which he himself frequently mentioned. We lose in him a valuable contributor, whom it will be impossible wholly to replace; for, while few men, if any, can be found with judgment so clear, calm, and laboriously instructed, it is certain that it will be impossible at the present time to find anyone whose memory was so stored with precedents, or who had at hand a magazine so rich from which to draw examples, rules, and conclusions. Dr. Taylor was little seen either in the medical societies or in social medical intercourse. A lover of art, a student of physic and of law, and a traveller, he was yet a man of quiet and domestic tastes, much given to refresh himself by alternating one kind of work with another. He lived to advanced years in hale and hearty strength, his last appearances in public having been to render his services to the Parliamentary Bills Committee of the British Medical Association. His last contributions to medical literature were the able papers with which he supplied that Committee on the coroners' question, and, on several occasions, in concert with that Committee, he has had interviews with the Home Secretary on the subject of the amendment of the Coroners' Bill. To the last he continued to take an unabated interest on behalf of his profession; and his latest efforts were directed towards improving the course of justice, and in rendering more certain the methods by which crime is investigated and innocence protected.

Dr. Taylor was born at Northfleet, Kent, in December 1806. At a very early age, he manifested a great love of study and research. Not being considered strong enough for public school life, he was educated at Dr. Benson's private school at Hounslow. He acquired a fair knowledge of Latin and Greek, and also became a fluent French, Italian, and German scholar, besides attaining great excellence as an amateur artist. In October 1823, he was entered as student at the then united hospitals of Guy and St. Thomas. On the separation of the hospitals, he attached himself to Guy's, where he remained until 1828, studying under Sir Astley Cooper and Mr. Joseph Henry Green. His knowledge of physiology was so remarkable that, when only in his eighteenth year, it earned for him amongst his fellow-students the *sobriquet* of "Physiologist Taylor". In 1828, he went abroad to study in the medical schools of France, Germany, and Italy. In Paris, he attended the lectures of Orfila, Dupuytren, and Chevreul, with whom he contracted a close friendship. He remained some time in Auvergne, making researches in the geology of the country round the Puy-de-Dôme. He then visited the school of medicine at Montpellier; thence proceeded to Naples by sea, and encountered *en route* many difficulties. He was chased off Elba by a pirate vessel, driven by storm into Civita Vecchia, and arrested at Castellamare for having dangerous books in his possession. He found great advantage from the study of dissection in the Neapolitan Hospital, where fresh "subjects" were easily procurable, the dissecting-rooms of England being at that time entirely dependent on the "resurrectionists". After a stay of nine months in Naples, on his homeward journey he was arrested as a spy at Brescia, while sketching some fortifications, and taken before the commander of the fortress, who only liberated him after he had destroyed most of his sketches, and sent him under escort to the borders. After a journey on foot of 2,700 miles, through Switzerland, the Tyrol, and Germany, we again find him at Guy's, where he worked incessantly, devoting himself more especially to chemistry and experimental philosophy, for by this time he had relinquished all idea of making medicine his pursuit in life.

The application of medical science to jurisprudence was then in its infancy; and to this branch of study he gave his principal attention. In 1830, he again visited Paris, where he was during the famous three days' revolution; and in the same year he became a Member of the Royal College of Surgeons. In 1831, at the early age of twenty-five, he accepted the lectureship on medical jurisprudence at Guy's Hospital, then first created, which office he only resigned in 1877. Among the young lecturer's first audience was Sir Astley Cooper, whose favourite pupil he was, and who warmly congratulated him on his great success in this almost new branch of science. In 1832, he was appointed joint lecturer on chemistry at Guy's with the late Mr. Arthur Aikin; from 1850 until his resignation in 1870, he held this chair alone. From 1845 to 1851, Dr. Taylor was editor of the *Medical Gazette*. In 1845, he was elected a Fellow of the Royal Society; in 1852, he had the honorary degree of M.D. conferred upon him by the University of St. Andrew's; and in the following year was elected a Fellow of the College of Physicians, where he subsequently became one of the Examiners. As far back as 1836, he published the first edition of his *Medical Jurisprudence*, which has passed through ten editions. This work is too well known to need any comments, and is looked upon as a standard text-book in our courts of law as well as by the medical profession. It has reached its eighth edition in America, and has been translated into seven European languages. In 1859, this work entitled him to the Swiney Prize, a silver vase designed by Maclise, of the value of £100, with a purse containing the same amount. His book on *Poisons* was first published in 1848, and is also looked upon as a standard work by the profession. One of the first cases in which he was concerned that excited general interest was that of Tawell the Quaker, who was accused of poisoning by prussic acid. The present Chief Baron, Sir Fitzroy Kelly, was counsel for the prisoner, and set up as a defence that death was caused by prussic acid contained in the pips of the apples which the victim had eaten. In 1856, the Rugeley poisoning case, in which William Palmer was tried for the murder of Cooke, brought Dr. Taylor more prominently forward, and first called public attention to the fact that life-insurance offered a great incentive to secret murder. In 1859, he was again before the public as a scientific expert in the case of Smethurst, who was indicted for the murder of Isabella Banks. He was the first to point out the ill effects that arose from the use of arsenic in the manufacture of wall-papers and other fabrics.

It should be mentioned that his wife, whom he only survived four years, identified herself with all his pursuits, and greatly assisted him in the revision of his work for the press. His love of truth was a religion to him; and he has been often heard to say, when speaking of the wonders of Nature, that it was harder to be an infidel than a believer. It has been truly said of him, that "he was a man without guile". An eminent member of the profession, in writing of him since his death, says: "Dr. Alfred Swaine Taylor was one of the brightest ornaments of science in this country, and his reputation was worldwide; but, apart from this, his warm heart, his kind and genial nature, endeared him to all who enjoyed the privilege of his friendship, and his is a loss which cannot be replaced."

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, June 4th.

Medical Officers in the Army.—Colonel ALEXANDER asked the Secretary of State for War whether he would place the medical officers of the Guards on an equality with the other medical officers of the army as regarded pay and promotion under the Royal Warrant of November 27th, 1879.—Mr. CHILDERS replied that the War Office had under consideration a new warrant with respect to medical officers of the Guards, but that, considering the very great advantages those officers enjoyed in other respects, he could not undertake that they should be placed identically on the same footing as medical officers of the army generally with respect to pay and promotion. There had been no difficulty in obtaining sufficient medical officers for the Guards.

Tuesday, June 8th.

County Lunatic Asylums.—Mr. S. LEIGHTON called attention to the subject of county lunatic asylums, contending that the care of the insane is a subject of Imperial obligation, and condemning the system of placing insane persons in the category of paupers solely on account of their insanity. He concluded by moving a resolution, seconded by Mr. M. STEWART, asserting that the cost of maintaining lunatic asylums is an unfair burden upon the ratepayers.—Mr. DODSON, in opposing the motion, pointed out that Imperial subventions meant diminished local control, and probably increased cost of management. Even admitting that the care of lunatics might be a matter of Imperial concern, it did not follow that the cost should be borne by Imperial funds. The Prisons Act was a great experiment in centralisation; but at present its success was not established.—Mr. SCLATER-BOOTH pointed out that the charge for pauper lunatics was comparatively a new one, and that boards of guardians had little or no control over it.

He defended the subvention granted by the late Government.—Mr. Floyer, while not prepared to depart from the system of local management, contended that the agricultural classes had a strong claim for assistance.—Mr. Duckham also insisted on the right of the agricultural community to a full inquiry into local taxation.—Mr. M'Laren strongly objected to the principle of grants in aid; and Lord Emlyn, Mr. Newdegate, Sir B. Leighton, and Mr. Hibbert also spoke, after which the motion was withdrawn.

Criminal Lunatics.—Mr. R. Paget drew attention to the inconvenience of sending criminal lunatics to county asylums, and to the necessity for making separate accommodation for idiots and chronic lunatics. As a first step towards carrying out the reforms he thought necessary, he moved for a Select Committee to inquire into the laws relating to the custody aud maintenance of criminal lunatics, idiots, and chronic lunatics.—Mr. A. Peel, in his reply, said it was intended to reappoint a committee, partly departmental, appointed by the late Home Secretary, which would consider the separation of pauper from criminal lunatics; also the special provision which ought to be made for the care of criminal lunatics; and, further, whether Broadmoor had answered its purpose. That part of the subject relating to idiots and chronic lunatics was under careful consideration.—Mr. Pell made some remarks; and Mr. Dodson, in answer to an appeal to him, promised to communicate with the Home Office to see whether the scope of the inquiry could not be extended so as to include the treatment of imbeciles.—After a few words from Mr. Ramsay and Mr. J. G. Talbot, the motion was withdrawn.

Wednesday, June 9th.

Irish Registration.—Mr. Meldon moved the second reading of the Births and Deaths Registration (Ireland) Bill, which dealt exclusively with matters of detail, and assimilated the Irish system to that of England.—Dr. Lyons said, improvements in the system of registration were so desirable that he thought there should be inquiry before further legislation was attempted. He would prefer that the bill should be referred to a select committee.—Mr. Law supported the idea of a reference to a committee; and after a short further discussion, the bill was read a second time and referred to a select committee.

Irish Medical Charities.—Mr. Meldon moved the second reading of the Medical Charities (Ireland) Bill; to afford facilities for the obtaining of medical relief by the poor in the shape of loans; and in other ways to amend the existing system. He would be glad to have this bill referred to a select committee.—Mr. Mitchell Henry thought the bill would be very costly in its operation. He protested against a bill of such importance being sprung upon the House by surprise.—Mr. Macartney moved that the bill should be read a second time this day three months.—Mr. Meldon said the bill was before the House last session, but that there might be no surprise, he would move the adjournment of the debate.—The debate was adjourned.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

LUNATICS IN THE CORK WORKHOUSE.

We learn that there are 111 female lunatics, idiots, etc., in No. 1 Lunatic Ward of this workhouse; but the accommodation appears, from all accounts, to be terribly insufficient. The day-room, for example, in which the majority of them eat and work, is only 27 feet long by 18 wide. There are eight epileptics who possess no separate day-room, and therefore use their sleeping apartment for that purpose. The place of exercise is but a yard, and there are no facilities for allowing light garden-work or obtaining proper exercise; a result which is much to be deplored, as such employment is known to produce very favourable results in a large number of cases of mental disease. At a recent meeting of the guardians held to inquire into the working of the Poor-laws, it was proposed that application should be made to have lunatics and idiots removed from workhouses and placed in more suitable institutions. Dr. Nugent, one of the Inspectors of Lunatic Asylums, has frequently complained of the overcrowded condition of the lunatic wards; but no means of remedying the evil exist except by erecting new buildings. The Committee state, in reference to the female lunatic ward, that it requires to be seen by the Guardians in order that every member of the Board may be better able to realise the utter hopelessness of any poor creature who is consigned to it having the slightest prospect of recovery, unless her insanity increase to that extent that she become a dangerous lunatic, when she is removed to the district asylum. Dr. Brodie states that the accommodation for females in the lunatic ward is so limited, that pallets have to be laid down for them in the spaces between the beds. We trust that such a sad condition of things will not be permitted to continue any longer; and we believe that the Irish Local Government Board are already in communication with the Guardians on the subject.

LISTOWEL DISPENSARY DISTRICT.

A special meeting of the Listowel Committee of Management was held last week to take into consideration the charges made against Dr. U. Fitzmaurice, one of the medical officers of the union. The charges made were for neglecting to attend in several cases when sent for; and the committee, after hearing the evidence, adopted unanimously the following resolution in reference to the matter: "That during the twelve years Dr. Fitzmaurice has been Medical Officer to this Union, he has discharged his onerous duties with the greatest satisfaction in his treatment of the poor, and with ability and honour to himself, and the committee would be very loth indeed to compromise his character after so many years' service".

A QUESTION OF PROFESSIONAL DUTY.

Sir,—Would you or any of your readers kindly assist me in the following case?

I am a parochial surgeon, paid an annual salary for attending on the sick poor. I was in attendance on a child whose name is on our list, and attended regularly so long as I considered it necessary to do so. I then left, with the intention of not visiting again for a day or two, leaving word with an adult inmate of the house that as soon as the medicine that the child was getting was finished, they were to send and have it repeated. Being specially engaged all the day that I intended to make my next visit, and not being free till late in the evening, I asked my dispenser if there had been any message left for me about this case, and if they had had the medicine repeated; receiving a negative reply to both questions, I naturally concluded that the child was still improving, and therefore did not make any visit till the following day. When I did so, I was informed by the mother that the child had been much worse the day after my last visit, and as I did not come that day, she had called in another medical man; and said that it would be a long time before she would send for me again. What I should like to know is: Was this medical man justified in attending the case without letting me know? Can the Parochial Board compel my attendance on the case after what has taken place? Would I be right in refusing to have anything further to do with the case? Is it necessary in a case like this to acquaint the Parochial Board with all the particulars of the case without their asking, or should I take no notice of the case in my monthly returns of sick poor?

I may add that there was no complaint made to the inspector of the want of attention on my part. The mother of the child came to me the other day, and asked me to come and see her child, as it had made no improvement since I left, but was much worse; I attended *ex gratia*. Was I right?—I am, yours truly,

Parochial Surgeon.

POOR-LAW MEDICAL APPOINTMENTS.

Davison, Rashall Thomas, M.B., appointed Medical Officer to the Second District of the Battle Union, *vice* Josiah Sarjant, M.D., resigned.

Deacon, W. O., L.R.C.P.Ed., appointed Medical Officer to the Workhouse Receiving and Casual Wards of the Township of Manchester, and Assistant Medical Officer to the Workhouse Infirmary of the Township of Manchester at Crumpsall.

Grimwood, Harry C., M.R.C.S.E., appointed Medical Officer to the Workhouse and First District of the Pontefract Union.

Jones, Walter Grant, L.R.C.P.Ed., appointed Medical Officer to the Third District of the Hastings Union, *vice* E. P. Thurston, B.A., M.B., resigned.

Meller, Charles M., M.D., appointed Medical Officer to the Carisbrooke District of the Isle of Wight Union, *vice* E. Allan Waterworth, M.D., resigned.

Nicholson, Alfred, L.R.C.P.Ed., appointed Medical Officer to the First District of the Hunslet Union, *vice* R. Pullan, L.S.A., deceased.

Pullin, Frank B., F.R.C.P., appointed Medical Officer to the Churchstanton District of the Taunton Union, *vice* S. W. Mackey, L.K.Q.C.P.I., resigned.

Rankin, John, L.R.C.S.Ed., appointed Medical Officer to the Bishopwearmouth East District of the Sunderland Union, *vice* H. H. Taylor, F.R.C.S., resigned.

MILITARY AND NAVAL MEDICAL SERVICES,

COMBATANTS AND NON-COMBATANTS.

In view of the instance published by Mr. Jabez Hogg in the British Medical Journal of May 15th; in view of the conduct of Surgeon-Major Reynolds, V.C., at Rorke's Drift, of the deaths of Surgeon-Major Shepherd and Civil Surgeon Cobbin at Isandula and Intombi, and of the several medical officers who have been severely wounded in the recent Afghan campaign, it may be well considered that the time has arrived when the words "combatant" and "non-combatant", if they must be retained in deference to the susceptibilities of one class of officers, should at least cease to be made the basis for unfair and invidious legislation against the remainder.

In Army Circulars, March 1st, 1880, under the head of "Royal Warrant: Reckoning of Service and Retirement of Combatant Officers", the two following clauses appear.

"88*a*. An officer placed on half pay on account of ill health *incurred in and by the service* may reckon time on half pay, not exceeding one year, as full pay service towards voluntary retirement.

"88*b*. An officer placed on half pay *on the reduction of his regiment* *or corps* may count any time on half pay, not exceeding two years, as full pay service towards voluntary retirement."

From participating in any way in the compensations herein provided for officers who are placed on half pay on account of sickness, or for the convenience of the State, medical officers are effectually debarred by the use of the word "combatant". Thus, a medical officer whose health has been broken by disease induced by foreign climate, by illness contracted on service in the field, or as the result of wounds received in action, is denied those privileges now accorded to every military officer who may be incapacitated by sickness, *even in times of peace;* and this because he is officially styled a "non-combatant".

Assuredly, when two officers sacrifice health in the performance of their respective duties under the same circumstances, it is in the highest degree invidious to draw so great a distinction between the compensations allowed to brothers in misfortune.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 3rd, 1880.

Benthall, Alfred Elliott, Sherborne, Dorset.
Hall, Thomas Lambert, Ashford, near Ludlow.
Hurtley, William Maw, Caledonian Road, Leeds.
Parke, Charles James, Hougham, Grantham.
Rogers, James Macdonald, 56, Berners Street, W.C.

University of Cambridge.—At a Congregation held on the 3rd instant, the following were among the degrees conferred.

Doctors of Medicine—Charles Knight Hitchcock, Caius College; Edward Charles Stirling, Trinity College.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

The following vacancies are announced:—

*BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon to the Aston Branch. Salary, £170 per annum, with furnished apartments, coals, and attendance. Applications, with testimonials, on or before June 21st.

*BIRMINGHAM GENERAL DISPENSARY—An additional Resident Surgeon for the Dispensary, Union Street. Salary, £150 per annum, with furnished apartments, coals, attendance, etc. Applications, with testimonials, on or before June 21st.

*BRADFORD FRIENDLY MEDICAL AID ASSOCIATION—Resident Medical Officer.— Salary, £200 per annum. Applications, with testimonials, before June 30th.

CHELSEA UNION—Medical Officer to the South District. Salary, £100 per annum.

EAST RIDING LUNATIC ASYLUM, Beverley—Assistant Medical Officer. Salary, £100 per annum, with board, apartments, etc. Applications, with testimonials, not later than June 18th.

GATESHEAD DISPENSARY—Assistant-Surgeon. Salary, £120 per annum, Applications, with testimonials, to the Honorary Secretary not later than the 15th of June.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications not later than June 25th.

*LIVERPOOL DISPENSARIES—Assistant Resident House-Surgeon. Salary to commence at £108 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, to the Secretary, not later than June 21st.

MANCHESTER TOWNSHIP—Medical Officer for St. Michael's District. Salary, £170 per annum.

*MANCHESTER ROYAL INFIRMARY, DISPENSARY, AND LUNATIC ASYLUM—Honorary Assistant-Surgeon. Applications, with testimonials, not later than June 28th.

*MIDDLESEX HOSPITAL—Aural Surgeon. Applications, with testimonials, to the Secretary by one P.M. on Saturday, June 19th.

NAAS UNION—Medical Officer to the Clane and Trinahoe Dispensary District. Salary, £125 per annum.

*NEWCASTLE-UPON-TYNE INFIRMARY—Junior House-Surgeon. Salary, £50 per annum, with board, washing, and lodging. Applications, with testimonials, before June 23rd.

*OWENS COLLEGE, Manchester—Demonstratorship in Anatomy. Stipend, £150 per annum. Applications, with testimonials, not later than June 30th.

OUNDLE UNION—Medical Officer to the Weldon District. Salary, £70 per ann.

*ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan—Senior House-Surgeon. Salary, £100 per annum, with apartments and rations. Applications, with testimonials, before June 30th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY—Junior Assistant-House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications, with testimonials, to the Honorary Secretary on or before June 15th.

*SMALL-POX HOSPITAL, Highgate Hill—Resident Surgeon. Applications, with testimonials, to the Secretary on or before June 24th.

*TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY—House-Surgeon. Salary, £65 per annum, with, board, lodging, and washing. Applications, with testimonials, on or before June 19th.

WESTMINSTER GENERAL INFIRMARY—Physician. Applications, with testimonials, to the Secretary on or before June 21st.

WEST RIDING ASYLUM, Wakefield—Resident Clinical Assistant. Applications, with testimonials, to the Medical Superintendent.

*WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum, with residence in the Infirmary. Applications, with testimonials, to the Secretary, before June 25th.

*WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Surgeon. Applications, with testimonials, to the Secretary on or before June 28th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

Beresford, Charles W., M.R.C.S., appointed House-Surgeon to the Royal Isle of Wight Infirmary, *vice* Bonner H. Mumby, M.B., resigned.

Crawford, A. W., M.B., appointed House-Surgeon to the Paisley Infirmary, *vice* W. Simpson Frew, M.B., resigned.

Fowler, J. K., M.B., appointed Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

Goyder, Charles M., M.R.C.S., appointed Senior House-Surgeon to the Newcastle-on-Tyne Infirmary, *vice* J. D. Dixon, M.D., resigned.

*Jones, Thomas, M.B., appointed Honorary Surgeon to the Royal Infirmary, Manchester, *vice* S. M. Bradley, F.R.C.S.Eng., deceased.

Lindeman, Sidney Herbert, M.R.C.S., appointed House-Surgeon to the West London Hospital, *vice* James Blamey, M.R.C.S.Eng., resigned.

*Roxburgh, Robert, M.B., appointed Physician to the Weston-super-Mare Hospital and Dispensary, *vice* Frederick Gourlay, M.D., deceased.

Sweeting, R. D. R., M.R.C.S., late House-Physician to the London Hospital, appointed Medical Superintendent of Fulham Hospital.

Todd, Joseph, M.R.C.S.Eng., appointed Medical Officer to Brooke's Dispensary, Selby, *vice* A. C. Gray, M.D., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

Aveling.—On June 3rd, at 14, Portland Place, Lower Clapton, the wife of Charles T. Aveling, M.D., of a daughter.

MARRIAGES.

Davies—Batchelor.—On the 8th June, at Highbury Congregational Chapel, Cheltenham, William H. Davies, M.R.C.S., L.R.C.P.Lond., L.S.A., eldest son of W. J. Davies, Esq., J.P., F.R.C.S., of Cenner House, near Newport, Mon., to Amelia, eldest surviving daughter of the late T. B. Batchelor, Esq., of Newport, Mon. No cards.

Sarell—Varsami.—On May 24th, at the British Embassy Chapel, Constantinople, by the Rev. J. Washington, Chaplain to the Embassy, Richard Sarell, M.D., M.R.C.P., to Thalia, third daughter of Constantine Varsami, Esq., formerly of Glasgow.

Shaw—Bothell.—On June 3rd, at St. Nicholas Church, Hereford, by the Rev. S. Holmes, Vicar, assisted by the Rev. C. E. Panter, George Shaw, M.R.C.S.Eng., of St. James's Lodge, Enfield Highway, to Louise, second daughter of the late William Bothell, of The Friars, Hereford.—No cards.

DEATH.

*Harrison, John, F.R.C.S.Eng., at Chester, aged 71, on June 3rd.

We regret to have to announce the death of Mr. W. W. Stoddart, F.C.S., F.G.S., the public analyst for the county of Somerset, the city and county of Bristol, and the city of Salisbury.

Mr. C. H. Dowling, a Dublin dentist, has been awarded £1,750 as compensation for personal injuries sustained by him in a collision on the London and North-Western Railway at Menai Bridge last December.

Charge of Libel.—The Nottingham borough magistrates have had before them a charge of libel brought by Mr. George Bury, a physician and surgeon of the town, against a draper named Samuel Smith. The defendant was a member of a provident society to which the prosecutor was medical officer. About two years ago, Smith placed himself under the treatment of Mr. Bury, and the latter, finding that the defendant was suffering from a disease which, according to the rules, precluded him from receiving the benefits of the society, declined to give him a certificate. Since that time, Mr. Bury had, it was alleged, been subjected to constant annoyance by receiving a series of unsigned post-cards, in which he was addressed in opprobrious terms, and his conduct characterised as base, cruel, and villainous. At length, the prosecutor discovered that these post-cards were sent by the defendant, and the present proceedings were instituted. The defendant, who admitted the charge, was remanded.

Centenarians.—The Registrar of Cappaghduff, Ballinrobe Union, in the last quarterly report, states that he registered the death of a man at the age of 116 years, and that he was tolerably satisfied as to the authenticity of the statements about his age. In Clonbrock district, Mount Bellew Union, a woman's death was recorded at a similar age, who retained her mental faculties to the last.

Public Health.—During last week, being the twenty-second week of this year, 3,344 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living. The annual death-rate was 20 in Edinburgh, 21 in Glasgow, and 38 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Portsmouth 14, Bradford 14, Brighton 15, Birmingham 17, Hull 18, Sunderland 18, London 19, Leicester 19, Sheffield 19, Bristol 19, Norwich 20, Nottingham 21, Salford 21, Wolverhampton 21, Leeds 21, Oldham 23, Plymouth 23, Manchester 23, Newcastle-upon-Tyne 23, and the highest rate 24 in Liverpool. The annual death-rate from the seven principal zymotic diseases averaged 2.9 per 1000 in the twenty towns, and ranged from 1.0 and 1.1 in Hull and Birmingham, to 5.5 and 7.7 in Norwich and Plymouth. In London, 1,306 deaths were registered, which were 124 below the average, and gave an annual death-rate of 18.6. The 1,306 deaths included 8 from small-pox, 32 from measles, 60 from scarlet fever, 7 from diphtheria, 60 from whooping-cough, 16 from different forms of fever, and 20 from diarrhœa—being altogether 203 zymotic deaths, which were 37 below the average, and were equal to an annual rate of 2.9 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 286, 241, and 208 in the three preceding weeks, further declined to 191 last week, and were 51 below the corrected weekly average; 109 were referred to bronchitis, and 60 to pneumonia. Different forms of violence caused 48 deaths; 39 were the result of negligence or accident, including 12 from fractures and contusions, 5 from burns and scalds, 10 from drowning, and 8 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 51.7°, and 6.0° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 11.3 miles per hour, which was 1.1 above the average. Rain fell on five days of the week to the aggregate amount of 0.55 of an inch. The duration of registered bright sunshine in the week was equal to 15 per cent. of its possible duration. The recorded amount of ozone showed an excess on Sunday, but was below the average throughout the rest of the week.

Metropolitan Water-Supply.—The Select Committee appointed "to inquire and report as to the expediency of acquiring on behalf of the inhabitants of London the undertakings of the existing metropolitan water companies; and also to examine and report whether certain agreements, or any of them, already entered into provisionally for the purchase of these companies would furnish a satisfactory basis for such an acquisition; and, further, to inquire and report as to the nature and extent of the powers of the water companies to levy water-rates and rents, and how far it may be desirable to modify the same", met on Wednesday last, in Room 17, House of Commons, at four o'clock, and elected Sir William Harcourt as Chairman. The Committee will next meet on Tuesday, the 15th instant.

Social Science Association.—At the last meeting of the Council the health committee brought up the following resolutions, which the Council adopted in the following terms. "This department recommends the Council to memorialise Government that, in order to lessen the evils resulting to health from the growth of suburban districts outside the boundaries of towns having urban powers, authority be obtained to bring both the districts within the boundaries of the town and the suburban districts, in every case, whatever be the nature of the local authorities, within the control of one sanitary authority, having urban powers: the central authority to act for this purpose by provisional order, no application from any local authority being required. This department, while unprepared to recommend at the present time an entire conformity of rural to urban powers, is nevertheless firmly of opinion that the distinction between them is maintained with serious disadvantage to the community in regard to the control of new buildings; and it would urge the Council to represent to Government the importance of giving to urban and rural authorities power to make building by-laws relating to the same subjects; the by-laws themselves to be adapted in each case to the wants and circumstances of the locality." The health committee had also under their consideration the question of new buildings, and they brought up the following resolution, which the Council confirmed: That it be a recommendation to the Council that a memorial be presented to Government, praying in any further amendment of the law provision may be made for the better securing the healthy condition of houses before they are occupied, by enacting that no new building be occupied as a dwelling-house until the drainage and water supply thereof have been made and completed, and until a certificate have been given by a duly qualified person appointed by the local authority for those purposes that the same is fit for human habitation.

OPERATION DAYS AT THE HOSPITALS.

MONDAY	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY......	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.
FRIDAY........	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Epidemiological Society of London, 8 P.M. Special Meeting. The papers on "Continued Fevers in India" read during the present session will be discussed. The papers were read by Deputy Surgeon-General Ewart, M.D.; Surgeon-General Gordon, M.D.; and Surgeon-Major Don, M.D.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

We cannot undertake to return Manuscripts not used.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

BATHING IN JAPAN.

THE Japanese, like all Orientals, are very scrupulous as to bodily cleanliness, and every inhabitant of Japan takes at least one hot bath a day. The bath is a small wooden tub, in the form of an elliptic section of a cone, of which the arcs are only from sixty to eighty *centimètres*, and the depth never exceeds seventy *centimètres*. It is, of course, impossible to lie at full length in such a tub, and the bather is obliged to crouch down in it. The water in it is heated by hot embers placed in a cast-iron cauldron contained in an opening placed for the purpose at the bottom of the bath. The water begins to boil as soon as the fire is lighted; and, as there is very little in the bath, it boils at the end of half-an hour, and the temperature is easily kept up in a wooden vessel. In the towns, the bath-establishments use large square tubs formed of wooden staves, joined like barrels; the soundness of the joints being assured by covering them carefully on both sides and stopping up the chinks with the bark of a resinous tree called "segni" (cryptomeria Japonica). As a rule, each establishment has only one bath, however many may be its customers; and many persons bathe at once in this receptacle.

OPEN SPACES.

AN "Almost Octogenarian" writes to the *Pall Mall Gazette*: "The recent discussion on the throwing open of Lincoln's Inn Fields reminds me, who am old enough to remember when Leicester Square was more generally spoken of as Leicester Fields, how many of the open spaces in the metropolis which were called fields, and were really so, have disappeared from the map of London. Moor Fields, Bunhill Fields, Spa Fields, Spital Fields, Copenhagen Fields, and a host of others, exist only in name. Copenhagen Fields are now covered by the prison which Coleridge and Southey have immortalised. St. George's Fields, where Falstaff and Master Shallow 'lay all night in the windmill', retained much of their rural character when I was a boy—that is, before the new Bedlam was built there in 1812 over fourteen acres of ground, and the erection of St. George's Cathedral not until between twenty and thirty years later. Tothill Fields, where I once saw the end of a bull-bait, which was under the management of the well known Caleb Baldwin, owe their preservation as an open space to being kept as the cricket and football ground of the Westminsters. But the Dean and Chapter ought never to have changed the name of the place from Tothill Fields to Vincent Square. For that ripe and accomplished scholar Dean Vincent would have been the last to sanction the wiping out of a name of such antiquity and historical interest as that which commemorates the existence on that spot of one of the last of our "Toot's Hills". But the greatest conversion of open fields into populous neighbourhoods is that which has transformed the large stretch of quite open ground between the Knightsbridge Road and Millbank into Belgrave, Eaton, Chester, Eccleston, Warwick, and St. George's Squares. Belgrave Square covers what was once a brickfield; Warwick and St. George's what were once market-gardens; while Chester and Eaton Squares, intersected by the King's Road, were even later than 1820 known as the "Five Fields", in which five fields I have more than once seen the Life Guards exercised and inspected by Lord Cathcart."

These great changes render more and more necessary a vigilant watch over all opportunities of preserving and acquiring breathing-places for the vast population of London. Every space built over not only subtracts a certain portion of unbreathed air, but adds to the pollution of the London atmosphere by smoke and human emanations.

CARE OF AN INSANE PATIENT.

SIR,—Can you inform me how I can dispose of a young man, a patient of mine, who is suffering from mental derangement (not dangerous). He has once been in the county asylum, but the parish authorities will not again grant him admission, as he is not a pauper. His friends are country shopkeepers, and quite willing to pay all expenses, or would pay, say, £40 to £50 *per annum* to have him taken care of. This is all they can afford; but the rate in private asylums is much higher than this.

I would feel obliged for any information on the subject, or if you can tell me if there is any way he can be again got into the county asylum without the aid of the relieving officer. The favour of a reply in your next issue will oblige yours faithfully, MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

June 2nd, 1880.

⁂ They would take in such a case at St. Luke's for one guinea a week. Some of the cheaper proprietary asylums take in patients for less, as Fisherton House, Salisbury, Bethnal House, Camberwell House, and Peckham House Asylums, London.

VACCINIA MALIGNA VEL GANGRÆNOSA.

SIR,—I observe, in a discussion in Dublin upon a case of gangrenous eruption of the skin, occurring recently in that city, that some of the speakers expressed a disbelief in vaccinia being the cause of this eruption in any case. They seemed to think that, when such an eruption appeared after vaccination, it must only be looked on as a mere coincidence. I can hardly think this is the true view of the matter.

The case seen by Mr. Hutchinson, and brought by him under the notice of the Pathological Society of London, was also seen by me; and I had the opportunity of calling on the parents and on Mr. Faulkner, 9, Endell Street, who vaccinated the child. There was no doubt left in my mind that this was one of the extremely rare cases in which the vaccine virus acts malignantly, and causes a fatal eruption. in an infant with some peculiarity of constitution. I presume such an event would not occur again once in one million vaccinations, or even many more than that. But, what I want to point out is, that we are accustomed to such extraordinary and malignant effects of several other animal poisons. Take, for instance, syphilis. As a general rule, the disease, as I see it in the Rescue Society's Hospital among healthy young women, is most benignant; but, in my remembrance, I have seen patients carried off rapidly by malignant rupia, which no medication could cure. And so with all other fevers and poisons, such as variola, measles, scarlatina, etc.

It seems to me, then, that the eruption called by Mr. Jonathan Hutchinson "vaccinia gangrænosa" is no misnomer. I would myself call it vaccinia maligna, according to the analogy of syphilis.—Your obedient servant,

17, Woburn Place, W.C., June 8th, 1880. CHAS. R. DRYSDALE, M.D.

FILTERS.

SIR,—A paragraph from the *Times* has been going the round of the papers concerning my report on filtering materials. That paragraph is a misleading one, and does not give a fair account of the conclusions arrived at. The experiments were made to ascertain if the new material were sufficiently good as a filtering substance to justify its adoption for service purposes; and for that purpose, it was tried against spongy iron and silicated carbon. All three were found good filtering media, but the balance was rather in favour of the carferal and of the spongy iron. Indeed, the excellence of the latter material was never questioned. The carferal seemed, however, more practically convenient for the public service. For ordinary purposes, the spongy iron still remains one of the best filters in the market.—Your obedient servant, F. DE CHAUMONT.

Netley, June 8th, 1880.

A CONSTANT READER, DUBLIN; AND OTHERS.—Sir Henry Thompson's brochure on Food and Feeding is published by Fred. Warne and Co., Bedford Street, Strand.

H. W.—We believe that German yeast is perfectly wholesome, although sometimes adulterated with silicate of alumina. It is obtained from a fermented liquid by filtration. We do not think that any deleterious effect could be produced by eating home-made bread made with it.

CAN any brother member kindly inform "Musca" of an effectual and easy application that will keep the flies off an irritable horse?

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Lombe Atthill, Dublin; Dr. Sheen, Cardiff; Mr. Walter Pye, London; Dr. W. A. Sturge, London; Mr. T. Wakefield, London; Dr. J. M. Finny, Dublin; Dr. S. Rees Philipps, Exeter, Mr. H. D. Palmer, Nayland; Mr. H. B. Carter, London; Dr. J. W. Miller, Dundee; Mr. Eastes, London; Dr. Joseph Rogers, London; Mr. A. Gordon, Kensington; Mr. G. W. Graham, Wimborne; Mr. A. Marsden, London; Mr. P. J. Hayes, Dublin; Dr. F. De Chaumont, Netley; Dr. W. Bird, York; Mr. J. B. White, London; Dr. Broadbent, London; Mr. W. N. Reid, Melksham; Mr. W. Milligan, Wirksworth; Mr. B. Wright, Dublin; Dr. James Neal, Sandown; Our Dublin Correspondent; Dr. A. Grant, London; Dr. J. W. Miller, Dundee; Mr. W. R. Sergeant, Croyland; Mr. R. D. R. Sweeting, London; Dr. J. McClelland, Liverpool; Dr. F. M. McJannet, Campsie; Dr. H. Kennedy, Dublin; Mr. W. Paul Swain, Devonport; Mr. J. L. Williams, Wrexham; Dr. C. R. Drysdale, London; Our Edinburgh Correspondent; Mr. W. F. Jebb, London; Mr. W. Beattie-Smith, Stockton-on-Tees; Dr. C. Parsons, Dover; Mr. Alder Smith, London; Dr. Cousins, Southsea; Mr. C. K. Hitchcock, Devizes; Dr. J. K. Fowler, London; Mr. Henry C. Libbey, Leeds; Mr. A. Doran, London; Mr. P. R. Bullard, London; Mr. T. Holmes, London; Mr. Lawson Tait, Birmingham; Mr. J. Knight, Whitehaven; Dr. E. Malins, Birmingham; Mr. C. Roberts, London; Dr. W. Hardman, Blackpool; Dr. Sawyer, Birmingham; Dr. Waters, Chester; Dr. James Robinson, Bolton; Dr. Douglas Powell, London; Mr. F. R. Greenwood, London; Mr. T. Fowler, Wakefield; Dr. H. Alford, Taunton; Mr. J. P. Doyle, Dublin; Mr. James Hughes, Middlewich; Dr. W. E. Humble, Weymouth; Dr. John Moore, Belfast; Dr. W. A. Brailey, London; Mrs. Wilson, Newcastle-on-Tyne; Dr. J. Bradnell Gill, Canterbury; Mr. R. Roxburgh, Weston-super-Mare; Dr. Crichton Browne, London; Dr. C. E. Glascott, Manchester; Dr. Henry Bennet, Weybridge; Mr. Osborne D. Marriott, Sevenoaks; Mr. Edward Cock, Kingston-on-Thames; Dr. Fairlie Clarke, Southborough; Dr. James Sawyer, Birmingham; Surgeon-Major Stafford, Makkerstroom, Transvaal; Dr. Edward Mackey, Brighton; Messrs. Corbyn, Stacey, and Co., London; etc.

BOOKS, ETC., RECEIVED.

The Diagnosis of Diseases of the Spinal Cord. By W. R. Gowers, M.D., F.R.C. London: J. and A. Churchill. 1880.

The Surgeon's Pocket-Book. By Surgeon-Major J. H. Porter. Second Edition. London: Charles Griffin and Co. 1880.

The Brain and its Diseases. Part 1. By T. Stretch Dowse, M.D. London: Baillière, Tindall, and Cox. 1880.

The Brain, as an Organ of Mind. By H. Charlton Bastian, M.A., M.D., F.R.S. London: C. Kegan Paul and Co., 1880.

The Orthopragms of the Spine. By R. Heather Bigg. London: J. and A. Churchill. 1880.

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ADDRESS

ON

THE ACTION OF THE BRITISH MEDICAL ASSOCIATION TOWARDS IMPROVING SANITARY ORGANISATION.

Delivered at the Annual Sanitary Conference of the Society of Arts, June 10th, 1880.

By ERNEST HART,
Chairman of the Parliamentary Bills Committee of the British Medical Association, and Chairman of the National Health Society.

THE Society of Arts, in my opinion most opportunely, has decided to propose, as one of the questions to be discussed at its Annual Public Health Conference of this year, the constitution and attributes of County Boards. No debate on this subject would be complete without a reference to the arduous and long-sustained labours in this regard of the Joint-Committee of the British Medical Association and Social Science Association, under the guiding care of Dr. A. P. Stewart. I propose, therefore, as briefly as I may, to indicate the opinions at which that Committee, after a most careful and laborious study of the subject, has arrived on the subject of County Boards.

Probably most of those here present are aware that it was mainly at the instance of this Committee (the original formation of which was the happy idea of Mr. G. W. Hastings, M.P.) that the Government of the day was induced to recommend to Her Majesty the appointment of the Royal Sanitary Commission. This being matter of history, I need not dwell upon it at length; nor need I refer to the valuable assistance which was confessedly given to the Royal Commission by the Committee. I may proceed at once to the extremely interesting and exhaustive paper commenting on the report of that Commission, which was drawn by the Joint-Committee for presentation to the annual meeting of the British Medical Association in 1871. In this report I find the following instructive and weighty passages, which, read by the light of the occurrences of the last nine years, are amply proved to have been true prophecies of evil.

"We observe that the Commission proposes to preserve and confirm—nay, even to augment the number of—existing *local board* districts, under what are called 'urban' authorities; the minimum population of these districts being fixed at 3,000. Now, it is well known that petty elective authorities in small separate districts are apt to obstruct rather than forward sanitary improvement, and that for the most part they render any uniform and efficient system of administration almost impossible. This fact would, we believe, have been established indisputably by proper local inquiry. Estimating the number of local board districts from parliamentary returns, we may reasonably conclude that the surface of the country would soon be, if it be not now, honeycombed by not fewer than one thousand limited and isolated areas under 'urban' authorities.* *Against such a project of local government we strongly and earnestly protest.*

"We infer, not only from the evidence taken in this inquiry, but from well known facts, that 'intermediate authorities', consisting of members not liable to be swayed by petty interests and sordid views, would be essential, on social, sanitary, and economical grounds, for the higher purposes of sanitary administration. And, inasmuch as the authorities of counties have already to administer and enforce the law, to control institutions, to appoint officers, and to execute functions connected more or less with the health and safety of the people, we deem it highly desirable either that the powers of the magistracy (an existing authority) should be extended so as to comprehend the care of the public health, or that boards representing the magistracy and ratepayers in due proportion should be constituted for the direction and control of local sanitary administration. The magistrates would, of course, continue to sit as *ex officio* members of the board in 'rural' districts. It is no less reasonable and desirable that, if the division into 'urban' and 'rural' is to be maintained, they should take the same position on the future boards for the sanitary management of urban districts. *We believe that the constitution, mode of election, and duties of local boards, whether for urban, suburban, or rural districts, should be uniform throughout the provinces of England.*

"There is no question of graver import, or requiring greater attention, than that of the compulsory acquirement of land by local authorities for certain purposes essential to the improvement of the public health. In what manner and on what conditions local authorities—whether those of large towns or those which might act over larger areas—should be empowered to provide *sites* for dwellings of labourers and artisans where densely populated parts of towns have been or may be demolished for purposes of public health (*e.g.*, under Mr. Torrens' Act)—whether such authorities should be empowered to acquire land for burial-grounds and mortuaries, for hospitals for fevers and other pestilences, for disinfecting establishments, for public slaughter-houses, for recreation-grounds, as well as for water-supply and for sewage utilisation—these and other like questions require the most careful consideration.

"For all these purposes and many others, involving both appeal and compulsion, an intermediate authority to consider and report on applications of local authorities would be invaluable. And, moreover, we cannot too strongly urge on the legislature the necessity of limiting the powers and functions of the central authority within the narrowest bounds consistent with effective action. Not only should local impatience of interference be considered and obviated by constitutional means, but a suitable authority, intermediate between the local and central, should be constituted in every county or sufficiently large area, as likely to be more cognisant of the wants and circumstances of every smaller district, and better able to judge of minute details inseparable from the daily working of local boards, than a Government inspector."

The last important reason adduced by the Committee for wider administrative areas was, that they would supply a superior machinery for the appointment of scientific officers, whether medical or engineering, of high and special qualifications.

The Committee then proceeded to argue with great force against the illogical and unsatisfactory method in which the Commission proposed to provide for the appointment of health-officers (a policy since carried out with aggravated evils by the Local Government Board), and insisted upon the importance of the duties of such officers. They adopted the opinion of the General Board of Health, that "the occupation of a medical officer of health will not usually be inconsistent with his devoting a portion of his time to certain other professional engagements; but, where possible, it will be well to debar him from the private practice of his profession: first, because the claims of such practice would be constantly adverse to those of his public appointment, the duties of which (especially at times of epidemic disease, when his official activity would be most needed) private practice could scarcely fail to interrupt and embarrass; secondly, because the personal relations of private practice might render it difficult for him to fulfil with impartiality his frequent functions of complainant; and thirdly, because, with a view to the cordial goodwill and co-operation of his medical brethren, it is of paramount importance that the officer of health should not be their rival in practice, and that his opportunities of admonitory intercourse with sick families should not even be liable to abuse for the purposes of professional competition".

For these reasons, and for several others which will be found in their report, the Committee proposed, "that the right of separate appointment, by municipalities, of chief health-officers should be limited to large cities and towns, the authorities of which might be willing (as in Liverpool) to render their health adviser independent of private practice by a salary which shall, in the judgment of the central authority, suffice to secure the devotion of his entire time and thought to his public duties. All other towns would enjoy the advantage of superintendence by an officer of the same high class, appointed by a county or other intermediate authority. *The system should be uniform throughout the country.*"

Another important reason for the appointment of county health superintendents, equally independent of private practice and of local caprice, may be here incidentally referred to. It cannot be doubted that a grave difficulty in the way of the complete registration of infectious disease throughout the country is the fact that, in the majority of sanitary districts, as at present constituted, the medical officer of health, to whom all notifications of the existence of infectious cases must of necessity be referred, is a practising physician, as dependent upon local patients as those practitioners who would have to report their cases to him. The reluctance of these latter to assent to such an officer becoming acquainted with the nature and extent of their practice can easily be imagined; and it would seem worthy of consideration whether the compulsory appointment of independent medical officers of health should not proceed *pari passu* with the compulsory registration of infectious sickness.

On this point, the Joint-Committee reported, "While we perceive with satisfaction that the Commission recommends the registration of sickness, we doubt whether the method thereof should be wholly left, as proposed, to the Registrar-General, without insisting upon the necessity of considering in the first place the sanitary needs of the localities from which the returns are collected, and in which they ought to be promptly applied to local sanitary action. It is in regard of this function that a skilled and comparatively independent officer of health becomes indispensable. A proper machinery for the local revision of mortuary and sickness returns, by a skilled and independent officer, would be provided by vesting the appointment of the chief health officers, debarred from private practice, in intermediate authorities; and to county justices, it may be observed, the legislature has committed the appointment of public analysts."

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* This estimate has been proved to be singularly accurate. There are now as nearly as possible a thousand urban sanitary districts in England and Wales.—E. H.

Another subject proposed for discussion by the Society of Arts, viz., that of the advisability of strengthening the administrative organisation of the Local Government Board, was dealt with by the Committee. They reported:

"It is obvious that, with a sufficient corps of chief health-officers, the inspecting staff in immediate connection with the central authority need not materially, if at all, exceed the number now actually employed by the various central departments, which are to be consolidated, we hope, under one Minister of Health. Without a body of superior health-officers, *either* many necessary duties of superintendence and inspection must remain unperformed, *or* an equally numerous body of district inspectors, under the central authority, must be appointed to execute them, at a great national cost.

"Confining our remarks to the existing inspectorates, we heartily agree with the Sanitary Commission that simplicity and economy alike demand their union under one chief, and their redistribution in *circuits*, analogous to the registration divisions, or the districts of Poor-law inspectors, which circuits might constitute the larger public health areas, except for any special purpose, as the control of river-basins. In every such circuit, it may be advisable, for efficient administration, that the central authority should act through *three* inspectors, with different qualifications—one legal, one engineering, and one medical or scientific.......

"What seems to us the fatal objection to the scheme of sanitary administration proposed by the Commission [which was, it is to be noted, carried out almost in its entirety by Mr. Stansfeld], is that it presupposes the frequent intervention of the central authority and its officials, not only in the great movements of the sanitary system, but in many minute local details. It is to be worked—or at least regulated—from the centre, by inspectors who, not necessarily residing in the districts which they superintend, cannot know more of local circumstances and peculiarities than they can glean during brief and hasty visits. This mode of administration has the threefold disadvantage of being costly, of being inefficient, and of keeping the country in a state of perpetual tutelage. If, on the other hand, the inspectors, or rather chief officers of health, highly trained in all the departments of public medicine, were resident in their districts, each one of them would be a centre of instruction whence sound and enlightened views on all sanitary matters would emanate, so as gradually to enlighten the public mind, stimulate local action, and reduce to a minimum the need of interference by the central authority."

When the Public Health Bill was introduced into the House of Commons by Mr. Stansfeld in 1872, the Joint-Committee made strenuous efforts to get recognised the important points dealt with in their report for 1871, but unfortunately with but little effect. On April 8th, 1872, a large and influential deputation waited upon Mr. Stansfeld to present a memorial expressing the views of the Joint-Committee on the subject. In this memorial, the establishment of County Boards was forcibly urged; and in the subsequent addresses to Mr. Stansfeld of the late Dr. Rumsey, Mr. Michael, and Dr. Stewart, this point was strongly brought out. Mr. Stansfeld, however, was not convinced, and the Bill became law without any of the desirable amendments of the Committee being adopted. No opportunity occurred for the useful interference of the Committee until 1876, when it was thought expedient to convene a Sanitary Conference to consider the subject of the necessity for furthering sanitary legislation. This Conference was held on the 11th and 12th of May, 1876, under the presidency of Lord Aberdare, when much important information and many valuable suggestions were elicited. The Committee reported, in their Annual Report for 1876, that "the general agreement manifested as to the propriety of abolishing the distinction between urban and rural districts; the expediency of having one law for the whole area, and only one authority clothed with sufficient powers for all purposes of local government in each subdivision of the country; the necessity of large areas; the appointment of County Boards; and the importance of weekly returns of sickness; and of having, for the large towns and for the larger areas of counties, officers entirely devoted to their public duties,—was as remarkable as it was satisfactory and encouraging."

At this Conference, a series of resolutions were passed; and, as they are of a very important and suggestive nature, I reproduce them here in full.

"1. That the existing division of the country into urban and rural districts does not enable local authorities to fulfil their obligations in the most effective manner.

"2. That the same sanitary laws should be applied to the whole area of the country without distinction.

"3. That in any reconstruction of local areas, it is desirable to keep in view the advisability of securing one subdivision of the country for sanitary and other purposes of local government, such subdivision to be, as far as possible, on the lines of the existing municipalities, unions, and counties.

"4. That, in the opinion of this Conference, it is desirable that a Commission be appointed to consider and readjust, with the concurrence of the Local Government Board, the boundaries of the existing districts, or any new districts to be hereafter formed.

"5. That the appointment of a County Board, consisting partly of elected members and partly of others nominated by the Court of Quarter Sessions, is desirable.

"6. That the duty of such County Boards, so far as they relate to sanitary matters, should be to exercise a control over the salaries and dismissals of the officers of local boards not being municipal boroughs; to hear appeals from one portion of a district against the decision of their board as to the incidence of expenditure for works of only partial advantage; and to undertake the conduct and supervision of such works as from their nature and expense cannot be undertaken by separate local boards.

"7. That the powers and machinery at present possessed by local sanitary authorities are inadequate to the purposes for which they are intended; especially, but not solely, in respect of means for preventing the spread of disease, from the want both of early information of its existence, and also of the means of checking its progress; from want of power to prevent the erection of houses on unhealthy and improper sites, and to secure in certain cases due provision of water; and from want of means to acquire with sufficient facility and economy land for public purposes.

"8. That the incidence of taxation for sanitary and other purposes of local government should, as nearly as possible, be proportional to the direct benefit accruing to the several parts of the districts.

"9. That the officers of sanitary authorities should, so far as is practicable, be restricted from other than the official duties for which they are specially engaged; and that in order to promote this object, it is essential that the area of supervision should be made as large as can be efficiently worked.

"10. That a health-officer or assistant should, where it is practicable, be appointed *(a)* to every Local Government District, or combination of districts, such districts to be constituted, as to area and population, as already suggested; and *(b)* to every county.

"11. That the several officers should be in communication with each other, and with the health-officer especially attached to the County Board.

"12. That the salaries be such as to ensure the services of first-class members of the medical profession, devoting themselves entirely to the health-service of the country.

"13. That it is desirable in future to appoint, at least to the higher offices, men who have passed an examination in State Medicine.

"14. That the above regulations are equally desirable in the cases of surveyors and inspectors of nuisances, so far as they are applicable.

"15. That, in the opinion of this meeting, the powers of the Public Health and other sanitary Acts which are of a permissive character should, as far as practicable, be made compulsory."

A memorial embodying these views was prepared for presentation to the then Prime Minister; but Lord Beaconsfield expressed his inability, on account of the pressure of business, to receive the deputation that proposed to present it. In 1878, however, when the County Boards Bill was introduced by the Government, the Joint-Committee made another attempt to revive the subject by preparing a memorial with a view to its presentation by an influential deputation to Mr. Sclater-Booth. The great opposition in the House, and also throughout the country, to the details of the measure, led to its withdrawal, and the Committee contented themselves therefore with forwarding a memorial in which their views on the subject were expressed.

During the Session of 1879, public interest was so engrossed with other questions that there was no opportunity for profitably discussing this important matter; but now that a new Government, pledged to improvement in domestic legislation, has come into power, it cannot but be regarded as most opportune that the Society of Arts should revive the question of County Boards. In thus giving a sketch of the labours of our Joint-Committee of the British Medical and Social Science Associations, I have been desirous to bring forward points upon which the Committee, which comprises amongst its members men of the highest rank and attainments in the sanitary world, has come to a deliberate decision after most carefully weighing the evidence on the subject. I cannot but think that the discussion which we shall be privileged to hear on this occasion will tend very greatly to strengthen the hands of the Committee, and to expedite in a marked degree the reforms for which it has so long and earnestly striven.

LECTURES
ON THE
RELATIONS OF SARCOMA TO CARCINOMA.

Delivered at the Royal College of Surgeons of England, June 1880.

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LECTURE II *(Abstract)*.—SUBPERIOSTEAL SARCOMA OF BONE.

IN the consideration of sarcoma of the bones, I shall include all bones with the exception of the upper jaw, the tumours of which are often of uncertain origin; and shall differ from most authors who have written on the subject, in referring the various tumours collected together under the generic term osteoid each to the group in which the cell-growth which forms its basis appears naturally to place it. Since no epithelial structures exist naturally in bone, no primary malignant tumour of bone can be a carcinoma. This simplifies the study of these tumours; and fortunately the subject is capable of still further division by a separate consideration of the tumours of central and of subperiosteal origin. Of most tumours the origin is easy to decide; but, where doubt exists, the case had best be laid aside as useless or unsafe for comparison.

The subperiosteal sarcomata may be all arranged in three groups: 1. Round-celled; 2. Spindle-celled; 3. Mixed-celled. The round- and spindle-celled sarcomata require no further definition than that which applies to such tumours wherever they occur. The mixed-celled tumours consist of cells of various forms and characters, which are mingled in different proportions even in different parts of the same tumours. These tumours often contain bone, or earthy salts, or cartilage; but the presence of these does not constitute a mixed-celled tumour. Nor is there any reason why tumours which are partly calcified or ossified should on this account be classed together as osteoid or osteo-sarcomata, or osteoid cancers, or osteoid chondromata. The same objection applies to all these terms. They are not always employed in the same sense; they are inconsistently used, and may mislead.

I have no intention of proposing a new nomenclature of bone-sarcomata, but merely desire that, as the soft tumours are classed according to the nature of the cells of which they are composed, and as little difficulty is experienced in assigning to each its place, so may the more complex tumours, which contain bone or earthy salts or cartilage, be classed according to the nature of the cells which compose their softer parts. Where only tiny particles of bone or of earthy salts or of cartilage are scattered through the substance of a tumour, no modification of its name seems necessary; but where these tissues occur in quantity so large that they alter the characters of a tumour, there is no reason why this alteration should not be expressed by some fitting term, preceding that which applies to the growth on account of the form of the cells of which its soft parts are composed. A nomenclature such as this is sufficiently simple and easy of application.

Of fifty-six cases of subperiosteal sarcoma of which the accounts are sufficiently complete, twenty-two were round-celled, eighteen spindle-celled, and sixteen mixed-celled. The bones affected were: femur, twenty-one; skull, nine; tibia, nine; humerus, five; pelvis, three; lower jaw, three; clavicle, two; fibula, two; ulna, one; ribs, one. These relative proportions are probably approximately correct for all bones except the pelvis, the tumours of which are often of uncertain origin. In considering these tumours, I shall adopt a different method from that generally employed, and shall consider their characters and the conditions of their existence in each particular bone which they affect. The accompanying tables exhibit many of their more important characters; and I shall, therefore, content myself with explaining what may seem to need explanation, with pointing out distinctions and analogies, and with supplying deficiencies.

The *femur* is of all bones most frequently affected by subperiosteal sarcoma, and apparently by all three forms in tolerably equal proportion. Of the *round-celled* cases, only No. 1 was not operated on. In eight months, the patient died; but the tumour never ulcerated. Several of the secondary growths were calcified like the primary disease. In No. 2, the death from wide-spread generalisation, which followed seven weeks after amputation, renders it probable that the operation did not materially influence the course of the disease. Of these five cases, three would generally be termed osteoid; but, from a study of their course, there appears no reason for classing them apart.

Of the eight cases of *spindle-celled* sarcoma, the growth of all was rapid, the issue fatal; but three died from causes connected directly with operation. In No. 9, life could scarcely have been much prolonged even had the patient survived the operation, for the lungs already contained secondary growths. In No. 11, many characters of the disease are well exhibited. The tumour had commenced a year before admission to the hospital. It grew slowly at first; then with great rapidity. The whole thigh was occupied from the groin almost to the knee. During the two months before her death, the tumour continued to grow; the groin-glands became enlarged; but the skin remained unbroken to the end. At the necropsy, the tumour, a brain-like mass, infiltrated the surrounding muscles and passed up beneath the pelvic arch into the pelvis and abdomen, where it attacked the bladder and the iliac veins. The inguinal, pelvic, and lumbar glands were enlarged and sarcomatous; and both lungs were filled with growths. Only in one important feature does this tumour differ from the others of the same subgroup—in its affection of the lymphatic glands. This may have been due to continuous infiltration of some of the inguinal or pelvic glands, from which the disease spread along the lymphatic channels. In two cases, there was recurrence after amputation (Nos. 7 and 13). In the former case, the tumour was soft, broken down, and filled with semiclotted blood: a good example of one of the old forms of fungus hæmatodes. Recurrence rapidly occurred, and disarticulation of the hip was practised; but three weeks later the patient died, apparently from affection of the lungs. In the second case, the tumour was calcifying and chondrifying, and had already existed for a year when amputation was performed. A year later, the hip was amputated for recurrence of the growth; and again a year later the patient died with huge masses in both lungs and three small tumours of the lining membrane of the heart. At first, it appears probable that the much longer duration of this case, and its slow recurrence, were due to the density and hardness of the primary disease; but this impression is corrected by the instance of another tumour equally dense and hard with this (No. 9), for which amputation was performed at the end of a year; and when the patient died, a few days later, both lungs were partly filled with secondary growths.

Only two of the cases of *mixed-celled* sarcoma were permitted to pursue an uninterrupted course. In one of them, the popliteal, lumbar, bronchial, and tracheal glands were affected by the disease. The healthy condition of the glands of the groin and pelvis, and the diseased condition of those of the abdomen and more distant parts, render it probable that in this case, as in most cases of sarcoma, the blood- and not the lymph-vessels were the channels through which the affection was conveyed. Recurrence after operation occurred only in one patient, whose tumour, hollowed out with cysts or cystoid cavities, extended almost to the hip-joint, where amputation was performed. The first four of these mixed-celled tumours contained similar cystoid cavities, and each of these tumours was partly cartilaginous—two facts which are mentioned together because the second may help to explain the first, for the tendency of cartilage to soften down into fluid has long been recognised. The frequency of the occurrence of bone or earthy salts and cartilage in these mixed-celled tumours should be noticed, and the fact that the cases in which these tissues occurred presented no other characters in common which entitle them to be classed separately.

The characters common to most of these tumours of the femur are first their deadly nature and rapid course. Eighteen of the subjects are dead, and of the remaining three, only of one is it known that he was still alive a year after operation. But of the eighteen who died, five lost their lives from causes connected with operation. In three of these five cases, the operation was practised very early in the course of the disease, and no secondary affection was observed. The nine *post mortem* examinations of other cases showed affection of the lungs in every one. Glandular affection occurred so rarely that it is more difficult to explain those cases in which it was absent than those in which it was present. Affection of more than a single organ occurred only in the round-celled sarcomata. Recurrence of the primary disease was rare. Ossification, calcification, chondrification, were present in almost half the cases. Ulceration of the integument was almost unknown; even those tumours which were permitted to pursue their course without interruption to death did not break through the skin. The duration of disease was in most cases from nine to twelve or fourteen months; but two died with affection of the viscera within four months, and one lived for three years. Of the age at which these tumours of the femur grew, I can

Subperiosteal Tumours of Bone.

No. of Case.	Sex.	Age.	Seat.	Simple or Mixed.	Affection of Surrounding Parts.	Duration to Operation.	Nature of Operation.	Total Duration.	Cause of Death.	Recurrence after Operation.	Affection of Glands.	Affection of Lungs.	Affection of Other Parts.
			Femur: Round-celled.										
1	F.	20	Lower third	Calcifying & Cartilage	—	—	o	8 months	Disease	—	o	Yes	Skin, kidney
2	M.	27	Lower epiphysis	Simple	—	2 months	Ampn. thigh	3½ ,,	,,	o	Inguinal	Yes	Calvaria, sternum, heart, liver, & kidney
3	M.	24	Lower third	Calcifying	Muscles	6 ,,	Ampn. hip	11 ,,	,,	o	o	Yes	Liver, spleen
4	M.	26	Lower epiphysis	Simple	o	15 ,,	Ampn. thigh	15 ,,	Pyæmia	o	o	—	(No *post mortem* examination)
5	M.	16	Lower third	Bone	—	1 ,,	,,	—	—	o	o	—	(Well fourteen months after operation)
			Femur: Spindle-celled.										
6	M.	14	Diaphysis	Simple	Muscle	8 ,,	Ampn. hip	14 months	Disease	o	—	—	(No *post mortem* examination)
7	F.	21	Lower third	,,	—	3 ,,	Ampn. thigh	8 ,,	,,	Yes	o	—	(No *post mortem* examination)
8	M.	41	,,	,,	o	3½ ,,	,,	4 ,,	Septicæm.	o	o	o	o
9	F.	31	Diaphysis	Bone & Cart.	o	12 ,,	Ampn. hip	12 ,,	Disease	o	o	Yes	o
10	F.	9	Lower third	Simple	Muscle	1 ,,	Incision	4 ,,	Suppurtn.	o	o	o	o
11	F.	27	Diaphysis	,,	,,	—	o	14 ,,	Disease	—	Inguinal	Yes	o
12	F.	34	Lower third	,,	—	3 months	Ampn. thigh	3 ,,	Pyæmia	o	o	o	o
13	F.	18	,,	Calc. & Cart.	—	12 ,,	,,	36 ,,	Disease	Yes	o	Yes	o
			Femur: Mixed-celled.										
14	M.	14	Diaphysis	Bone & Cart.	o	3 ,,	Ampn. hip	3 ,,	Shock	—	o	Yes	o
15	F.	30	Diaphysis, 1st half	,,	Muscles	—	o	9 ,,	Disease	—	o	Yes	o
16	M.	13	Diaphysis	,,	,,	2½ months	Ampn. hip	12 ,,	,,	Yes	o	—	(No *post mortem* examination)
17	M.	23	Diaphysis, 2nd half	,,	,,	4½ ,,	,,	—	—	—	—	—	—
18	M.	38	Lower third	Simple	,,	2½ ,,	Ampn. thigh	9 months	Disease	o	o	—	(No *post mortem* examination)
19	F.	16	Diaphysis, 1st half	,,	—	9 ,,	Ampn. hip	9 ,,	Shock	o	o	—	,, ,,
20	M.	27	Diaphysis, 1st half	,,	Muscles	3½ ,,	,,	—	—	—	—	—	—
21	M.	24	Diaphysis, 2nd half	Calcifying	o	—	o	9 months	Disease	—	Bronchial, popliteal, lumbar, etc.	Yes	o
			Tibia: Round-celled.										
22	M.	53	Diaphysis	Simple	Skin	Years	Ampn. thigh	Many years	Disease	o	o	—	(No *post mortem* examination.) Tumour of forehead and of other calf
23	F.	17	Upper epiphysis	,,	o	3 months	,,	9 months	,,	o	o	—	(No *post mortem* examination)
24	M.	26	Upper third	,,	—	2 ,,	,,	—	—	o	o	—	(Well sixteen months after operation)
25	M.	51	,,	,,	Muscles	2 ,,	,,	—	—	—	—	—	—
			Tibia: Spindle-celled.										
26	M.	6¾	Upper third	Bone	Skin	—	o	6 months	Disease	—	o	o	o
			Tibia: Mixed-celled.										
27	M.	18	Lower third	Bone	—	7 months	Ampn. leg	—	—	? Femur	Femoral	—	—
28	M.	20	Upper third	Calcifying	o	7 ,,	Ampn. thigh	—	—	o	o	—	(Well two years after operation)
29	M.	19	Diaphysis	Bone	Skin	—	o	10 months	Disease	—	o	o	o
30	M.	24	Upper third	Simple	Muscles	9 months	Ampn. thigh	10 ,,	Pyæmia	—	o	Yes	o
			Fibula: Spindle-celled.										
31	M.	20	Upper third	Simple	Mscls.	6 ,,	Amp. thigh	9 ,,	Disease	o	o	—	—
			Fibula: Mixed-celled.										
32	M.	22	Upper third	Calcifying	,,	8 ,,	,,	12 ,,	,,	o	o	o	In other calf and subcutaneous tissue
			Humerus: Round-celled.										
33	M.	19	Diaphysis	Simple	Muscles	2 ,,	Amp. Shoulr.	—	—	Yes	o	—	—
34	M.	19	,,	,,	,,	3 ,,	,,	3 months	Shock	—	o	—	(No *post mortem* examination)
35	F.	27	,,	,,	,,	4 ,,	,,	16 ,,	Disease	Yes	o	—	,, ,,
36	M.	6	,,	,,	,,	1½ ,,	,,	—	—	—	o	—	—
			Humerus: Spindle-celled.										
37	M.	34	Diaphysis	Cartilage	Muscles & bone	6 ,,	Resection	6 months	Operation	—	o	Yes	o
			Ulna: Mixed-celled.										
38	M.	25	Upper third	Bones	—	12 ,,	Ampn. arm	13½ ,,	Disease	o	o	—	(No *post mortem* examination.) Five tumours of biceps
			Clavicle: Round-celled.										
39	M.	18	Sternal half	Simple	Muscles	9 ,,	Resection	—	Disease	Yes	? Cervical	—	(No *post mortem* examination)
40	M.	14	Acromial half	,,	,,	1½ ,,	,,	—	—	—	Cervical	—	—
			Lower Jaw: Spindle-celled.										
41	F.	18	Body	Cartilage	Muscles	2 ,,	Resection	6½ months	Disease	Yes	o	—	(No *post mortem* examination)
42	F.	29	,,	Simple	—	1½ ,,	,,	—	—	—	—	—	—
43	F.	20	,,	,,	o	3 ,,	,,	12 months	Suffocatn.	Yes	o	—	(No *post mortem* examination)
			Ribs: Spindle-celled.										
44	M.	33	Neck	Cartilage	Mscls.	12 ,,	Resection	—	—	o	o	—	(Well nine months after operation)
			Pelvis: Round-celled.										
45	M.	41	Innominate	Simple	Muscles	—	o	7 months	Disease	—	Pelvic	o	o
46	M.	25	,,	,,	o	5 months	Resection	5 ,,	Shock	—	o	Yes	—
47	M.	25	,,	Cartilage	Muscles	—	o	20 ,,	Disease	—	Pelvic	Yes	Scapula, vertebra, heart, and liver
			Skull: Round-celled.										
48	F.	21	Multiple	Simple	—	—	o	6 ,,	Disease	—	Bronchial	o	Both breasts
49	M.	17	,,	,,	o	—	o	3 ,,	,,	—	Mesenteric	o	Testis, kidneys, prostate
50	M.	19	Base	,,	Mcs. etc.	—	o	8 ,,	,,	—	Mediastinal	Yes	o
51	M.	28	Multiple	,,	,,	—	o	11 ,,	,,	—	o	Yes	Humerus, liver
			Skull: Spindle-celled.										
52	M.	19	Frontal	Simple	o	30 months	Removal	30 ,,	Collapse	—	—	o	o
53	M.	3	Multiple	,,	o	—	o	3½ ,,	Disease	—	Submaxillary, lumbar, & mesenteric	o	Lower jaw, suprarenal capsule
54	M.	24	Base	,,	Nerves	—	o	14 ,,	Cerebral	—	o	Yes	Liver, subcutaneous tissue
			Skull: Mixed-celled.										
55	M.	30	Multiple	Bone	o	—	o	24 months	Cerebral	—	o	o	o
56	M.	4	Frontal	Simple	o	3 months	Removal	30 ,,	Disease	Yes	o	—	—

only say that they were rare before the age of puberty, still more rare after forty years, most frequent from twelve to thirty years of age. Of size or shape or contour, little can be said. Large size, fusiform shape, smooth contour, were perhaps the properties most common. But of position there can be no question; the lower portion of the bone, and next to this the diaphysis, had the preference. Last of all, the disease may be traced to injury in some few instances.

The tumours of the *tibia* include all three varieties. In no important respect did the three varieties differ among themselves, save in the prevalence of ossification or calcification of the mixed-celled tumours; but in some respects they differed widely from the tumours of the femur. Thus, two of them occurred in patients over fifty years of age, the growth was often slower, the tumour not unfrequently broke through the skin, and the whole course of the disease was milder and less markedly malignant. For, example, the round-celled tumour of No. 22 had already existed many years when amputation was performed. Two years later, a tumour appeared in the calf of his other leg. Three weeks after the removal of this tumour, the patient died from a cachexy which had been very evident before the operation. Another of the patients with round-celled tumour was well sixteen months after amputation through the thigh. Operation appears in some cases to have arrested or delayed the progress of the disease. One of the patients with calcifying mixed-celled tumour was well two years after amputation, performed seven months from the first outbreak of the tumour. Another, a youth of eighteen years, was amputated through the leg by Mr. Croft seven months after the lower portion of the tibia had become the seat of a large soft and pulsating tumour. A year later, the hip was amputated on account of a spongy tumour of the femur, which had been eight months growing. And with this tumour was removed a group of glands, whose size and colour left no doubt that they too were sarcomatous. This is the only case in which glandular affection was present, and here one cannot but think that the gland-disease was due to the tumour of the femur, not to the tumour of the tibia. The viscera were normal at the death of one patient ten months from the commencement of the tumour. The skin in this case, and in another somewhat similar, was broken. Possibly, the ulcer thus formed relieved the tension of the tumour, and, with the relief of tension, the tendency to the projection of cells and fluids into the vascular and lymphatic channels diminished. Affection of the lungs was proved by the necropsy in one case, was indicated by well-marked signs in other cases. In two-thirds of the cases, the upper portion of the tibia was the seat of the tumour, in which respect again the tibia differed widely from the femur.

The *fibula*, too, is most often affected at its upper end. The mixed-celled tumour differed from the other in its calcification and in its generalisation, for secondary tumours occurred in the other calf and in the subcutaneous tissue, not in the viscera. In other respects, the cases were parallel—age, position of tumour, rapid growth, invasion of surrounding muscles, absence of lymph-affection, death within a year, in neither case due to, but in each case in spite of, operation. No. 31 probably died of affection of the lungs.

The five tumours of the *humerus* all grew from the diaphysis, all grew rapidly, all grew along the shaft, yet through the periosteum, which therefore could not have confined them long, into the surrounding parts. That these tumours are exceedingly malignant is shown by the rapidity and manner of their growth, yet none of them produced enlargement of the glands. Two recurred after amputation, a circumstance easily explained by their position and by their extension into the surrounding muscles. Two died from the effects of operation, but, although there were three deaths, only one necropsy is recorded. In this case, the lungs were the only viscera affected.

Of the *clavicle*, there are two cases. In each, the glands appeared to be affected; in each, the surrounding soft parts were involved in the disease; in each, the tumour bore the same opaque-white colour and cancerous appearance. The cases are distinguished by the difference in the position of the disease, and by the somewhat slower growth of the tumour of the older patient.

The three tumours of the *lower jaw* were all spindle-celled, all of females, and of the body of the jaw. Of the first two, each is known to have died with recurrence of the disease, although resection was practised, in one of them two months, in the other three months, after the first appearance of the tumour. No *post mortem* examination was performed in either case, but the glands appear to have been sound.

Although the tumours of the *pelvis* are but three in number, they furnish some features which well may serve to illustrate, not only the pathology of pelvic, but of all subperiosteal tumours. Two of them differed from the third in their affection of the lymphatic glands. In order rightly to appreciate the importance of this circumstance, it must be studied in connection with two facts in which the cases differ, and with certain facts in which they both agree. First, there was a difference of sixteen years between the ages of the patients, and one of the tumours was a simple round-celled growth, the other a chondrifying sarcoma. These things, therefore, cannot be the cause or the prevention of glandular affection. Next, the tumours were of enormous size, were without capsule, grew into the surrounding parts, filled a large part of the cavity of the pelvis, and were, therefore, brought directly in contact with, and probably grew into, the pelvic glands. These points of concordance and of disparity would be of less moment, were they not so strongly contrasted in the remaining tumour. The very points in which it agrees with one of them are those in which they differ from each other; the very points in which it differs from them both are those in which they most agree.

The bones of the *skull* are subject to all three forms of sarcoma. From whatever region of the skull they grew, there was entire absence of glandular affection, unless that be considered glandular affection which, except that by it certain glands are affected, differs in no way from generalisation by the blood. I mean the affection of glands which lie far distant from the primary disease, not even in the line between it and the main lymphatic trunk. As examples of this, let me adduce two cases (48 and 49) which deserve on other grounds a more extended notice. They are cases of what has been called chloroma or green cancer. The disease commences in the bones of the skull or face, is of periosteal or subperiosteal origin, produces almost always multiple tumours of the skull, runs a most rapid course, producing growths of unconnected and unexpected parts, such as the bronchial and mesenteric glands, the kidneys, prostate, testes, breasts, and lungs, and kills in from three to six months. All the tumours present the same green colour, and round-celled structure. This much at least is gleaned from the recorded cases, which have been well analysed by Huber (*Archiv der Heilkunde*, Band xix, s. 129), who, in 1878, was able to collect but seven of them. Most of the sarcomata of the vault were multiple. They grew, too, as if simultaneously from both aspects of the bone. Yet this occurrence was not, as I believe, due to simultaneous growth, but to penetration of the bone. The direction of growth of any tumour is determined mainly by two factors; first, the resistance offered by the surrounding parts, and next, their capacity for contagion by the tumour elements. The resistance offered by the pericranium on the convex aspect and by the dura mater within must in every case be great, but the bone yields readily before the invading host of cells, its surface is eroded, its spaces are filled with the new growth. Frequent as were tumours of the inner aspect of the skull, death from pressure on the brain was rare. The mixed-celled tumours were so largely composed of fibrous tissue, and possessed so singular a structure, that I have been in doubt whether they were in truth sarcomata. The tumours of the base grew in each case from the body of the sphenoid bone, and differed only in one important respect from the tumours of the vault, that neither of them was multiple.

THE OPERATIVE TREATMENT OF CLEFT PALATE IN CHILDREN.

By HENRY G. RAWDON, M.D.,
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It is not my intention to allude to the past history of the two operations for the cure of cleft palate, namely, that for the closure of the soft palate or velum (staphyloraphy), and that for closure of the bony or hard palate (uraniscoplasty). I may mention, however, that these operations, until within the last twelve or fifteen years, have only been performed upon adults and young persons past puberty. In a few rare instances, attempts have been made to close fissures of the palate in infancy, and in one or two cases with success; but failure has been the rule, and even fatal results have sometimes followed.

The merit of initiating the practice of performing these operations while the patient is under the influence of an anæsthetic is undoubtedly due to Mr. Thomas Smith, Surgeon to St. Bartholomew's Hospital. By the employment of anæsthetics, such operations at once became possible in the case of children, and also of young persons, who might not possess the requisite fortitude to bear a tedious, and in the case of the hard palate, a painful, procedure.

Mr. Smith's happy invention of a gag—so constituted that it not only keeps the mouth open to the required extent, but by its tongue-plate depresses that organ—affords also great facility to the surgeon. In other ways he has simplified the mode of operating, and has devised several instruments and modified others more convenient than those ordinarily employed. Mr. Smith's method of operating was first brought under the notice of the profession in a paper read before the Royal Medical and Chirurgical Society on January 14th, 1868. Since then, he has published a second paper in *St. Bartholomew's Hospital Reports*, vols. 7 and 8, describing his plan of operating more fully, and giving a series of cases in which excellent results were obtained.

The operative treatment for closure of cleft palate may be undertaken at any age after completion of the first dentition, provided the child be sufficiently strong and healthy. It is not generally prudent to attempt it earlier, as no special advantage is obtained, while the difficulty will be greater, and the chances of success less. It is desirable, however, that the closure should be effected before the child has learnt to talk (this faculty is acquired later than usual in such children); and thus the characteristic defect in articulation has not to be overcome or unlearnt. Probably the best age at which to operate is between the third and fourth years.

Congenital deficiencies of the soft palate almost always involve more or less of the palatine portion of the hard; in other cases, the bony palate may be fissured up to or through the alveolar process.

I will endeavour to explain the practice I prefer, and my reasons for adopting it.

In closing a cleft of the soft palate, involving, as is generally the case, more or less of the palatine portion of the hard, I content myself with uniting the margins of the cleft as far forwards only as they can be approximated without traction—that is to say, about the lower two-thirds or three-quarters of the velum. The soft palate in the neighbourhood of the uvula is thick and vascular, and on this account offers facility for union by "first intention", which no other part of the palate possesses; and I believe that, if the cleft velum be closed to the limited extent already mentioned, a successful result may be regarded as almost a certainty.

By following this course, the character of the operation is simplified, and the degree of inflammatory action is proportionately less than if the closure of the upper or palatine portion of the cleft were attempted at the same time. In the latter case, the use of the raspatory would be called for, and lateral incisions, at the junction of the hard and soft palate, would also be required. It cannot be doubted that this additional manipulation might unfavourably affect the chances of union.

When a soft palate, or lower portion of it, has united, it readily accommodates itself to its new position and is free from tension, the improvement of its condition being well marked and progressive during the first few weeks.

As an argument in favour of the practice I advocate, instances have occurred in which, within two or three weeks after the successful closure at one operation of a fissured palate, owing to excess of tension, the united margins of the cleft have been suddenly torn asunder during some violent effort, such as vomiting, or swallowing hastily too large a lump of food. This undue tension may also, as Mr. Francis Mason has observed, nullify the good effect of the operation, so far as an improved character of the voice is concerned. I am inclined to the opinion that neither of these unfortunate results would take place, if the surgeon contented himself with uniting only the lower two-thirds or so of the soft palate, and waiting a reasonable time for it to accommodate itself before completing the cure.

A foramen so formed (by leaving the palatine portion of the fissure unclosed) has a tendency to diminish spontaneously, and its subsequent closure is not attended with difficulty. Lateral incisions and the use of the raspatory are needful, as it is essential that the vivified margins of a foramen come together without the least traction. When extensive fissure exists, whether up to the intermaxillary bone or through the alveolar process, I still prefer only to close the velum at the first operation, and to allow a sufficient interval to elapse before curing the hard palate.

It is recommended by Mr. Smith and other surgeons, whose opinion is well entitled to consideration, to close the entire fissure of soft and hard palates at one operation; and, if the cleft be not too wide, this may frequently be accomplished. As a rule, however, I think it better to make sure of closing the velum, than to run the additional risk of failure by attempting to close the entire fissure. When this is undertaken, the very manipulation necessary in separating the flaps of muco-periosteum may occasion such a degree of inflammatory reaction as to cause partial or complete failure of the operation. On the other hand, the healthy tissue of a sometime united velum will greatly assist in securing the union of the flaps detached from the bony palate; and not only so, but, once the velum is closed, the subsequent operation on the hard palate becomes easier of accomplishment. As time goes on, the cured soft palate has a remarkable action in diminishing the width of the fissure in the hard, more especially its posterior portion. It is noticeable that the nearly vertical sides of highly arched palates will, in a few months, assume a more flattened or horizontal position.

It must be acknowledged that Mr. Thomas Smith has done much to simplify the operation for the cure of cleft of the hard palate. That this is so, will be seen when the extensive lateral incisions of the palate, as commonly practised, are contrasted with the limited ones recommended by him. The usual plan is described thus: this incision should be close to, and parallel with, the alveolar ridge, and extend from a point opposite to the last molar forwards to the canine tooth; whereas Mr. Smith practises a small incision of from an eighth to two-thirds of an inch, which he directs to be made parallel to the margins of the cleft, and sufficiently far from the neighbourhood of the teeth to avoid wounding the vessels running between the anterior and posterior foramina, in the palatine groove near to the alveolar process. Mr. Smith's incision is thus obviously internal, while by the usual direction it would be external, to the palatine vessels; and consequently the chances of wounding these vessels are manifestly less.

The ordinary raspatories, Mr. Smith says, are too large to be employed in the case of children. He prefers a smaller kind, and remarks that a Holden's director and a steel aneurism-needle are often all the instruments really necessary for separating the flaps of muco-periosteum. Respecting the selection of suture-material for the hard palate, no doubt fine silver wire is the best; but, for the velum, silk, fishing-gut, silver wire, are all used. Mr. Smith himself prefers horsehair, that suitable for fishing-lines, previously soaked in water; but silver wire has answered so satisfactorily in my hands, that I am not disposed to change it for any other material. It and horsehair are specially unirritating, and consequently may be allowed to remain in the palate almost indefinitely; while silk sutures need early removal, obviously an objection, as it is imprudent to interfere with a recently united and more or less inflamed and irritable palate.

The following is an outline of the steps to be taken when operating upon the soft palate. Anæsthesia having been induced, and the hands secured to the hips, the gag is introduced and held in position (not tied), and the mouth opened to the required extent. The mucous membrane is freely pared from the margins of the cleft from below upwards. I use fine silver wire sutures, inserted from below upwards, which are made to pass through both sides of the fissure at one transit, with the aid of Mr. Smith's tubular needle—a modification of Marion Sims's vesical fistula needle. A small curved needle held in a holder is useful for the uvula.

The palate should be touched as seldom as possible with the forceps. By holding the ends of the suture last inserted, the next can be passed with facility, and the use of the forceps avoided. The sutures may be inserted about a quarter of an inch from each other, and about one seventh of an inch from the margins of the cleft: they are secured by twisting. An instrument, terminating in a short double cannula, through which the ends are threaded, is convenient for this purpose. The ends should be cut off as close as possible to the palate. The gag requires removal from time to time during the operation, and the mouth and fauces cleared by syringing. In doing this, the patient must be turned well over and the face held downwards. Should attempts at vomiting occur, they must be met in a similar way. Sponging is to be avoided as far as possible, as it excites the flow of secretions from the fauces.

In the simpler cases of fissured velum, neither division of the palatine muscles nor lateral incisions are required. The wire sutures, if there be no traction on the margins, will control muscular resistance. In the severer cases, where the gap is wide, or where the hard palate is partially or completely fissured, I adopt Mr. Pollock's method of restraining muscular action. This plan is fully described in Mr. Holmes's *System of Surgery*, vol. iv, page 427. I prefer, however, to practise it after rather than before paring the edges of the cleft. It consists of a puncture of the palate, a little internal to, and in front of (*i.e.*, above) the hamular process, while it is held on the stretch. The knife is made to cut the posterior or pharyngeal aspect of the velum more freely by raising the handle in the act of withdrawing it. This incision divides some fibres of the tensor and levator palati, and is effective in paralysing muscular action. If further freedom be needed, the pillars of the fauces (palati glossi pharyngei) may be cut across on each side.

I may here remark that in all cases of closure of the soft palate, whether simple or complicated, when a point is reached where another suture cannot be secured without tension, I at once desist, rather than practise lateral incisions, preferring to leave what remains to be done for a subsequent operation.

The operation for closing the hard palate is performed as follows; and what has already been stated as preliminary in the case of the soft palate holds good in the hard. The edges of the cleft are freely pared from behind forwards, but cutting obliquely rather than vertically along the bony margin. The incision for the raspatory, which need not exceed half-an-inch in length, is made about midway between the alveolar process of the first molar tooth and the margin of the cleft and parallel with it. It is gently worked under the muco-periosteum till it appears in the cleft; and, to complete the separation, an aneurism needle can be conveniently employed from within the cleft so as to meet the raspatory, which latter can be withdrawn. At the point where the hard and the soft palate unite, the flaps are always firmly attached by a process of fascia to the posterior margin of the bony palate. The separation at this spot can only be satisfactorily effected by a cutting instrument, and for this purpose a pair of short-bladed angular scissors is useful. One blade is passed under the flap between it and the bone, and the other through the cleft over the nasal surface of the palate. This includes the fascia, and entirely frees the flaps. The sutures are inserted with the tubular needle, and managed in a precisely similar way as in the soft palate. They may, however, in some cases be allowed to remain in a few weeks longer with advantage. In highly arched palates, the flaps are often redundant, the margin being readily approximated; while in broad and flat palates, the incisions for the raspatory will need free extension, both backwards and forwards, leaving an elliptical gap of considerable width on each side. In carrying the incision backwards, care must be taken to avoid the neighbourhood of the posterior palatine canal, or troublesome hæmorrhage may ensue. In cases of complete cleft with harelip, I think an advantage is gained by closing the soft palate first, and in a few weeks' time, operating upon the lip. The latter having been cured, the margins of the cleft in front and the alveolar process come together with comparative rapidity. It is desirable, however, to defer closing the hard palate for some months. With regard to the after-treatment, nothing very special is required. It is by no means necessary for the patient to remain in bed beyond a few days. The diet should consist of fluid and unstimulating food, and, for the first week, principally milk. Afterwards, more solid food, provided it be made soft, may be freely allowed. After these operations, I prefer the patient having moderately warm, rather than iced drinks, believing that harm may possibly result from the latter being persisted in. I follow Mr. Smith's judicious advice, and refrain from inspecting the palate for the first few days after operations. The sutures should not be interfered with for at least two or three weeks, after which they can be readily removed, all sensitiveness having passed away.

I append a brief outline of a few cases which have been under my charge at the Liverpool Infirmary for Children. On each occasion, chloroform was the anæsthetic employed.

CASE I. *Cleft of the Velum and of the Posterior Third of the Hard Palate.*—Milly P., aged 3, an apparently healthy but really delicate child. On August 28th, 1877, I closed the whole cleft, using silver wire and silk sutures alternately. The raspatory was employed to free the flaps from the bony palate. The margins of the cleft came together without tension. On the fourth day, I found that union had failed. The edges looked unhealthy, and the entire palate was in a very inflamed condition. Convalescence was retarded by troublesome diarrhœa.

CASE II.—*Cleft of the Velum and one-third of the Hard Palate.*—Alice L., aged 7. On January 19th, 1878, I closed the soft palate only, adopting Mr. Pollock's method of paralysing muscular action, and using silk sutures, except at the base of the uvula and at a point in the cleft as far forwards as the margins could be brought together, where I substituted silver wire. On the fifth day, all had well united; but on the sixth, the silk sutures appeared to be causing so much irritation that I considered it desirable to remove them. In doing so, the union of the uvula gave way up to the silver suture. At the end of the third week, the two silver stitches were removed, all the soft palate brought together being firmly united, the uvula excepted. On October 26th, I closed the foramen, which in the meantime had considerably diminished in size, with three silver wire sutures, making lateral incisions and using the raspatory. On inspection, a few days afterwards, the foramen was found to be quite closed. On November 16th, I united the bifid uvula, using very fine silver sutures. The result was quite satisfactory, the whole of the cleft being now completely closed. There is well marked improvement in the child's articulation since the first operation.

CASE III. *Cleft of the Velum and Hard Palate up to the Intermaxillary Bone.*—Michael B., aged 3, a healthy child, had a cleft of considerable width; but the mouth was peculiarly small. On March 23rd, 1878, I closed the velum as far forwards as I could without tension, using silver wire for all the sutures except the upper two, which were of fishing-gut. I adopted Mr. Pollock's incisions, and divided the pillars of the fauces. On the fifth day, it was found that union had taken place where the silver wire was used, but the gut sutures had ulcerated out. A very serviceable soft palate was the result. On September 14th, I closed the hard palate, except the extreme anterior angle, carrying the incisions for the raspatory well back, as the cleft was a wide one. On the fourth day, union appeared to have taken place; but on the evening of the fifth, hæmorrhage came on, which soon ceased without interference. On inspection, a few days later, I found that the palate had remained closed, leaving, however, two small foramina. On the child's readmission, a mild attack of scarlet fever prevented an attempt from being made to close these foramina, and he has not been brought to the Infirmary since.

CASE IV. *Cleft of the Velum and the Posterior Half of the Hard Palate.*—William B., aged 3. On admission, the child was healthy, but had an irritable cough, and the operation was deferred until this was better. On September 21st, 1878, I closed the whole cleft, following Mr. Pollock's method of restraining muscular action, and making lateral incisions parallel to the margins of the cleft, through the upper part of the soft palate and through the muco-periosteum of the palatine portion, freeing the flaps with the raspatory. I used silver wire sutures. The margins of the cleft came fairly well together; but. unfortunately, next day the cough returned. On examination, a few days later, I found the soft palate had given way, but nearly all the hard had united. On November 2nd, I made a second attempt to close the velum, or rather the lower two-thirds of it, again adopting Mr. Pollock's incisions, and on this occasion dividing the pillars of the fauces. Silver wire was employed for sutures. The foramen thus formed was nearly circular, and over half-an-inch in diameter. The result of this operation was quite successful. On October 11th, 1879, I closed the foramen, which at this time appeared as a mere slit a quarter of an inch in length, and the edges even touching.

CASE V.—*Cleft of the Velum and half-an-inch of the Hard Palate, with Harelip which had been closed in Infancy.*—Harold S., aged 3, a rather delicate child from the country. On August 24th, 1878, I closed the velum to within a quarter of an inch of the bony fissure with fine silver wire. No muscles were divided nor were any incisions made. It united perfectly, and the sutures were removed at the end of the third week. On April 24th, 1879, I closed the foramen with three silver sutures, making lateral incisions and using the raspatory. The cleft in the palate is now completely cured, but on the left side there is a small hole, the result of an accidental tear made by the raspatory; this can be closed at any time.

CASE VI.—*Complete Cleft of Hard and Soft Palate, and of the Right Lip and Nostril.*—William C., aged 11, first came under my notice, suffering from vesical calculi; and lithotomy being performed, two moderately large stones were extracted. After convalescence, he returned home for a few weeks. On November 16th, 1878, I closed the cleft in the velum, following Mr. Pollock's plan of incising the palate. Silver wire was used for sutures. The fact of the hare-lip existing greatly facilitated the operation, allowing ample light and room to work in. The result was quite satisfactory; and on the twenty-first day, the sutures were removed. On December 4th, I closed the hare-lip without interfering with the alveolar process in any way, well freeing the soft structures on each side from their bony attachments. The cure of the lip was satisfactory. The boy returned home for five months; and on May 10th, 1879, I closed the hard palate. The cleft in the alveolar process had meanwhile closed spontaneously; before the hare-lip was operated upon, it was fully half-an-inch wide. The sutures were removed at the end of the fifth week. All the palate is now closed, except two small holes; one at the point where the hard and the soft palate meet, the other at the anterior angle behind the alveolar process. The articulation, which previously to closing the fissure was absolutely unintelligible, is now very considerably improved.

THE TREATMENT OF ASTHMA.

By J. B. BERKART, M.D.,

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I.

FROM the earliest days of the history of medicine until the present moment, narcotics, antispasmodics, *et hoc genus omne*, have been, severally or in endless combinations, and with no sparing hand, applied to every orifice of the body for the purpose of subduing the nervous irritability supposed to be the essence, or at least the chief element, of asthma; and yet, notwithstanding the indubitable efficacy of these remedies, the records of medicine contain not one single instance in which that practice has produced, at best, a more than temporary benefit. Enthusiastic therapeutists, it is true, allege that in some cases antispasmodic fumes, a certain mixture taken three times a day, and a certain pill at night, have led to the happiest results; but the remark they add, that the patients had to carry about with them their panacea, to be used with every recurrent attack, somewhat obscures the brilliancy of their success. The bulk of practitioners have been less fortunate in their experience as regards relief or cure of asthma; and their opinion that this is the most intractable of all diseases is unhappily in strict accordance with facts.

No sadder impression can be received than by studying what is still current for the pathology of asthma. Not only in science, but in the ordinary business of life, if a given conclusion prove faulty, the rule prevails to seek the source of error by examining the propositions; but, in the case of asthma, this elementary principle of reasoning has been persistently neglected. Here experience has shown that a certain treatment, consisting in the administration of the most potent remedies, does not produce the expected effect. Instead of inquiring into the principles upon which that treatment is based, the question is shelved by assuming a "double capriciousness" of the disease as the cause of failure. But this is not all: the commonest matter of fact in relation to asthma is mystified and perverted. If a dyspeptic suffer after a heavy meal from flatulence and dyspnœa, the fruit or cheese with which the repast was finished is considered a "highly asthmatic article". If dust inhaled at the seaside impede respiration, "the air of Margate is unsuitable". And not the least painful matter is that, if facts and arguments be adduced to show the puerility of such reasoning, they are met by an unanswerable "I believe". If medicine were an abstract science, one might smile at such process of reasoning; but where, as in medicine, every theory even unconsciously influences practice, the utter want of logical thought must have the most pernicious consequences. If proof of this were needed, I would point to the innumerable instances which yesterday were considered to be, and treated as, "purely spasmodic asthma", but which to-day present themselves as hopelessly incurable phthisis. If further proof were needed, there is the practical outcome of the prevailing theory, as shown by the advice of Hyde Salter: "Give it a shake; make some change, *any* change, no matter whether the object is very definite or the therapeutics very rational......the most blind and purposeless treatment may be attended with the happiest results" (*On Asthma*, etc., 2nd ed., p. 104).

The fact is, asthma must remain a stigma on medical science, and the lucrative pursuit of speculative druggists, until its pathology is correctly understood. That the subject is somewhat obscure will be readily admitted; but what obscurities there are may be readily removed. It will be remembered that when, at the commencement of the present century, the systems of medicine were swept away, the diagnosis of cardiac and pulmonary affections was established upon the study of "physical signs" during life, and upon the changes in the organs as observed after death. Only one "essential" disease was admitted upon the absence of these criteria, and that disease was "asthma". I will not now repeat what I have elsewhere stated *ad nauseam*. At present, I only venture to remark that, if the physical signs of asthma were as broadly significant as those of certain forms of pneumonia and of pleurisy, a well-trained nurse could readily replace the physician. The superiority of the latter consists, according to my mind, in his power of observing facts, in interpreting and comparing them, and in arriving in this way at the hidden truth.

Nothing, I repeat, but the correct knowledge of the pathology of asthma shows the means of speedily and safely relieving the paroxysms, and of preventing their recurrence. It alone guards against the indiscriminate administration of the most useful remedies; for, unless they be given in suitable circumstances, in sufficiently large doses, etc., the benefit they are capable of producing is unattainable.

It lies in the nature of asthma that the treatment of the paroxysms should be paramount. No one who has ever witnessed an asthmatic seizure would for a moment hesitate to relieve the patient by any means in his power; and, however repugnant it must be to use preparations of unknown composition and of unknown action—as are the various specifics recommended in newspapers—even their exhibition would be willingly connived at, provided there were no rational means for the attainment of the same end. But no specifics are needed. The remedies in general use suffice for every contingency. Of course, the *ideally* perfect treatment would be to apply such remedies as, by removing the urgent symptoms, would exert at the same time a favourable influence upon the disease itself. Unfortunately, the most reliable remedies in use are of so slow operation as to be practically useless during the paroxysm, because the patient cannot or will not submit to measures which do not afford immediate benefit. Only one remedy—jaborandi and its alkaloid pilocarpin—approaches more nearly than any other the above requirement.

The powerful revolution which pilocarpin produces in the distribution of the blood must necessarily have a very beneficent influence in some forms of asthma; for, by attracting a large volume of blood to the skin and to the salivary glands, and by diminishing its volume through the copious perspiration and salivation, the congested internal organs are relieved in a corresponding degree. An adequate conception of the pathological changes in the lungs, indicating the use of pilocarpin, may be formed by observing an analogous process in the lower extremities. In connection with varicosities, the leg at one time increases in circumference, the pale and dry tissues presenting a peculiar inelastic and spongy feel; at another, the enlarged leg has a dark brown colour, and its tissues are apparently indurated; at another, in these circumstances, an ulcer developes itself. *Mutatis mutandis*, the same takes place in the lungs; only the interstitial changes in the lungs—in origin, in nature, and in progress precisely similar to those observed in the legs—are not amenable to diagnosis, unless they perceptibly diminish the volume of air, or interfere with its entrance or exit to and from the lungs by implicating the bronchi. Here then, pilocarpin has the same effect as the bandages in varicosities of the extremities. Within a few minutes, the application of the drug is followed not merely by amelioration of the subjective symptoms, but by a corresponding improvement of the physical signs. Of course, a remedy that so powerfully exalts one function necessarily depresses another, and therefore its use requires some caution. But with a little attention the remedy can be safely and successfully managed. I have found the alkaloid preferable to the plant because: 1. it acts more rapidly; 2, it does not produce strangury; and 3, the dose can be more accurately determined.

Those whose cardiac muscles are from whatever causes in a state of fatty degeneration, may, under the influence of pilocarpin, present the most alarming symptoms. However, the cause for alarm soon spontaneously subsides, the heart regaining its previous force; but if it lingered to do so, a subcutaneous injection of 1-120th or 1-60th grain of atropine immediately restores the balance. Pilocarpin is more suitable in the treatment of the younger asthmatics, but is by no means contra-indicated in patients of more advanced age. The dose should not exceed one-third of a grain. I have never used more than ten drops of a two-per-cent. solution. During the action of the drug, the patient should preserve the recumbent posture—which the almost immediate relief obtained will enable him to do—and he should be carefully watched until the effect has passed off. It is desirable to have a solution of atropine always at hand, in case of need. It is well, also, not to use pilocarpin soon after the patient's meals; if the dyspnœal seizure occur under these circumstances, there are, it is needless to say, other remedies more suitable.

The following case will show the immediate and the remote effects of pilocarpin.

CASE I.—J. C., aged 63, retired *employé* of the Fire Brigade, applied at Victoria Park Hospital on March 6th, 1879, complaining of dyspnœa with nocturnal exacerbation, so that he had been forced to spend the nights in his chair. He was of temperate habits. He became, six or seven years ago, subject to cough, from which he had suffered since. The expectoration was not copious, and consisted of a few hard lumps. He was of middle height, somewhat obese, with pale face, strong bones, muscular; was evidently suffering from dyspnœa. Tongue clean. Respirations 30. Pulse 80, regular, and of slight tension. No increased temperature. Thorax wide; the movements were equal on both sides; the lungs were distended. Resonance in the right front and back was diminished, and there was absence of respiration; the left front and back were superresonant, whistling sounds were heard at the apex, and coarse rhonchi at the base. The heart was covered; its sounds were feebly audible, but clear.

3.7 P.M. Ten drops of two per cent. solution of pilocarpin were injected.

3.10 P.M. Perspiration commenced at the forehead.

3.12 P.M. Salivation commenced.

3.13 P.M. Pulse 94-96. He felt his breathing much easier. He perspired freely; slight salivation.

3.24 P.M. A sphygmographic tracing was taken. Perspiration persisted. He felt easier; could lay down.

3.30 P.M. He felt easier; respiration quite free, 28. The whistling at the left apex was replaced by subcrepitant *râles*, and, instead of the complete silence on the right side, there was now normal inspiration and expiration.

3.45 P.M. Observation was continued by Mr. Lund (the clinical clerk). The pupils acted to light; he expectorated whitish phlegm; breath easier; the whole of the body perspired; his face was flushed. Pulse 88; respirations 28.

3.50 P.M. The cardiac action quite regular; there was very little salivation. Breath easy. Pulse 98.

4.3 P.M. Breathing was quite free; he felt much better; his whole body was in a glow, but he did not feel thirsty. Pulse 98; respirations 32.

4.10 P.M. Perspiration stopped. Breathing was quite easy; the *râles* at the left base were considerably diminished in number and intensity; at the right base behind, slight subcrepitant rhonchi were heard. He felt better every way; and left the hospital. He was ordered to take an ounce of aqua menthæ piperitæ three times a-day, ut aliquid fiat.

J. C. attended for five successive weeks, and declared himself improved. He could now lie down and sleep at night. He still coughed, but expectoration was easier than it formerly had been.

[*To be continued.*]

DUPUYTREN'S FRACTURE OF THE FIBULA.*

By WILLIAM THOMSON, A.B., F.R.C.S.,
Surgeon to the Richmond Hospital, Dublin.

THE case which I am about to describe I have set down as an example of Dupuytren's fracture, although that expression does not fully indicate the whole injury, which, in addition to a fracture of the fibula, includes complete internal dislocation of the tibia at the ankle, and ascent of the foot. But I thought that I might follow the habit which in this kingdom has given the title "Pott's fracture" to an injury which is of the same class, but not so exaggerated; the only difference being that in one the tibia is completely dislocated, with resulting displacement of the foot upwards, and in the other partially. Besides that, however, Dupuytren gives authority for this course; for he observes: "By fracture of the lower extremity of the fibula, I mean such solutions of continuity of this bone as occur sufficiently near to the ankle-joint to involve, as a consequence of the same proximate cause (be it the weight of the body or the action of the muscles) dislocation of the foot inwards, outwards, or even backwards. The fracture is thus the primary and principal lesion, without which there would be no dislocation. The fibula may be readily fractured without dislocation being entailed, but the latter cannot be produced without the prior occurrence of the former." (*On the Diseases and Injuries of Bones*, Sydenham Society.)

The details of my case may be briefly told. Three years ago, an old woman, about 65, while stepping on to a pathway, slipped upon some mud and fell, fracturing her left fibula near the ankle, and dislocating her tibia inwards. Two days afterwards, she was brought to the Nenagh Workhouse Hospital. Dr. Minnitt, under whose care she was, informs me that the tibia protruded inwards through a wound in the integuments, the fibula was broken at the usual situation, and the foot was dislocated outwards. The dislocation was reduced, but severe sloughing set in; there was profuse suppuration nearly as far as the knee-joint; and it was not possible to keep the bone in position. After a long illness, the patient recovered, but with the deformity shown in the cast. Amputation was proposed, but she left the hospital, and was not again seen by Dr. Minnitt.

In December 1878, she was transferred to my care from the North Dublin Union Hospital by my friend Professor Minchin. The condition of the limb was as is well shown by the cast. The tibia projected inwards and downwards, the end of it being a rounded knob with the skin tightly stretched over it. On the outer side, there was a depression about an inch above the tip of the malleolus, indicating the seat of fracture. The whole foot was everted, the toes pointed downwards, and the outer edge of the sole was raised, giving the sole an outward aspect. The ankle-joint was quite immovable. The toes touched the ground, but she was unable to support the weight of her body; and she begged urgently to have the foot removed. The prospect of success being favourable, I removed the leg by Hey's method, dividing the tibia and fibula at the middle of their length.

In making a subsequent examination of the parts with my colleague Dr. Corley, we were able to recognise one of the rarest injuries, to which Dupuytren was, I believe, the first to call attention. Special reference is made to it by the late Mr. Robert Adams of Dublin, in his article "On Abnormal Conditions of the Ankle-Joint" (*Cyclopædia of Anatomy and Physiology*), but the injury does not receive attention in the ordinary works. In his chapter on fracture of the fibula, Dupuytren refers to the injury as one of the complications of fracture of the fibula, and describes it as a dislocation of the foot outwards and upwards. "This form of displacement", he observes, "is so rare that I have only seen it once in nearly two hundred cases of fractured fibula which have fallen under my observation during the last fifteen years. It involves not only fracture of the fibula, but also laceration of the strong tibio-peroneal ligaments, which generally resist a force to which the osseous tissue itself yields."

The signs present in that case were "shortness of the leg, together with the almost doubled interval comprised between the malleoli and the prolongation of the tibia downwards to a level with the sole of the foot. The astragalus and outer malleolus, with the whole foot, were drawn up on the outer side of the tibia, two inches above their normal position. All these signs left no doubt that the ligaments connecting the tibia and fibula were torn through, and that the foot was dislocated outwards and upwards, carrying with it the outer malleolus" (see Fig. 1).

The specimen I submit presents all the conditions necessary for dislocation of the foot upwards and outwards, as it is sometimes called (see Fig. 2). The tibia is dislocated completely inwards, and its articular depression and the inner malleolus are represented by a rounded extremity. The outer side of this, just at the end, is ankylosed to the inner superior margin of the astragalus. Between the end of the tibia and the astragulus is a small piece of bone (*c*, fig. 2) which is evidently the tip of the inner malleolus. At the time of the accident this was torn off and was held *in situ* by the internal lateral ligament, the tibia being thus allowed to depart from its articulation with the astragalus. The fibula has been broken about an inch above the malleolus, and being bound to the tibia the shaft, has followed the direction of that bone somewhat inwards. The foot has been drawn up so that the posterior part of the articular surface of the astragalus is fixed to the lower end of the upper fragment, leaving about three-quarters of an inch of articular surface free in front. The outer malleolus is firmly attached to the outer surface of the astragalus. We have, then, this order of parts: the tibia inside, then the upper fragment of the fibula, resting upon the astragalus between the tibia and the outer malleolus. A specimen similar to this exists in St. Thomas's Hospital Museum, and is figured in Sir Astley Cooper's work (see Fig. 3); another was obtained by M. Richet, and is figured in Anger's *Maladies Chirurgicales*, page 311; but I am not aware of any other recorded specimens in the museums.

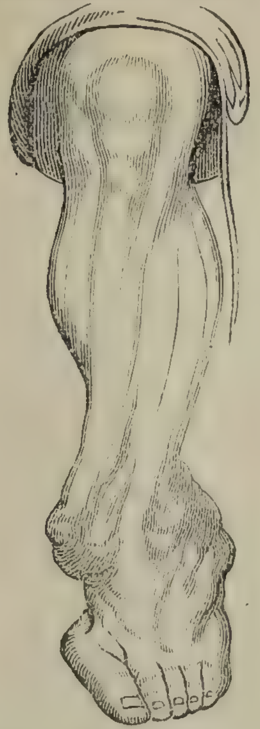

Fig. 1.—Dupuytren's Original Case.

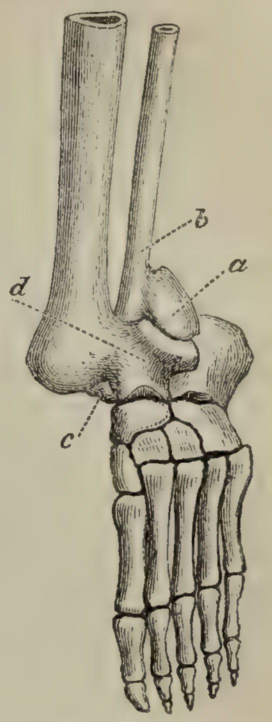

Fig. 2.—Mr. Thomson's case.—*a*. Lower Fragment of Fibula; *b*. Upper Fragment of Fibula; *c*. Portion of the inner Malleolus; *d*. Superior Articular Surface of Astragalus, directed upwards, forwards, and inwards.

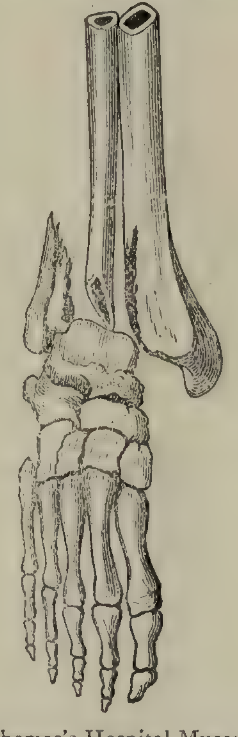

Fig. 3.—Specimen in St. Thomas's Hospital Museum; from Sir Astley Cooper.

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* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cork, August 1879.

Mr. Robert Adams, in his article on the ankle-joint, reproduces Dupuytren's original case, as well as the St. Thomas's Hospital specimen, as examples of the same injury, and observes: "The preservation of this specimen, which, in our mind, is a true example of the complete dislocation of the tibia inwards, and of the external malleolus, astragalus, and foot upwards and outwards, is a new proof of the truth of the observation we have above made, that this severe accident has not altogether escaped the notice of English surgeons, although the *Annuaire* contains the first accurate account of the external signs by which it may be recognised in the living subject".

Dupuytren believed that the dislocation upwards was due to the separation of the fibula from the tibia; but an examination of his illustration does not confirm that view. To me, it is obvious that the direction of the upper portion of the fibula is parallel to the displaced tibia, and I have no doubt that, in the case referred to, the foot ascended between the tibia and the lower fragment of the fibula, until it was stopped by the lower end of the upper fragment of that bone. That the foot ascended two inches depended upon the site of the fracture. It is plain from the depression figured that the fibula was broken two or three inches above the tip of the outer malleolus, and so permitted the foot to pass upwards to the distance mentioned. It is very difficult to conceive a separation to such an extent between the fibula and the tibia, for they are bound together by strong ligamentous and muscular attachments; and in the case figured by Cooper, we notice that the ligament at the lower part proved stronger than the bone, for a slip of the tibia has been torn off and remains attached to the outer malleolus.

Although museum examples of this injury are rare, I believe that it occurs more frequently than is supposed; and that, wherever there is complete dislocation of the tibia inwards, with preceding fracture of the fibula, the latter bone follows its fellow inwards, and the foot is drawn upwards by the strong muscles of the calf. I have seen one such case while house-surgeon. The patient was a carpenter aged 60, who slipped off a path, and broke his fibula about one inch and a half above the malleolus. He tried to walk, but with the result that the tibia was dislocated inwards. When he was brought to hospital, this bone was projecting through a sharply margined transverse tear in the soft parts, over the situation of the internal malleolus. The articular surface of the bone was on a level with the sole of the foot, which was everted. There was a deep depression over the seat of fracture, and increased width between the malleolar points. I succeeded in reducing the dislocation, but abscesses and necrosis followed; and after fourteen months, the patient left the hospital with a stiff joint. With such an injury, so long as the muscles act, the foot must ascend until it is stopped by the upper fragment of the fibula, the amount of shortening depending upon the length of that fragment.

ON NERVE-STRETCHING AS A REMEDY FOR SCIATICA.

By JAMES PATON BRAMWELL, M.D., L.R.C.S.Ed.,
Visiting Surgeon to the Perth City and County Infirmary.

THIS operation was first introduced by Professor Nussbaum of Munich; but, judging from the paucity of recorded cases, it does not seem to have recommended itself to British surgeons. The probable reason for this is, that it has little of an attractive character, and, when looked at superficially, everything seems against it. For why, it may reasonably be asked, can we expect benefit from rudely dragging at a nerve inflamed or in a state of superexcitation? Everything, however, must be brought to the test of experience; and, when tried in this manner, Nussbaum's operation will be found a most valuable addition to our other appliances for combating a malady proverbially obstinate and sometimes intractable.

In dealing with cases of sciatica, it is of the utmost importance to determine as accurately as possible what is the origin of the disease in any given case; for the causes are so diversified, that the employment of any favourite remedy for all is simply absurd and empirical. Let us consider for a moment what these causes are, and we shall see at a glance that each case must be treated with discrimination, and always with an eye to its origin. As causes, we have the following: pelvic tumours: caries of lumbar vertebræ; impactions of scybala in the caput cæcum coli; inflammatory infusion in the pelvis, resulting from pelvic cellulitis or pelvic peritonitis; and last, but not least, rheumatic inflammation of the sciatic nerve itself from exposure to cold and wet. Of all these, the last named is by far the most common; and it is just in such cases that nerve-stretching proves most efficacious.

What the exact nature of the effect of this operation is in all cases, I am not prepared absolutely to assert; but if, on stretching the sciatic nerve, one feel adhesions giving way, one may be tolerably certain that the patient will be greatly benefited, if not cured. We may infer from this, that the disease is often kept up by adhesions between the nerve and its sheath, the result of a neuritis, which a free stretching generally removes. Besides, there can be little doubt that the counterirritation produced by a large wound, which not infrequently suppurates, must have a very powerful revulsive effect on the inflamed condition of any nerve in its immediate vicinity. The prompt relief, however, which follows the operation in some cases certainly cannot be accounted for by this latter supposition, but can easily be explained on the assumption of existing adhesions having been ruptured.

The operation is a very simple one, and not for a moment to be compared with the sufferings of some sciatic cases. Such, at least, is the opinion of the patients themselves, who are but too glad to submit to a second operation when necessary.

The nerve is generally sought for between the great trochanter and the tuberosity of the ischium; but it is more easily found in another quarter; and, besides, the course of the nerve here is not sufficiently central for efficient stretching. The plan I follow is that of Dr. Joseph Bell of Edinburgh. Make a straight incision four inches long in the middle of the thigh, on its posterior aspect; cut through the skin, fat, and fascia; separate the hamstring muscles with the finger; and the sciatic nerve will be easily found on the inner side of the biceps and somewhat overlapped by that muscle. Its sheath being opened by a touch of the bistoury, it is now raised on a blunt hook, then caught by the finger, and the whole leg lifted off the table. The wound is then brought together by wire sutures, a drainage-tube inserted, and a layer of lint soaked in carbolic oil (1 to 12) placed over it. As may well be supposed, there is rarely union by the first intention.

CASE I.—W. J., plasterer, a strong healthy young man, after working in a cold draught for some days, was seized with a severe attack of sciatica in his left leg. He was admitted to the Perth Infirmary, and subjected to treatment for about a month without any permanent benefit. The following remedies were employed: turpentine internally; iodide of potassium; calomel and opium; wet cupping; subcutaneous injections of morphia and chloroform; faradisation with the primary current and metallic brush; blisters; etc. The results were very discouraging and he left for the Edinburgh Infirmary, where Nussbaum's operation was performed. The relief obtained by it, however, was very transitory; and our patient returned to Perth in much pain, and quite unfit for any work. I determined to repeat the operation. He returned to the infirmary; and I cut down upon the nerve in the middle third of the thigh through the cicatrix of the first operation, and there found it adherent to its sheath, the latter being much thickened from effusion of plastic lymph. I hooked up the nerve with my index finger, and stretched it freely, breaking up adhesions not only at the seat of the first operation, but also in parts of the nerve more remote. The wound was brought together by silver-wire sutures; a drainage-tube was inserted; the whole being covered by a pledget of lint soaked in terebene. The progress of this case was uninterrupted, and in six weeks the patient left the infirmary perfectly cured of his sciatica and able for steady work. It is now six months since then, and there has been no return of his old disorder.

REMARKS.—I have no doubt that the cause of failure of the first operation in this case was extensive adhesion between the nerve and its sheath at the seat of operation, such adhesion necessarily keeping up a constant strain and drag on the nerve in all movements of the leg. An accident of this kind might be avoided, by instructing the patient to flex and extend the leg several times daily while the wound is healing.

CASE II.—George W., brassfounder, a healthy muscular man, had always enjoyed good health till December 1877, when he was admitted to the Perth Infirmary for an acute attack of sciatica in the left leg. He believed that it originated in a chill, after being overheated with his work. He was purged freely, and put on five-grain doses of iodide of potassium, the severe pain being relieved by subcutaneous injections of morphia at night. These means failing, an alkaline mixture with vinum colchici was substituted; then turpentine purges, but with little benefit.

With the patient's consent, I now determined to stretch the nerve, and accordingly cut down upon it in the same position as the former case. Its sheath seemed natural at the seat of operation, and I could not perceive any hyperæmic condition of the nerve itself; but, on stretching it, adhesions in some part of its course were felt giving way. The wound was dressed in a similar manner to case I, but, owing to the premature removal of the drainage-tube, a false healing took place. The temperature rose to 103° Fahr., and a good deal of constitutional disturbance followed. All this, however, disappeared so soon as the wound was reopened, the pus evacuated, and the tube replaced. His progress was now uninterrupted, and the recovery everything that could be desired. For twelve months afterwards, he kept in good health, but at that time had a return of the sciatica from exposure to cold and wet. This, however, proved very amenable to medical treatment, and he is now in perfect health.

This poor man's sufferings were very severe, and his testimony was unequivocal as to the great relief resulting from the operation.

Case iii.—Janet L., a spinster, aged 28, was operated on by my hospital colleague Dr. Stirling, eighteen months ago, for a first attack of sciatica. The nerve was exposed in the region recommended by Nussbaum. There was a perfect cessation of all the old symptoms for twelve months afterwards. About this time, she was exposed to cold and damp, and the sciatica returned in full force. She was at once readmitted to the infirmary, to have the operation repeated. There were well marked symptoms of an acute sciatica; and bessdes, it was found that she was suffering from ovarian irritation, metritis, and endometritis. Having at this time charge of the female wards, and knowing the benefit which had accrued from the previous operation, I proceeded at once to repeat it. The nerve was exposed in the middle third of the thigh and easily found, although the depth, owing to her corpulent condition, was considerable. It did not present at the seat of operation any abnormal appearance, neither did I feel any adhesions giving way when it was freely stretched. Relief did not come so speedily here as in the two cases just recorded, the conditions being more complex, but in a fortnight the sciatic pain was all but gone. After appropriate treatment for her uterine malady, she was dismissed cured, at least of her sciatica.

Seven months have now elapsed, but I have heard of no return of her old disorder, and one day lately I saw her walking without any difficulty.

Case iv.—J. M., aged 27, healthy and muscular, a wood-carter, and much exposed to wet and cold by his occupation, was admitted to the Perth Infirmary in September 1878, suffering from an attack of sciatica. After he had been under medical treatment for some time without getting any benefit, the nerve was cut down upon and stretched by my colleague Dr. Stirling, under whose care he remained for about a month. At this time, he was placed under my charge, Dr. Stirling having taken his holiday; and as there was still considerable sciatica, I repeated the operation, breaking up recent adhesions between the nerve and its sheath at the seat of the first operation. The immediate results here were somewhat disappointing, the pain subsiding but slowly. For the last six months, however, he has had perfect health, and, although much exposed during the last severe winter, has been able to continue his laborious employment without any return of his former symptoms.

Case v.—J. C., aged 46, labourer, was admitted to the infirmary March 24th, 1879. For fourteen months, he complained of pain extending from the back of the hip down the back of the left leg to the ankle, of a gnawing character, and greatly aggravated by walking or movement, also pain extending from the groin down the fore part of the thigh. On account of this, he had often been compelled to abandon his work for a time. On examination of the limb, there was considerable wasting, the difference in the circumference of the two at the middle of the thigh being two inches. There was also diminished power in the left leg, the muscles of which were atrophied.

On March 31st, the sciatic nerve was stretched, the incision being made in the middle of the thigh. After this, the old pain in the back of the limb disappeared, and, although the patient had pain for a time at the seat of operation, he never had a return of his sciatica. After the operation, the sensation in the left foot was all but gone; power was much diminished; he could not raise his leg from the bed. The faradaic current was applied daily to the muscles of the leg, and the metallic brush to the skin of the foot. In a short time, sensation had returned to the foot, and he was able to raise his leg and flex it freely.

He left the infirmary on May 31st, in the following condition. He had no sciatic pain, but complained of a burning pain in the foot, extending to a little above the ankle. Power of motion in the leg and foot was diminished, but there was no pain on walking; the pain in the anterior crural region was gone.

Remarks.—It will be observed that the sciatica, although of long standing in this case, was cured by the nerve-stretching; and I have no doubt that the anæsthesia and diminished power would have been entirely removed by a continued application of the faradaic electricity, had our patient not left prematurely of his own accord.

An inquest has been held at Middleton on the body of a child, two months old, which had died after a dose of laudanum administered by its mother because it was "very cross". The coroner remarked that these cases betrayed such an amount of carelessness that he thought it right to submit the facts to the public prosecutor. The inquest was adjourned.

A CLINICAL NOTE ON PHLEGMASIA DOLENS.

By FANCOURT BARNES, M.D., M.R.C.P.,
Physician to the British Lying-in Hospital; Assistant-Physician to the Royal Maternity Charity of London.

Phlegmasia dolens has always been a subject of great interest to the obstetrician, opinion varying as to the share which phlebitis or lymphadenitis has in its production. As thrombosis or plugging of the iliac and femoral veins has been so frequently met with in parturient women, an easy solution of the occurrence is found in the supposition of an inflammation extending from the internal surface of the uterus along the uterine sinuses to the iliac veins. If, however, a similar thrombosis or phlebitis can be found in other parts of the body, the above explanation is insufficient, and some other cause must be conceived, having its seat in a general morbid or unnatural condition of the blood. The case would then be somewhat analogous to that not unfrequently met with in other conditions than those of the puerperal state; I allude to that plugging of the veins, or phlebitis, which may simultaneously affect several parts of the body. In gouty subjects this is not uncommon; and, under other quite unknown conditions, a plugging of the veins in the legs or arms may frequently be seen. Sometimes, indeed, an obstruction of the veins may be found in all the four limbs at the same time. In connection with this rare condition, I have thought the following case of sufficient interest to justify its being placed on record. The fact that in it one arm as well as both legs were attacked, supports clinically the theory that the plugging of the veins does not depend alone on a continuous inflammation proceeding from the uterus, but that the blood in its entirety has undergone a morbid change.

On March 31st, 1879, I was summoned by Miss Thompson, midwife to the British Lying-in Hospital, to see a young woman, primipara, aged 24, who had been safely delivered on March 25th of a living female child, after a natural labour of twelve hours. She was single, and had had some mental worry. The lying-in went on smoothly during the first three days, and on the fourth day the milk came on freely. She then became slightly feverish. On the 29th, she had not slept, and was in an excitable state. She took a dislike to, and complained of, the nurse. She had several attacks of syncope. On the 31st, I saw her, and found the abdomen swollen and tender to the touch. Pulse 120; temperature 103° Fahr. There was clearly some pelvic peritonitis. She was ordered quinine and opium pills, three grains of quinine, one-half grain of opium, twice daily. On April 1st, she seemed to be somewhat better, and remained about the same until April 5th, by which time the lochia had nearly ceased. On the 12th, symptoms of puerperal mania appeared. She passed urine into the bed. On examining the chest, loud bronchitic *râles* were heard over both lungs. The child had been suckled for the first four days, but had been sent away on account of her weakness. The quinine was increased to ten-grain doses, when she became deaf. The abdomen was not enlarged, but there was tenderness over the right iliac region. Temperature 103° Fahr.; pulse 111. There was a purulent thick discharge from the vagina, occasionally tinged with blood. The uterus was, therefore, washed out twice a-day with a 1 in 40 carbolic solution. On the 23rd, the left leg began to swell. Her maniacal symptoms had diminished. On the 28th, the right leg began to swell; and on the 30th, the left arm was swollen and white, like the legs. There was also some stiffness in the right arm, but it did not swell. On May 1st, both legs and the left arm were white, œdematous, and swollen. They were all three enveloped in cotton-wool. The general symptoms were worse; respiration 40; pulse 130; temperature 102 Fahr°. She had slight rigors during the last three days. She took her food well; beef-tea, milk, brandy, port, champagne, and grapes. The bowels acted regularly. Since the left leg began to swell, she had several attacks of lividity. On May 4th, the pulse was 140; temperature 103° Fahr.; respiration 48; tongue dry and peeled; sordes round the mouth. The arm and leg still remained swollen, and continued to until her death. She was quite sensible, and only complained of thirst, continually asking for tea. She remained in this condition until May 10th, when she died at 1.30 A.M. It was impossible to obtain a *post mortem* examination.

In the causation of the site of the coagulation, mechanical causes seem to have some influence. It is almost invariably in the upper part of the limbs and at the base of the skull that thromboses originate; for example, in the femoral veins in the legs, the axillary veins in the arms, and the sinuses of the dura mater in the skull. The reason of this, according to Lancereaux (*Traité d'Anatomie Pathologique*, tome premier) is, that these vessels are situated exactly on a level where the walls of the veins are no longer supported by neighbouring structures, and, consequently, where the force of thoracic aspiration tends to diminish and disappear. It is at these points that there is always a tendency to stasis of the blood-current in the venous system, and it is natural that at these points the coagulation should occur.

The case just described points clearly to some general blood-poisoning, and the occurrence of thrombosis in the axillary veins in cancer, gout, and phthisis, can all be explained on this supposition. It has been pointed out by Murchison that one of the most troublesome sequelæ of typhoid fever is phlegmasia dolens, and in the left leg. All these clinical facts, together with the case which I have just related, point to a blood-poison as the cause of the thrombosis; the site of the coagulation being determined, as Lancereaux states, by purely hydrostatic influences. In no other way, does it seem to me, can the fact of this patient having the same phenomena in an arm as well as in both legs be explained.

THE DIAGNOSIS OF RÖTHELN.

By JAMES ROBINSON, M.D., Dunscar, Bolton.

So much uncertainty seems to prevail as to the correct position of rötheln in relation to the other exanthemata—whether it is a disease admitting scientifically correct diagnosis, or merely a modification of either measles or scarlatina, or a combination of the two—that I am induced, without further apology, to record the results of my own observations during two rather extensive epidemics of the disease recently prevalent in my locality. In its initial stages, progress, and decline, rötheln presents such distinctive characters, distinguishing it from both measles and scarlatina, that it is rather a matter for surprise that there should be such ambiguity and doubt as to its proper position in nosological medicine. That the various symptoms constituting the disease have been observed and noted by physicians, for a considerable number of years, there is not the slightest doubt; but they have been regarded by most, even at the present time, as special anomalies in the course of either measles or scarlatina, the presence or absence of certain prominent symptoms relegating it to a position under the head of one of them. In the last edition of Aitken's *Practice of Medicine* will be found the most correct description I have seen; but this differs in many essential points from my own observations of the disease. Niemeyer classes it under the head of roseola febrilis, and describes it as a modification of measles and scarlatina, naming it rubeola morbillosa or rubeola scarlatinosa, just as the skin or throat symptoms are most prominent; whilst it finds no place at all in the *Nomenclature of Diseases* issued by the Royal College of Physicians. A superficial observer, attracted by some prominent symptoms of measles or scarlatina, might diagnose it as one or the other; yet a more careful investigation would discover many minor and major differences in its course and termination, placing it without the category of either. The majority of my cases occurred in children, the greater portion of whom had had an attack of measles at some time previously, and many of them scarlatina. I saw the disease in three adults, all of whom had measles in childhood and one of them scarlatina. Rötheln, in its general character, presents various degrees in severity, just as in the allied diseases scarlatina and measles.

In the simple form, the rash is well out, the sore-throat is slight, and the irritation of the bronchial mucous membrane is moderate, with slight coryza and sneezing.

In the severe form, the catarrhal symptoms are still very perceptible, but the brunt of the attack is borne by the throat.

There is also an intermediate variety, in which the general symptoms are severe, and the influence of the poison is exerted equally upon the skin and on the mucous membranes. The period of incubation seems to vary, generally being about six or seven days, at the end of which time symptoms of a slight cold make their appearance, speedily followed by a considerable and sudden rise in temperature; hoarse cough and sore-throat, accompanied by watering of the eyes, headache in adults, or a convulsion in children, sickness, and sometimes severe vomiting. On the second day of the fever, the rash makes its appearance, usually first on the neck and chest, afterwards the trunk, face, and extremities, in patches of varying size, which soon coalesce and form larger ones, less crescentic in form and of a brighter colour than in measles, attended by considerable itching, and perceptibly raised above the level of the surrounding skin. It begins to fade on the following day, its complete subsidence being rarely prolonged beyond the third or fourth day, with slight desquamation of the cuticle, which in mild cases is almost imperceptible.

The temperature, at first very high, often reaching 103° or 104°, falls with the subsidence of the rash, unless the throat-symptoms, always present, predominate, when it continues high until the termination. The pulse may be 120 or 130, or even more frequent, declining suddenly with the temperature. There is sneezing, and the eyes are suffused, but severe coryza is absent; hoarse and troublesome cough, with sometimes severe bronchial catarrh, is also present.

In mild forms of the disease, it most resembles an attack of measles, with sore-throat of varying intensity and swelling of the cervical glands. In the more severe types, it is most like scarlatina anginosa, with the rash and catarrhal symptoms of measles. I have not observed any suppuration of the cervical glands, albuminuria, or dropsy, even when the scarlatinal symptoms seem to be in the ascendant. The most frequent complications seem to be bronchitis and pneumonia. The mortality, in my experience, is low, and death occurs most frequently, from chest complications. The essential points in the differential diagnosis of rötheln from measles are in the presence of the throat and gland symptoms, and the early period at which the rash makes its appearance; and from scarlatina, in the presence of the catarrhal symptoms, the character of the rash, the manner in which desquamation of the cuticle takes place, and the complete absence of the sequelæ common in scarlatina. The strongest evidence of its non-identity with those two diseases, separate or combined, is that it is not protective against an attack of either, nor *vice versâ;* and this fact alone goes far towards establishing its claim to be classed as a specific and separate disease, possessing well-marked and distinctive diagnostic features from any other of the exanthemata.

SURGICAL MEMORANDA.

ANTISEPTIC DRESSINGS IN MILITARY SURGERY.

The Journal of February 28th has just reached me, containing an inquiry from Surgeon-Major MacNamara respecting the best substitute for Lister's antiseptic treatment for wounds. I may mention that carbolic-oiled lint (one in forty) was generally used at the primary dressing of wounds received at the battle of Ulundi. Carbolised tow and also tenax were applied to some of the injuries; but they were oftener employed to form pads, cushions, or swathes for the wound, outside the lint-dressing, to absorb discharges. This treatment was attended by the best results. The hygienic conditions affecting the wounded were certainly good; the air was pure, the climate cold; there was no malaria or ground emanations; the patients being well fed and in good spirits, and the camp moving daily.

It is doubtful whether Listerism proper could ever be practised at the first line of assistance in any engagement. There would not be the time sufficient to apply the special exactness required for this method. Even at Ulundi, the last of the wounded were obliged to be hurriedly treated, as the division was waiting for the "dressing" to be finished to move on to the king's kraal. I think, however, that a simple antiseptic treatment, consisting of carbolic oil or lint, is sufficient dressing at the outset for all ordinary gunshot wounds.

Dr. MacNamara, of course, is aware that Lister's method is not applicable to every kind of gunshot wound. It would not be indicated, for instance, as the treatment for penetrating or perforating wounds—cases where the injury done by the ball in transit would presumably lead to a disintegration of the interior structures in the channel of injury, and to consequent purulent discharge. The apertures would heal under this mode of treatment, and be followed by extensive sinuses within.

The aqueous solution of carbolic acid, which he advocates, might probably be better than the oil for open grooved or superficial flesh-wounds, whether incidental to injury or disease, in hospital or in the field; but, for penetrating gunshot wounds, with purulent discharge, I have found the carbolic oil or lint more effective in softening the tissues at the aperture—thus facilitating the egress of pus, and creating or keeping alive, at the same time, the natural vitality of the part.

Surgeon-Major Fraser, who treated the wounded after Sekukuni's engagement, informs me that he also employed, with the best results, the carbolic oil treatment in his cases.

I think that tenax is more efficacious as a deodorant and absorbent than carbolised tow, although the latter is softer and more comfortable as a direct application to painful wounds.

In the Journal for March 27th, Dr. Snow describes the "antiseptic marine lint" (which I have not seen) as being "more oily, more tenacious, and more thoroughly saturated with tarry principles" than tenax. But as these superadd a stronger odour and rougher existence, so to speak, being precisely the qualities which render tenax preferable to carbolised tow for direct application to the slough of a wound, it follows, if tenax be inferior to the marine lint in these desirable qualities, that the latter would be as preferable to the former as the former undoubtedly is to carbolised tow for direct application to suppurating wounds. P. W. Stafford, L.K.Q.C.P., Surgeon-Major,

Late Senior Medical Officer Divisional Field Hospital, South Africa.

THERAPEUTIC MEMORANDA.

OLEATE OF LEAD IN ECZEMA.

I AM indebted to the courtesy of Dr. Radcliffe Crocker for a letter in reference to my memorandum on the use of oleate of lead in eczema, published in the issue of the JOURNAL for May 29th, of which the following is the substance.

"Your letter in the BRITISH MEDICAL JOURNAL on oleate of lead in eczema leads me to write to remind you that Hebra's unguentum diachyli is really an oleate of lead; and it has, therefore, been a long time in use. It has the disadvantage of soon becoming rancid, which of course would not be the case with your formula. Lead-plaster diluted with olive-oil or vaseline is practically the same thing, and is a form in which I often prescribe it. I have also had an oleate of bismuth made, which, when diluted with vaseline, answers very well; but, as it is no better than the oleate of zinc and is more expensive, I do not use it much. I was the first to use oleate of zinc in skin-diseases; but Mr. Marshall originated the compound at the same time as his other oleates."

I feel it my duty to give publicity to Dr. Crocker's observations, that I may not seem to rob anyone of his due share of priority in the use of the remedy I have recommended.

JAMES SAWYER, M.D., Birmingham.

CHIAN TURPENTINE IN CANCER.

As the treatment of cancer by this turpentine during the last few weeks has been a subject of great public interest, I send our experience of its administration at this hospital, where it has been extensively used in a variety of cases of cancer of the uterus, breast, tongue, etc.; but up to the present time, I am sorry to say, without benefit in any instance. A number of samples of the drug have been submitted to us, of which two only accurately answer Mr. Clay's tests, all the others being more or less impure. Two patients suffered less pain for a day or so, and one thought a tumour in her breast was less; but the relief was not maintained, and the tumour has not really diminished. Singularly enough, these patients (among the earlier treated) were taking an impure sample of the drug. As far as time will allow us to judge, the opinion of myself and colleagues is that the Chian turpentine does not possess the power of either curing or arresting cancer. We are still using it in a few cases, in the faint hope that further experience may lead us to take a more favourable view of its action.

ALEXANDER MARSDEN.
Senior Surgeon to the Cancer Hospital.

BRONCHITIS IN A PHTHISICAL SUBJECT RELIEVED BY THE RUSSIAN VAPOUR BATH.

B. J. WAS, in early manhood, possessed of surprising activity and exceptional powers of endurance. In February 1872, however (he having at that date arrived at the age of 35), severe domestic trouble fell upon him. From that hour, he began slowly to fade. In 1875, his London physician pronounced him to be the victim of fibroid phthisis. In December 1879, bronchitis invaded the whole of the left and the greater portion of the right lung. From this attack, he made but a very partial recovery. At the beginning of March 1880, it became evident that, unless vigorous measures were resorted to, his life must be of short duration. His dyspnœa was so marked that even to cross his dining-room demanded a great effort. Appetite had almost deserted him. He had an incessant cough, which usually terminated in the rejection of what trifling amount of nourishment he had recently taken. Not only his fingers, but half his hands also, died for many hours daily. His tongue was covered with a thick creamy fur. His face was white and deeply lined. His pulse was empty and flaccid. He was voiding phosphates in very large quantities. His bowels acted six or eight times in the course of the twenty-four hours. On one occasion, he determined to take a short walk, and ascended a trifling hill. He arrived home with a pulse at 120. After an hour, during which he had reclined upon a couch, it still stood at 108.

B. J. now determined to make trial of the Russian vapour bath. He took it twice on each week day for five weeks. Sundays he spent with his family. At the end of the first week, his general condition had undergone great improvement. He coughed much less; his appetite had begun to return; his tongue had materially cleaned; his pulse had become fuller; his countenance had assumed a brighter aspect; the faces of the two men who had deeply wronged him years previously ceased to be ever present to him. He was no longer voiding phosphates in his urine; his bowels acted twice daily. When five weeks had elapsed, the exigencies of business demanded that he should abandon the use of the bath. At once he began to lose ground, and upon all points. On May 1st, he had returned to his occupation. He was wonderfully improved, though not in as satisfactory a condition as when he ceased to take the bath. On May 20th, he was suffering from inflammation of the right testicle. This was doubtless rheumatic. He refused all medical treatment, but lay in the recumbent posture as much as possible.

REMARKS.—The rapid improvement that B. J. made must be attributed to the use of the bath. The wind blew either from east or north during the whole period of treatment, and he possesses one of those sensitive lining membranes that is absolutely intolerant of the presence of drugs. Moreover, his surroundings were in many respects unfavourable to recovery. The bath proved an invaluable means of diagnosis in this case. He is a member of a rheumatic family. Owing, however, to regulated diet, abundant exercise, and daily general ablution, he has hitherto succeeded in keeping the disease at arm's length. Day after day, as he reclined in the bath, he felt the family enemy attacking both eyeballs and fingers. I entertain the strongest hopes that the resumption of the use of the bath will, at no distant date, set him upon his feet again.

JOHN BEADNELL GILL, M.D., Canterbury.

CLINICAL MEMORANDA.

ON AORTIC REGURGITATION AND THE CORONARY CIRCULATION.

DR. CLIFFORD ALLBUTT's paper, published in the JOURNAL of June 5th, lacks much of the clearness usual in the writings of the distinguished author. I take it, however, that Dr. Allbutt denies that the coronary circulation is in any important respect influenced by the integrity of the aortic valves; and that he refuses to accept the view of Dr. B. Foster, adopted by Dr. Fothergill, viz., that the prognosis in cases in which the posterior aortic valve alone permits regurgitation is more favourable than when either of the other valves is involved, since, the posterior valve having no coronary vessel behind it, its destruction does not interfere with the coronary circulation upon which nutrition of the heart depends. As regards the second question, I think too much has been made of what was, after all, only an attractive and thoughtful suggestion of Dr. Foster's, arising from the observation of a single case. My own impression respecting this case is, I suspect, much the same as Dr. Allbutt's, viz., that Dr. Foster's interpretation of the physical signs would be found misleading in other cases, and that his view of the mechanism by which the heart circulation was preserved was erroneous; but not erroneous on the grounds suggested by Dr. Allbutt, that the coronary circulation is independent of the aortic valves, but simply because Dr. Foster sought to explain by a special mechanism what really resulted from the broad fact that two good aortic valves are better than one.

Dr. Allbutt observes: "If blood be denied to the part (heart-muscle), no doubt it must starve; but it would be too hardy an assertion to say that in aortic regurgitation the blood is shut off from access to the coronary arteries. Surely they have still the same supply that is given to any other artery in the body........." I would venture to reply: Surely they are very differently circumstanced from other arteries. It is difficult to admit that the coronary arteries are filled at the moment of cardiac systole, when the heart is contracted and hardened. They must, then, be injected during *aortic* systole or recoil; for which purpose their position and direction are eminently favourable. But, perfection of closure of the aortic valve is essential to the maintenance of blood-pressure within the aorta during recoil; the remarkable failure of this pressure in aortic regurgitation is very perceptible in the feel and tracing of the pulse characteristic of that disease. It is not, then, I take it, that the aortic valves serve in any way to "shovel" the recoil current of blood into the coronaries, but their closure maintains the pressure of the blood at the moment available for the filling of the coronary vessels, and for this purpose the integrity of two valves is better than if all were diseased. For this reason, amongst others, there are many recognisable degrees of favourableness in the prognosis of aortic regurgitation depending upon the amount of aortic second sound still appreciable. I fail to see how "nervous adaptation" can influence such very mechanical conditions as those of aortic recoil and valve efficiency; and, to speak of the circulation as a "closed cell", seems to me inaccurate, when it is open in a thousand pores, and regulated by many valves of varied functional importance.

R. DOUGLAS POWELL, M.D., F.R.C.P.
Henrietta Street, Cavendish Square, June 5th, 1880.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ROYAL FREE HOSPITAL.

ANEURISM OF THE SUBCLAVIAN ARTERY: AMPUTATION AT THE SHOULDER-JOINT.

(Under the care of Mr. W. ROSE.)

A CASE of aneurism of the right subclavian artery, extending to the innominate, and possibly involving part of it, has been under treatment by Mr. William Rose at the Royal Free Hospital for the last five weeks. The patient is a carpenter, aged 38. The aneurism filled up the whole of the subclavian triangle, and the most prominent symptom was intense pain down the right arm, the limb becoming perfectly useless and œdematous from pressure on the nerves and vein.

Narcotics, administered in large doses by mouth and under the skin, failed to relieve the pain, which had become so agonising as to demand some interference. As pressure upon the aneurismal sac only increased the pain, no other course seemed open but some operative interference, and Mr. Rose, after consultation with his colleagues, decided on tying the right common carotid artery, together with amputation through the right shoulder-joint. This was done on Monday, May 24th. The carotid was secured above the omohyoid with carbolised catgut ligature prepared by Mr. Lister, who kindly gave it for the purpose; and the arm was amputated at the shoulder-joint immediately afterwards by oval flaps. The strictest antiseptic precautions were observed.

The immediate effect upon the aneurism while the patient was on the table was appreciable, the tumour diminishing in size, the pulse at the left wrist being remarkably good.

The patient suffered for the first three days severely from shock, and was only partially conscious. He has since exhibited the following symptoms. Half an hour after the operation, the right pupil was dilated, and was acted on imperfectly by light. This passed off in a few hours.

On the following day, he had twitchings on the right side of the face, this being succeeded by slight right facial paralysis, with complete left hemiplegia.

Unilateral sweating of the face was well marked, the right side of the forehead being cold and dry, whilst beads of perspiration covered the left forehead. There was also involuntary discharge of urine and fæces.

It is now more than three weeks since the operation. The carotid wound has healed perfectly, and also the shoulder-flaps, except along the track of the drainage-tube. The aneurism is now one-third of its original size; the pulsation much feebler; and the patient expresses himself as quite free from pain.

The facial paralysis has disappeared, and slight movements are now observed in the left arm and leg, though the paralysis of the sphincters of the bladder and rectum persists. We shall give a full account of this interesting case in a subsequent number.

MIDDLESEX HOSPITAL.

CASES OF CANCEROUS DISEASE.

(Under the care of Mr. HENRY MORRIS.)

THE following cases had special features of interest. Two were of unusual interest, viz., Cases II and III. In Case II, epithelioma was engrafted upon a long-standing diseased surface, and in Case III, there was a remarkable tendency to the overgrowth of epithelium, both in normal and abnormal situations. In all the cases, operations for the removal of the disease were performed.

CASE I. *Recurrent Tumour of the Face: Removal: Destruction of the Knee-Joint by Chronic Rheumatic Arthritis.*—Robert M., aged 53, a collier, was admitted into Forbes Ward on March 26th, 1877. This man was sent up to Mr. Morris for the purpose of having his thigh amputated, as it was thought he was the subject of malignant disease of the knee-joint. This opinion was due no doubt to the existence of a frequently recurrent epithelial growth of the face; but the real nature of the disease of the joint was chronic rheumatic arthritis; and, therefore, though it was like a flail when unsupported, nothing more was thought necessary to be done than to supply him with a support while moving about. The man was heard of twelve months later as being well, and following his occupation as usual. The state of his knee-joint, on admission, was as follows. The left knee-joint was very considerably enlarged, the enlargement being very unsymmetrical, and most marked on the inner side of the joint. The measurement round the left knee was nineteen inches, that round the right one only fourteen inches. The tibia was bowed inwards. Flexion was only possible to a right angle, but extension was complete. Voluntary and passive movements were both equally painless. From the relaxed condition of the ligaments, the tibia was capable of considerable lateral movement. The tibia slipped backwards and forwards on the femur with a most distinct creak. On an attempt to stand, the limb bowed outwards at the knee-joint, but in spite of this he was able to walk fairly well upon the leg. The synovial membrane was distended unequally with fluid. There was more bulging on the inner than on the outer side. In the internal lateral ligament, concealing the tuberosity, was a thin plate of bone. The fibular head was not enlarged, and no outgrowths of bone from the femur were to be felt. The disease of the knee-joint began three years ago, with rheumatic pain, after the man had been working in water. The pain was variable, according to the state of the weather. It continued for twelve months, and then the knee began to swell, beginning on the inner side of the joint, and gradually extending downwards until there was bulging on each side of the rectus tendon; then followed thickening and enlargement, with lateral increase about the head of the tibia. During the last twelve months, the swelling had increased and the pains had been aggravated. He had noticed the joint give under him, and bow outwards for the last twelve months. No other joint was affected.

The state of the face, on admission, was as follows. There was a puckered reddish scar (the result of five former operations on the face) on the right cheek adjacent to the ala of the nose, and surrounded by an infiltration which was rather unequally distributed on the outer side. Extending into the cheek was a roundish, flattened movable mass, from which ran a deeper and smaller portion upwards on the malar bone, to which it was adherent. A thickening involved, and extended into, a part of the wing of the nose, and also into the upper lip at the mucolabial junction, as far as the median line. This part was very evident from the mouth, where it was seen as two rounded lumps separated by a sulcus. Five operations had been performed (cutting and caustic).

April 4th. Chloroform being given, an incision was made on the mesial side of the cicatrix, extending from the top of it to the free edge of the upper lip. The ala of the nose and the lip were then dissected off the inner mass of the growth. Next a curved incision, joining the former above and below the cicatrix, was made, and the skin of the cheek and the outer flap of the lip were dissected off the outer portion of the growth. The growth was then dissected off the superior maxilla, upon the periosteum of which it was resting, but not involving. The usual hæmorrhage occurred upon cutting through the lip, but very fierce bleeding followed the detachment of the growth at the upper end. All the bleeding was stopped by torsion. The infraorbital branch of the internal maxillary was twisted by pressing the forceps into the mouth of the infraorbital foramen. Hare-lip pins (two) and some interrupted sutures brought the margins well together. Carbolic oil, lint, and a light compress formed the dressings. At only one spot was the bone bare, viz., in the canine fossa, where the wall of the antrum looked very thin. The tumour was lobulated, there being three chief masses joined broadly at their points of meeting, so as to form one mass. On section, the structure looked glandular, and an indistinct capsule was seen enveloping the whole. Nearly everywhere there were little lobules of granular tissue, and in one place quite a large lobule, the structure of which could have been squeezed or picked out of the alveolar space.

April 23rd. The margin of the lip had healed by direct union, as also had the upper end of the incision. Opposite the ala of the nose, a little gaping had occurred, and the wound there had nearly filled up by granulations. The cheek, and the lip a little way above the free margin, had settled down firmly upon the upper jaw. The man was recommended for a Thomas's splint for the knee.

May 10th. A Thomas's splint had been fitted for the knee.

May 14th. He returned to Derbyshire. His face was quite well, and with his splint he was able to get about with ease, safety, and comfort.

Examination of the Tumour by the Surgical Registrar, Mr. Lyell.—The microscopic appearances of the growth occurring on the face proved it to be of the nature of rodent ulcer. The structure was composed of tubular and alveolar arrangements of masses of round and oval cells, held together without any visible cementing material. The cells were of the young epithelium type, with nuclei of considerable size, and staining readily. In most cases, the lumps of adherent cells had separated from the walls of the cavities or spaces in the connective tissue in which they were extending, and their outermost cells possessed elongated oval nuclei, in some cases almost resembling the nuclei of young fibrous tissue. Many of these enlarged nuclei were also to be seen as strands passing through some of the prolongations of epithelial cells. No *globes epidermiques* were present in the structure.

REMARKS.—The growth on the face which had so obstinately recurred, gave rise to the idea that the condition of the knee was of a malignant character. Certainly it was one of a most exceptionally severe class of cases of chronic rheumatic arthritis. To Thomas's knee-splint this man owed much, for with it he was able to resume all his usual avocations with comfort. Though the growth of the face had not recurred when he was last heard of, it is to be feared it will ultimately do so.

CASE II. *Epithelioma Engrafted on Lupus; Complicated with a Syphilitic Sore on the Scalp. From Notes taken by the Dresser, Mr. Cree.*—Elizabeth C., aged 55, was admitted on June 24th, 1879. She had never had any disease or illness before marriage; since then, she had suffered from an eruption on the face. About six months before admission, she had noticed a small swelling like a seedy wart on her cheek a little to the right of her nose, about midway between the angle of the mouth and the lower border of the orbit. For the last eight or ten weeks, it had been growing rapidly. She had applied ointment and poultices. Fancying it was a wart, she used to pick it, and a very little discharge came from it till about a week before her admission; since then, it had been discharging freely.

On admission, there was a circular warty growth, with a convex and dry surface, and a well defined hard margin. It was one inch and a half in diameter, situated on the right cheek, midway between the margin of the upper lip and lower eyelid, abutting on the wing of the nostril. The skin over the bridge of the nose, and as far out on each side as the inferior orbital foramen, and that over the tip of the nose and marginal half of the upper lip, carried well-marked traces of lupus non-exedens, being of a red colour, covered for the most part with greyish-brown scales, but at other places with scab-like encrustations. The top of the scalp was quite devoid of hair; in some places, its skin was of a smooth white appearance, and in others, of a dry, harsh, red cicatricial-looking character. Over the front and the upper part of the forehead was an elongated superficial ulcer, measuring two inches vertically. and from a quarter to half an inch transversely, with red but not indurated margins, and with a greyish-white base. She had no family, and had had no miscarriages. She had never had an ulcerated tongue or throat, nor eruption on the body, nor affection of any other kind. There was no history of cancer in the family. The eruption had begun on the scalp in a ring-like form, and with falling off of hair. It had been regarded as ringworm, and treated as such. Her first husband had been "gay", and had left his home at the end of seven years. She had been married to her second husband about thirty years. The unguentum hydrargyri oxidi rubri mitius was applied to the ulcers on the forehead and scalp. She was ordered Donovan's solution, ♏viij, and infusion calumba ℥i, to be taken three times a-day.

July 8th. The ulcer on the forehead had nearly healed, and the "places" on the scalp and nose were gradually healing. The growth on the cheek seemed to have increased.

July 17th. The epithelioma on the cheek was yesterday removed by an incision round it. There was a considerable amount of bleeding, and pressure was applied by two sponges. This morning, one of the sponges and half of the other were removed.

July 18th. This morning, the remainder of the sponge was removed. There was very little bleeding. The wound was dressed with dry boracic acid lint.

July 22nd. The dressings were changed to terebene and olive-oil.

July 28th. The wound was healing by granulations, which were healthy.

August 4th. The patient was discharged. The wound on the cheek was nearly healed. The ulcer on the forehead was not yet quite healed. She came daily to the hospital to have the wound dressed until it was quite healed, and subsequently was made an out-patient, for the continuance of the treatment of the syphilide.

REMARKS.—There can be no doubt of the syphilitic nature of the lupus non exedens in this case. The history, the coexistence of well marked syphilitic ulcers on the scalp, and the marked improvement under mild antisyphilitic remedies, pointed to the same conclusion. The fact that an epithelial cancer was implanted upon the part which had so long been affected with lupus, gives the special interest to this case.

CASE III. *Epithelioma on the Back of the Neck, with Warty Excrescences of the Palms and Soles of the Feet. From Notes taken by the Dresser, Mr. Allen.*—Edward B., aged 42, a clerk, was admitted on June 9th, 1879, into Forbes Ward, suffering from epithelioma of the back of the neck. He stated that about two years ago a small growth like a wart had appeared on the back of his neck, which for about twelve months had not increased in size or caused any pain. At this time, whilst washing, he had rubbed it off with a towel, leaving a sore with a slight discharge. He went to a surgeon, who told him to poultice it with bread. He afterwards used Holloway's ointment. He attended as out-patient at St. John's Hospital, Leicester Square, for about nine months. The growth was first treated with nitrate of silver, and apparently "dried up". Afterwards, vapour-baths and mercurial baths were given. He was advised to have it removed, but objected. Red ointment and lead lotion were the last remedies used. The margin was raised and hard. He had had a cancerous growth removed from the scrotum seven years ago, and had had a chancre twelve years ago. Both parents had died of phthisis, also two sisters. There was no history of tumours or cancer in the family.

On admission, in the centre of the back of the neck, about three-quarters of an inch above the vertebra prominens, was an oval ulcer, about the size of a five-shilling piece, with the following characteristics. The margin was raised and hard, varying from an inch to an inch and a half in height, and composed of infiltrated skin. The base was deeper in the centre than in the circumference, rising to the height of the raised margin at its extreme periphery. It was almost devoid of granulations, quite clean, and of scarlet colour, bleeding when irritated. The hardness was confined to the margin and base, and did not extend into the surrounding skin, which, however, for a short distance, was discoloured, brownish-red. Its mobility was fairly free upon the deeper structures, both laterally and vertically. About an inch above this ulcer, and to the left, encroaching somewhat upon the hairy scalp, was a second swelling, which was more diffuse and gradually passed away into normal tissue around; it was raised; the skin was reddened and thickened, and at its extreme summit was a clean very superficial ulceration about the size of a fourpenny-piece. In both posterior cervical triangles were glands about as large as beans. For many years, he had had acne, for which he had undergone arsenical treatment for two years. About nine months after the commencement of the arsenical treatment, an eruption of small warts had appeared on his hands and feet, with an affection of the conjunctiva. The hands were now partially covered with small raised callosities of varying sizes, some of which were painful, others so painless that he was capable of cutting them down. The condition of the hands had been unaltered for years; and he further made the remarkable statement, that a well-known dermatologist had prepared him for the condition they had assumed, telling him it might happen if he took arsenic for a long time.

June 25th. An anæsthetic being administered, an incision was made round the ulceration, about a quarter of an inch from its margin. The growth was then dissected off the deeper structures. There was a considerable amount of oozing from the blood-vessels connected with it. This was stopped by a sponge-compress.

June 27th. The dressings were removed; there was a little bleeding. Very little pus was discharged; and there was very little pain.

July 1st. The wound was looking healthy. Granulations had commenced. Red lotion was to be applied. He was discharged, and told to attend as an out-patient.

October 31st. He had called every fortnight to show the condition of his neck. The hard lump above and to the left of the cicatrix (now of the size of a small walnut) did not disappear, neither did it increase; if there were any change, it was that it was somewhat softer. The warty excrescences on the hands and feet did not alter.

On January 12th, 1880, he was again admitted under Mr. Morris's care into the hospital, and his condition was as follows.

There was a swelling at the back of the neck, just below the occipital bone, nearly in the mid-line, about the size of a crown or rather larger in circumference. It was hard, except in the centre, where there was some sense of fluctuation; the skin over it was reddened, and thin in the centre; there was a small sinus discharging curdy matter, arising from a puncture which had been made while he was attending as an out-patient. The whole mass seemed free from the parts around, and could be moved bodily from side to side. There were no enlarged glands in the neck, or elsewhere.

January 14th. Chloroform was given. Two curved incisions were made over the mass to be removed, with their concavities towards one another, including that part of the skin that was reddened and adherent. The mass was then dissected out with some difficulty, and one or two small arteries were tied. The edges of the wound were united by three or four sutures, and a small drainage-tube was inserted at the lower end. A compress of dry boracic acid lint was applied over the wound.

January 14th. The dressings were changed, and the wound was dressed with terebene oil.

January 21st. The wound had healed. He was discharged convalescent on this date.

REMARKS.—The interest of this case rests in the very remarkable tendency there was to an inordinate development of epithelial tissue. There were (1) epithelioma of the scrotum; (2) epithelioma of the neck, with secondary affection of a neighbouring lymphatic gland; and (3) a great overgrowth of epithelium in the warty excrescences on the hands and feet. It is remarkable, too, that the patient, a very intelligent and reliable man, should have been told by the surgeon who prescribed arsenical treatment for the acne, that he must expect after taking the arsenic for some time to find a number of small warts appearing on the palms of his hands and soles of his feet. Mr. Morris finds nothing in the history of arsenic as a remedy to give colour to this warning. It is more probable that the palmar and plantar warts were but an expression of a general error of the growth of epithelium in this case.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 8TH, 1880.

JOHN ERIC ERICHSEN, F.R.C.S., F.R.S., President, in the Chair.

ON A CASE OF BASIC CAVITY OF THE LUNG TREATED BY PARACENTESIS. BY R. DOUGLAS POWELL, M.D., F.R.C.P., AND R. W. LYELL, M.D., F.R.C.S.

THE case related was that of a man aged 49, of previous good health but intemperate habits, who in December 1878, had had bronchitis, followed, in the ensuing February, by pleuro-pneumonia and fœtid expectoration. He improved after a time, but relapsed again in July, and in August was admitted into the Middlesex Hospital under Dr. Powell's care. On admission, the physical signs showed consolidation of the lower lobe of the right lung, with excavation of its central portion, the cavity signs being centred about the level of the seventh dorsal spine in the line of the angle of the scapula. There were considerable hectic, diarrhœa, and anorexia. The breath and expectoration were extremely fœtid, the latter being muco-purulent in character and very abundant, amounting to about one pint in the twenty-four hours. The area of excavation having been carefully marked out, the operation of paracentesis was performed by Mr. Lyell on September 11th. A medium-sized aspiration-trocar was first thrust in at the eighth space in the mid-scapular line, and a free incision having been made through the tissues down to the intercostal membrane, the fine trocar was withdrawn and a full-sized hydrocele trocar inserted, which, after slightly enlarging the opening, was in its turn removed, and a large drainage-tube introduced. Carbolised dressings were applied. A moderate quantity of secretion escaped from the wound (which gave rise to no serious bleeding), and the discharge subsequently from the tube, although free, was never abundant. The expectoration and cough, however, at once almost entirely ceased. The wound was dressed daily under the carbolic spray, with the view of disinfecting it and the cavity, and injections of Condy's solution were used. On October 2nd, there was some return of fœtor of breath, that of the discharge from the tube having never quite been corrected. Some trouble was occasioned by the tube slipping out, its reintroduction being hindered by encroaching granulations; and the tube was felt to strike against some impediment deep in the lung. The channel was kept dilated, and the patient improved in strength, and on the 20th, was transferred to the Brompton Hospital. Fœtor of sputa returned towards the end of the month, however, although the amount expectorated continued to be very scanty; the patient lost ground rapidly, and was finally seized with pleuro-pneumonia on the opposite side, of which he died on October 31st, fifty days after the operation. The *post mortem* examination revealed the presence of several intercommunicating cavities in the lower lobe of the right lung. This lobe was firmly adherent throughout, and a drainage-tube, passing through the eighth intercostal space, entered a contracted cavity, which was connected with the main cavity by a short dilated bronchus. This small cavity must have been closely subpleural, and was the very lowest of the series, although, at so high a level as the eighth space, it was only separated from the diaphragm by one-eighth of an inch. It was evident that, in contracting upon the tube, the wall of the cavity had come into contact with, and partially occluded, its extremity. The rest of the lobe was densely consolidated by fibroid growth surrounding bronchiectatic cavities. There were broncho-pneumonia and effusion on the left side. The rest of the lungs were emphysematous. In their remarks, the authors commented upon the unfrequency with which the base of the lung had been tapped, and pointed out that the immediate cessation of cough and expectoration after operation in this case was a fact very encouraging to future interference with such cavities in more favourable circumstances, and afforded a valuable hint respecting the importance of disinfecting lung-cavities. It was clear, from the small amount of the discharge compared with the great previous quantity of expectoration, that the bulk of that expectoration had been yielded by the bronchi, irritated by the acrid fluids and gases in their passage from the cavities. Whilst advocating the puncture of chronic basis cavities in suitable cases, the authors deprecated interference with apex-cavities, on the ground of its being rarely necessary or useful, and were averse, save in exceptional instances, to making incisions into acute basic abscesses of the lung. In the present case, however, the operation had undoubtedly been postponed too long, the patient having come under observation too late. The diagnosis of the case from empyema was touched upon, and the several steps of the operation discussed; the use of a large trocar in preference to the knife being advocated. In future cases, too, the authors would choose the centres of the cavity rather than its lowest point for puncture, where it was situated in the posterior lobe of the lung.

Dr. SYMES THOMPSON thought the operation advantageous in selected cases, but it did not suit where the disease was acute or where the pleura was not adherent. When the inflammation was gangrenous, or where the patient's health was very bad, it might be performed, but not, he thought, until recovery under any other procedure was nearly hopeless. There would always be great difficulties as to diagnosis, for, to be successful, the putrid cavity must be near the surface, and these cases were not very numerous or easy to make out.—Dr. BARLOW said that no treatment of suppurating cavities could be satisfactory without good drainage. In the case narrated the opening was sinuous, and hence the drainage could not be very good. He would make a double opening as in empyema. It was easier to get the cavity cleaned out in this way. In empyema he fixed the tube by a thread round the body.—Dr. SILVER called attention to the fact that the discussion was on tapping cavities in the lungs, not on empyema.—Dr. THEODORE WILLIAMS agreed that the discussion should be restricted to the subject of pulmonary cavities; but, in every instance, the nature of the case had to be considered. Thus the operation might be useful in certain forms of bronchiectasis, but these could not easily be reached. The removal of the putrid fluid was important, as the other lung might be poisoned by the exhalations. In one case, he tapped a limited empyema, thinking it a bronchiectasis. In most cases of phthisis, the cavities, being in the upper part of the lung, drained themselves. He referred specially to a case where the President had operated for him with very great advantage.—Dr. REGINALD THOMPSON thought that the operation should really be considered as a means of preventing septic influences on the other lung, and should, therefore, be undertaken as soon as possible. There was often rapid breaking down of one lung, and then the other became infiltrated by inhalation with its products.—Mr. ERICHSEN said that in these cases the great thing was drainage, and that antiseptics did little or no good. The patient was really poisoned by his own secretions. He would make a free opening and get rid of the foul material. In the case referred to by Dr. Theodore Williams the whole house was infected, yet when the collection of stuff was opened the whole fœtor rapidly disappeared. Care should always be exercised in the selection of tubes; they should be rigid, to obviate any risk of forming an acute angle. He had found a flat trocar with a vulcanite cannula, the best instrument to use, but if he had to operate again, he would rather pass in a director, and then gradually tear with dressing-forceps than cut. Injection of fluid only seemed to irritate. In Dr. Williams's case an emphysema set in all over the body, and at each cough it could be seen to increase. The air, although intensely fœtid, produced no bad effects on the body.—Mr. HOLMES, with regard to the last point, mentioned a case of emphysema connected with the rectum, in which there was no damage to the tissues from the foul air.—Dr. POWELL said there was a difficulty as to the time of the formation of the various cavities; perhaps one formed first, and the others were secondary. He did not favour the idea of a double opening. Only a small quantity of fluid was removed, yet the expectoration ceased at once, perhaps from cessation of the irritation to the bronchi.—Mr. LYELL said that in another case he would prefer a metal tube.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—The eighteenth annual meeting of this society was held in the Board Room of the Infirmary, on June 1st, 1880. The secretary read the report of the proceedings of the session, which proved a large advance on the success of previous years. Ths following gentlemen were elected as officers for the succeeding year. *President:* Dr. A. H. Rabagliati. *Treasurer:* Mr. T. C. Denby. *Secretary:* Dr. Goyder. *Committee:* Drs. Tibbits, Dunlop, Craig, and Mr. H. Meade. *Pathologists:* Mr. J. Appleyard, M.B., and Mr. Wilmot. *Auditors:* Dr. Dunlop and Mr. S. C. Hirst. Votes of thanks were awarded to Dr. Tibbits and Dr. Whalley, the retiring president and treasurer.

REVIEWS AND NOTICES.

Antiseptic Surgery: an Address delivered at St. Thomas's Hospital, with the Subsequent Debate; to which is added a Short Statement of the Theory of the Antiseptic Method, a Description of the Materials employed in carrying it out, and some Applications of the Method to Operations and Injuries in Different Regions of the Body and to Wounds received in War. By William Mac Cormac, M.A., F.R.C.S.E. and I., M.C., Surgeon and Lecturer on Surgery at St. Thomas's Hospital. Pp. 286. London: Smith, Elder, and Co. 1880.

"The antiseptic method initiated by Professor Lister fifteen years ago occupies at present so prominent a position in surgical practice as to compel the attention of all practical surgeons; and the time has surely arrived when its pretensions, and the theory on which these pretensions are founded, may claim a definite expression of opinion. Foreign surgeons, especially the German ones, will say that this is already done; but in England, there is by no means the same unanimity on the subject."

These considerations led to a paper of striking ability by Mr. Mac Cormac, and afterwards to a very interesting debate at a meeting of the South London District of the Metropolitan Counties Branch of the Association, held at St. Thomas's Hospital in December 1879. This paper and debate, carefully revised, make up a third of the volume before us; a few pages discuss the Antiseptic Theory; a chapter follows on Antiseptic Material; and the remaining third of the book deals with Antiseptic Practice; and includes complete practical directions, with clinical illustrations from home and foreign, civil and military surgery. Thus, in a compendious form, much desired and valuable information is here brought together; it is done in an interesting manner and a scientific spirit; and although the author, as is well known, fully accepts the Listerian method, he both offers for judgment facts on which he bases his conclusions, and does not ignore either the opinion of others or the occasional drawbacks of the method itself.

In the address, he argues that the Listerian method is an exact one, founded on Pasteur's experiments, which show that it is not air itself, but something contained in it, that induces decomposition; for overheated, filtered, or disinfected air will not do so. He alleges, further, that it curtails duration of treatment, promotes safe and painless healing, and renders dangerous operations free from risk; "with the exact antiseptic method, wound-putrefaction and all its consequences can be prevented with a certainty unknown in any other way". Comparing, then, a few sets of cases, he finds that, of sixteen compound fractures thus treated, all did well; of fifty-four previous cases, twelve died, the majority of pyæmia or erysipelas; and many had tedious convalescences retarded by suppuration.

Reference is made to Mr. Holmes's paper on the same subject, in which the results of foreign surgeons are somewhat undervalued, and Mr. Mac Cormac defends them, as he is well competent to do. Volkmann has had seventy-five cases of compound fracture without any death, and mostly "in one of the oldest, most unhealthy, and unsuitable hospital buildings on the Continent of Europe". Schede's results are similar.

Ovariotomy offers the most striking results; and although marvellous success had been, by some, obtained without antiseptics, the success was certainly increased with them. Thus of eighty-three (should be eighty-four) antiseptic cases under Mr. Spencer Wells, six only died, and thirty-eight in succession recovered; whilst of the previous eighty-four, "with all the care he could give them", there were twenty-one deaths. Mr. Knowsley Thornton has reduced his mortality one-half, and obtained much more rapid convalescence. Dr. Keith, of seventy-six antiseptic cases, lost only two. Nussbaum lost thirty-four out of eighty-four patients; but after adopting Lister's method, only twenty-nine out of one hundred and thirty-five. In general surgery, Esmarch reports from Kiel a mortality of twenty-five from all causes out of five hundred and twenty-four operations; and Bardenheuer at Cologne no deaths amongst one hundred and twenty-three cases, including major amputations, disarticulations, resections, excisions, etc.

A very interesting detailed table shows that out of 321 amputations (excluding fingers and toes) treated antiseptically, there occurred 14 deaths (4.36 per cent.); but 8 of these were on the day of operation, and might be fairly subtracted. Of 387 cases treated "on the old system"—we should prefer to say "on general principles"—the total deaths were 110 (28.42 per cent.) including 72 from pyæmia and 19 from septicæmia; and if these be subtracted, there remain only 19 deaths: a proportion of 5 per cent., identical almost with that obtained by the antiseptic methods, which claims to eliminate septic causes of death. Of 23 severe gunshot wounds, several involving bones, thorax, or skull, or requiring deligation of vessels, 21 recovered (Kraske of Halle). In cases of head-injury, a mortality of 19 per cent. contrasts with 1.5 per cent. (Estlander). Finally, the results of Reyher with gunshot wounds during the late Russo-Turkish war deserve quotation. He proved the necessity of commencing antiseptic treatment, to be of service, immediately after the injury; for, if it were delayed, the results did not differ much from those of non-antiseptic treatment. Of 18 cases of gunshot wound of knee treated *at once*, 15 recovered with a good limb and movable joint; of 40 cases treated secondarily, 34 died and one limb only was saved; whilst of 23 non-antiseptic cases, 18 died and 2 limbs only were preserved. Omitting other injuries, these may be contrasted with our own results in the Crimean war, when "in no single instance was a knee-joint which had been opened by a bullet saved, life being lost in every case where amputation was not resorted to" (Longmore). Mr. Mac Cormac concludes his address with a reference to Mr. Savory's objections (British Medical Journal, August 1879); a defence from the charge of "frivolous detail"; and a tribute to the character of Mr. Lister.

In the debate, Mr. Bryant alludes to the general improvement in hospital hygiene and knowledge, and, criticising Mr. Cheyne's recent paper, "objects to strong assertions made on limited data". Mr. Macnamara dwells on the distinction between pyæmia and septicæmia, the value of the antiseptic method especially in tropical countries, and at the same time the fallacy of merely numeral statistics. Mr. Barwell notes the advantage of the treatment in amputations, excisions, and ligature of vessels. Mr. Spencer Wells, after becoming more accustomed to the method and details of antiseptic treatment, can record "the gratifying and almost incredible result of 46 consecutive recoveries after ovariotomy or other important abdominal operations". Mr. Thomas Smith points out the advantage of carbolised ligatures and drains, and the benefit derived even by those who do not practise pure "Listerism". Mr. Timothy Holmes sharply criticises the statistics of a "foreign army surgeon"; and whilst not opposed to antiseptics in surgery, objects to the proof of their use drawn from foreign and neglected hospitals, and calls for comparative statistics from King's College Hospital. Mr. Lister defends Professor Nussbaum, and points out that he has already placed comparative statistics before the profession in Glasgow and Edinburgh (British Medical Journal, 1875). Of 295 operations and an additional number of accidental wounds, he had only one death from blood-poisoning, and offers other ample testimony of successful results.

At the adjourned debate, Mr. John Wood, in an eloquent speech, "defines the limits of his agreement" with Professor Lister. "His antiseptic bark first suffered shipwreck among the shoals of expense." Sir W. Fergusson and his colleagues were of opinion that the pure waters of Damascus were as good as and better than all the carbolised waters of Israel. The full tide of hospital hygiene had already reached the London hospitals, when came the wave of antiseptics, "and topping the wave was the foamy crest or rather spray of Listerism"; and of this King's College Hospital took the fullest advantage. Mr. Wood estimates highly the spray and gauze treatment in psoas and spinal abscess, in large operations for hernia and varix, and had the greatest advantage from it in an extirpation of the thyroid. On the other hand, simpler antiseptic methods have also given him excellent results; and sometimes carbolic applications retard the progress of healing. He formulates these objections to the bacterian theory: 1. How is it that, if bacteria have a power so terrible, they are unable, in so large a proportion of cases to exercise it? 2. How is it that pyæmia may cause death when there is no external wound at all? 3. How is it that bacteria may exist in internal abscess, and yet no blood-poisoning ensue? 4. How is it that face-wounds heal so well when bacteria are found in numbers in the buccal mucus? But even if the theory were wrong, it would by no means follow the practice was not right. Mr. Hutchinson, acknowledging that the spray and gauze plan is very efficient in preventing putrefaction, points out that many improvements were already in progress—isolation-wards, torsion of arteries, antiseptic remedies, etc.—and his own mortality was not higher than that of a colleague who practised the method rigorously. In some cases, it may do harm, especially when rest is important, and other dressings, *e.g.*, lead and spirit, leave less scar; but "for most cases in which the surgeon makes his wound, the Listerian dressing is admirable". Sir James Paget, in a careful thoughtful speech, traces the gradual improvement in operative surgery during the last thirty years, roughly estimating the mortality now as 5 instead of 15 per cent., and mentions five factors—more simple treatment before and after operation, improved sanitation, improved nursing, improved education, and greater personal care of the surgeon. As to antiseptic treatment, he believes that by it, in complete form, we can nearly neutralise the evil influence of unhealthy hospitals, etc., but that it has not reduced the death-rate below that attained by good sanitary arrangements, nursing, etc.; but "of all achievements of surgery during the last thirty years, the diminution of risks of operation is by far the most important". Mr. Lund of Manchester and Dr. Newman (Stamford) represent, it need scarcely be said, earnest advocates of the Listerian treatment. "When it can be carried out completely, the results are astonishing"; "of two compound fractures, similar and in similar subjects, one, so treated, was quite well in two months; the other, not so treated, was still in hospital at the end of six". Mr. Knowsley Thornton refers to the saving of anxiety, as well as of life, in antiseptic ovariotomy; whilst Mr. Morrant Baker speaks rather of some risks of the method as applied to amputations. He quotes fifty-two capital operations performed without "spray and gauze" (but with "free use of antiseptics"); he had only seven deaths, not one from septicæmia; from carbolic dressings, he has seen toxic symptoms, in one case probably fatal, whilst purulent infiltration and serious concealed hæmorrhage have also been traced to them.

It will be seen that in this debate obligations to Mr. Lister are expressed by every speaker; a large number adopt his practice as the best, and some only question whether all its details need be carried out; the general opinion tends to a division of surgical cases into two classes—the one instanced by major operations on the abdomen and on joints, calling for complete Listerism, the second class, amputations, etc., by no means always requiring it.

In the next division of the book, "Antiseptic Theory", Mr. MacCormac confines himself mainly to ascertained facts as to bacteria, etc., and we do not see how his statements can be controverted—what fault there is in it, critically speaking, is that of some diffuseness and repetition. The decomposition of dead animal matter may be prevented in several ways: by freezing, boiling, or drying, or by chemical agents. In all putrescent fluids we find bacteria, living organisms with an indefinite power of reproduction. There are different kinds of these, some harmless, others potent for evil. Whether they are themselves the essential agents, or merely induce change in tissues or secretion, is not ascertained. The germ-theory of putrefaction asserts that this does not occur except in the presence and by the agency of these organisms; and when their power of reproduction is arrested, the so-called "unhealthy action" in wounds is prevented. "This theory suits and explains most of the facts, and until a better be forthcoming, we may accept it with a scientific reserve, but without hesitation". Healthy living tissue possesses certain powers of resistance, and "will kill a certain proportion of septic germs"; whilst in diseased states—diabetes, for instance—putrefactive changes are more readily admitted; a layer of lymph or blood in contact with *living* tissue becomes organised, with *dead* tissue putrefies. The observations of Klebs and others to the effect that organisms develop under antiseptic dressings are said to be incorrect; but Cheyne sometimes found micrococci (harmless) in later periods of the dressings, when these were probably weakened. A perfect antiseptic method altogether prevents putrefaction in wounds, but it cannot always prevent suppuration from irritation, undue tension, etc. The development of organisms may be hindered in several ways, as by antiseptic lotions, improving vital power, lessening circulation by ice or position, but most completely by the use of carbolic spray whilst the wound is exposed; this need not be used very strong, for the acid has powers for evil as well as for good, and its direct action on aseptic surfaces must be avoided (p. 111). Wound-secretions of high concentration resist development of bacteria; thus healing under a scab may be explained. The antiseptic method is not the mere employment of any single agent, such as carbolic acid (though this at present seems best), but the accomplishment of certain definite ends; under it there need be no "cleaning" of a wound, no molecular death on the surface, no discharge, but new material quickly organises into cicatrix.

We need not minutely analyse the other divisions of the book. Chapter 3 treats briefly of carbolic and salicylic and boracic acids, thymol, zinc chloride, and alumina acetate. It describes "protective", bandages, sutures, ligatures, and spray producers, and especially Neuber's decalcified bone-drains; whilst the fourth chapter gives minute directions as to the management of operations, hæmorrhage, (clamp forceps), after-dressings, etc.; it deals also with the application of the method to abscess, compound fracture, osteotomies, joint-puncture, abdominal section, fistulæ, head-injuries, catheterism, hydrocele, rectal cancer, tumour, nerve and tendon suture, septic wounds, etc.

Some valuable pages on Antiseptics in Military Surgery conclude the work. Our somewhat long notice of its varied contents at least justifies the statement as to its containing much valuable information in a compendious form; and it stands at present easily first as text-book and reference-book on its important subject.

Dr. J. H. Gordon has been appointed Certifying Factory Surgeon for Salisbury, *vice* Mr. F. C. Bennett, resigned.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

KADARKA AND RIESLING WINES.

It is now many years since Mr. Max Greger, by the introduction into this country of well-selected well-made Hungarian wines, succeeded in creating for the products of the vineyards of Hungary a large and continuous demand. His success was greatly due to the favourable opinion which medical men came to entertain of the quality of these wines, and of their value as elements of alcoholic diet and treatment. Carlowitz especially obtained for itself the great medical reputation which it has steadily maintained and still enjoys. The popularity of the Hungarian wines has been still further increased by the successful application of an ingenious system of distribution known as the wine-flagon system, by which incidental expenses of bottling and conveyance have been much diminished and the relative prices of the wines proportionately diminished. Mr. Max Greger has now made a further step in the same direction; it appears to us to be made very judiciously and advantageously. The Archduke Albrecht, uncle to the present Emperor of Austro-Hungary, has for the last half-century spared neither time, trouble, nor expense in extending the wine-producing capacity of his country, and in improving the quality of Hungarian wines. For this purpose, he has employed not only the choice Kadarka grape, but has imported and planted over a large space of ground the best stocks of Burgundy and Bordeaux. With a favourable soil and a fine climate, and by the employment of skilled methods of cultivation, he has succeeded in producing wines on the Bellye estates, which were first reserved entirely for the use of the Imperial family and of other private and royal persons. The produce of the estate has in the course of later years been considerably increased, and it has become during the last few years of great importance, so as to leave an annual surplus of some million of bottles of the different varieties. The administrator of the estate, Herr von Rampelt, has assigned, and, on behalf of the Archduke, completed an arrangement with Mr. Max Greger by which he secures for him for six years, the entire produce of the Bellye estates, on the condition that every bottle shall be sold as bottled at the vineyards, and branded with the archducal stamp. The wines thus introduced are essentially of two kinds, the Red Kadarka and White Riesling. They are of different qualities and prices; some very moderate in price, as low as two shillings a bottle, and still not only of undoubted purity and sold as bottled, but of excellent quality. The uses of wine, and especially of the lighter class of wines such as are here represented, have been of late years more and more carefully discussed and considered by the medical profession. On one point, at least, there is considerable unanimity; and that is, that the wines used should be the natural product of the grape, perfectly made, and free from any subsequent addition either of raw spirit, of artificial ethers, of fuchsine colouring matter, or of any of the numerous devices by which thin and poor wines are made by artificial combinations to assume the character of sound, wholesome, and naturally well-made wines. On this score, the Kadarka and Riesling offer every desirable guarantee; and the testimony of Dr. von Schmerling is in such circumstances hardly necessary, although it is very weighty, and testifies to their medical and dietetic value within the limits which medical opinion or experience may in each individual case assign to the use of wine. The inspection and criticism of all who are interested is openly invited by Mr. Greger; and those who wish to satisfy themselves of the accuracy of his statements with regard to the Hungarian wines, can do so at any time at his offices in Old Bond Street and Mincing Lane.

GERMAN MEDICAL PRODUCTS.

Messrs. S. and M. Zimmermann of Mincing Lane, London, are the agents for a series of products of the famous pharmacies of Schering of Berlin and Finzelberg of Andernach-on-Rhine, which are well deserving of the highest approval. From Schering's celebrated chemical laboratories, they import absolute phenol in fine white hard crystals, which are free from cresylic acid, and of which the watery solution does not show oily spots on the surface. Their dry yellow scales of iodoform, crystallised and dialysed salicylic acid, and Liebreich's transparent rhomboidal crystals of chloral-hydrate, are products of the highest quality, such as conscientious dispensers should invariably employ. These chloral-hydrate crystals of Liebreich do not decompose by time, as an ordinary chloral-hydrate does. Among Finzelberg's products, for which Messrs. Zimmermann are also agents, are especially to be mentioned the pure dialysed ergotin, which is in the form of a brown colloid, and, being purified by dialysing, is especially favourable for subcutaneous injections, being free from the irritating properties which, in some instances, give to the subcutaneous injection of ergotin the disagreeable quality of causing abscess. The pepsina porci is very powerful; the vehicle for it is pure sugar, and it stands Wittstein's tests well. On the whole, perhaps, one of their most interesting products is crystallised peptonised iron—a chemically united compound which is recommended as a form of iron particularly valuable for delicate constitutions, easily absorbed, and not likely to cause derangement of the stomach.

SELECTIONS FROM JOURNALS.

SURGERY.

The Formation of Callus.—MM. Rigal and Vignal presented a note on this subject before the Paris Académie des Sciences, which is reported in the *Gazette Hebdomadaire* of June 4th. In 1865, M. Ranvier, in his *Thèse de Doctorat*, and in 1869, MM. Cornil and Ranvier, in their *Manuel d'Anatomie Pathologique*, taking experiments as their basis, showed that the callus in simple fractures, in the human subject as well as in animals, in the first instance went through a cartilaginous stage; whilst in compound fractures it became directly bony in the midst of fleshy granulations proceeding from the medullary substance of the fractured bone. M. Ranvier further demonstrated that the suppurative inflammation had no influence on the progress of ossification in the cartilaginous callus when this was already formed. The writers made the following experiment. From the middle third of the tibia of a full-grown rabbit, they removed the periosteum three or four times in succession, so as to thoroughly destroy all its osteogenic properties; then, a fortnight after the last removal, they fractured the bone in the centre. Twelve days after the fracture (at that stage there is always a cartilaginous callus in the rabbit), the animal was killed, and the examination of the fracture showed that in the midst of the fleshy granulations, proceeding from the enlarged canals of Havers, a distinctly bony peripheric callus had formed. This experiment, several times repeated, always yielded the same results. The following experiment is still more conclusive. The periosteum was removed on two occasions at a fortnight's interval. The wound being cicatrised, the bone was broken in the middle, as in the first experiment, and the animal was killed twelve days subsequently. At the posterior part, where the periosteum had been preserved, the callus had formed, as in simple fractures, by the aid of cartilage; whilst at the anterior part, it was formed in the midst of fleshy granulations, as in suppurating and compound fractures. These experiments seem, then, to prove that the subperiosteal layer, when the irritation is active, as in fractures, contributes to the repair of the bone by becoming transformed into cartilaginous tissue. In another experiment, made on the same animal, the other conditions besides those to be created being exactly the same, after having divided the skin of one of the legs and carefully put aside the muscles until the periosteum was reached, the latter was somewhat strongly irritated by rubbing it with a highly polished surface—an agate burnisher, for instance—taking care not to touch the adjacent parts. On the opposite leg, the periosteum was irritated by thoroughly breaking up the adjacent soft parts, so as to bring on a sanguineous effusion. Then both wounds were closed by points of suture, and the animal was killed between the tenth and twelfth days. If union by first intention of the wounds in both legs had been obtained, some osteophytes would have been found under the periosteum of the first, whilst under that of the second, larger or smaller cartilaginous masses would have been found. The last experiment explains the directly bony formation of the points of subperiosteal callus the furthest from the seat of the fracture.

Congenital Dislocation of the Wrist.—Some authors do not believe that congenital dislocation of the wrist ever occurs without fracture. Thus far, but ten cases of congenital dislocation of the radiocarpal joint have been placed on record, to which Dr. J. H. Pooley, of Columbus, Ohio, adds another. The patient, a married woman, aged 33, had remarkably short forearms, being both of the same length, and measuring eight inches and a quarter from the olecranon to the styloid process of the ulna, being about an inch and a half shorter than the average; the radius measured seven inches and a half in length, and the hand six and a quarter. The appearance presented was that of dislocation forward of the wrist. On the posterior surface of the joint, there was a projection of the ulna and radius to the extent of three-quarters of an inch. The carpal bones were pushed forward in the opposite direction. The joints allowed greater flexion than would be the case were there no deformity; whilst extension was performed with difficulty, and limited to a line parallel with the forearm. The patient had always enjoyed good health, never having received any injury of the parts involved, nor had they been the seat of disease at any time. She could use her hands with freedom in the performance of her household duties, and could sew with ease. The main points in favour of its being a congenital dislocation were the history of the case and the examination, together with the presence of the deformity on both sides.—*American Practitioner*, April 1880.

MEDICINE.

Japanese Inundation Fever.—Under this name (*Japanische Fluss- oder Ueberschwemmungsfieber*), E. Baelz and Kawakami describe in Virchow's *Archiv*, Band 78, a disease hitherto unknown to Europeans, which breaks out every year in July and August in parts that have been inundated during the spring. It is an acute non-contagious disease with a typical febrile course, commencing with limited necrosis of the skin and leading to swelling of the lymphatic glands and a cutaneous eruption. There are no special premonitory symptoms. The onset of the disease takes place, generally after six days' residence in the infected locality, with rigors, headache, loss of appetite, and great feeling of debility. The lymphatic glands soon become painful, and the skin in their vicinity rapidly becomes necrosed. This, with the resulting ulcer, is the specific and characteristic sign of the inundation fever, and is never absent. The patients are abnormally sensitive to draughts of air and to the contact of water. The temperature gradually rises, until at the end of the first week it reaches 104° Fahr.; it then remains at this height for eight days, and gradually returns to the normal in the course of the third week. The frequency of the pulse is slightly increased during the fever. A sudden increase in the frequency of the pulse in the third week, when the temperature is normal, is a warning of severe symptoms. On some part of the skin there is formed a dry scab, which, in being thrown off, leaves a crateriform ulcer. The neighbouring lymphatic glands swell and become tender to the touch. Catarrh of the conjunctiva is always present. On the fourth or sixth day, there generally appears a papular non-suppurating eruption, first on the face, then on other parts of the body. The exanthem indicates that the disease has reached its acme, and lasts from four to six days; it is attended with continued high fever. At the end of the second week, the fever begins to remit, and convalescence rapidly sets in. The mortality is about fifteen per cent. The authors regard the disease as of miasmatic origin. Salicylate of sodium in small doses appears to be useful, while quinine has no effect. In order to prevent the development of the poison, the authors recommend the cultivation in the infected districts of the *Paulownia imperialis*, which possesses many advantages over the eucalyptus.

THERAPEUTICS.

Tonga.—Under the name of "tonga", a new remedy for neuralgia has recently attracted considerable attention in the medical profession. Some months ago, Mr. Ryder, a gentleman residing in Fiji, brought home a drug used by the Fijians in cases of this malady (*London Medical Record*, April 15th). It was brought in the form of small broken fragments, consisting of a mixture of woody fibre, bark, and leaves, broken up into such small pieces as to make it almost impossible to identify any portion botanically. This broken vegetable matter was tied up into spherical bundles, each about the size of an orange, covered with a wrapper consisting of the fibrous and breathing base of the leaves of the cocoa-nut palm (*Cocos nucifera*). Notwithstanding the broken state of the drug, Mr. G. M. Holmes, the curator of the museum of the Pharmaceutical Society, has (*Pharmaceutical Journal*), after careful examination, arrived at the conclusion that the principal component part of the contents of the bags is the stem of an arvideous plant, a species of *Rhaphidiphora*, probably *R. vitiensis*. The mode of preparing a draught of tonga for use is extremely simple. The bundle, while still closed, is to be allowed to soak in cold water for ten minutes. The liquid is then to be squeezed out into a tumbler, and a claret-glass of the infusion taken three times a day, about half an hour before each meal. The bundle is to be dried and hung up in a dry place, and can be used several times for a year. Experiments made in its administration by Dr. Sydney Ringer and Dr. Murrell, in eight cases, proved successful: in six, it acted very promptly; one was much improved; the other was not affected. The peculiarity of the action of this drug is its rapid action on the nerves; it does not affect the pupil when topically applied, nor increase nor lessen either perspiration or saliva.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

SUBSCRIPTIONS to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 19TH, 1880.

THE ENGLISH CONJOINT SCHEME.

WHEN writing concerning the resolution of the Royal College of Surgeons to withdraw from the conjoint scheme, in the JOURNAL of the 29th ult., we said that "there is no apparent reason why the College of Surgeons should go out of their way to discredit and shatter to pieces the work which they have taken so much trouble and time to prepare." It is therefore extremely gratifying to find that the Council of the College, at its meeting of the 10th inst., declined to confirm the resolution passed at the previous meeting, and resolved that "in view of the uncertainty respecting the present conjoint scheme, the Council should give notice to the several co-operating authorities in England of its intention to make arrangements, alone, or in conjunction with other bodies, to hold a complete examination, to be passed by all candidates for the diploma of membership". Thus the College frankly acknowledges its own incompetence to give a complete qualification for practice, and wisely seeks for co-operation.

The position of the College, second to none in respect of the influence which it exercises on the profession, thus affords a striking illustration of the anomaly that exists in this country in reference to the qualifications of medical men. There are, as has been repeatedly stated, nineteen licensing bodies in Great Britain, including Universities and Corporations, conferring amongst them between fifty and sixty different qualifications, or licences to practice. Prior to the passing of the Act of 1858, very few of the degrees and diplomas granted by these several bodies conferred any legal qualification or status on their holders, but that Act admitted them all without distinction to registration, and constituted all alike legally qualified practitioners. Thus, a Member of the College of Surgeons, who was not required to study medicine, and from whom no test as regards his knowledge of the art which must constitute the larger portion of the practice he was about to follow was required; a Licentiate of the Apothecaries' Society, from whose examination surgery was legally excluded; the Graduate of an Irish University, with brief pretension to university training; a Licentiate of the Apothecaries' Company of the same country, who paid ten-and-sixpence for his diploma; a Licentiate of Scotch corporations, who might have had no other relation with Scotland and its education than that of crossing the border—were all alike regarded as qualified to practise in all departments of medicine and everywhere. It is well recognised that, when these anomalies were unfortunately created by Act of Parliament, with the view of obtaining what was called "reciprocity of practice", it was intended to secure at the same time uniformity of qualification, that is to say, that all *registered practitioners* should be *qualified* practitioners. On this understanding, important privileges have been conferred on those who are registered. The remarkable anomaly hence arises—that individuals whose education is imperfect, and who have not been required by examinations to give evidence of competence, are declared by law to be legally qualified practitioners.

All proposed amendments of the Medical Act have tended to the removal of this anomaly. The Bill of Lord Ripon, which in 1868 passed the House of Lords, and reached its second reading in the House of Commons, proposed to accomplish this most desirable object by abrogating the licensing powers of all the medical authorities, and substituting for their diverse proceedings a single licensing or examining board in each division of the United Kingdom. Simple in its action and effective in its operation, this plan, no doubt, would have solved the difficulty. The licenses granted by these boards would at least have afforded evidence that registered practitioners were also competent practitioners. If this Bill had become law, it is evident that the licensing powers of the several medical authorities would have been extinguished. Conscious of the risk of their position, the English universities and corporations came to consider how the threatened danger could be obviated, and how the duty originally assigned to them might be honestly performed. Hence the origin of the English Conjoint Board of Examination.

On the subject of this Conjoint Board there really exists a very great deal of misapprehension, which it should not be difficult to remove by a simple statement of what the scheme really means. There are in England seven medical authorities, each of which has an examination in anatomy; all but one have an examination in medicine; and so on with the several subjects of which the medical curriculum consists. Now, instead of these several separate examinations, it has been arranged under the Conjoint Scheme that an examination by one board formed by the union of the several bodies should suffice for all, if they think fit. This single examination might be conducted by the examiners deputed by the several bodies acting in concert, or by the method adopted for the Conjoint Scheme, which is this. Each of the medical authorities in this country has named two representatives to a board, which is called the Board of Reference. The duty of this board has been to frame a course of education which everyone entering the medical profession through the portals of the English licensing bodies must pursue, and to arrange the number and the nature of the examinations to be passed. A further duty of this Board of Reference is to select examiners, double the number required, and to submit their names to the licensing bodies so that they may choose one from every two nominated. It has also been arranged that, when a candidate has passed the several examinations, he shall be entitled to receive the licence of the College of Physicians, the diploma of membership of the College of Surgeons, and the licence of the Apothecaries' Society. For these he would have to pay the sum of thirty guineas. The fees for the like qualifications are now more than forty guineas. Thus the licensing bodies would be enabled to conduct their examinations when combined in this fashion at a less cost than they can now do separately; the student would be spared the necessity of passing examinations more than once in the same subject, and he would obtain the necessary diplomas at less cost. But still more important will be the result which would insure, on behalf of the public, an efficient test of the knowledge of those who are to be registered as qualified practitioners. The universities have readily joined in this scheme; first, because it is desirable that they should not be excluded from participating in the education and examination of those who are entering on the medical profession; and secondly, because their graduates, by passing an examination in the practical subjects of Medicine, Surgery, and Midwifery, and paying a fee of five guineas (the cost of the examination), can claim the diploma of the three corporations on paying the difference of fees, without any further examination.

It is clearly understood that this scheme was completed twelve months ago, and could at any moment be put into operation, if the medical authorities in Scotland and in Ireland were prepared to form Conjoint Boards in their respective countries. With reference to Ireland, it is probable that no great difficulties would be found to exist; but the Scotch authorities have from the first seen insurmountable difficulties in framing and carrying out any scheme. We believe that they are wrong. We think that it would be quite easy to find a way out of the difficulty in Scotland as in England, if the Scotch authorities were willing to follow it. We are quite aware that it is not possible to apply the identical scheme which suits the English authorities to the Scotch authorities; but it is quite possible to apply an analogous scheme. Thus, assuming that there will be in Scotland two examinations in preliminary subjects—such as anatomy, chemistry, materia medica, etc., and a final examination in medicine, surgery, and midwifery—there is no reason why the examinations in these preliminary subjects should not be conducted in the several places where they are taught and by the authorities who teach, or by the corporations. The final examination in the practice of medicine, surgery, and midwifery should be conducted at centres, either permanently or in rotation. The plan for carrying out the scheme will, in some measure, correspond with that of the English scheme; in others, it will materially differ. For example, the several bodies in Scotland would no doubt depute representatives to constitute an executive committee, or committee of reference, who, subject to the control of the several bodies, would make all necessary arrangements. The several authorities might combine or not, as they saw fit, to hold joint examinations in the elementary subjects. For the final examination, the executive committee would nominate examiners, as in the English scheme, to be appointed by the several authorities. In the next stage of the proceeding, there would require to be an essential difference from the plan of the English scheme. In England, as we have said, the candidate pays thirty guineas and receives the diplomas of the three corporations; whilst the university graduate pays five guineas and is entitled, if he so desire it, to obtain the diplomas just mentioned on paying the entire fee. In Scotland, the universities occupy the position of the corporations in England as regards the number of candidates who take their degrees; and it would be necessary to modify the regulations accordingly. Thus, in Scotland, all candidates who pass the final examination might be required, as are the English university graduates, to pay only the mere cost of examination—say five pounds. But, then, instead of being required as in England to take the diplomas of the Corporations, it might be open to them to obtain the degrees or licences of one or more of the Universities or Corporations, by paying to that body the remainder of the fee and undergoing such further examination as may be required, if any. A plan of this kind could not possibly injure the Universities. The several authorities could still conduct their own examinations in preliminary subjects, and they would all share in the control of the examinations on practical subjects. Finally, there can be little doubt that the majority of the candidates who passed this examination would seek degrees at the Universities, for which they would pay such further fee and pass such further examination, if any, as might be considered necessary. It is difficult to conceive how, under such a plan, the Scotch Universities could do otherwise than prosper. They can regulate and control, as we have already said, the examinations; they can add before conferring their degree—especially the degree of Doctor of Medicine—to the course of study and to the examinations, if they think fit; and, lastly, they will receive a compensating and sufficient proportion of the fees.

The late Government were disposed to treat the several authorities with great consideration. In the Bill which they submitted to Parliament, they gave the several authorities an opportunity of framing their own scheme for examination, and not as in the Bill of Lord Ripon, which aimed at establishing an independent board; and they actually recognised and adopted the scheme of the English authorities. Finally, we have but to say once more that no Government can tolerate the anomalies of the present system; and that if the several bodies do not take steps amongst themselves to remove them, it will be absolutely necessary, in the interest of the public and in fulfilment of the design originally contemplated in the Act of 1858, that some such scheme as that contained in the Bill of 1868 and in the concurrent Bill of the British Medical Association should be put into operation. When this comes to pass, we fear that the result will be far more disastrous to the licensing authorities than anything which the most morbid fears of the Scotch Universities can contemplate.

OVARIOTOMY.

On Friday, June 11th, Mr. Spencer Wells performed ovariotomy for the one thousandth time. When we remember how many thousand hours of thought and anxiety, in addition to direct surgical labour, this unparalleled feat represents, we may well admire the completion of a Herculean task; yet sober reasoning gives us yet more cause to admire its commencement, both as a credit to surgical science and to the great contemporary operator himself. The thousandth case was the brilliant consummation, under relatively easy conditions, of a struggle commenced under diametrically different auspices.

Let us bear in mind what the word ovariotomy implied when it caught the ear of any surgeon in December 1857; then let us reflect on the present position of the operation. In addition to Mr. Wells's long list of cases, we have long tables of statistics of operations by other surgeons, which, but for Mr. Wells's example, might have been, at the least, much shorter. Fairness leaves us room for but one opinion as to whom honour and credit are due.

In 1857, forty-eight years had elapsed since McDowell first performed ovariotomy. This was an accomplished fact; there cannot be a second first, and none have offered more homage to the memory of the American than Mr. Wells himself. But that which McDowell originated was, till then, taken up by others always with diffidence and timidity, and never with sufficient success to impress surgical society with confidence. McDowell stands to Spencer Wells in the same relation as Solomon de Caus, the Marquis of Worcester, Papin, and Savery bear to James Watt. In 1857, the operation had fallen into absolute disrepute; as Dr. Keith admitted once in these pages: "Ovariotomy was then, as an operation, simply nowhere." Dr. Clay had achieved fair success in the provinces, yet somehow he failed to inspire confidence among either provincial or metropolitan surgeons, and thus to really establish ovariotomy as a justifiable operation. In spite of all his skill and foresight, Baker Brown had met with so many failures that he was threatened with an inquest on his next fatal case, and had not operated for two years when Mr. Wells began. Liston had stigmatised ovariotomists as "belly-rippers"; Lawrence and other great hospital surgeons were indefatigable in throwing discredit on them.

Besides great personal supervision of the minutest points of general after-treatment, Mr. Wells at once set in practice and strenuously advocated certain details of manipulation and of therapeutics, previously more or less disregarded. He discarded the plan of tying the pedicle and leaving the ends of the ligature hanging out through the wound. He shortened the incision in the abdominal wall, and emptied the cyst before attempting to draw it out. He substituted intra- for extra-peritoneal treatment of the pedicle, and did not recur to this intra-peritoneal method until antiseptics altered the whole position of the operation. He took great care to include the peritoneum in the sutures uniting the abdominal wound—a practice based on scientific experimental evidence, visibly demonstrated by his preparations showing the effects of sutures in uniting abdominal wounds in animals, now in the museum of the College of Surgeons. He did not insist on the administration of opium after operation, unless it were strongly indicated; and he objected to the operation chamber being kept at a stifling temperature. Again: he made his subject scientific. Apart from free publicity of statistics before the Royal Medical and Chirurgical Society, he exhibited before the Pathological Society not only specimens which illustrated anomalies in ovarian disease, and rarities in the way of pelvic tumours, for which every operator must be prepared, but every tumour which he removed, whatever the result was, until the operation was thoroughly recognised as legitimate.

What are the fruits of all this labour, beyond all that is implied in the completion of one thousand cases? Out of Mr. Wells's first five hundred cases, three hundred and seventy-three recovered and one hundred and twenty-seven died—a mortality of 25.4 per cent. Great practical results had already followed his efforts; and several imitators had commenced to practise ovariotomy with his precautions, and had achieved success. Of the next three hundred cases, two hundred and twenty-three recovered and seventy-seven died—a mortality of 25.6 per cent. Eighty-three recovered out of the next one hundred cases and seventeen, or 17 per cent., died. During the last two years that Mr. Wells operated at the Samaritan Hospital, the real battle-ground of his victories, 90 per cent. of his hospital cases were cured. Lastly: of the concluding hundred cases, eighty-nine have recovered and eleven, or 11 per cent., died. In 1878, shortly before the completion of nine hundred cases, he had adopted antiseptic precautions. The grand total shows seven hundred and sixty-eight recoveries and two hundred and thirty-deaths—a mortality of 23.2 per cent.; but, of course, to judge these statistics fairly, the low mortality of 11 per cent. in the last hundred must, in the present state of the operation under antiseptic precautions, be taken as an average which we may hope to see still further diminished; and, in justice to the operator, we must not forget that, for obvious reasons, many of the later cases have been highly complicated, other surgeons having undertaken many simpler cases which, a few years back, would have been referred to Mr. Wells.

Lord Selborne, in a public address, once demonstrated how the recovery of three hundred and seventy-three patients out of Mr. Wells's first five hundred cases represented a total gain of 10,817 years of human life. By the same calculation, multiplying the 768 recoveries by 29, the insurance "life expectancy" number, we find that 22,272 years of human life may be estimated as having been added to society by the direct agency of Mr. Spencer Wells. On this and the above observations comment is needless. Without disparaging either the past introducer or the present perfectors of ovariotomy, Mr. Spencer Wells has rescued the operation from the discredit into which it had fallen, and established it, in the opinion of the profession here and abroad, as a thoroughly legitimate and marvellously successful surgical operation.

THE OFFICIAL INTRODUCTION OF VACCINATION WITH CALF-LYMPH.

THE announcement with regard to animal vaccination which Mr. Dodson made in the House of Commons on behalf of the Ministry, on the 11th instant, is one upon which the Government and the profession are alike to be congratulated. Mr. Dodson, replying to Dr. Cameron's request that the National Vaccine Establishment should supply animal lymph for the use of those who prefer it to humanised lymph, promised that the department should make arrangements by which animal lymph might be supplied as stock to medical practitioners as they might desire. The only limitation which Mr. Dodson made to this concession was that it would be necessary for the Establishment to start their new lymph-providing arrangements from a well-established case of spontaneous cow-pox: a matter which can hardly be difficult, in view of the exact records which are kept at the continental stations, notably at Dr. Warlomont's in Brussels, of the pedigree of the animal lymph now used. We may assume, therefore, that, in the course of a very short time, any practitioner who desires to revive his stock of lymph by recourse to the calf will be able to carry out his wishes by an application to Whitehall. It cannot be doubted that a large and increasing number of practitioners will avail themselves of this new boon, which promises, indeed, to remove one very solid ground of objection from vaccination altogether; viz., that of the alleged inoculation of other diseases.

The reform thus happily inaugurated is by no means new to the profession, though it is undoubtedly so to Parliament. For at least twelve years past, it has received more or less attention in this country. Dr. Blanc (who originally introduced the method into England), Dr. Ballard, Dr. Vintras, Dr. Wyld, Dr. Wilson of Alton, Mr. Greene of Birmingham, Mr. Ceely of Aylesbury, and the editor of the *Medical Times and Gazette*, have all contributed towards the result which we have now the pleasure of chronicling. The official report on the subject by the late Dr. Seaton, who viewed animal vaccination with strong disfavour, sufficed, however, for a number of years, to discredit the system in this country; and it was only when a number of independent scientific workers had examined for themselves the recent working of animal vaccination, and had seen the improvements which had been effected in it since Dr. Seaton made his adverse report, that the question of its recognition in this country began to be seriously discussed. To Dr. Cameron is due the credit of having advanced the parliamentary prospects of the question by the introduction of a Bill providing for the optional use of animal vaccine into the House of Commons in the session of 1879, and of having thus first drawn public attention prominently to it. It is to be regretted that Dr. Cameron should have mixed up with his advocacy of calf-lymph certain peculiar and erroneous views as to the source of one kind of lymph now in use and much esteemed. This undoubtedly caused some professional prejudice against his proposals as to animal vaccination, and, but for the intervention of our Parliamentary Bills Committee, would have rendered his prospects hopeless. He has now, however, withdrawn some of his arguments, and restricted his proposals to more reasonable proportions; and his large share in the satisfactory result deserves general recognition. Of the inception of the large and important gathering of medical men which assembled at the rooms of the Medical Society of London on the 4th, 18th, and 31st of December last, it would not become us to speak; but it would be affectation to ignore the influence which has been exercised upon the rapid extension of the method in different parts of the world (detailed for the first time in the Preliminary Report of the Chairman of the Committee presented to the Conference), and the general consensus of those present in favour of animal vaccination, the conclusions arrived at in the report, and the recommendation of a scheme of official distribution of calf-lymph to public vaccinators from the government centre.

Dr. Cameron, in bringing this subject before the House, confined himself almost exclusively to the facts brought forward at the conference, or by M. Warlomont in the subsequent discussion. It is unnecessary to analyse his detailed and careful speech, because its facts and arguments are already familiar to our readers in the reports referred to. To the House, however, they were not so familiar; and Dr. Cameron was listened to with evident interest and attention during the whole of the hour and a quarter which he occupied in addressing the Speaker. Dr. Farquharson, who made his maiden speech in support of Dr. Cameron's motion, spoke chiefly of the usefulness of animal vaccination in affording practically inexhaustible supplies of lymph in times of epidemic: a point which was evidently appreciated by the House.

Earl Percy, who has taken a warm interest in animal vaccination, spoke in favour of Dr. Cameron's motion, which was also commented on from a medical point of view by Mr. Mitchell Henry. The other speakers who addressed the House before Mr. Dodson rose were objectors to vaccination *in toto*, and their speeches do not, therefore, concern us in the present connection. Mr. Dodson, who at first spoke in a very laboured and jerky fashion, which gradually wore off as he got warmed to his subject, first inquired of Dr. Cameron whether he would have animal lymph distributed to all comers (laymen or otherwise), or only to medical men. On receiving an assurance from Dr. Cameron that the latter plan, which was that suggested by Mr. Ernest Hart, and proposed by the Parliamentary Bills Committee in deputation to Mr. Sclater-Booth, was what he intended, Mr. Dodson cut the Gordian knot by promising that the National Vaccine Establishment should make arrangements to supply animal lymph in the same way that it now supplies humanised lymph, viz., for the setting up of stocks with which to start a series of local vaccinations from arm to arm.

Mr. Sclater-Booth, who had risen at the same time as Mr. Dodson, and was only prevented from speaking before his successor at Whitehall by the superior dexterity of the latter in getting on his legs and catching the Speaker's eye, expressed his great satisfaction at the decision of the Government, and said that, had he remained in office, he would have been prepared to make the same proposals, which he is understood to have been considering since the conference of the British Medical Association in February last.

The goal for which we have been striving has at last been reached;

and we have good grounds for supposing that an increase both in the amount of vaccination and the quality of the protection afforded will be the result. In calling together the conference in December last, at which the whole of the information on the subject was brought to a focus for examination and discussion, it was, we believe, generally felt that the Parliamentary Bills Committee of the Association rendered useful and timely service of a kind which it is peculiarly fitted to afford. The support which the influence of that conference has given to Dr. Cameron's amended proposals, modified in order to approximate them more closely to the Parliamentary Bills Committee's views, is now fruitfully shown in the readiness with which the Government has accepted as the result precisely that scheme which Mr. Hart framed and recommended, as the most practicable way of introducing the advantages of resort to calf-lymph without disturbing our vaccination system, or destroying the facilities for arm-to-arm vaccination. Dr. Cameron deserves all credit for his perseverance and courage in continuing to bring forward his motion in face of apparently overwhelming official discouragement. To the Association, represented by its Parliamentary Bills Committee, is unquestionably due no inconsiderable share in the result; and its success on the present occasion may well serve as an encouragement to press on the other reforms to which it is now devoting its attention.

LIFE-PEERAGES.

THE House of Lords is mainly made up of Peers whose titles descend to their male heirs. Until 1878, the Bishops were the only Peers whose sons had no titular distinction, and whose rank was not hereditary. Then, by a special Act of Parliament, certain Lords of Appeal were placed in the House of Lords as Life-Peers; and the right denied to the Government in the case of Lord Wensleydale has been admitted in the case of Lord Blackburn and his Scotch and Irish colleagues. The lawyers have long been in favour of the principle of a life-peerage, on the ground that able lawyers are much wanted in the House of Lords, and that few able lawyers are rich enough to leave an eldest son able to maintain his position among his peers. Many lawyers in our own time have been raised to the peerage as hereditary peers, by writ or by patent, but in no instance has a member of our profession been created a Peer. The offer was made about thirty years ago both to Sir James Clark and to Sir Benjamin Brodie, but was declined by both on the ground of insufficient fortune to endow an hereditary Peerage; and the debates on the Wensleydale case, in opposition to the opinion of many sound lawyers, led to the decision that life-peerages were unconstitutional. But the lawyers are again raising the question, and it is believed that the Queen and the Government are in favour of the principle. If so, and we are to have lawyers as well as Bishops created Peers for life only, surely the claim of our profession to some share of honourable distinction cannot long be denied.

In the address on Surgery at our Manchester meeting in 1877, Mr. Spencer Wells insisted strongly upon the importance of bringing into our profession young men who have had the advantage of the highest general culture to be obtained by an English education. He argued that now the flower of our University youth choose the Church or the law, the army or navy, or some branch of the civil service of the State, because they at once take an enviable social position, and a successful career may lead to pensions and titles, and to a seat in the House of Lords. And he went on to ask: "Why should a baronetcy be the highest titular distinction conferred upon members of our profession? Is Jenner or Paget less worthy of a life-peerage than any one of the eminent men who now sit on the Bench of Bishops, or any of the lawyers, soldiers, or sailors who have been rewarded by hereditary peerage? Can any member of the House of Lords do greater service to his country in that assembly than would such a wise and learned physician as Watson, who so very lately has proved himself capable of the highest efforts of statesmanship by his remarkable essay on the abolition of zymotic disease?" And he added: "Since the health of the people is, or should be, one of the first objects of legislation and administration, the help of acknowledged masters of sanitary science is indispensable. That want now manifest in the recent ill-devised Acts of Parliament, and the imperfect machinery put in action for their execution, must force upon the nation the conviction that medical science ought to be properly represented in Parliament, and especially in the House of Lords. None of our leaders have time for electioneering or the turmoil of party struggles in the House of Commons; whereas many of them are well fitted for the more dignified position, and would be quite able to devote their time and energy to sanitary legislation in the senate."

If this were true in 1877, surely it is true now. Parliament was never in greater need of wise medical counsel. Our sick paupers, our soldiers and sailors, our prisoners and lunatics, our neglected children, the hundreds of millions of our fellow-subjects in India and the colonies, are all—at home or abroad—affected, for good or for evil, by the sanitary measures of our Parliament. We cannot remain much longer without a Civil Medical Service or a Minister of Public Health, and each might have an official representative in the Lords and in the Commons. Examples are not wanting now in the Commons to prove that there are men among us who do not shrink from the expense and labour of a popular election; and for those who shrink from such an ordeal, while their services are needed by the nation, we see no such ready or efficient inducement, or one so likely to be generally acceptable and useful, as a life-peerage.

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DR. D. B. LEES, Assistant-Physician to the Charing Cross Hospital, has been elected Assistant-Physician to St. Mary's Hospital.

THIRTY of the beds of the Charing Cross Hospital have been closed for want of funds.

AN inmate of the Jews' Asylum, in Hackney, died on the 11th inst. from paralysis, whose age was stated to be 104 years.

THE governors of the South Devon and East Cornwall Hospital at Plymouth have resolved to erect a new building in the town at an outlay of £150,000.

THE French Temperance Society has proposed the following question for competition in 1881: Do alcohols, introduced into the animal economy, undergo any modifications?

A COUNTY Court decision at Sheffield has affirmed that false teeth are not necessaries, and that the dentist who supplies a married lady with them cannot recover the amount of their cost from her husband.

THE proportion of uncertified causes of death averaged 2.4 per cent. last week in the twenty towns; the proportion was but 1.2 per cent. in London, whereas it was equal to 3.5 in the nineteen provincial towns.

DURING the past ten weeks of the current quarter, the death-rate in London has averaged only 19.8, against 23.0 and 23.5 in the corresponding periods of 1878 and 1879.

A MAN named Moran, residing near Airdrie, died from hydrophobia last week. Deceased had been bitten about two months ago on the mouth, and was ill three or four days.

AT St. Thomas's Hospital, the distribution of prizes to the students by His Grace the Duke of Sutherland, K.G., F.R.S., will take place on Friday, June 25th, at 3 P.M. Seats are reserved for ladies.

THE following gentlemen have been elected Fellows of the Royal Society:—Dr. Clifford Allbutt, Professor J. Attfield, the Rev. W. H. Dallinger, Mr. Thiselton Dyer, Dr. J. Rae, Professor J. E. Reynolds, and Dr. W. A. Tilden.

A NEEDED and notable sanitary measure has been introduced into the French army. The Minister for War has decreed the organisation of warm baths in the barracks of the cavalry, artillery, and transport service.

Dr. H. Liouville's Bill for compulsory vaccination and revaccination in France, which had been referred to a commission of inquiry, has been adopted in principle by the commission, who have recommended it to the Chamber of Deputies for consideration.

The Hospital Sunday collections in London this year have been very successful, the collections having in many instances exceeded those of previous years. Up to Thursday, the amount received at the Mansion House is nearly £10,000. Probably over £20,000 will be received in all.

According to the tables of the Statistical Society of the Netherlands, the population of these countries was, in 1878, 3,924,792 persons. Since 1829, the population of the provinces of North Holland has increased to 1,300,000. It is at present at the rate of 444 to the square mile.

The managers of the Metropolitan Asylums Board commenced on Saturday their annual inspection of the various establishments under their control. The asylums at Darenth, in Kent, for the juvenile imbecile poor of London, were first visited by them, and occupied their attention during the greater part of the day.

Sir Josiah Mason's Science College, Birmingham, will be opened on the 1st October next, with an Introductory Lecture by Professor Huxley. The classes will include courses of Biology, by Professor T. W. Bridge, M.A., F.Z.S.; Chemistry, by Professor Tilden, D.Sc., F.R.S.; Physics, by Professor J. H. Poynting, M.A.

For the first time at Rugby, on Saturday last, collections were made at the places of business and street corners in aid of local hospitals. On Sunday last, also for the first time, collections were made in the different churches and chapels for the like object. It has been decided that in future the second Sunday in June shall be observed at Rugby as Hospital Sunday.

Last week, a child aged two years, at Wick Road, Hackney, who died from "confluent small-pox, ten days", was certified to have been "vaccinated fourteen days ago". As this child was not vaccinated until four days before the eruption appeared, it must have been unvaccinated when exposed to infection, as the period of incubation is known to be thirteen days.

Henry Forrester, described as a savage-looking man, was charged on Monday at the Bow Street Police Court with assaulting Mr. John Fish Silk, house-surgeon at King's College Hospital. While the complainant was engaged in prescribing for an out-patient in the consulting-room, the prisoner struck him a violent blow on the head with a piece of iron, rendering him insensible. A question was raised as to the prisoner's sanity, but he was committed for trial.

Dr. Bertillon continues his attacks on the system of placing small-pox hospitals in inhabited localities. In his last weekly bulletin of the health of Paris, he comments on the exceptional mortality from small-pox in the quarter of the Quinze-Vingts, Sainte Marguérite et Roquette, which contribute from three to four times more deaths to the tables of mortality from this disease than is warranted by the number of the population. This mortality is attributed by Dr. Bertillon to the hospital Saint Antoine, which has been used as a small-pox hospital in place of the Annexe, and has for the last three weeks contained about one hundred small-pox patients. M. Bertillon promises, when the cessation of the epidemic gives him leisure, to prepare a table of deaths directly owing, in his opinion, to the location of these small-pox hospitals within the city of Paris.

HOME HOSPITALS.

The first of the "home hospitals" of the "Home Hospital Association for Paying Patients" is now fitted ready for use, and will very shortly be opened. It is named Fitzroy House, situated at 16, Fitzroy Square. It is opened for inspection until June 21st. The regulations have been drawn under the supervision of a committee consisting of the Presidents of the Colleges of Physicians and Surgeons; the President of the Metropolitan Counties Branch of the British Medical Association; Dr. Quain; Mr. Erichsen; and Mr. Aikin and Mr. Sibley, as representing general practitioners. They provide for the admission of patients under the independent care of their own family practitioners or consulting attendants. Great care has been given to the fittings and nursing arrangements of this institution. By the terms of the articles of Association, the society is precluded from deriving any profit from the operations of its self-supporting homes, nor can any fees or honoraria be paid to the managing board.

GUY'S HOSPITAL.

The following letter appears in the *Times* of Thursday:

"Sir,—This morning there was a demonstration on the part of the students of Guy's Hospital against the treasurer. The students, to the number of two hundred, assembled in the colonnade of the hospital, and hissed the treasurer on his way to the 'take in' room. This will perhaps be represented to you as a riot which had no justification. There was no riot. There was abundant justification. The students stood in perfect order in two lines, leaving ample room for the treasurer, and, as soon as he had passed, three cheers were given for the medical and surgical staff. The students then retired without the least disorder to the lecture-theatre, when a meeting was held, and the following resolutions were passed: '1. That, in consequence of the action of the treasurer during the disturbing events of the past eight months, the students of this hospital regret that they can no longer accord to him that respect which has been hitherto due to his office. 2. That the steps taken this morning were made after due and calm deliberation with a view of publicly expressing this opinion. 3. That a copy of the resolutions be immediately transmitted to the treasurer.' Knowing how the actions of medical students are usually misrepresented, we desire to point out strongly that the demonstration was carried out with the utmost moderation and decorum. We may add we were merely spectators.— A. Ernest Maylard, M.B., B.S. London, Senior House-Surgeon; G. H. Russell, M.B. London, Senior House-Physician. Guy's Hospital, June 16th."

The above letter will not surprise those who have followed the course of events described from week to week in our columns. We mentioned last week the continuing discord due to the treasurer's attitude, and this is a painful sequel. We hear to-day that Lord Cardwell, who has been actively interested in the management of the hospital, has testified his sense of the course pursued by the treasurer by withdrawing from the court of management. Mr. Maylard and Mr. Russell have further issued a detailed letter of serious charges of general incapacity and special defective administration, and of instituting a system of espionage. This letter has been forwarded to the papers (we have received a copy) and to the treasurer and governors, and no doubt will lead to further proceedings. It is time that this melancholy derangement of the affairs of the hospital should cease. It is not a little instructive that difficulties of administration largely charged against the matron and the chairman of the committee of management have, at the present time, robbed the General Lying-in Hospital of its medical staff, and that an inquiry is progressing there at which the physicians and house-physicians have made general allegations of defective administration affecting, in their opinion, the safety of the patients and incompatible with the due service of the wards by the physicians.

EGYPTIAN DARKNESS.

It may sound strange in the ears of European doctors, but is nevertheless true, says the *Egyptian News*, that chloroform is not used at all in the Egyptian hospitals, and scarcely ever by native doctors in their private practice. It is not very many years ago, since one of the most celebrated native surgeons withdrew from a case in which death must have ensued had not an European surgeon insisted on using chloroform in the case. The native surgeon said he had never given it, nor would he in this case (although the patient was his) take any responsibility in the matter. It is evident that the European element is required, not only in financial and other departments, but also in the medical school.

MR. REGINALD HARRISON.

Mr. Reginald Harrison of Liverpool has replied to the highly influential and numerously signed requisition which he has received, as follows.

"38, Rodney Street, Liverpool, June 4th, 1880.—Gentlemen,—The requisition I have had the honour to receive leaves me no alternative but to comply with the proposal it contains. I have the less hesitation in acceding to your request, inasmuch as my candidature will almost entirely rest, not upon any personal claims of my own to so high a distinction, but upon those of Liverpool to have a representative on the Council of that Corporation with which, for educational purposes, she has been so long connected. Should your choice be confirmed by my election to the Council, it will be my constant endeavour to uphold the dignity and promote the usefulness of your College.—I have the honour to remain, your faithful servant, Reginald Harrison."

ALLEGED ILL-TREATMENT AT THE HIGHGATE INFIRMARY.

Dr. Hardwicke has held an inquiry into the circumstances attending the death of Charles Stapleton, a labourer, who died in the Gray's Inn Road Workhouse, after removal from the Highgate Infirmary on May 11th, he having been the day previously admitted into that infirmary. It was alleged that the deceased had been ill-treated by two men forcing him into a bath. The jury found that the death was from exhaustion, following upon drink and pneumonia, and that death was accelerated by removal from Highgate: they were also of opinion that proper accommodation for such cases should be provided at the Highgate institution.

ST. ANDREW'S GRADUATES' ASSOCIATION.

The anniversary session and dinner of this Association were held at the Greyhound Hotel, Hampton Court, on Saturday last, under the presidency of Dr. Seaton of Sunbury. Among the guests were Dr. Farquharson, M.P., and Mr. Gant, President of the Medical Society of London. The report of the Council congratulated the members on the election of Dr. Richardson as Assessor of the General Council, and pressed strongly for the active support of all graduates in the face of the threats of coming disfranchisement.

SUPPLEMENTARY BUDGET.

Without entering into any financial question, we may express satisfaction that the tendency of the operation of Mr. Gladstone's supplementary budget especially will be altogether in the direction of substituting light alcoholic drinks for the heavier ales which are now in use. This will, we understand, be still more clearly seen when the regulations necessary for carrying out the resolutions proposed are issued and studied. Broadly, the general effect will be to offer a premium to brewers on brewing light ales, having a specific gravity of not over 1055. The ales most commonly brewed now are much more alcoholic, and as high on an average as 1065; the lighter the ale brewed, the lower will be the duty, and thus the brewer will have every possible inducement to introduce to the public light ales of the lager-beer character. There can be no doubt that if lager beer could be introduced into this country largely, that the substitution of it for the strong ales and porters now brewed would be a great step forward in the direction of temperance. It of course remains to be seen if these ales when supplied will meet with public favour; but Mr. Gladstone's budget, apart from its financial aspect, is a move in the direction of temperance, and as such should be welcomed by all well-wishers of the people.

METROPOLITAN WATER-SUPPLY.

Dr. Frankland reports, as the result of his analyses of the waters supplied to the metropolis during May, that, taking the average amount of organic impurity in a given volume of the Kent Company's water during the nine years ending December 1876 to represent unity, the proportional amount of such impurity in a given volume of water supplied by each of the metropolitan water companies and by the Tottenham Local Board was: Colne Valley 1.4, Kent 1.5, Tottenham 1.7, Grand Junction 2.4, East London 2.7, New River 3.3, West Middlesex 3.3, Chelsea 3.7, Lambeth 4.4, and Southwark 4.8. The Grand Junction and Chelsea Companies delivered Thames water of fairly good quality, but the West Middlesex Company's water, drawn from the same source, was slightly turbid from inefficient filtration, and that distributed by the Southwark and Lambeth Companies was much polluted by soluble organic matter. The Lea water, supplied by the New River and East London Companies, was efficiently filtered, and of similar quality to the better samples of Thames water. The deep-well waters, delivered by the Kent and Colne Valley Companies, and by the Tottenham Local Board, were of their usual excellent quality. The Colne Valley Company's water had alone been softened before delivery.

WOOLSORTERS' DISEASE.

The inquiry into the particular death from woolsorters' disease at Bradford, which has been the subject of a coroner's inquest, has now been concluded, and the jury have returned a verdict of death from accidental causes. Whilst exonerating the man's employers from negligence, they have added, as a rider to their verdict, a series of recommendations specifying the steps which they think should be taken for the prevention of similar calamities in future. As to the sufficiency or otherwise of these measures to accomplish the object desired, we can express no opinion; but, as the presentment and recommendations of the jury have been sent to the Local Government Board, one of whose officers is now investigating the subject, the suggestions made at the inquest will doubtless not be lost sight of. The inquiry was, as we think very properly, conducted by the Town Council of Bradford, who brought forward a number of woolsorters to testify to the unwholesomeness of certain kinds of hair which sorters have to handle. The evidence of these men was mainly to the effect that the dealing with the inferior kinds of hair, especially Van mohair, is attended with specific risks of blood-poisoning, as they have had opportunities of observing either in their own persons, or those of their comrades. Dr. Bell described the symptoms of the deceased, and gave it as his opinion that the death was due to blood-poisoning resulting from his occupation. In the course of a lengthy examination, and still more lengthy cross-examination by the owner of the mill where the deceased worked, Dr. Bell said that he thought great care should be taken in opening the bags in which the hair is imported, so that the sorter may not inhale any dust arising from the fleeces. The recommendation which has been made, and which is in practical use in some works, viz., to steep the bale in water before it is opened, meets the case, Dr. Bell thinks, pretty fully, and the process should be applied to all kinds of Eastern hair. The public interest which has been excited in this strange disease will probably now be sustained until the Government inspector, Mr. Spear, has made his report. A check has unfortunately been for a time given to the investigation by the fact that Mr. Spear, in making a *post mortem* examination of a wool-buyer who died after a short illness with symptoms of blood-poisoning, received a dissection-wound of considerable aggravation, which has obliged him to suspend work for the present. Dr. Butterfield, the medical officer of health for Bradford, and Dr. Greenfield of St. Thomas's Hospital, who attended Mr. Spear during his illness, have also suffered to a minor extent in a similar way; and there would seem therefore to be some peculiar and unusual virulence in the poison of the disease. The experiments which have as yet been made on animals, with the blood of those dying from woolsorters' disease, seem to put it beyond a doubt that the disease is some form of anthrax; and the further elaboration of the investigations will be watched with anxious interest.

ANTI-VACCINATION FABRICATIONS.

A typical specimen of the tales that are industriously spread about of mischief from vaccination, was brought under the notice of the Islington Guardians at a recent meeting. A man named Selzer had been prosecuted by the vaccination officer of Islington for neglect to have one of his children vaccinated; and on the occasion of his appearance at the Clerkenwell Police-court, Selzer said that "he had a child who was in a frightful state through having been vaccinated in the St. Pancras Workhouse. He would have brought the child (a girl) to the court for the magistrate to look at, only she was too ill. She was covered with eruptions, and he was naturally afraid of having his children vaccinated." The attention of the Local Government Board was drawn to this observation; and they thereupon, in accordance with their usual practice, directed inquiry into the alleged injury from vaccination to be made by Dr. Stevens, their senior medical inspector. From the report which Dr. Stevens has made of his inquiries into the matter, it appears that the child referred to by Selzer is a girl fourteen years of age, and is hale and strong. She opened the door to the inspector, who found her ably assisting her mother in attending to a family of small children. Dr. Stevens reports that the girl in question was vaccinated at or before three months old, in St. Pancras Workhouse; that the arm, according to the mother's statement, was an excellent one, ran the usual course, and healed without any untoward sign. The inspector also ascertained that the girl remained in perfect health (a fact corroborated by the grandmother who was present at the time of the inquiry) until she was about four years old, when some patches of psoriasis appeared on the shins, spread considerably, then died away, and afterwards appeared again. About three years ago, the girl was under treatment by the parochial medical officer, who ordered her two pounds of beef per week, and a pint of milk per day. While under this treatment, she quite recovered, but the skin-complaint after a while reappeared, and she was suffering from it at the time of the inquiry. In Dr. Stevens' judgment, in which the medical officer of the Local Government Board unreservedly concurs, there is no reason whatever for connecting the skin-disease under which the girl has been suffering in any manner or degree with vaccination. So disingenuous, however, was the father of the girl that, notwithstanding Dr. Stevens' visit, he reiterated, on the occasion of subsequent proceedings being taken against him with regard to the vaccination of other children, his allegation of the injury done by vaccination to his daughter. The Local Government Board, in thus publicly exposing the complete inaccuracy of his complaint, have done most wisely; and we could wish that they would similarly publish the results of all their inquiries into allegations of mischief from vaccination, which are systematically found to be utterly flimsy and devoid of truth.

THE HORRORS OF WAR.

It is horrible to contemplate that, in the not improbable event of hostilities breaking out between Russia and China, in Central Asia, large armies will be sent into the field by the latter power, unaccompanied by medical officers, and unprovided with ambulances, bandages, or surgical appliances of any kind. The sick and wounded of these armies will have only comradeship to look to for succour; and, when rapid advances or retreats are being effected, comradeship is, of course, of no avail, so that they will be left to perish miserably where they fall. It is almost incredible that an empire, boasting an ancient civilisation and celestial culture, should be so careless of the lives of its defenders as to make not the faintest attempt to supply them with aid when struck down by the casualties of warfare; yet such is the case; and, in previous campaigns in China, the scenes witnessed on a field of battle for days after the conflict was over, when the wounded were slowly dying in protracted agonies by the side of the dead, have been indescribably hideous and painful. This neglect of sick and wounded soldiers is a great blot on Chinese civilisation; and the present enlightened representative of China in this country ought to be asked, by some of our philanthropic societies, to bring the influence of western opinion to bear on his own Government on the subject. European ideas now find their way into Chinese official circles, and have daily more and more weight there.

ACADEMY HEADACHES.

Ruskin long ago called attention to the extraordinary fatigue experienced by visitors to picture galleries, and attributed it partly to the constant alteration of the focus of the eye, and the straining effort to see what is out of sight; and partly to the continual change of temper and thought which the study of a mixed and unclassified exhibition involves. This extraordinary fatigue is very prevalent in London at the present time, being experienced daily by hundreds who pursue their studies at Burlington House, not wisely but too well. And, in many cases, it is not merely excessive weariness of body and mind that is induced by communion with our living artists, but intense frontal headache, sleeplessness, and nervous prostration. The heat of the rooms, the trivial anxieties engendered by hustling one's way through the crowd, and the effort to shut the ears to the babbling of inanities and crudities around, and to concentrate the attention on what is fair and of good report, contribute to this condition; but that it is mainly due to incessant and violent vaulting from theme to theme will be realised by any person of sensitive habit, who has contrasted the physical and mental effects of studying a miscellaneous collection of pictures like that of the Royal Academy with those produced by the same amount of study expended on a series of connected pictures, with some continuity of idea—as, for instance, those of one master, arranged in chronological order. In the former case, the fatigue incurred is vastly greater than in the latter. Academy headaches are not to be treated by bromide of potassium, or chloral, or quinine, or gelseminum—at least, not without medical supervision; and wine, even when it affords immediate relief, is scarcely a safe remedy to which to resort. They are better avoided than fought off; and those liable to them should indulge but sparingly in æsthetic dissipation. They should visit the Academy only when fresh and vigorous—not when already half worn out—and fortified by a nutritious and digestible meal. They should not attempt more than one hour's study at a time, and should confine their attention to a small number of pictures, not wandering too far either above or below the line; for skied paintings are, by their position and inherent qualities, peculiarly apt to induce headache. The open air should be sought on leaving the gallery, and a cup of soup or coffee will be useful at that time. Recumbency in a darkened room will sometimes remove the headache should it supervene. It should be borne in mind, that the repetition of such headaches again and again is not free from danger.

LUNACY IN MIDDLESEX.

The debate in the House of Commons last week on lunacy gives us an opportunity of calling attention to the present dead-lock in Middlesex. How is it that, with vacancies at the Banstead Asylum, it is requisite to send pauper patients to licensed houses, and even so far away as Fisherton House, whilst at the same time it is allowed that in the three county asylums of Middlesex there are from 250 to 300 patients who are fit for treatment in workhouses? The answer given is, that these county asylums are already treating as many acute cases as their peculiarities of construction allow, and that no object would be gained by sending the cases of "senile dementia" to the workhouse, because the vacancies so created could not be filled by acute cases. What the medical superintendents of these asylums say is no doubt true, for they have no special interest in keeping a chronic and harmless population; on the contrary, everything would tempt them to so utilise the conditions of their establishments as to conduce to the greatest amount of cure and to secure the interest that attaches to acute cases. Colney Hatch and Hanwell Asylums are badly adapted for treating acute insanity, and Banstead still more so; so that the only apparent method of dealing with the urgent question is the erection of acute wards in connection with each of these asylums, or, if not at all of them, then at Banstead, which has the advantages of an admirable locality and of spare ground. To build a distinct asylum for the treatment of acute cases would be a notorious waste of public money, so long as there are vacancies in the existing asylums; and for other reasons it would not be advisable. All experts are now-a-days agreed that a mixture of cases gives the best opportunity for treatment, both on medical and on economical grounds; hence the advantage of having a building for acute cases connected with chronic wards; and to practical men some of the ideas that have recently been promulgated must appear impossible of execution. Thus it has been advised that there should be temporary houses of detention, in which patients should remain until their insanity was verified by a special

Government officer. How great must be the Government staff for London alone to do this, and how impossible would it be to say at once, or even in some cases after two or three days, whether such and such a person was insane, and to draft him off to an asylum for which it might afterwards appear that he was totally unsuited! Again, look at the disturbance involved by taking acute cases first to one place and then to another, especially if, as frequently happens, the patients look upon repeated removals with horror. The essentials for the successful treatment of acute insanity are plenty of space and freedom from excitement of all kinds; and such conditions are best attained in asylums accessible to, but removed a little distance from, large cities. The hardship of having to take people away some distance from their surroundings is nothing compared with the advantages of pure air and possibility of unfettered exercise; and for this reason it is of no use to contemplate, as some do, the placing asylums in connection with the large hospitals. Insanity is as often as not a disease not only of the mind but of the whole body, and the conditions for its treatment must be wide and not cramped. It is said, again, that the number of medical men engaged in the treatment of acute insanity are far below what they should be. Is this so? In a hospital, each physician or surgeon has about thirty cases, on an average, to treat; and we question very much if, dividing the acute cases in the three county asylums of Middlesex among the medical residents, so large a portion falls to each. It would be far better if the *chronic and harmless quiet cases were treated in the workhouses* in London, and a certain proportion of "working" but troublesome cases left in the asylums, which latter should be made suitable for the reception of the acute cases. We sincerely hope that the Government Commission will examine the Lunacy Commissioners and the medical superintendents of the Middlesex asylums on these points of accommodation and classification; for, of all men engaged in the practice of lunacy, they have the largest numbers to deal with, and must understand the difficulties of it; and we hope that the Commissioners may have more power given them to enforce *particular methods of construction* on justices who are meditating enlargements to asylums or new buildings altogether, and that we shall not again see such an anomaly as a county asylum built in which the acute cases of the county cannot be received.

MR. BRYANT.

THE whole list of candidates for the Council of the Royal College of Surgeons is now before the profession, and the Fellows will soon be called upon to exercise their electoral powers. We have referred especially to the claims of the two provincial candidates, and should not have thought it necessary to again advert to the claims of any particular Fellow; but we hear of something like a coalition to exclude from election on this occasion a candidate who certainly has peculiar claims to be selected this year as a member of the Council, inasmuch as he holds a senior position on the list, and has twice before been a candidate and has seen junior candidates preferred. Mr. Bryant, who stands high on the list in seniority, is so well known as the author of a most popular surgical handbook in English literature, that it is superfluous to speak of his claims as a teacher, claims which have always been recognised as constituting a special ground for election into the Council of the College, which particularly concerns itself with teaching and examining surgical candidates. It would indeed be an anomaly that, at a suitable moment, the author of a leading English text-book for students of surgery should not be appointed on the Council of the chief examining board of surgery, unless there be some good reason to the contrary. Now it is well known that there is none. As a surgeon of considerable standing on the staff of Guy's Hospital, as a practical surgeon of large experience, as a teacher of great power and acceptability, and as a man against whose professional and personal career nothing ever has been, or can be, alleged which should in any way disqualify him from the post of Councillor at the College of Surgeons, Mr. Bryant has claims which ought not to be sacrificed to the whim of any clique or coalition of cliques; and on this particular occasion we feel disposed to say, what we have hitherto refrained from saying in respect to this election, that it has been of late years too much a custom for small cliques to combine together to nominate or exclude particular candidates for unavowed reasons special to their own narrow likes and dislikes. Now, this is not the course of action which is really consistent with the dignity of the College or with distinction to the Fellows. It is, of course, impossible to argue in detail upon such a subject; but it should be perfectly clear that, on the one hand, questions of principle may fairly influence the election of Fellows who pledge themselves to some particular policy, such as that of voting by proxy or the formation of a conjoint scheme, or again of Fellows who are avowedly brought forward to represent a particular principle, such as that the provincial schools should have adequate representation in the National Examining Board, and that, in a College which aspires to be British, merely metropolitan interests should not have too exclusive a representation. All these are avowable and proper grounds on which to decide the selection of candidates; but when this principle of selection is subordinated to the avowed tactics of small sections based upon minor individual prejudices and preferences, then the principle of election is itself jeopardised, and any such abuse may tend to produce a reaction in favour of the old and very undesirable method of election according to pure seniority. We speak thus strongly in favour of justice to Mr. Bryant, because public principle seems to demand that there should be plain speaking when there is reason to believe that a secret and insidious effort is being made to put aside, without justifiable reasons, a man whose public and professional claims are of the most cogent and unanswerable kind.

MEASLES AT NOTTINGHAM.

WE have already indicated as a subject deserving of inquiry the recent exceptional prevalence of measles in certain parts of the country under circumstances apparently imperfectly understood. Measles is unfortunately regarded almost universally as an invariably mild complaint; and people cannot, therefore, be prevailed upon to carry out the needful precautions for preventing its spread—precautions which, owing to the fact that the period of infectiousness commences before the appearance of the distinguishing symptoms, are peculiarly difficult of application. But a disease can hardly be regarded as trivial which has at Nottingham added an average of fifteen deaths to the weekly death-roll since the beginning of this year, or has killed more than three hundred persons at Plymouth since the middle of November last. We shall therefore be excused for adverting to a report recently presented by Dr. Edward Seaton to the Town Council of Nottingham, containing certain very interesting particulars as to the fatality of the disease in his district. It is an unquestionable fact that epidemics of measles attacking populations of the same degree of susceptibility will sometimes pass lightly over, picking out here and there, as its very rare victims, children whose constitutional predispositions render them particularly prone to lung-affections; while at other times they have been known to be fatal to the extent of ten or even fifteen per cent. of those attacked. In Ziemssen's *Cyclopædia of Medicine* are recorded epidemics of measles, which were fatal in even greater proportion; thus, at Lippe, in Middle Hungary, in 1856, 50 per cent. of the cases died; but there are no authentic accounts of any such fatality in this country. The type of the disease sometimes varies greatly. Though most often mild or benign, it is occasionally, for some inscrutable reason, the reverse. An explanation of the varying fatality of the disease may, however, be found in reasons less occult and more intelligible. Measles in its slightest form may become a dangerous illness in the absence of proper care in nursing, and this fact alone will account in great measure for the remarkable variations that are sometimes observed in respect of the mortality it causes. The experience of the Nottingham epidemic points most clearly to the conclusion that, independently of the severity of the attack or the virulence of the poison, the fatality of measles depends very largely on the amount of attention that is bestowed on the sick; that where the patients are properly nursed and carefully attended to, a fatal result is rare; that where neglect is common, the deaths become numerous. In confirmation of this statement, Dr. Seaton points to the very large proportion of instances in which death is recorded to have taken place through lung-complications (chiefly pneumonia and bronchitis), which, owing to the severe weather of the winter, were particularly liable to supervene as the result of exposure to cold. Additional evidence on this point is derived from the proportion of deaths among the various classes of the population. Whereas, with a few remarkable exceptions, the upper and middle classes escaped, the fatal cases occurred almost exclusively amongst the artisan class and occupiers of houses let at weekly rents. In this fact lies the chief explanation of the apparent severity of the epidemic. It was clearly due to the same causes which have already earned for Nottingham an unenviable notoriety among manufacturing towns in respect of infant mortality. The same want of care with regard to infants and children which causes its death-rate under one year to be abnormally high, must be held accountable for the recent alarming mortality from measles; for it is no figure of speech to say that, in measles, proper clothing, the regulation of the temperature of the sick room, and, speaking generally, suitable nursing, make all the difference between life and death.

NEW HOSPITAL IN VIENNA.

THE new Archduchess Sophia hospital in Vienna, established by the munificent bequest of Mrs. Kenyon, was publicly opened on May 28th, in the presence of several of the chief public functionaries, and of the patron, Archduke Carl Ludwig. Dr. von Vivenot briefly addressed the Archduke, thanking him for having countenanced the undertaking, and expressing a hope that his patronage would continue. The Archduke, in reply, expressed his own thanks and those of the emperor to those concerned in the carrying out of this work of humanity. The party then went over the building, in which two wards containing twenty beds are ready. The admission of patients was to commence on June 1st.

"NEITHER MEN NOR WOMEN, BUT SMALL-POX PATIENTS."

A WRITER in *Le Progrès Médical* for June 12th describes the plan adopted for giving baths to the small-pox patients at La Pitié Hospital in Paris. These baths are given from one to four o'clock in the following manner. In the left corner of one of the men's wards, three baths are arranged side by side, the head of the baths being placed against the wall and the foot being about fifty *centimètres* (twenty inches) from the first bed. A chain is organised, and buckets are passed on for the hot water to the bath establishment, about sixty *mètres* from the ward. Then the men take their baths from one o'clock to two; at two o'clock, the women take their turn, and come down from the upper floor and take their baths in the men's ward. It is true that a curtain is discreetly drawn when this performance takes place; nevertheless, the correspondent of the *Progrès Médical* predicts that the day will arrive when the patients, speaking of their enforced sojourn in the La Pitié Hospital, may say with a show of reason: "We were neither men nor women, but small-pox patients."

CHOLERA IN JAPAN.

THE following paragraph, taken from a report by Mr. Acting Consul Woolley to Her Majesty's representative in Japan, is curious as showing the distrust of Europeans, and especially of European medicine, that still holds sway over the natives. Mr. Woolley paid a special visit to the port of Niigata, where he reports that a severe outbreak of cholera, between the 7th July and the 15th September last, caused great terror among the people, who developed their latent anti-foreign feeling by attributing its cause to the poisoning of wells by the Christians, and the number of deaths to the desire of foreign doctors to obtain their livers, etc., for exportation to foreign countries. For some time, during the riots, it was considered by the native governor unwise for foreigners to travel beyond the precincts of the town; and Dr. Palm, one of the missionaries there, had to discontinue for a time his periodical medical tour to Suibara, Shibata, Nakajô, and other places, where he is held in great respect by some of the natives, and is known to do excellent service amongst the afflicted in co-operation with the native doctors. Cholera broke out amongst the miners and fishermen in Aikawu, in the island of Sado, on the 5th August, and in less than a month carried off three hundred and twenty people. The works at the mines were stopped in consequence for six weeks.

CHLORAL AND CHLOROFORM FOR SURGICAL ANÆSTHESIA.

M. TRÉLAT recently informed the Paris Société de Chirurgie that for two years past he has used chloral and chloroform in combination for this purpose. About fifty minutes before operation, he administers to the patient two *grammes* of chloral and forty *grammes* of syrup of morphia, in some cases even giving as much as six or eight *grammes* of chloral. The patient then reaches the operating theatre in a state of profound indifference to the operation, and sometimes even in a condition of torpor, and thus much mental anguish before and after operation is saved.

THE INOCULABILITY OF CHARBON.

MM. ARLOING, Cornevin, and Thomas have recently communicated the conclusions at which they have arrived on this subject to the Academy of Sciences. They are as follows. 1. The symptomatic charbon of the bovine species is inoculable in the ox and in certain other animal species. 2. It is transmitted by a microscopic organism which germinates in the muscular and connective tissues of the tumour, and which is seldom or never found in the blood; it must, therefore, be sought for in the tumour. 3. This microscopic organism is kept back by the plaster-of-Paris filter. 4. It differs distinctly from the *Bacillus anthracis* in its characteristics, in the effects produced by it, and in the animal species concerned in its evolution. 4. Therefore bovine symptomatic charbon should no longer be confounded with anthrax in the group of anthracoid affections.

MAGITOT ON DENTINE.

AT a recent meeting of the Paris Academy of Science, M. G. Magitot reminded his hearers that, in accordance with the views of Professor Owen, the tissue which enters into the essential part of the teeth of the majority of animals has hitherto been known under the name of dentinal tissue or dentine; and the structure of this tissue has been considered to consist of homogeneous fundamental substance, traversed everywhere by canaliculi. M. Magitot, however, has been led to consider the dentine rather as a fibrillar tissue included in a hard and homogeneous mass, in which the canaliculated structure cannot be recognised. The bony tissue itself, occupied, as we know, by ramified cells, can no longer be looked on as furrowed by cavities and canals. The developmental facts of dentinal tissue also support these anatomical views.

HYDROPHOBIA.

MR. PAYNE held last week an inquiry at St. Bartholomew's Hospital as to the death of Frederick Herbert Davis, aged 10, of Upper Clapton. On the 1st May he was playing in the garden in front of the house, when a large retriever dog came up. The child was stroking the animal, when it flew at him and bit him on the left cheek. The dog subsequently bit another child, and was then taken by the police to the station. Davis was attended by a medical man, and the wound began to heal. On Saturday last, however, he complained of pains in the head, and expressed a fear that something was going to bite him. He was then removed to the hospital, where he died in a few hours. The jury returned a verdict of death from hydrophobia.

BERGERON ON PEPTONES.

M. BERGERON writes in *L'Union Médicale* of June 5th, that he has been experimenting with peptones. He has lately had under his care an ill-nourished child two years old, of whom the mother was thirty-five years old, and the father showed undeniable traces of scrofula. When M. Bergeron saw this child for the first time, she was confined to bed, exhausted by a fœtid and constant diarrhœa. The lower limbs were affected by lymphangitis. The lungs were not affected; but M. Bergeron suspected fatty degeneration of the liver and kidneys. He put the child on an exclusively milk diet. The stools, which still remained frequent, retained a disagreeable smell. The child's weight varied from 9 to 8.9 *kilogrammes* (about 19 lbs.). He attempted to stimulate this frail organism by the aid of alcoholics, which sometimes almost intoxicated the child. He then decided to give her peptones, of which she took at first a teaspoonful night and morning in broth, increasing the dose to four teaspoonfuls a day. She took this nourishment without any difficulty. At the commencement of the trial, she weighed 8.90 *kilogrammes;* ten days later on, she had gained 500 *grammes*. The diarrhœa might be said to be stopped. Ten days later on, the weight remained the same. During that time, the child had been troubled by the eruption of two molar teeth, and by a slight recurrence of diarrhœa. In another ten days, she had gained 600 *grammes*, and then weighed 10 *kilogrammes* (22 lbs.). After the first week of this regimen, the little patient had left her bed, and her features regained vivacity and expression. In another case, an adult had been bedridden for two years, and had been treated for cancer and stricture of the cardia; which, however, Dr. Bergeron believed to be chronic gastritis with dilatation. This patient had considerable depression of strength, continual vomiting of glairy matters, intermittent epigastric pain, retracted abdomen, notable emaciation, obstinate constipation, and eructations. The tongue was normal. Every kind of drug having been tried in vain, Dr. Bergeron gave peptones in doses of three spoonfuls daily in the form of an injection, and as many by the mouth. After the tenth dose, the patient was able to get up and walk with crutches. The dose was afterwards progressively increased, and she was able to walk in the garden, dispensing with the crutches. This form of treatment is still being continued, and M. Bergeron is in hopes of obtaining a complete cure. He was particularly struck, in the use of this regimen, with the consequent renewal of appetite, especially when the peptone was administered in a little broth in the morning before the patient had broken her fast. He believes that peptone should not be considered as a direct peptogen, but rather as a nourishment, which, once received into the stomach, is rapidly absorbed, and leaves this organ aroused to the work of digestion without finding any material for the function. M. Bergeron relates another case, of a nervous and anæmic young woman who complained of disgust for food. He tried tonics, bitters, and nux vomica, without any result. Quite tired of her incessant complaints, Dr. Bergeron at last advised her to take every morning, fasting, a teaspoonful of peptone in a glass of Malaga, as she could not take beef-tea. She commenced the treatment the next day, and in an hour she had an excellent appetite, and expressed herself as being obliged to take something. She was so delighted with the result, that she never failed to take a teaspoonful of peptone in a little Malaga wine an hour before every meal.

WHY WE ARE RIGHT-HANDED.

DR. JOHN A. WYETH of New York, in an interesting paper which appears in the *Annals of the Anatomical and Surgical Society of Brooklyn, New York*, for April, arrives at the following conclusions. 1. Man is right-handed by preference, as a result of his anatomical development. 2. The arrangement of the embryonic protoplasmic element is such that the liver developing on the right side greatly outgrows its opposing viscus, the spleen, and pushes the heart to the left of its original position in the median line, causing an obliteration of one of the two originally symmetrical arches of the aorta, and an obliquity of the remaining one. 3. This loss of symmetry involves an arrangement of the great vessels of the neck and upper extremities, by which the artery carrying blood to the right arm is more favourably situated and receives more blood than the one to the left arm, while the left carotid and vertebral arteries supplying the left half of the encephalon, which presides over motion on the right side of the body, are more favourably situated and convey more blood than the two vessels which have the same distribution on the opposite side. 4. This fact accounts for the development of the left half of the brain in excess of the right. 5. It is not the slight excess in weight of the viscera of the right side of the abdomen, which is given by some to be the cause of right-handedness, who argue from this that man must lean to the left, that is, balance himself upon the left leg, leaving the right extremities freer for action. It is a matter of cubic inches, of bulk, in fact, of cardiac displacement. 6. Education, training by persistent effort, will overcome the natural tendency to dextral preference, and will render the individual more clever with the non-preferred hand, more equally adroit with both sides of his body, more symmetrical in muscular growth; will tend to equalise the two halves of the brain, giving a better cerebral development, and will consequently render him more serviceable to society and to himself.

SCOTLAND.

THE GREENOCK INFIRMARY.

MR. N. LUCKIE of the Glasgow Ophthalmic Institution has been appointed Oculist to the ophthalmic department of the Greenock Infirmary, which has been established under the will of the late Mr. James Ferguson.

WESTERN DISPENSARY, FOUNTAINBRIDGE, EDINBURGH.

THE Western Dispensary has been removed from its old premises in Chalmers Buildings to 90, Fountainbridge. The new premises are exceedingly convenient, and comprise a large waiting room, drug-dispensary, and kitchen suitable for preparing beef-tea, etc., on the ground-floor; on the next floor, there are two rooms for examining patients, a dressing-room, and a dark room for the eye, ear, and larynx; these are suitably supplied with gas and water; accommodation for the person in charge of the building being provided on the floor above. The dispensary is now completed, and will be found a great improvement on the old one, which, although sufficient at first, has been inadequate for the work for some time.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS: MAY.

THE May report of the Registrar-General on the eight principal Scotch towns shows that, during that month, the deaths of 2,635 persons were recorded, of whom 1,342 were males, and 1,293 females; this (allowing for increase of population) is 190 below the average of the same month for ten preceding years. The death-rates in the different towns were, per 1,000: Greenock, 20; Aberdeen and Edinburgh, 22; Dundee, 23; Leith and Glasgow, 25; Paisley, 34; and Perth, 38. Forty-four per cent. of all the deaths were of children under five years of age, the lowest rate being in Aberdeen, with 24 per cent., and the highest in Leith, with 48 per cent. Zymotic diseases caused 533 deaths, equal to 20.2 per cent. of the total mortality; in Perth, however, the rate, owing to diarrhœa and fever, was much greater, and reached 29.8 per cent. Whooping-cough was, as usual, the most fatal of the zymotic diseases; and while in Dundee it caused 4.6 per cent. of the deaths, in Paisley it actually reached 12.4, the average for the eight towns being 6.6 of the total mortality. Of 101 deaths due to fever, 5 were registered as typhus, 91 as enteric, and 5 as simple continued fever. Curiously enough, the same number, 101 deaths, were due to measles. Scarlatina fell to 32 cases, apoplexy and paralysis caused 126, cardiac diseases 151, hydrocephalus 83, and premature birth-debility 68 deaths. Phthisis pulmonalis accounted for 12.7, other affections of the respiratory organs (not including croup and whooping-cough) contributed 18.6 per cent. of the entire mortality. There were 80 deaths from violence. Eight people died over 90 years of age, of whom one was a male, and of the seven females, two were 97 years of age. The births of 3,940 children were registered, of whom 1,996 were males, and 1,994 were females. During the month, the mean barometric pressure was greater by 0.176 inch, the mean temperature greater by 0.3°, the mean humidity less by 6, the rain-depth less by 1.30 inch, and the wind-pressure greater by 0.32 lb. than during the average of the same month for the preceding 23 years. The greatest mean temperature was at Glasgow, 51.4°, the least was at Edinburgh and Greenock, 49.6°.

IRELAND.

THE *Dublin Express* says that ninety-eight emigrants slept in one lodging-house in Queenstown one night lately. Twenty of these were in one room; and, in accordance with the prevailing Irish practice, door and windows were kept shut, and several of the unfortunate persons narrowly escaped death.

CORK SOUTH INFIRMARY.

DR. W. K. TANNER, who has been identified with this institution as visiting surgeon for nearly half a century, has resigned; and the trustees, in recognition of his long and valuable services, have appointed him consulting-surgeon. Under the new arrangements, Dr. J. G. Curtis will now be senior surgeon, and will have as colleagues Dr. Tanner, junr., and Dr. H. M. Jones, lately assistant-surgeons to the institution.

HEALTH OF IRELAND FOR 1879.

DURING the past year, 135,408 births were registered in Ireland, being equal to 1 in 39.6, or 25.3 per 1,000, the average for the preceding ten years being equal to 26.8 per 1,000. The deaths amounted to 105,432, or a ratio of 1 in every 50.9, or 19.7 per 1,000 of the population; being 2.2 per 1,000 over the average rate for the ten years 1869-78. The births, it will thus be seen, show a decrease on the average, while the mortality has been the highest recorded in any year since 1864, when registration was established in Ireland. The number of paupers receiving in-door relief in 1879 was 52,063, a number higher than in any of the ten previous years, except 1869, when it was 52,118; and of those receiving out-door relief, 39,221, which was beyond the average for preceding years.

THE IRISH MEDICAL ASSOCIATION.

AT the usual stated meeting of the new Council of the Association held last week, the following officers were elected: *Chairman of the Council*, J. W. Moore, M.D.; *Honorary Treasurer*, Humphry Minchin, M.B.; *Honorary Secretary*, A. O. Speedy; *Honorary Secretary to Council*, R. Browne, M.D.; *Committee of Council*, Drs. Chapman, Jacob, Peele, Pollock, and Purcell.

THE VICE-REGAL COURT AND DR. MCDONNELL.

DR. ROBERT MCDONNELL, F.R.S., Ex-President of the Royal College of Surgeons in Ireland, and President of the Dublin Branch of the Association, has resigned the post of Surgeon-in-Ordinary to His Excellency the new Lord-Lieutenant of Ireland, to which, in conjunction with Dr. Mapother, he was appointed a few weeks ago. The reason which induced Dr. McDonnell to take so unusual a step entitles him, in our opinion, to the approbation of every independent man who values his professional position. It appears that His Excellency, soon after his arrival in Dublin, became slightly indisposed. Instead, however, of any members of the unusually large staff of Physicians and Surgeons in Ordinary which the present Viceroy has being called in, the Surgeon-in-Ordinary to the late Lord-Lieutenant was summoned to attend Earl Cowper. We do not contend that a Lord-Lieutenant may not have whom he likes to attend him. And it is well known that, with the exception, indeed, of the gentleman above referred to, the vice-regal medical appointments have not, for a long time, been held by the foremost practising physicians or surgeons in Dublin. But, in the present case, a person of Dr. McDonnell's high professional standing was placed in a very false position by being ignored in favour of any gentleman who had no official connection with the Court or even prior personal acquaintance with the noble patient. Under these circumstances, Dr. McDonnell has sent in his resignation; not through any individual pique—which he is above feeling—but as a protest against what must be considered a slight to an office to which he had the honour of being appointed without personal solicitation or canvass. As such, we hold that Dr. McDonnell acted in a *bonâ fide* and high-minded manner; and that the course he has taken will probably do much to render these vice-regal appointments in future more what they should be; namely, recognitions of professional merit and standing, and not of mere party political services or agreeable social qualities. If, upon the first question arising in which the law officers of the Crown had to be consulted, a new Liberal Lord-Lieutenant sent for the Attorney-General of the late Conservative Government, instead of the chief law adviser of his own party, we can readily understand that, under such circumstances, the Liberal Attorney-General would feel that he held only a nominal office, and that immediate resignation of it was due to his own dignity as well as to his professional reputation. Dr. McDonnell has, moreover, a precedent for the course he has taken; as, thirty years ago, the late Dr. Law, we believe, when holding the appointment of Physician-in-Ordinary to the Lord-Lieutenant of the day, resigned in consequence of Sir Henry Marsh being called in to attend His Excellency. Connection with a vice-regal court is, however, so sought after by some, that there are already candidates in the field for the vacancy left by Dr. McDonnell's resignation.

NEGATIVE CRIMINALITY.

A VERY remarkable criminal charge is under investigation in the Southern Divisional Court at Dublin, as a sequel to an inquest held on a woman named Mary O'Keefe, who died in Mercer's Hospital from the effects of injuries sustained by fire. It appears that the injuries to the arm were such that the surgeon recommended that amputation should be performed as the only means of saving the woman's life; death was threatened, and actually subsequently supervened from lock-jaw due to the burns. It was alleged that the hospital had unduly influenced the woman, and that the husband had himself refused to authorise the performance of the operation, on the allegation that deceased was subject to fits, and, if she lost her arm, which the surgeons proposed amputating, she would be a burden on those who had to support her; and that, therefore, it was better she should be allowed to die. The jury found that, had the operation been performed without the consultation, the woman's life would have been saved; but there was no evidence that her husband interfered, and they exonerated him from any blame. A previous charge had been preferred against the husband at the police-court; and evidence was there given by Dr. Nixon, one of the surgeons of the hospital, and Dr. Gaffney, which tended to support the charge; and the prisoner had been remanded pending the inquest. The coroner expressed his concurrence in the verdict; and we do not see, upon the face of the evidence given, how any other conclusion could have been arrived at, seeing that the deceased woman herself had by no means given an unconditional assent to the operation; and it was not clear that the refusal to have the operation performed was not her decision, guided possibly and apparently by the views of her husband on the subject. It seems to us impossible to frame a criminal charge out of such a state of things. At the same time, the fact that a very heavy moral and possibly legal responsibility weighs upon relatives in refusing to give their assent to operations which are advised to be the only means of saving life cannot be too strongly brought out; and, although the issue of the inquiry has been a verdict satisfactorily exonerating the husband from the charge brought against him, yet the ventilation of this view is likely to have an useful influence among a class of people who are only too prone to give effect to their ignorant prejudice, and to sacrifice the lives of those whom they are bound to advise wisely to a heathen prejudice against mutilation, than which they are apt to consider death preferable. The power of the surgeon to insist on the performance of operations even of the most necessary kind for saving life is, of course, strongly limited by the free-will of the subject; and the position in which he stands when he is called upon to stand by and see life sacrificed under the ignorance or prejudiced influence of friends or relatives is a distressing and painful one; but, even under these most painful circumstances, it would be well for the surgeon always to consider how rigidly the law regards the free-will of the adult individual in respect to any such operations, and to restrict himself to the very strongest representation, and carefully to avoid stepping beyond the line of legality.

THE WATERFORD DISTRICT ASYLUM.

The able and energetic medical superintendent of this asylum, Dr. Ringrose Atkins, states in his report for 1879 that, of 62 patients admitted during the year, 21 were men and 41 women. This excess of women over men is greater than has occurred in any year since the opening of the asylum in 1835; and the only special cause which Dr. Atkins can assign for it is the fact that over-anxiety and distress, and the great pressure on life which has prevailed during the past year, have affected the weaker sex more severely. He remarks that 19 out of the total 62 (12 being females) were admitted during November and December, when the prospect of distress came more prominently into view. The total number of admissions in the year, however, were less by 15 than in 1878; and the number of patients in the asylum was 254, against 265 at the close of the previous year. The percentage of deaths on the total number was 8.86; chiefly due to disease of the lungs and heart, debility and age, and chronic cerebral disease. There was a complete immunity from epidemic disease, accident, or suicide. New workshops and a mortuary have been erected and are in use; and thereby accommodation for thirteen male patients has been gained. A supply of fire-mains was, at the time of the report, being laid down; and other improvements have been made. Appended to the medical superintendent's report are copies of the reports of the inspectors of lunatic asylums, of the monthly visitors, and of the county and city grand juries. All these speak highly of the satisfactory condition of the asylum, which is only what one would expect in an institution under the management of a superintendent with such energy and capacity for business—combined with great scientific ability—as Dr. Atkins possesses.

THE MEETING OF THE BRITISH MEDICAL ASSOCIATION AT CAMBRIDGE.

It will be seen from reference to the detailed programme published in another column, that the arrangements for the forthcoming meeting are extremely complete and peculiarly rich in scientific interest. The demonstrations in the Physiological Section will be a very notable feature at the meeting. It is intended, on the occasion of the meeting, to confer the honorary degree of LL.D. on a selected number of the more prominent members of the medical profession in England and distinguished visitors to the meeting from abroad.

The University and the Colleges have handsomely responded to all the requests and suggestions of the Reception Committee; have placed their buildings and rooms at the disposal of the Committee; have contributed to the hospitalities; have consented to open the many interesting libraries, museums, etc., for inspection; and have done all in their power to render it a successful, instructive, and agreeable meeting.

Members of the Association, especially those who require accommodation for ladies, are advised to communicate with Mr. A. P. Humphry, the Honorary Secretary to the Reception Committee, *before the end of this month.*

POOR-LAW MEDICAL RELIEF, SCOTLAND.

We are enabled to inform our Scotch friends that there is every probability that in the next session of Parliament the long delayed but much needed reform of the system of medical relief to the poor will be taken up and dealt with. Recently, a meeting of Scotch members of Parliament was held, at which the subject was mooted; and some intimation of their views having been communicated to the Premier, a statement to that effect was made by that gentleman from his seat in the house. It is now some ten years ago since the Select Committee on Scotch poor relief brought up their report, wherein, *inter alia*, it was recommended that the dispensary system, on the plan of the Medical Charities Act, a rearrangement of districts, with superannuation, etc., should be adopted. It was understood that if the Liberal Government had remained in power in 1874, these suggestions would have been carried out. The administration on two or three occasions brought the subject forward, but ultimately abandoned it altogether.

AMERICAN OPINION OF THE BRITISH MEDICAL ASSOCIATION AND JOURNAL.

The American Medical Association is an organisation resembling in many respects the British Medical Association, but differing chiefly in the publication of an annual volume of *Transactions* in lieu of a weekly journal. The thirty-first annual meeting of the Association has just been held in New York, with great success; the President is Dr. Sayre, who, according to the report in the *New York Medical Record*, devoted a large part of his address to the comparison of the two Associations, and strongly advised the adoption of the British model. He said:

"The similarity of the two Associations in many respects, both in their organisation and in their objects, is so great, that we may possibly learn something to our advantage by carefully studying the history of the older Association, and profit by her experience, and, if necessary, by her example. The importance of the subject must be my excuse for bringing to your attention many details which otherwise might possibly be regarded as superfluous......

"These details are of importance to the American Medical Association, for they include the germs of an organisation peculiarly adapted to American ideas. It is essentially democratic and entirely representative. It is dependent for its success on the intelligence, union, and goodwill of the members. It is decentralising, inasmuch as it tends to the formation and the strengthening everywhere of the local societies, which have thus throughout the year the means of making themselves heard in metropolitan centres, and of communicating with each other. Above all, it is a most successful and influential means of increasing the membership, and enlarging the power and widening the basis of the Association, and of making it a living organisation during the intervals between the annual meetings.

"Finally, it has the great advantage of securing the largest amount of value to each and all of the members for the smallest possible subscription. The *Journal* becomes, in fact, a co-operative enterprise, in which *the profits resulting from their subscriptions go into their own pockets* instead of those of any individual proprietor. They *own their own paper.* They are able to get the advantage of a powerful organisation and of a first-class medical paper at the same annual subscription as that of a medical paper by itself, and with the surplus they find funds for the promotion of public and scientific objects, and the creation of a reserve fund for future public uses.

"There seems no reason why an experiment so essentially in accord with American instincts and traditions, and one which has succeeded so well in England, should not have at least as great, if not a greater, success in America.

"One point, however, that is specially worthy of note is, that the success of the British Medical Journal has been largely dependent upon the manner in which it has been conducted. The weekly Journal did little for the Association until it fell into the hands of an experienced editor, whose ability is so generally recognised that there is no need to dwell upon it, and to whom a large and unfettered responsibility is left, although he remains, of course, personally responsible to the executive body of the Association for the right use of the power entrusted to him, as every editor does to those who appoint him.

"It seems tolerably certain that if, for the present bulky, tardy, little read, and unproductive volume of *Transactions*, there could be substituted an active vigorous weekly journal, read everywhere, and with a large income such as would naturally come to it from its advertising-sheet, there would be in such a change the earnest of a rapid and important growth of the numbers, influence, and usefulness of the American Medical Association."

On motion, by Dr. William Brodie of Michigan, a vote of thanks was tendered to the President for his able address, a copy was requested for publication, and the recommendations which it contained were referred to a committee of five to report upon during the meeting.

Mr. J. P. Knight, the general manager of the Brighton and South Coast Railway, has reported to his directors that the introduction of sea-water into London by a railway company cannot be regarded as a novelty, inasmuch as that company has, for many years past, supplied sea-water to the Crystal Palace, the Westminster Aquarium, the Zoological Gardens, etc., and in small casks for domestic use at threepence per gallon.

Testimonial.—On Saturday last, Dr. John I. Donovan was presented with a silver salver, a purse of sovereigns, and an illuminated address, by the committee of the Ballincollig Dispensary and some other friends, as a mark of esteem on his retirement as dispensary medical officer of the district.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE BIRMINGHAM GENERAL HOSPITAL.

It is a notable fact, that for one hundred years the Birmingham General Hospital has been carrying on its beneficent work. The report for 1879 was the hundredth annual statement which has been laid before the governors. But the institution shows no signs of old age. On the contrary, it is full of vigour and energy, as the tables embodied in the report amply prove. From the tables, it appears that the number of in-patients exceeded that of the previous year by 143. During the greater part of the year, the demand on the in-patient department was so great that the present accommodation was not sufficient to meet it; and many patients have, in consequence, had to wait a considerable time for admission into the wards, much to their disadvantage. On the other hand, the out-patients have diminished by 1,736. This decrease has been in minor accidents and urgent cases, and may be partially accounted for by the shorter hours that workpeople have been employed, and the consequently reduced liability to accident. The establishment of provident dispensaries, and the absence of serious epidemics, may possibly have contributed also to this result.

Both the ordinary and the extraordinary income of the year are below the average of the three preceding years. As compared with this average, the ordinary revenue shows a decrease of £1,916 in legacies, £294 in donations, £97 in subscriptions, and smaller amounts in other items; whilst there is a slight increase in congregational collections. The income from extraordinary sources is £1,570 less than the average of the three years. It is to be regretted that during the last three years there has been a falling off in the amount of subscriptions; and, although £318 in new and increased subscriptions was received during the past year, a loss of £389 was sustained by the discontinuance and death of contributors. This shows a nett loss of £71 on the year. At the same time, the total expenditure shows an increase over the previous year of £1,199. But the greater part of this had been expended on structural improvements.

The Committee are desirous of commemorating the centenary of the hospital, and with this object they propose to establish a suburban hospital for chronic cases, which require prolonged treatment. By this means the benefit of the charity would be extended, while the accommodation for acute cases would be proportionately increased. But in view of the depressed state of trade, they have determined to defer for a time making any appeal to the public for the necessary funds. The Committee generously acknowledge the services of the medical staff, to whose zeal and ability they believe the continued success of the institution to be mainly due.

THE SEAMEN'S HOSPITAL.

The annexed paragraph from the fifty-ninth annual report of the Dreadnought Seamen's Hospital should rivet the attention of hospital managers throughout the country. Mr. Henry C. Burdett, the superintendent of this hospital, has been for many years a persistent advocate for the reform of the English system of hospital relief. In his latest work, *Pay Hospitals of the World*, he has conclusively proved that no country but Great Britain distributes an equal amount of free medical relief, to the detriment and impoverishment of the working classes and of the lower orders of the community. It is, therefore, satisfactory to find that Mr. Burdett is not only a consistent advocate, but a successful worker in the cause of hospital reform. If it has been possible to make sailors provident, it certainly ought not to be difficult to inspire all other classes of the community who use the hospitals with like habits of thrift and independence. The report to which we have referred states: "The collections from passengers, officers, and crews of merchant vessels of various nationalities have increased from £974 in 1878 to £1,055 in 1879. A noteworthy feature of the collections received through this agency has been brought out more clearly each year. The committee refer to the provident character of these collections, which becomes more and more apparent."

This fact is proved by the knowledge that passenger vessels as a rule do not contribute to the Dreadnought Hospital; the reason being, that the captains prefer to give the money they collect to a voting charity, which confers certain privileges upon themselves in exchange for the passengers' subscriptions. The Seamen's Hospital, being perfectly free, does not commend itself in consequence to the support of these gentlemen. Sixty passenger-vessels in 1879 subscribed less than £7 each, whereas thirty vessels in 1878 gave £14 each. This proves that, when first asked, the captain of a passenger-vessel gives a portion of the passengers' subscriptions to the Dreadnought; but, on the second occasion, the crew subscribe what they like, but the passengers' money is all sent to the voting charity, which gives privileges to the captains. The attention of the Charity Voting Reform Association ought to be at once directed to the present condition of the Merchant Seamen's Orphan Asylum, Snaresbrook, one of the best abused of the voting charities.

In consequence of the Seamen's Hospital being entirely free, it has chiefly to rely, as regards shipping, upon the provident contributions of the crews who directly benefit by the relief which the Society affords to seamen of all nations. For this reason, the Shipping Office is entitled to rank as a Seamen's Provident Agency. This movement was, indeed, established with the view of inducing seamen generally to support an institution founded solely for their benefit, and the knowledge that 1,400 captains of English vessels have promised to assist the Society is most encouraging.

The Seamen's Provident Fund aims at persuading sailors to give sixpence a month of the voyage to the Dreadnought Hospital. It has been established three years. Last year, more than £1,200 was subscribed in this way by poor Jack, and the fund is increasing at the rate of £400 *per annum*. Who shall say that the recipients of medical relief in England are persistently improvident, when an earnest effort like this has so succeeded with the most improvident class of the whole community? Let hospital committees ponder the facts we have here referred to, and, before urging the public to give yet more liberally in support of the hospitals, let them attempt to obtain the needful support from a patients' provident fund.

OUR CONFESSIONAL.

MAGNO INGENIO, MULTAQUE NIHILOMINUS HABITURO, CONVENIT ETIAM SIMPLEX VERI ERRORIS CONFESSIO; PRÆCIPUÈQUE IN EO MINISTERIO, QUOD UTILITATIS CAUSA POSTERIS TRADITUR; NE QUI DECIPIANTUR EADEM RATIONE, QUA QUIS ANTE DECEPTUS EST.—(Celsus *De Medicina*, Liber viii, cap. 4.)

SURGICAL DRESSINGS AND MIDWIFERY.

A few years since, while acting as an assistant in a northern town, I was called to see a man suffering from traumatic erysipelas of a very severe form. I found it necessary to make free incisions into the cellular tissue, to relieve the tension and let out the serum. The man, however, died. At the same time, scarlet fever was very rife; and my principal, a very particular man, was most cautious in the use of disinfectants, change of clothing, and thorough ablutions, before attending or allowing me to attend any accouchement cases. After using all these precautions, I was on the following day—thirty hours after using my lancet—called to attend a midwifery case. I went. My patient was delivered of a fine child; but in less than ten days she died of puerperal fever. There were no other cases of the kind about at the time. Was it possible that I might have communicated the disease to her? The mode of disinfection was entering a bath-room in which was generated chlorine gas, and remaining as long as possible; washing the hands in weak carbolic acid solution, and pouring some carbolic acid into each morning bath; and keeping a special midwifery-coat. I should also mention that I went to this midwifery case while my principal was out; and that, on his return home, he sent a message to me that I should return, if I had not already commenced with the case. The result was that I had a month's leave of absence. Any comment on the above case and modes of disinfection of other practitioners will be gratefully received by myself, and, I have no doubt, by other busy men.

JACOBUS.

LACERATED PERINÆUM.

Sir,—Allow me to take exception to the rule laid down by "M.D., New York", in "Our Confessional" of May 8th, viz., "that the forceps should not remain on while the head is passing through the vulva". I have always found the forceps one of the greatest safeguards to the perinæum, *if carefully used*. I think I need hardly trouble your readers by pointing out the *modus operandi*. Still, as the rule is strongly insisted on, perhaps you will pardon my doing so. The first time I applied the forceps (now about eleven years ago), I succeeded in making a very fair rupture; since then, I have used both long and short forceps over a hundred times, and am happy to say that rupture of the perinæum is unknown in my practice. The remedy is very simple; it is to carry the handles of the forceps forward as the perinæum distends, and thereby guiding and controlling the course of the head. This course is much simplified by placing the patient in the continental position (*i.e.*, on the back).—I am, yours faithfully,

WILLIAM DONOVAN.

Whitwick, May 10th, 1880.

Sir,—In answer to "M.D. of New York", I should say his case of lacerated perinæum under the "Confessional" went wrong from the simple fact that the sutures were not placed deep enough, not only facilitating their working out, but allowing the torn tissues to be in constant contact with the vaginal secretions, thereby giving rise to blood-poisoning; as it would be impossible for the sutures to work out so soon if they are placed deeply. I have had two unfortunate cases of lacerated perinæum through the sphincter ani, and by deep sutures, opium, and the use of the catheter, they have done well. One has been confined since this accident occurred, and without the assistance or aid of a doctor. The other I have now under my care, but I may say is convalescent.—I am, sir, yours faithfully,

M.R.C.S.Eng.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-EIGHTH ANNUAL MEETING.

THE Forty-Eighth Annual Meeting of the British Medical Association will be held at Cambridge, on Tuesday, Wednesday, Thursday, and Friday, August 10th, 11th, 12th, and 13th, 1880.

President: DENIS C. O'CONNOR, A.B., M.D., Professor of Medicine in Queen's College, Cork.

President-elect: G. M. HUMPHRY, M.D., F.R.C.S., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

An Address in Medicine will be delivered by J. B. BRADBURY, M.D., F.R.C.P., Physician to Addenbrooke's Hospital; Linacre Lecturer in Physic.

An Address in Surgery will be delivered by TIMOTHY HOLMES, M.A., F.R.C.S., Surgeon to St. George's Hospital.

An Address in Physiology will be delivered by MICHAEL FOSTER, M.D., Hon. M.A., F.R.S., Prælector in Physiology in Trinity College, Cambridge.

The business of the Association will be transacted in Eight Sections.

SECTION A.: MEDICINE.—*President:* George Edward Paget, M.D., D.C.L., F.R.S., Cambridge. *Vice-Presidents:* George Johnson, M.D., F.R.S., London; P. W. Latham, M.A., M.D., Cambridge. *Secretaries:* W. B. Cheadle, M.A., M.D., 2, Hyde Park Place, London, W.; D. B. Lees, M.A., M.D., 2, Thurloe Houses, Thurloe Square, London, S.W.

SECTION B.: SURGERY.—*President:* William S. Savory, M.B., F.R.S., London. *Vice-Presidents:* William Cadge, F.R.C.S., Norwich; John Wood, F.R.C.S., F.R.S., London. *Secretaries:* John Chiene, F.R.C.S.Ed., F.R.S.Edin., 21, Ainslie Place, Edinburgh; George E. Wherry, M.B., M.C., F.R.C.S., 63, Trumpington Street, Cambridge.

SECTION C.: OBSTETRIC MEDICINE.—*President:* W. S. Playfair, M.D., London. *Vice-Presidents:* H. Macnaughton Jones, M.D., Cork; Henry Gervis, M.D., London. *Secretaries:* R. N. Ingle, M.D., F.R.C.S., 21, Regent Street, Cambridge; C. E. Underhill, M.D., 8, Coates Crescent, Edinburgh.

SECTION D.: PUBLIC MEDICINE.—*President:* Henry W. Acland, M.D., LL.D., F.R.S., Oxford. *Vice-Presidents:* Arthur Ransome, M.A., M.D., Manchester; Thomas Pridgin Teale, M.A., F.R.C.S., Leeds. *Secretaries:* William Armistead, M.B., St. Mary's Villa, Station Road, Cambridge; Thos. J. Walker, M.D., 18, Westgate, Peterborough.

SECTION E.: PSYCHOLOGY.—*President:* J. Crichton Browne, M.D., LL.D., F.R.S., London. *Vice-Presidents:* G. F. Blandford, M.D., London; P. M. Deas, M.B., Macclesfield. *Secretaries:* G. M. Bacon, Hon. M.A., M.D., Lunatic Asylum, Fulbourn, Cambridge; Henry Sutherland, M.A., M.D., 6, Richmond Terrace, Whitehall, S.W.

SECTION F.: PHYSIOLOGY.—*President:* William Rutherford, M.D., F.R.S., Edinburgh. *Vice-Presidents:* Arthur Gamgee, M.D., F.R.S., Manchester; Robert McDonnell, M.D., F.R.S., Dublin. *Secretaries:* W. H. Gaskell, M.A., M.D., Grantchester, Cambridge; William Stirling, D.Sc., M.B., Marischal College, Aberdeen.

SECTION G.: PATHOLOGY.—*President:* Sir James Paget, Bart., D.C.L., LL.D., F.R.S. *Vice-Presidents:* Samuel Wilks, M.D., F.R.S.; W. Howship Dickinson, M.D. *Secretaries:* W. S. Greenfield, M.D., 15, Palace Road, Albert Embankment; Charles Creighton, M.A., M.D., Anatomical Museum, Cambridge.

SECTION H.: OPHTHALMOLOGY.—*President:* William Bowman, F.R.C.S., F.R.S., London. *Vice-Presidents:* Henry Power, F.R.C.S., London; Henry R. Swanzy, M.B., Dublin. *Secretaries:* W. A. Brailey, M.A., M.D., 38, King's Road, Brownswood Park, London, N.; David Little, M.D., 21, St. John Street, Manchester.

A Subsection of Otology will be formed, of which Mr. W. B. Dalby, F.R.C.S., of London, will be Chairman, and Dr. James Patterson Cassells of Newton Terrace, Sauchiehall Street, Glasgow, honorary secretary.

Treasurer: R. M. Fawcett, M.D., 3, Scrope Terrace, Cambridge.

Honorary Secretary to Museum: G. Wallis, Esq., Corpus Buildings, Cambridge.

Honorary Local Secretaries: Bushell Anningson, M.A., M.D. (Hon. Medical Secretary), Walt-ham-sal, Barton Road, Cambridge; A. P. Humphry, Esq., M.A. (Hon. Reception Secretary), Corpus Buildings, Cambridge.

Letters relating to the strictly medical work (Sections, Museums, etc.) of the meeting should be addressed to Dr. Anningson; other letters to Mr. A. P. Humphry.

TUESDAY, AUGUST 10TH, 1880.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1879-80.
4 P.M.—Short service, with sermon by the Bishop of Ely in King's College Chapel
8 P.M.—General Meeting. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 11TH.

9.30 A.M.—Meeting of Council of 1880-81.
11 A.M.—Second General Meeting. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.
9 P.M.—Soirée in the Fitzwilliam Museum by the Reception Committee.

THURSDAY, AUGUST 12TH.

9.30 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting. Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner.

FRIDAY, AUGUST 13TH.

10 A.M.—Address in Physiology.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting.
4 P.M.—Garden party in the grounds of King's College by the Reception Committee.
9 P.M.—Conversazione in St. John's College.

The following subjects have been arranged for discussion in the various Sections.

1. Medicine.—On Hysterical Anæsthesia, opened by Dr. Bristowe; and on Asthma, introduced by Dr. Andrew Clark.

2. Surgery.—On the Treatment of Wounds, by Professor Lister; and on Stricture of the Urethra, by Sir Henry Thompson.

3. Obstetric Medicine.—On Uterine Hæmostatics, by Dr. Atthill; and on the Removal of Uterine Tumours by Abdominal Section, by Mr. Spencer Wells.

4. Public Medicine.—On the General Working of the Public Health Administration in Great Britain and Ireland, opened by Dr. Alfred Carpenter and Dr. Francis T. Bond; and on Diseases communicable to Man from Diseased Animals when used as Food, by Mr. Francis T. Vacher and Mr. Edmund J. Lyon.

5. Psychology.—On the Influence of Alcohol on the Causation of Insanity.

6. Physiology.—Is Urea formed in the Liver? by Professor Gamgee, F.R.S.; and on Sleep and Hypnotism, by Professor W. Preyer of Jena.

7. Pathology.—The Influence of Injuries and Morbid Conditions of the Nervous System on Nutrition, by Mr. Jonathan Hutchinson; and on Micro-organisms, their relation to Disease, opened by Professor Lister.

8. Ophthalmology.—The Nature of Glaucoma—some points relating to the perception of Colours, by Professor Donders.

Subsection of Otology.—The following questions will be discussed, viz.: The Therapeutic Value of Electricity in Ear-Diseases, and the Comparative Value to the various Mechanical Aids to Hearing, with special regard to the several kinds of Artificial Drumheads, and to those Instruments which assist Deafness, conducting or transmitting Sound, either directly or indirectly, to the Organs of Hearing.

EXCURSIONS.

On Saturday, August 14th, there will be excursions to Ely, Peterborough, and Audley End.

Notice is hereby given that, at the Annual General Meeting of members to be held at the Senate House, Cambridge, on Tuesday, the 10th day of August next, at eight o'clock in the afternoon, the following regulations for the conduct of Annual Meetings will be proposed for adoption on behalf of the Committee of Council.

General Control of Meeting.

1. The programme of the Annual General Meeting shall be under the control of the Committee of Council. The following regulations shall guide the Committee of Arrangement and any local Committee that may be formed.

Necessity of Limiting the Expenditure.

2. The gradual and constant increase of the members of the British Medical Association renders it expedient to express the strong opinion of the Committee of Council, that the medical men of the locality at which the Association holds its meeting should

not deem it necessary to incur a large expenditure; as, otherwise, the choice of a place of meeting must be more and more limited to the larger towns of the kingdom.

Annual Dinner.

3. The Annual Dinner shall be under the control of the Committee of Council.

Papers to be Read at Meeting.

4. All papers intended to be read at the Annual Meeting shall be forwarded, together with an abstract, to the Secretaries of Sections, ten days before the Annual Meeting takes place, excepting the Addresses of the Presidents of Sections, or the Addresses to be delivered in General Meeting.

Directions for Sections.

5. The President, Vice-Presidents, and Secretaries of Sections shall form a Committee of Reference, with power to accept, decline, or postpone any paper, and to arrange the order in which the papers shall be read.

Grouping of Papers for Discussion.

6. The papers in each section shall, as far as possible, be grouped together, so as ensure a general discussion on kindred subjects.

Length of time to be occupied by Papers or Speeches.

7. No communication shall occupy more than fifteen minutes, and no person shall be permitted to speak more than once or for more than ten minutes during the discussion thereon.

Resolutions at Annual Meetings.

8. No motion shall be brought forward at the Annual Meeting, unless it has been proposed by the Committee of Council or a Committee of the Association, or notice of the same shall have been given on the previous day, in writing, to the General Secretary, to be entered on the Agenda of the day and printed in the daily journal. This does not apply to amendments moved in due form.

Meeting of Committee of Council. Meeting of Council.

9. The Committee of Council shall meet on the first day of the Annual Meeting, in the afternoon. The Council of the Association shall meet subsequently, and the first General Meeting of the Association shall be held in the evening.

Reports of Committees.

10. All reports of Committees of the Association shall be printed in the JOURNAL before the Annual Meeting.

SPECIAL NOTICE.

ACCOMMODATION IN CAMBRIDGE.

MEMBERS of the Association who propose to bring ladies to Cambridge on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, A. P. Humphry, Esq., 56, Corpus Buildings, Cambridge. The prices at which lodgings will be obtainable vary from three shillings to one guinea per day (inclusive of attendance) for a bed-room and sitting-room.

Hotels.—The following are the principal hotels in Cambridge.

"Bull" (Trumpington Street).—Bed, 3s. 6d.; sitting-room, 6s. to 10s. Attendance, 1s. 6d.; breakfast, from 2s.

"Lion" (Petty Cury).—Bed, 3s. 6d.; sitting-room, 5s. to 7s. 6d. Attendance, 1s. 6d.; breakfast, from 2s. 6d.

"Hoop" (Bridge Street).—Bed, 5s.; sitting-room, 7s. 6d. Attendance, 1s. 6d.; breakfast, from 1s. 6d.

"University Arms" (Regent Street).—Bed, 2s. 6d.; double bed, 3s. 6d.; sitting-room, 5s. Attendance, first day, 1s. 6d.; following days, 1s. Breakfast, with meat, 2s. 6d.; plain, 1s. 6d.

Applications for hotel-accommodation should be addressed direct to the landlords.

FRANCIS FOWKE, *General Secretary*,
British Medical Association.

161A, Strand, London, June 3rd, 1880.

COMMITTEE OF COUNCIL:

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 7th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary*.

161A, Strand, London, May 29th, 1880.

LANCASHIRE AND CHESHIRE BRANCH.

THE annual meeting of this Branch will be held at the Assembly Rooms, Free Trade Hall, Manchester, at 2 P.M. on Wednesday, June 30th. Council meeting at 1 P.M.

Dinner, 5.30 P.M., at the Queen's Hotel. Tickets 10s. 6d., exclusive of wine.

Members intending to read papers are requested to communicate at once with the honorary secretary, who will also receive the names of those who wish to take dinner-tickets.

A. DAVIDSON, M.D., *Honorary Secretary*.

2, Gambier Terrace, Liverpool, May 31st, 1880.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE annual meeting will be held at the Hospital, Swansea, on Wednesday, June 30th, at 11 A.M.; T. D. GRIFFITHS, M.D., President-elect.

Members desirous of reading papers, etc., are requested to communicate with one of the Honorary Secretaries without delay.

ALFRED SHEEN, M.D., } *Honorary Secretaries.*
J. HANCOCKE WATHEN, }

May 25th, 1880.

EDINBURGH BRANCH.

THE annual general meeting of this Branch will be held at 5, St. Andrew Square, Edinburgh, on Tuesday, June 29th, at 4 o'clock P.M.

CHAS. E. UNDERHILL, *Honorary Secretary*.

NORTH OF ENGLAND BRANCH.

THE annual meeting of this Branch will be held in the Lecture Room of the Literary Society, Fawcett Street, Sunderland, on Wednesday, June 30th, at 3 P.M.

Dinner at the Queen's Hotel, Fawcett Street, at 5 P.M. Tickets, 6s. 6d., exclusive of wine.

T. W. BARRON, M.B., *Honorary Secretary*.

Durham, June 9th, 1880.

GLASGOW AND WEST OF SCOTLAND BRANCH.

THE annual meeting of this Branch will be held on Thursday, June 24th, at 2 P.M., in the Faculty Hall, 242, St. Vincent Street. The President-Elect (Dr. BRUCE GOFF) will give an address. Thereafter, the members will be conveyed to the Western and Royal Infirmaries, where demonstrations will be arranged by the physicians and surgeons.

The annual dinner will follow, at 5.30, in the Bath Hotel, 153, Bath Street.

JOSEPH COATS, M.D., } *Honorary*
JAMES G. LYON, M.D., } *Secretaries*.

MIDLAND BRANCH.

THE annual meeting will be held in the Board Room of the General Hospital, Nottingham, on Thursday, June 24th, at 2 P.M. *President:* J. WRIGHT BAKER, Esq.; *President-Elect:* T. WRIGHT, M.D. After the transaction of the usual business of the Branch, the following papers will be read and discussed.

1. By J. F. Goodhart, M.D.: Stray Observations on the Rheumatic Diathesis in Children.
2. By William Newman, M.D.: A few words on cases of "Latent Pneumonia". Dr. Newman will exhibit a man who has had large Syphilitic Osteitis of Olecranon and Shaft of Ulna: recovery after excision of three inches of bone.
3. By W. Legge, Esq.: Results of one thousand cases of Midwifery.
4. By William Milligan, Esq.: On Morphœa; a case will be shown.
5. By C. B. Taylor, M.D., Nottingham: Notes on certain cases of Supposed Incurable Blindness in which sight was restored; and
6. On the best method of operating in cases of Senile Cataract.
7. By George Elder, M.B.: Remarks on a case of Uterine Flexion simulating Ulceration of Stomach; and
8. Note on Chian Turpentine in Uterine Cancer.
9. By L. W. Marshall, M.D.: Cases in the Surgical Practice at the Children's Hospital.

Dr. Marshall will show three case of Amputation at the Hip-Joint by Furneaux Jordan's method; and other cases at the Children's Hospital, at twelve o'clock.

Luncheon will be provided by the President-Elect at the General Hospital. Dinner at the George Hotel at five o'clock.

C. HARRISON, M.D.,
Lincoln, June 7th, 1880. *Honorary Secretary Midland Branch.*

METROPOLITAN COUNTIES BRANCH.

THE twenty-eighth annual meeting of this Branch will be held at the Ship Hotel, Greenwich, on Wednesday, July 7th, 1880, at 4 P.M.

At 6.30 P.M. the members will dine together; S. O. HABERSHON, M.D., F.R.C.P., in the Chair. Tickets, 10s. 6d. each (exclusive of wine). Members intending to be present are specially requested to give notice to the Secretaries on or before July 5th.

ALEXANDER HENRY, M.D. } *Hon. Secs.*
W. CHAPMAN GRIGG, M.D. }

57, Doughty Street, W.C., June 14th, 1880.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the Grand Hotel, Birmingham, on Tuesday, July 6th, at 3 P.M. An address will be delivered by the President, Mr. R. PROSSER.

The annual dinner will also take place at the Grand Hotel, at 5 P.M. precisely, for the convenience of country members. Dinner tickets (exclusive of wine), five shillings each. Members intending to be present are requested to communicate with the Honorary Secretaries on or before July 3rd, in order that suitable arrangements may be made.

E. MALINS, M.B., 8, Old Square, } *Hon.*
E. RICKARDS, M.B., 14, Newhall Street, } *Secs.*

Birmingham, June 9th, 1880.

BATH AND BRISTOL BRANCH.

THE annual meeting of the above Branch will be held on Thursday, July 1st, 1880, at the Mineral Water Hospital, Bath, at 4.30 P.M., when J. BEDDOE, M.D., will resign the Chair to ALEXANDER WAUGH, Esq., President-elect.

The dinner will be held at the Grand Pump Room Hotel, Bath, at 6.30 P.M. The Bath Secretary earnestly requests all members intending to be present to favour him with their names on or before Monday, June 28th.

R. S. FOWLER, } *Hon. Secs.*
E. C. BOARD, }

Bath, June 14th, 1880.

THAMES VALLEY BRANCH.

THE next meeting of this Branch will be held at the Greyhound Hotel, Richmond, on Thursday, July 1st, at 6 P.M.

Dr. Balmanno Squire will read a paper On the Treatment of Skin-Diseases as practised at Leukerbad, in Switzerland.

The dinner will take place after the meeting, at 7 P.M.

Members who intend to read papers or make any communication are requested to give notice as early as possible.

FREDERICK J. WADD, *Honorary Secretary.*

June 16th, 1880.

BORDER COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the County Hotel, Carlisle, on Friday June 25th, at one o'clock; Dr. CAMPBELL, President-elect, in the chair.

The resolutions of the Metropolitan Counties Branch upon Medical Education will be considered at this meeting.

Gentlemen intending to read papers are requested to give notice to one of the Branch Secretaries, who will also receive the names of those who intend to be present at the dinner.

J. KENDALL BURT, } *Hon. Secs.*
JOHN SMITH, }

Kendal, June 14th, 1880.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above district was held at the Royal Kentish Hotel, Tunbridge Wells, on Friday, May 21st; Dr. W. FAIRLIE CLARKE in the chair.

Communications.—The following communications, etc., were made:

1. Dr. Milner Barry: On German Measles.
2. Dr. Ranking: On After-Pains.
3. Mr. Stamford: A Case in which a Hair-pin was removed from the Female Bladder.
4. Dr. Fairlie Clarke exhibited a selection of Pathological Drawings.

Dinner took place at the hotel at the close of the proceedings; Dr. W. Fairlie Clarke presiding.

The *Next Meeting* will be held at Uckfield in September; Dr. Treutler of Fletching is to be invited to take the chair.

SOUTH-EASTERN BRANCH: ANNUAL MEETING.

THE thirty-sixth annual meeting of this Branch was held at the Royal Pavilion, Brighton, on Tuesday, June 8th. Previously to the meeting, luncheon was provided for the members by the President-elect, Dr. Withers Moore. The Chair was taken by the retiring President, Dr. R. L. BOWLES of Folkestone, who introduced his successor, Dr. W. WITHERS MOORE.

Votes of Thanks were given to the late President, Dr. Bowles, and to the late Vice-Presidents, Mr. Rigden of Canterbury, and Dr. T. S. Rowe of Margate.

President's Address.—Dr. MOORE acknowledged with grateful thanks the compliment they had paid him in electing him their President, and said, although it was not given to everyone to command success, it would, at all events, be his duty to endeavour to merit it. In delivering the usual inaugural address, he said he had often ventured to think that, on these occasions, at least on some of them, it might not be amiss to take for discussion one of the many serious and pressing questions of the day, on which, as guardians of public health (moral, as well as physical), popular opinion looked to them for direction. Such a question was that of intemperance. Of the deterioration, moral and physical, caused by habitual intemperance, few were aware of it so thoroughly as the members of the medical profession. The remedies for intemperance would be a reduction of public-houses, and their conversion into club-houses proper; the private houses of the working classes should be made good wholesome homes, and something should be done for the individual habitual drunkard. He enlarged upon these remedies, and, in conclusion, said, having satisfied themselves as to the etiology and pathology of the disease, it was not always easy to apply the remedy. This was specially true of that widespread malady alcoholism; but, as the public had a moral right to look to the medical profession for assistance and direction in their grievous emergency, he would offer a few suggestions. Few persons would question that the Imperial Government had very much in its power the eradication of this plague-spot in their social life, and chiefly in this wise. 1. By exercising a firm control over the licensing of public-houses, making them bear in number some fitting relation to the population they were intended to accommodate. 2. By taking care that the penalties for permitting drunkenness and for serving liquor to drunken men were rigidly carried out, and made to entail the necessary suspension, or forfeiture, of the personal license; a second or third conviction carrying with it the suspension, say from two to five years, of the license granted to the house. 3. By firmly putting the law in force against the habitual drunkard, a third or fourth conviction within the year entailing a period of compulsory confinement, during which time he might be taught to be an abstainer. 4. As no man was allowed to attempt to poison himself with impunity, so, upon a proper representation before a magistrate by his near kin, supported by medical testimony, he should be prohibited from killing himself with alcohol; in a word, the Habitual Drunkards' Act should be made obligatory instead of, as now, optional. 5. The Artisans and Labourers' Dwellings Improvement Act, if put in operation throughout the country, would do much to remedy the structural, hygienic, and moral evils complained of, for, as Sir R. Cross himself remarked, in introducing the Bill, "What the homes of the people are the people themselves will be"; but, by giving the incriminated landowner the power of requiring the local authorities to purchase the property complained of, a strong inducement was held out to the latter not to put the law in force.

Mr. MURRAY (Brighton) proposed a vote of thanks to the President for his address, which he highly eulogised, and referred to the President's distinguished career. Mr. HODGSON (Brighton) seconded the motion, which was carried.

Report of Council.—Dr. PARSONS, honorary secretary, read the following report.

"The report for the past year which your Council have the pleasure to present to the members to-day, is satisfactory inasmuch as the Branch maintains its prosperity; yet it must be admitted that it does not exhibit that increase in numbers which it is so pleasant to record. At the last annual meeting, the Branch consisted of 424 members. In the interval, two have been removed by death; twenty-four have either resigned or have left the area of our Branch, and have doubtless been absorbed by other Branches; whilst some few have emigrated to distant lands. It has been the painful duty of your Council during the past year to erase the names of eight gentlemen from the list of members as defaulters, and their arrears have been lost to the Branch. The total losses for the year are thirty-four, but these gaps in our ranks have been almost filled by the election of thirty-one new members; and the Branch now numbers 421. Last year, your Council ventured to appeal to the members individually to use their personal influence with their neighbours to induce them to join the ranks of the Association through the agency of the South-Eastern Branch. Your Council desire to urge this appeal with even greater earnestness this year, and would invite every member to bring at least one recruit each to our Branch. Our combined action would soon obliterate all semblance of stagnation, and give place to vigorous growth and development.

"As regards the six districts, your Council have to report the loss of the services of Dr. J. H. Galton, the honorary secretary of the East Surrey District, who for a period of six years discharged the duties of his office with such zeal, courtesy, and efficiency, as to win the grateful and hearty thanks of his whole district. He has been succeeded by Dr. Herbert Stowers, of Lower Tulse Hill, who brings to the work a reputation which augurs well for the future of the district. The retirement of Mr. Harris, of Worthing, from the West Sussex District, after many years of faithful service, has just occurred, and has been followed by the election of Mr. Golding Bird Collett of Worthing, as honorary secretary. To both Dr. Galton and Mr. Harris, as also to the other four gentlemen who are continuing at their posts in the other four districts, our best thanks are due for much valuable and unselfish devotion to the work of the Branch. During the year, combined meetings of East and West Sussex at Brighton, and East and West Kent at Rochester, have produced such large gatherings, and have been attended with such marked success, that your Council would recommend such meetings to be held occasionally in each of the three counties which form the Branch, viz., Kent, Surrey, and Sussex.

"As regards the business of the past year, the most important subject by far which occupied the attention of your Council was the question of medical education. The resolutions of the Metropolitan Counties Branch upon this topic were sent by our honorary secretary, in the form of a circular, to every member of this Branch for consideration, and free expression of opinion was invited from all. A subcommittee was appointed by your Council to consider and report upon the replies received to this communication; and this report has been received, and forwarded to the Committee of Council, in compliance with their wishes.

"Upon the occasion of the retirement of Dr. Farr from the department of the Registrar-General, your Council felt it to be their duty to place on record their high appreciation of the value of Dr. Farr's labours for the public welfare, and their deep sense of the loss which the nation sustained in consequence of his resignation. A resolution embodying these sentiments was framed, and a copy of it was forwarded to Lord Beaconsfield; and your Council ventured to express the hope that, in recognition of such signal services, his lordship would see fit to recommend Dr. Farr for some distinguished mark of Royal approval and honour.

"The Parliamentary Bills Committee of the Association has occupied itself actively during the year now past in promoting the interests of the public services, in investigating and discussing the question of animal vaccination in connection with legislative measures, and in examining the present state of the law and the desirable modes of improving it in respect of the registration of infectious diseases. Their efforts on behalf of the army medical officers have met with signal success. Last year, the chairman of the committee was asked to prepare, for the War Office Departmental Committee, a statement of the principal remaining grievances of the army medical officers, and the remedies to be desired. The memorandum handed in urged the abolition of the short service system; improved pay, forage allowance, and retirement; the retention of entrance examinations and Netley training. The latter requirements met with great opposition, nevertheless they have been virtually conceded in full. Numerous communications expressing the gratitude of the service have been received; and the result has been to secure contentment to the service in the main, and a larger supply of highly competent candidates than has been seen for many years. It remained to secure like advantages to the naval medical service. Steps were taken, by communications with leading members of all ranks of the Naval Medical Department, to obtain an accurate view of the reasonable requirements of the service. On the basis of a great mass of information thus obtained and carefully collected, Mr. Ernest Hart, by authority of the Committee, prepared a carefully considered scheme for the amelioration of the position of naval medical officers, which, after an interview with the Naval Lord, he submitted by request to the Board of Admiralty. This document was at once referred to a departmental committee appointed *ad hoc*, whose report is, it is believed, now ready for issue. Much may be anticipated from this action. An elaborate and extensive report on animal vaccination was adopted by the committee in connection with Dr. Cameron's Bill. It was discussed at three successive meetings, influentially attended by leading members of the Association and some distinguished foreigners; and its conclusions in favour of the employment of animal vaccine-lymph as seed for commencing series of arm-to-arm vaccinations were presented to the President of the Local Government Board, and are now in process of examination by the department. In two successive reports, the anomalies of local Acts for the registration of disease were examined, and a model clause prepared and adopted. These reports and the conclusions have been largely accepted by medical officers of health at their meetings in England, and were also endorsed at the annual meeting of the Dublin Branch. Communications have also been made to the Government on the subject of the Amendment of the Coroners' Bill, and of the Infant Life Protection Act. In no former year has the action of the Parliamentary Committee, in the maintenance of professional interests and the promotion of the public welfare, been more extended or more generally recognised as of professional and national importance."

On the motion of Dr. BOWLES, seconded by Mr. RIGDEN, a vote of thanks was given to the Council, auditors, and secretaries.

Annual Meeting in 1881: Officers.—Dr. A. CARPENTER (Croydon) proposed, Mr. CHALDECOTT (Dorking) seconded, and it was agreed, that the next annual meeting be held at Reigate; and that the President-elect be Mr. F. B. Hallowes (Redhill); and the Vice-Presidents-elect, Dr. J. H. Galton (Guildford) and Dr. Horace Jeaffreson (Wandsworth). On the proposal of Dr. HOLMAN (Reigate), seconded by the PRESIDENT, Dr. C. Parsons was re-elected Secretary.

Dinner.—In the evening, the members dined together in the banqueting room of the Royal Pavilion.

NORTH OF IRELAND BRANCH: ANNUAL MEETING.

THE second annual meeting of this Branch was held in the Belfast Royal Hospital, on Thursday, May 20th, at 3 P.M.; J. K. MACONCHY, M.B., President, in the Chair. There was a large attendance of members present.

Report of Council.—The HONORARY SECRETARY read the following report for the past year.

The Council of the North of Ireland Branch of the British Medical Association, in presenting this, the second annual report, desire to congratulate the Branch on the continued prosperity which has attended it since its first formation. During the past year, eighteen new members joined the Branch, which now numbers 107 members. In accordance with a resolution passed at the last annual meeting, meetings of the Branch have been held on the first Friday in each of the months of September, December, and March. At the meeting held on Friday, September 5th, Dr. Cuming exhibited a specimen of abscess of the brain, and detailed the history of the case. Mr. Fagan showed an ovarian tumour he had successfully removed, and introduced the patient. Dr. John Moore directed the attention of the members to the provisions of the Bill for the control of habitual drunkards of last session of Parliament. At the meeting of the Branch held on December 5th, 1879, Dr. McKeown introduced a patient from whom he had removed a large pharyngeal polypus, having previously removed the anterior wall of the superior maxillary bone; the growth had returned, and was now beyond the reach of operative interference. Dr. McKeown also described his method of operating for cataract, and detailed the results. Dr. Thompson of Omagh exhibited photographs of a case of rickets, in which he had succeeded in removing the deformity by fracturing the extremities. He also exhibited a set of air- or water-cushion pads which he found exceedingly serviceable, of which an account has been published in the JOURNAL of the Association. He also exhibited a trocar and cannula, fitted for emptying cavities without admitting the entrance of air. Dr. John Walton Browne read notes of two cases of lithotomy in which he had operated, and exhibited the calculi removed. Dr. John Moore described a case of popliteal aneurism, which he had consolidated by compression, but which was followed by gangrene of the limb. At the meeting of the Branch on March 5th, Dr. Frazer (Armagh), in the unavoidable absence of Dr. Palmer, described an operation in which he had assisted the latter, where the right subclavian and common carotid arteries had been successfully ligatured for a case of aneurism. The further details of this interesting case we shall have the pleasure of hearing to-day from Dr. Palmer himself. Dr. George Gray (Castlewellan) read notes of a case of attempted poisoning by strychnia, successfully treated by hydrate of chloral. This has been since published in the BRITISH MEDICAL JOURNAL. Mr. Fagan read notes of two cases of tracheotomy which he had performed for croup. In both cases, great relief was afforded by the operation, though the patients ultimately sank. From this summary of the patients introduced, the specimens exhibited, and the cases read, it will at once be seen how valuable and interesting have been the subjects brought before the Branch at each of its meetings. A communication was received from the Committee of Council of the Association, enclosing a series of resolutions passed by the Metropolitan Counties Branch of the Association on the subject of medical education, and submitted to the Branch at its last meeting. These resolutions were referred to a committee consisting of Drs. Cuming, McKeown, and the secretary. No report has yet been prepared. The Branch has been enabled through its organisation greatly to assist the prison medical officers in coming to terms of arrangement with the Government, on more advantageous conditions than they would otherwise have done. The progress of the Branch since its formation is most encouraging. It has now taken firm root, and will no doubt grow and flourish, fulfilling all the anticipations and hopes of its founder, by affording facilities of intercourse to the members of the profession in the North of Ireland, and of uniting them more closely to the great body of their professional brethren.

It was resolved, "That the Council's Report then read be adopted, and entered on the minutes of the Branch".

President's Address.—The PRESIDENT delivered the following address.

Before vacating the President's Chair of this Branch, I have a few words to address to you, and am happy to do so under the hopeful circumstances which are shown by our secretary's report; yet my first words must be those of apology for my unavoidable absence from two of our quarterly meetings. On both occasions, I was prevented from attending by important midwifery engagements, and hope that the impossibility of postponing the cases to suit my wishes will with medical men plead my excuse. You have already heard in the secretary's report that the members of the Branch have increased during the year by eighteen. The loss during the year has been seven. No doubt this increase is encouraging, but it leaves much yet to be effected by those who are interested in the success, not only of the Branch, but of the Parent Society; and I am sure most of you will agree with me that we should exert ourselves to enlarge the number of men enrolled in the Branch, and join with me in the hope that Belfast itself, as our to-day's election leads us to hope, will contribute a larger contingent. No doubt, when men of our profession become deeply engaged in private practice, and hold perhaps no public appointment, or none of prominent importance, there is not the same personal object in joining what is now a great professional confederation; yet even the most isolated practitioner as more or less influenced by the general status of the profession. And it cannot be denied that the Association has done much in the past for the furtherance of professional interests; and its strength and power of speaking with authority depend in a very large measure on the success of its branches. And now, looking to the probabilities of the immediate future, it seems likely that the profession will have to consider its legal position, or rather the position in which it may be placed by legislation, and the duties that may be imposed on numbers of its members; and, as legislative changes are probably imminent, it is more than ever necessary that the profession shall have a mouthpiece of its own to express its opinions, irrespectively of either the corporate bodies or of the Government of the country. And the authority with which the General Council of the Association can speak, obviously depends mainly on the strength of its Branches throughout the kingdom. I do not wish it, however, to be thought that such objects should be the chief motives for supporting the system of Branch organisation; there is besides what must be always of paramount interest to the man of true professional instincts, and that is, the production of short scientific papers, and the narration of instructive cases, with short and amicable criticism from a friendly audience. This attribute of the Branch organisation is no doubt chiefly interesting to the country members, who rarely have the advantage of intercourse with more than a few members of their professional brethren. The more isolated any man is, the more it will repay him to make an effort to attend the quarterly Branch meetings; and I am confident that every county member of our Branch will endeavour to get as many of his professional neighbours to join as he possibly can. I have purposely abstained from introducing scientific subjects, as I see the notice paper is rich in its promise of interesting matters; but before, concluding, I must again and most sincerely thank you for the honour you conferred on me in electing me to the chair for the past year, and to assure you that I shall steadily work for the advantage of the Branch and Association, as far as my limited power will permit.

It was resolved that the best thanks of the Branch be given to the President for his excellent address.

Officers and Council.—The following were elected officers of the Branch for the ensuing year. *President:* J. W. T. Smith, M.D. (Senior Physician to Belfast Royal Hospital). *Vice-Presidents:* T. K. Wheeler, M.D.; Edward Thompson, M.B. *Representatives of Branch on the Council of the Association:* J. Fagan, Esq.; Wm. McKeown, M.D.; Sir Wm. Miller, Kt., M.D.; J. M. Palmer, Esq.; T. K. Wheeler, M.D. *Council of Branch:* J. W. Browne, M.D.; J. Cuming, M.D.; Alex. Dempsey, M.D.; R. F. Dill, M.D.; Archibald Dunlop, M.D.; J. Fagan, Esq.; Alex. Filson, M.D.; Robert Gray, Esq.; Alex. Harkin, M.D.; Abraham Kidd, M.D.; Wm. McKeown, M.D.; J. K. Maconchy, M.B.; Sir Wm. Miller, Kt., M.D.; J. M. Palmer, Esq. *Honorary Secretary and Treasurer:* John Moore, M.D.

Dinner.—The members dined together in the evening at the Imperial Hotel, and brought to a pleasant close a most successful meeting.

SCARLET FEVER has recently been spreading in Kendal, after a remarkable immunity, while it was raging in some of the villages around, and there are now a large number of cases in various parts of the town, one or two having already proved fatal. An outbreak has also occurred among the children in the workhouse.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

Hospital Saturday.—The Queen's Hospital Bazaar.—Sir Josiah Mason's Science College.—The Medical Institute.—Death of Mr. A. Bracey.

THE meeting of the General Committee of the Birmingham Hospital Fund was held on the 15th inst., in the Town Hall Committee Room, for the purpose of distributing the proceeds of this year's collection amongst the various charities. The total amount of receipts was £3,759, and the expenditure amounted to £325 7s. 2d. There was a sum available for distribution of £3,500, which was £500 more than the amount distributed last year. These figures may be taken as an indication of a slight improvement in the trade of the town as compared with last year.

The bazaar held in the Town Hall for the benefit of the Queen's Hospital Fund proved a great and well-deserved success. The interior of the Hall was made to represent the street of an ancient English town, in which the stalls were the shops, while the orchestra was converted into a baronial castle, in which refreshments were supplied. The great attraction of the bazaar was a melo-dramatic performance, entitled, "Gentle Gertrude; or, Drugged and Drowned in Digbeth," founded on a legend of great local interest, with reference to the early introduction of brass into Birmingham. At a meeting held on Tuesday, the Chairman submitted a report of the bazaar subcommittee, and a statement of accounts, showing a surplus of £3,687 as the result of the bazaar. The Chairman, in moving the adoption of the report, referred to the great success that had attended the labours of the bazaar committee, and said that in one point only had their expectations not been realised. The subscription list had been augmented by only £312, instead of £1,000, as the committee had hoped. On the other hand, the committee only expected to raise £4,500, whereas, including the surplus of the bazaar, £5,969 had been raised by their labours. Councillor Dixon said the town had responded liberally to their appeal, and they could not expect to make any farther demand upon its generosity for a long time. It, therefore, behoved the Board to do what they could to obtain additional subscriptions. He hoped the time would shortly come when the revenue of the hospital would be equal to its expenditure. For the first time in its history, the Queen's Hospital was free from debt.

Sir Josiah Mason's Science College will be opened on the 1st of October, with an introductory lecture by Professor Huxley. The building is everything that could be desired in so far as the plans have extended, and its external appearance constitutes the chief architectural ornament of the town. The classes for students will commence on Tuesday, the 5th of October. The course of instruction, as at present arranged, includes Mathematics (Professor M. J. M. Hill, M.A.); Chemistry (Professor W. A. Tilden, D.Sc. Lond., F.R.S.); Physics (Professor J. H. Poynting, M.A., B.Sc. Lond.); and Biology (Professor J. W. Bridge, M.A., F.Z.S.). The course is designed to prepare students for the degrees of B.Sc. and D.Sc. of the University of London. Mason's College is the nucleus of a great educational institution, such as great centres like Birmingham need sadly, and in the provision of which England is much behind other civilised countries, including her own colonies.

The Medical Institute, in Edmund Street, is slowly approaching completion, and we are looking forward to opening it in October. The building is a handsome red brick structure, with terra-cotta ornaments. It contains ample accommodation for all the requirements of the profession, in the shape of library, reading and committee-rooms, and a hall for meetings.

We have had to lament the death of Mr. Arthur Bracey, formerly one of the surgeons to the Eye Hospital. He was a man of very considerable abilities, but his usefulness was impaired and his life spoiled by constant ill-health.

LIVERPOOL.

Liverpool a City.—Medical Officer of Health.—Annual Report.—A Practical Burial Difficulty.—A Remarkable Attempted Suicide.—Royal Infirmary School of Medicine.—Liverpool Eye and Ear Infirmary.—Seamen's Dispensary.

SINCE my last letter appeared in the JOURNAL, Liverpool has become a city, with all the privileges which attach to such a state, including a bishop, and a pro-cathedral. Our new bishop is described as a fearless, outspoken man; and it is to be presumed his voice will be heard in the cause of the many social reforms at work in this city, the improvement of labourers' dwellings, the counter-attractions to the gin-palace, the more adequate support to our medical charities, and kindred institutions: in all these Bishop Ryle may reckon upon the hearty co-operation of the medical profession.

In his Annual Report for 1879, just published, Dr. Taylor, the medical officer of health, refers to the low temperature which prevailed so much as having caused a great increase in deaths from lung diseases. But, on the other hand, this same condition of the temperature was the cause of much diminution in the death-rate from diarrhœa, which was lower than that ever recorded in Liverpool before. Dr. Taylor also reports: "Typhus, from which this town has suffered so much, continues to decline, and it may be confidently hoped that it will shortly become a disease of comparatively rare occurrence. With regard to scarlatina, which has been very prevalent and fatal, Dr. Taylor urges the importance of removing patients to hospital. In too many instances has the non-removal of the first case caused the loss of two or three children in the same family; and very frequently the mothers have also been sacrificed, for the scarlatina poison is particularly fatal to women in childbed."

A "burial difficulty", of a non-sectarian, but more practical, and no less serious matter, has been threatened here, viz., the probable absence of any burial place at all. The city of Liverpool is contained in three parishes—those of Liverpool, West Derby, and Walton-on-the-Hill, of which latter a considerable portion is constituted the extra-parochial district of Toxteth. The latter, and the parish of Liverpool, have for a long while had their own burial boards and cemeteries, in which they have interred bodies from other parishes for an extra fee. Recently, however, they have been obliged to give notice that in future their cemeteries must be reserved almost exclusively for parishioners. Next month, a new cemetery, containing fifty-four acres, will be opened for the township of Everton; and, later on, another for that of Kirkdale, both in the parish of Walton-on-the-Hill. The providing of sites for extramural cemeteries in the vicinity of large towns and cities is becoming an increasing difficulty.

A man was taken before the magistrate on Saturday for attempted suicide under peculiar circumstances. The prisoner, it appears, had been suffering in his chest, and had gone to the church which he had attended when a boy, though not lately. On the gallery staircase he appears to have made a most deliberate attempt on his life with a revolver. Being discovered bleeding and insensible, he was removed to the Royal Infirmary, where he was found to be suffering from a bullet wound in the right temple. The bullet has not been extracted, but he has quite recovered.

At the Royal Infirmary School of Medicine, the Summer Anatomical Class is remarkably well attended, there being no fewer than forty-eight students engaged in dissecting. Already six subjects have been dissected, and a seventh is daily expected. In spite of the present hot weather, the bodies are, by the excellent arrangements made for their preservation, remarkably free from odour, and dissecting can be carried on with comparative comfort.

The building of the new Eye and Ear Infirmnry approaches completion; and a full description of it will probably shortly appear in the JOURNAL. It will have every modern improvement, and be one of the best appointed eye hospitals in the kingdom.

The Seamen's Dispensary continues to do a very useful work among the class of men for whom it was intended, protecting them from advertising impostors and supplying them with medical attendance and medicines at the lowest charge. The medical officers have recently been requested to furnish details of management to several other ports, including that of London itself, with a view to the establishment of similar dispensaries.

BRUSSELS.

The Exhibition.—Foreign Practitioners in Belgium.—Legal Medicine in the Universities.—Death of Dr. Semal.

FOR some months past, the note of preparation for the forthcoming Exhibition has been heard all over Brussels. Next August, the town will celebrate the fiftieth anniversary of Belgian independence. Nothing is being left undone to secure the success of this undertaking, which, in spite of the frequency with which Exhibitions have occurred of late years, will probably draw a very large number of visitors during the autumn. Among other features especially interesting to medical men will be the Congress of Hygiene and Public Medicine. This will be held in the course of August, and will be immediately under the direction of the Minister of Public Instruction, assisted by the Royal Academy of Medicine. Although essentially national in composition, I am told that foreign *savants* will receive a hearty welcome to the Congress, and that any communications or sanitary appliances exhibited by them will be especially acceptable.

Just at present, the profession in Belgium is a good deal exercised on the subject of the laws relating to the admission of foreign practitioners. By the latest enactments, any doctor or licentiate in medicine of a recognised school may, at the Minister's discretion, be granted permission to practise medicine. This permission may also be refused absolutely, or the candidate be called upon to undergo an examination in any branches of medical knowledge in which he was not examined at the time he obtained his diploma. A powerful opposition has been stirred up against this certainly not unduly liberal measure. A cry has been raised that the Belgian standard of medical education is really higher than that of most other European schools, and that consequently practitioners who have passed the searching ordeal of Liége, Brussels, or Louvain are prejudiced by the admission of men who have passed in certain of the English, French, or German schools. The agitation is scarcely likely to be successful so far as the repeal of the existing law goes. Nevertheless, it has to some extent answered its purpose, in that the Government is becoming extremely chary of admitting even well qualified foreigners to the privilege of practising in Belgium. This is to be regretted for more reasons than one; although, as reciprocity is not conceded by England in this matter, English practitioners can hardly complain when they are left out in the cold in other countries.

A proposition has lately been laid before the Royal Academy of Medicine tending to secure a more important position for legal medicine in the curriculum of the universities. Its author, Dr. Vleminckx, proposes that a special grade of medico-legal and chemical experts should be established, the existence of which should be recognised by law. In addition to this, he would also nominate a superior council, to whom all cases of unusual difficulty or of contradictory scientific evidence should be submitted. Their decision would have to be obtained before any scientific experiments or results could be admitted as evidence. This proposition, which is evidently not without some value, is still under discussion.

By the death of Dr. Hyacinth Semal, the profession in Brussels has sustained a severe loss. The deceased was physician to the palace, and likewise held the appointment of medical officer to the Garde Civile. He was well known in Brussels society, and, by his genial manners, no less than by the wide range of his professional knowledge, had won for himself a high position both socially and officially.

CORRESPONDENCE.

THE GENERAL LYING-IN HOSPITAL.

SIR,—In your note on Dr. Godson's connection with the General Lying-in Hospital, you say: "He has, however, some excuse, in that he was applied to by Dr. Playfair." I do not wish to discuss at all the present unhappy state of affairs at the General Lying-in Hospital, seeing that a committee of investigation is now considering them. As, however, this sentence might be taken to imply that I suggested the application to Dr. Godson, or pressed on him his acceptance of the offer made to him, I beg your leave to say that I did nothing more than convey to him the proposal made to me by the Chairman of the Committee of Management. This statement, I am sure Dr. Godson will willingly confirm. Everything I have done in connection with these unfortunate dissensions has been in concert with Mr. Lister, my colleague on the consulting staff, whose views as to the just and impartial course of procedure we ought to adopt perfectly harmonised with my own. I immediately communicated to him what I had done with regard to Dr. Godson, and I have his authority for saying that my action in this matter met with his approval.—I am, etc., W. S. PLAYFAIR.

31, George Street, Hanover Square, W., June 12th, 1880.

⁂ We by no means concur in the validity of Dr. Playfair's explanation, or agree that others are equally responsible with himself; but we defer discussion of the subject pending the inquiry now in progress.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN *versus* "THE MEDICAL PRESS AND CIRCULAR".

SIR,—Whilst thanking you for your report of the proceedings in the Court of Queen's Bench, in your last issue, I shall feel obliged if you will kindly allow me to correct one or two inaccuracies into which you have inadvertently fallen. You state that "the letters appeared originally in the *Standard*, and were subsequently reproduced, with leading articles referring to them, in the *Medical Press and Circular*, of which the defendant, Mr. Tindall, is the proprietor." This is not so. Firstly, the letters published in the *Standard* were not the same which appeared subsequently in the *Medical Press*, many of the charges being couched in stronger language than in our columns. Secondly, but *one* leading article was written by us, and this the magistrate, before whom the case was first brought, characterised as "a fair comment upon a matter of great public importance" (see shorthand report enclosed). Since the action for libel was commenced, the St. John's Hospital Board have withdrawn from the prosecution on the score of our leading article, and we simply stand charged now with libel for having published letters which were signed by the writer, who neither desired nor attempted to shirk the responsibilities of his statements. Thirdly, I am described as *the proprietor* instead of the publisher. Pray pardon these slight corrections, as they are important to our case.—Your obedient servant,

Albert Alfred Tindall, Defendant in the Case.

20, King William Street, Strand.

⁂ We publish this letter with great pleasure. On more than one occasion, the *Medical Press and Circular* has of late years shown great courage and independence in defending public and professional interests.

SIR JOHN LUBBOCK AND THE DENTAL DIPLOMA.

Sir,—I see by this week's Journal that Sir John Lubbock thinks that the opposition to the granting diplomas for dental surgery *only* arises from misapprehension. Now, the reason why I have always opposed this recognition of a dental diploma by our medical examining bodies is, that it was tried in France, and afterwards abandoned, because it caused confusion, and probably tended to lower the profession generally. We are reviving in this country what it was found necessary to abandon in a neighbouring state. When this subject was before the College of Physicians some years ago, I begged the Registrar to make inquiries at the Faculty of Medicine of Paris, in order to ascertain the precise reasons which induced the authorities to discontinue issuing a dental diploma. Possibly this may meet the eye of some French graduate, who may favour us with some accurate information. For my own part, I am against issuing special diplomas of any description; and I think it is quite as logical for a college of surgeons to issue a diploma to a chiropodist, an oculist, an aurist, or a bone-setter, as to a dentist.

There is much more involved in this question than Sir John Lubbock seems to be aware of, and it is *he* who labours under a misapprehension.—I am, sir, yours, etc. F.R.C.P.

June 12th, 1880.

THE NAVAL MEDICAL SERVICE.

Sir,—The advertisement which lately appeared in the public press, inviting medical men to take service in the Royal Navy, has, as might have been anticipated, created a feeling of surprise and apprehension throughout the Naval Medical Service, suggestive as it is of a desire on the part of the authorities to evade the carrying out of the recommendations of the Naval Committee, as well as the suggestions for the amelioration of the department which were so ably advocated in the columns of the Association journal some little time ago. We need not urge on you, sir, the supreme importance of continuing to inculcate on possible candidates the danger to their future prospects which would certainly result from any premature acceptance of the invitation thus held out to them, it being obvious that the presentation even of a small number of candidates at this juncture might have the effect of postponing indefinitely the reforms which are so urgently required.—I am, sir, very faithfully yours, Vultus in Hostem.

THE PRESENT GOVERNMENT AND MEDICAL REFORM.

Sir,—One of the chief attributes of new brooms is to sweep clean; and we may, therefore, expect that some measures of medical reform will be considered by the present Government. That some change is required no impartial person will deny, but the form which that change should take may admit of some discussion. Kindly allow me space to offer a few remarks on this subject. In the first place, I would draw a line between those corporations which are teaching bodies, and those which are mere examining bodies. Among the former, I would place the Scotch Universities, the College of Surgeons of Ireland, the University of Dublin, and, to a less degree, Oxford, Cambridge, and Durham; among the latter, the Colleges of Surgeons of England and Edinburgh, the University of London, the Glasgow Faculty, and the two Colleges of Physicians, and the London and Dublin Apothecaries' Halls. Some reason may be shown why the former should continue to live, but for the latter there can be no reason for prolonging their existence. The question comes to this. Why should the Government allow purely examining bodies to exist when they can do their own examining, as they do for the army and navy? The bodies in the second division do not in one single instance help the medical education of students. The Colleges of London make no secret of the fact that they do not teach, and the School of the College of Surgeons of Edinburgh is a pure myth—nay, more, its supposed existence may do more harm than good. This statement may require some explanation. I proceed to give it. The examiners of the College are a self-electing body. There is certainly an annual election; but the electing body are the examiners themselves. Some of the examiners are lecturers in the mythical medical school, and they naturally cling to their examinerships as a means of attracting students to their classes; for there is a general prevailing idea among students that the examinations will be lighter. This destroys to some extent manliness, and begets an unhealthy system, from which even the University is not altogether free. Besides, all the examiners examine equally on all subjects; and it not unfrequently happens that a student is examined by an examiner totally ignorant of anatomy. Such a condition of things could not occur if the Government appointed the examiners. The London College, aware of this argument, are appointing skilled examiners in each branch of medical knowledge. The removal of the bodies in my second division would necessitate no money loss in compensation; for the already existing funds of the colleges would pay the compensation due to the secretaries, etc., for the loss of service. What can be the use of maintaining bodies—possessing vast resources in museums, libraries, and money—for the mere purposes of examining students, when the Government has shown itself, in one case at least, equal to the task? Could not the colleges institute professors to deliver short courses of lectures, illustrated by their museums, on practical subjects, to enable general practitioners to learn the latest thing out, and which, not qualifying for a licence, would not interfere with the legitimate work of the schools. Apologising for taking up so much of your valuable space.—I am, sir, your obedient servant, Reform.

THE EUCALYPTUS IN THE CAMPAGNA.

Sir,—As I take a good deal of interest in the acclimatisation of the eucalyptus in this country and in Europe, I shall be glad if you will allow me to record a few observations anent those of your Roman correspondent in the Journal of June 5th. I have distributed about five hundred packets of nineteen different kinds of eucalyptus in this country during the past and the present spring, and, although much of the seed has fallen into careless hands, I know that a very large number of plants have been raised, and I hope and expect that many of them will ultimately become trees. I have heard that several trees of the blue and the drooping varieties of gum-tree have survived the late winter in Ireland, Arran, and the West of England; and I have before me now, a vigorous branch of *E. globulus* sent to me by a lady living in Ireland, so that there is no mistake about the identity of the species. But, in this country, the eucalypti will never become more than curiosities, as we have plenty of other trees which are more ornamental, and we have little or no malaria to contend with. In Italy, and in other countries bordering on the Mediterranean, it is quite otherwise; and I am glad to learn that the Italian Government does not take so gloomy a view of the matter as your correspondent, and that it is going to make another attempt to cultivate the eucalyptus in the dreary and deadly Campagna. I quite agree with your correspondent, that the great difficulty in acclimatising the rapidly growing varieties is in keeping them alive for the first three or four years of their existence. Last autumn, I saw the young trees at the Tre Fontane and in some other parts of the Campagna about Rome, and they were then quite as healthy and flourishing as trees of a similar age in the South of France. I was at Cannes during the very cold weather in December, and I saw there some old and some young trees standing near a small brook, which was a solid mass of ice for about three weeks. The mature trees were uninjured, and even burst into flower in spite of the frost, while the young trees were killed down to the roots. The last and preceding winters were unusually severe all over Europe, and similar ones may not be expected to recur for many years; and it is not astonishing that so few trees should have survived in the open Campagna. The few which did survive should, however, be carefully preserved, as they have proved their fitness for the European climate. Prince Troubetskoi, an adept in the cultivation of the gum-tree in the South of France, states in a paper communicated last year to the *Bulletin de la Société d'Acclimatisation*, that his trees attained a height of about fifty-eight feet in nine years, that they bore seeds in the sixteenth, and that the plants raised from these seeds seemed still more vigorous than the parent trees. The trees which escaped destruction last winter may be expected to yield seed in a few years, and the plants raised from this seed will be better fitted for our climate than those raised from seed grown in Australia. Among the seeds which I have distributed are some sent to me by a gentleman in Portugal, who collected them from trees growing in his own garden.

The Australian gum-tree, when mature, is possessed of immense vitality, as every one knows who has travelled in its native country. It grows in all kinds of places, from the crevasses of a bare rock to the middle of a swamp, and it sprouts with remarkable vivacity after it has been enveloped in a forest fire. There is a tree of *E. polyanthema* in Kew Gardens, which has had all its twigs and leaves killed by late winter frosts, but it is now sprouting again as freely as if it were a deciduous and not an evergreen tree. The peculiar vitality suggests a method of cultivation which has never probably been tried, namely, by cuttings, or sections of the hard wood, and thus of overcoming the difficulty which arises from the herbaceous nature of young plants raised from seed. We might fairly expect also that the annual check to the growth in winter would make the tree more compact and picturesque in its form than it is in its native climate, where it is always growing. It is probable that some of the slower growing ironbarks would be better suited to our climate than the *E. globulus*, which is almost the only kind which has had a good trial.

Of the therapeutical value of the eucalypti, I cannot speak with anything like the confidence which many French physicians have spoken. It has obviously been very useful in malarious districts; but whether its influence is due to its mere vegetable properties, or to its peculiar aromatic nature, it is difficult to determine. Its chief virtue, however, consists in its growing in soils and climates in which other trees will not grow. The internal use of the tincture of the leaves produced on myself a dreamy narcotic effect like Indian hemp, accompanied by a disagreeable form of palpitation of the heart. It had no beneficial effect on some cases of irritable sore-throat in which I tried it, though it has been lauded as a specific for such cases. On the other hand, as an external application for irritable skins arising from the bite of insects, prickly heat, etc., I found the eucalyptus vinegar—a preparation similar to Rimmel's toilet vinegar — most effective when applied as a lotion, or as an addition to the bath. I have also found a soap containing the essential oil of *E. citriodora*, a most soothing application in irritable skin-diseases, and it is no doubt to a certain extent antiseptic like thymol soap, with the additional advantage of possessing a very pleasant perfume.—Your obedient servant,

Bolton Row, June 9th. C. Roberts.

P.S.—I have disposed of all my seeds.

VACCINATION.

Sir,—Under the above heading, G. P., in the Journal of May 29th, speaks of the necessity "of producing four vesicular crops"; and, although he asks for editorial remarks, I will venture to give a reply.

I do not suppose that G. P. is under the impression that the law requires a vaccinator to produce a given number of vesicles; so I will not trouble you or him with any remarks on that point—the instructions to vaccinators being simply to produce local effects equal to four or five separate good-sized vesicles. I will merely remark that I have always satisfied both the inspector and the parent by scarifying freely in three places. Sometimes, when I am about to commence the third, the mother will remonstrate; but I always carry the point easily by quietly informing her that some doctors make four, and some four on each arm, and she may consider herself fortunate in getting off so easily. As a public vaccinator of several years' standing, and having tried many experiments, I do not hesitate to assert my belief that scarifying freely in two places gives as much protection as if four or five places were made. I am also of opinion that revaccination should be performed at the age of seven years, and should be compulsory. A few years since, I revaccinated several hundred children between seven and fourteen years of age, who had been vaccinated by a competent vaccinator in their infancy, nearly all showing four good scars. Those that were insusceptible amounted to about five and a half per cent.

I trust, with tact and patience, G. P. will not lose any more of his patients.—I am, etc., A Provincial Surgeon.

June 1st, 1880.

⁂ The number of scars is not so important as their quality and total area. The Local Government Board class as of the first grade of quality scars thoroughly well marked in their foveation, and having collectively half a square inch of total area. A vaccinator ought not in any case to be content with less than these results. Revaccination is not usually regarded as necessary until the age of puberty; but we quite think its compulsory performance at that age desirable.

Medical Magistrate.—The Lord Chancellor has placed Mr. William C. Blackett, surgeon, on the Commission of the Peace for the city of Durham.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, June 14th.

Street Accidents.—Lord Forbes asked Her Majesty's Government whether their attention had been called to the number of accidents caused by vehicles in the streets of the metropolis, as given in a return for the month of May from the metropolitan hospitals. In respect of this matter, he had no complaint to make against the police, who appeared to discharge their difficult duties admirably. It appeared from the return in question that, in May 1879, seventeen people had been killed in the metropolis by street accidents, while a large number of others had been more or less injured. During the last ten years, 239 persons had been killed and 3,399 injured. He recommended that lamps should be required to be carried by all vehicles travelling in the streets of the metropolis after dark, and that an additional number of refuges should be erected.—Viscount Templetown hoped that Her Majesty's Government would take steps to procure that the local authorities in the metropolis would provide a larger number of crossings and refuges in the more crowded thoroughfares, so that street accidents by passing vehicles might be avoided as far as possible.—The Earl of Fife said he had found on inquiry that the number of deaths from street accidents in the past month was twenty-two in the metropolitan and city areas, and the gross number of accidents was 321. This gave an average number of 5.4 deaths and eighty cases of injury, which was a slight increase over the number in the corresponding month of last year. While it was scarcely fair to take the month of May, when London was more full than in perhaps any other month of the year, as a sample, he was compelled to do so because the figures in reference to May were the only ones available. At the same time, he wished to say that great credit was due to the police and local authorities for the precautions that had been taken to prevent street accidents.

HOUSE OF COMMONS.—Wednesday, June 10th.

Glanders and Farcy.—Replying to Colonel Kingscote, Mr. Mundella said the Veterinary Department is of opinion that glanders and farcy were much more prevalent in the metropolis formerly than they are at present. The increase in the number of cases reported is believed to be due to the greater energy displayed by the local authorities since the passing of the Act of 1878. Several prosecutions have been instituted, and heavy fines inflicted, and this, coupled with the alarm produced by the reported death of two persons last year from glanders, has made owners of glandered horses more ready to report cases of disease. The Privy Council have been in frequent communication with the Metropolitan Board of Works, with a view to the vigorous exercise of the authority they possess under the Act, and have this week again addressed them on the subject. It is right to say that the Board have at all times manifested their readiness to do what has been required of them.

Thursday, June 11th.

Animal Vaccination.—Dr. Cameron called attention to the practice of animal vaccination, contending that the cow-pox lymph direct from the calf is of at least equal value as a prophylactic against small-pox with the ordinary humanised lymph, and that it affords an absolute guarantee against the propagation of those diseases occasionally in-vaccinated with humanised lymph. In order to meet the objections to vaccination founded on the possible communication of other diseases, he moved that a supply of animal vaccine should be provided by the National Vaccine Establishment for the use of those who prefer it to the ordinary lymph. —Mr. P. Taylor opposed the motion, which he regarded as offering another starting point for compulsion, and repeated in an animated speech his often urged objections to compulsory vaccination.—Mr. Hopwood also spoke against compulsory vaccination, while Dr. Farquharson maintained that all the trustworthy medical authorities were in favour of vaccination.—Mr. Samuelson suggested that as public confidence had been shaken by the difference among medical authorities, the subject should be inquired into by a Royal Commission. —Earl Percy supported the motion, and Mr. M. Henry also spoke. —Mr. Dodson thought that no sufficient case had been made out to justify a reversal of the present system, and all that had been proved was that improper vaccination might do harm. As to Dr. Cameron's resolution, though he could not accept it, he admitted that experience had removed many objections to animal vaccine, and the Department was prepared to arrange for the supply of animal as well as humanised lymph to such medical practitioners as might desire it. As to Mr. Samuelson's Royal Commission, the Government could not agree to that, but they were prepared to assent to the abolition of multiple penalties.—Mr. Sclater-Booth entirely approved this course, and after some further conversation the resolution was negatived. The House adjourned at 25 minutes past 2 o'clock.

The Mortality in Ireland.—In reply to Mr. Sexton, Mr. FORSTER said that, according to the last quarterly returns of the Irish Registrar General, the deaths registered in Ireland during the quarter ending March 31st last, amounted to 22.9 per thousand of the estimated population, against an average rate of 21.9 per thousand of the corresponding quarter for the five years, 1875-9. That was an increase of 1.9 per thousand. A considerable portion of the increase in the number of deaths, the Registrar said, was due to the more complete registration effected by means of the burial returns furnished under the Public Health (Ireland) Acts of 1878-79. The lowest county death-rate was Mayo, for the last quarter of the year, and it was, perhaps, also the county in which there was the greatest distress. After that came Sligo and Galway. The highest county death-rate was in Dublin. The deaths accelerated by destitution, at all times rare, were not more numerous than usual in the winter. There was no appearance of pestilential outbreaks, such as usually followed distress. The great danger to the public health and to the lives of the people had been held in check.

Monday, June 14th.

Drainage in the Metropolis.—Sir G. CAMPBELL asked whether the Home Secretary was aware that in many parts of the metropolis the law that no house should be built or occupied without drainage and sewage arrangements, constructed under the supervision and to the satisfaction of the vestry or district board, had been grievously neglected, and if he would take remedial measures.—Sir W. HARCOURT said he was informed by the Metropolitan Board of Works that in their belief the duties of the vestries and district boards had been duly discharged. At anyrate, the Board had received no presentations to the contrary. The Local Government Board had received no information on the subject. If reasons of a sufficient character should be given to the Home Office it would be his duty to consider the desirability of further legislation.

Notices.—Lord R. CHURCHILL. When the President of the Local Government Board moves for leave to introduce the Bill of which he had given notice in relation to the penalties under the Vaccination Act, to oppose that motion.

Tuesday, June 15th.

The Vaccination Acts.—Mr. DODSON obtained permission to bring in a Bill to amend the Vaccination Acts.

OBITUARY.

JOHN HARRISON, F.R.C.S.ENG.,

SENIOR CONSULTING SURGEON TO THE CHESTER INFIRMARY.

IT is our painful duty to record the death of Mr. John Harrison, which took place on Thursday, the 3rd June, at his residence in Nicholas Street, Chester, in his 72nd year. His father, the late Mr. George Harrison, occupied a leading position in Chester for more than half a century, being long connected with the Chester Infirmary as Surgeon and Consulting-Surgeon. He also filled the office of Mayor during three different years before the passing of the Municipal Act, and was held in high esteem. He had six sons, of whom the subject of our present notice was the third; the eldest, Mr. George Harrison, practised as a surgeon in Chester in partnership with his father, and died more than thirty years ago. Mr. Job Harrison is in active practice in Chester. The other three sons became clergymen of the Church of England. Mr. John Harrison, on the completion of his medical studies, qualified as a surgeon, and commenced practice in Knutsford, but soon returned to Chester, where he filled the post of surgeon to the Infirmary for several years, during which his practice became so extensive and made such demands on his time, that he at length found himself unable longer to discharge his duties in the Infirmary, and, though with great reluctance, he resigned the appointment, and was appointed consulting surgeon. In 1859, he was elected a Fellow of the Royal College of Surgeons of England. In 1866, on the occasion of the British Medical Association holding its annual meeting in Chester, under the presidency of Dr. Waters, he contributed much to the success of the meeting by his valuable services as Secretary. In 1867, he was elected President of the Lancashire and Cheshire Branch of the British Medical Association, on the second occasion of its holding the annual meeting in Chester; and for several years he has been one of the representative members of the Branch in the General Council of the Association.

The assiduity, punctuality, and earnestness of Mr. Harrison in the work of his profession have been remarkable. For more than eleven years, he has been afflicted with a disease which he well knew would never be wholly shaken off, but his energy in no way slackened. During the last year, he had been slowly but visibly failing; his activity, nevertheless, remained undiminished. The severity of the late winter, however, at length asserted its power even over his strong will. Lightly clad, as was always his wont, even when driving rapidly in the coldest weather, on an exceptionally bitter and windy day, he got thoroughly wet in a hailstorm. Notwithstanding a distressing cough, he still struggled on, attending to every demand, until increasing weakness obliged him at last to succumb. For some days, he dressed himself as usual; but power for work no longer remained. The time for confinement to his room at last arrived; and in about eight weeks, gradually but surely, without physical pain, the end came. But his liberal charity, his open-handed hospitality, and generous kindness must ever be fresh in the memory of those who knew him. To his family his loss his irreparable, though leaving behind him the recollection of a well-spent life. The funeral was attended by his friend and medical adviser Dr. Waters, and all his professional brethren marked their respect and esteem by following his remains to the grave.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-GENERAL WILLIAM GUYER HUNTER, M.D., Bombay Medical Department, has been appointed an honorary surgeon to the Queen, in the vacancy caused by the death of Dr. F. S. Arnott, C.B. Dr. Hunter entered the Bombay Army as an assistant-surgeon, February 21st, 1850, and served on board the East India Company's steam-ship *Moozuffer* in the Burmese war of 1852-53 (medal). He was promoted surgeon-major, February 21st, 1870; deputy surgeon-general, September 29th, 1876; and Surgeon-General of the Bombay Medical Department, September 15th, 1877. Dr. Hunter was for some years Principal of the Grant Medical College, Physician to the Jamsetjee Jejeebhoy Hospital, and Professor of Physiology at the Grant Medical College.

NAVAL MEDICAL SERVICE.—The following appointments have been made: Staff-Surgeon A. McDonald, to the *London*. Surgeons: J. A. Collott, to the *Foam;* E. A. Lucas, to the *Garnet;* M. Fitzgerald, to Haslar Hospital; H. M. Ellis, to the *Excellent;* W. R. White, to the *London.*

GOOD SERVICE PENSIONS.

SUCH of our readers as have had their attention called to the distribution of the six new "good service pensions" among army medical officers will have it brought home to them that the pleasantly suggestive proverb, that kissing goes by favour, has an application that goes beyond the osculatory endearments to which it refers. Conspicuous by its absence from this list of "distinguished" army medical officers is the name of Surgeon-General Longmore, C.B., Professor of Military Surgery in the Army Medical School. We decline the task of drawing invidious comparisons between this really distinguished man and any of those whose names have been presented to the Queen for this mark of Her Majesty's appreciation of "good service". We do not even pretend to know whose duty it was to select the names for submission to the Sovereign; but this we do know—and knowing, say—that, according to a somewhat hackneyed, but in this connection very apt, saying, we have here the play of *Hamlet*, with the part of "Hamlet the Dane"—no doubt "by special request"—left out. That this will be the judgment not only of his brother officers, but of the whole profession, we do not doubt; and that, in reprobating this abuse of patronage as nothing short of a public scandal, we are sure we shall be supported by the medical profession in the three divisions of this realm. What are we to understand by good service? Does it mean merely doing in a blameless and creditable manner regimental and easy administrative duty? If so, no one can dispute that the recipients of these good service pensions are fair representative men of such a standard. But, if good service mean not only the performance of such duty, but, in addition, making such contributions to the literature of his science as to establish for himself, not only in his own country, but throughout Europe and the States of America, the position of being the highest, or at least in the first rank, of living authors on almost every subject that relates to the duties of a military surgeon strictly so called; and not only so, but of being a distinguished teacher of his art,—then we say that, in such a distribution of rewards, to pass over a man who has thus served his country and shed lustre on his service is to strike at the very roots of confidence in the wisdom and good faith of those who govern, and to convert "rewards" into a mockery. It is a notable fact, which has been very carefully noted, that four of the six good service pensions have been given to officers who either are or have recently been officials in Whitehall Yard.

THE NAVAL MEDICAL SERVICE.

SIR,—In view of the examination advertised to be held on the 9th of August, of candidates for commissions in the Medical Service of the Royal Navy, I desire to bring to the notice of intending aspirants the following facts bearing on this branch of the public service, forcibly and indisputably showing the prospects and consequences of accepting service in the Royal Navy.

The rank, pay, and position of a medical officer in the navy bear no shadow of resemblance to those existing in the British or Indian army, but are reduced still less, as the following, taken from the official *Navy List* of this month, clearly establish. The department now numbers only 404 officers; there are vacancies for two inspectors-general for months past, still no promotions have been made; of the 12 deputy inspectors, 2 are unemployed; of the 81 fleet-surgeons, 11 are unemployed; of the 128 staff-surgeons, 20 are unemployed; and of the 181 surgeons, 11 are unemployed. Thus in all there are 44 officers on compulsory half-pay, and yet the Admiralty invite surgeons to enter. Surely the natural consequences of more surgeons entering can only result in placing more senior officers on compulsory half-pay. The Admiralty cannot be made too plainly aware that the acceptability of the service to young surgeons must entirely depend on the representations of the officers serving in it; is it reasonable, therefore, to expect the medical officers in the navy will advocate its attractiveness, whilst they have to witness the Admiralty forcing more and more senior medical officers on compulsory half-pay, at the grave involuntary sacrifices of loss of income, loss of seniority for promotion, and loss of time counting for retirement; and at a period in their life when, in nearly all cases, these officers have families depending on them for support and education. It is too well known there are many disabilities connected with the Naval Medical Service, but there is none so tangible and unequivocal as this, that the Admiralty will make no effort to give medical officers continuous employment; whilst it is beyond doubt no hindrance is so powerful as the system of compulsory half-pay in deterring candidates from offering; setting aside the injury this system inflicts on the individual, one would imagine it was an object of ambition on the part of administrators to work the branch of the public service over which they preside with economy; it is, therefore, an extravagant expenditure of the revenues of the Crown to engage officers for whom no employment can be found. This advertisement has seriously intensified the discontent and disappointment which have been created within this department by the misrule and oppression practised towards it during the past ten years.—I am, etc.,

SPES.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SMALL-POX has been imported into Hendon, and twelve cases have recently occurred there. The disease appears now to have been arrested; but the absence of a hospital for infectious diseases near at hand is a misfortune in view of possible extensions of the infection.

AN outbreak of scarlet fever of some dimensions has occurred at Carleton, in the Skipton Rural Sanitary District. The disease seems to have been spread by the gross carelessness and ignorance of the people, children being sent to school when their skin was peeling. All possible precautions are being taken by the medical officer of health acting for Dr. Barry, Mr. T. E. Atkinson.

TRANSMISSION OF SMALL-POX BY RAGS.

SIR,—I see in the JOURNAL of June 5th mention of an outbreak of small-pox at Abenheim, in the canton of Worms, Rhenish Hesse, the origin of which is traceable to infected rags.

The following facts, which have recently fallen under my own observation as medical officer of health to the Taunton Rural Sanitary District, may be of interest to your readers.

In February last, a case of small-pox was reported to me in a village about three miles from this town. I immediately visited the cottage, and found a girl, aged 16, suffering from a sharp attack of small-pox. The cottage was small and crowded with children. I immediately had the patient removed to our excellent Hospital for Infectious Diseases. (I may mention, in passing, that this is the first and only case in my experience in which I had to obtain a magistrate's order, before I could get the consent of the parents to removal.) On inquiry as to the cause of the outbreak, I could detect no exposure to any other case of the same disease. Not only had no case occurred or entered the village, but the girl had not left home. Her occupation was that of sorting rags at a large paper-factory in the neighbourhood. Immediate removal to hospital, revaccination of the other inmates, and thorough disinfection of house, beds, bedding, etc., prevented any spread of the disease in the family. Ten days afterwards, another case was reported to me, in a cottage at least a mile removed from the former case. This was a young woman, aged 22. I had her at once removed to the hospital. The cottage was occupied by a number of other girls. I had them all revaccinated and the house, etc., immediately disinfected. The disease did not spread. This patient, too, worked at the paper-mills at the same occupation as the former girl. I visited these mills and saw the proprietors, who, although loth to believe that the disease originated at their establishment, promised to take every precaution to stamp out the disease. All their hands were to be revaccinated. The rags in the factory, I was told, had been on the premises six months, and were obtained either from Russia or from Wales. Three months elapsed, and nothing more was heard of small-pox until about three weeks ago, when another case was reported to me. On visiting the village, I found two fresh cases, living nearly two miles apart, and both away from the former cases. One was a man, aged 25. He worked at the paper-factory, and, what is of particular interest, had refused to be revaccinated when the other hands were, saying he would rather have small-pox. The other case was a girl, aged 26, a hand at the paper-factory, but who, I found, had been taken on to work since the former outbreak, and had not been revaccinated. Both cases I had at once removed to the hospital, and all the steps necessary to prevent the disease from spreading I had carried out. Up to the present time, no fresh case has occurred.

From these facts, I think we may draw the following conclusions.

1. The disease originated in the rags at the paper-factory. Some of these, I was told, were in a very filthy state. I have little doubt that, in many cases of infectious disease, especially in those which end fatally, the clothes—soiled, filthy, and poisonous as they are—are sold to the rag-dealer without any disinfection whatever, and so become the focus of disease in distant parts of the country, or even in distant countries.

2. It is of the greatest importance that a vigilant and rigid inspection of imported rags should take place. I say "imported" rags, because in this country, if the sanitary authorities and their officers only do their work efficiently, all clothes, bedding, etc., belonging to infected persons would either be destroyed or thoroughly disinfected. Still this necessitates great and constant vigilance, which, it is to be feared, is not exercised in many quarters.

3. These cases afford another proof (if such were wanted) of the great protective value of vaccination. All these cases were bad, the two last very severe; and those were the two that, after the first outbreak, were not revaccinated. It cannot be doubted but that many others were exposed to the same infective agencies; still the revaccination protected them.

4. These cases afford, moreover, a proof of the great value of a hospital for infectious diseases. I laboured long, and against strong opposition, to obtain such a building. We have one now, second in point of efficiency to none in the kingdom for its size. Had it not been at hand for use, there can be no doubt that, instead of four isolated cases of small-pox, we should have had an outbreak, the extent and danger of which it would be impossible to foretell.—I am, yours faithfully,

HENRY S. ALFORD, M.D.Lond.,
Medical Officer of Health Taunton Districts.

REGISTRATION OF INFECTIOUS DISEASES.

SIR,—I have read your remarks upon the compulsory reporting of infectious diseases (*vide* BRITISH MEDICAL JOURNAL, p. 861), and consider they were well justified by the circumstances of the cases. I should like to add a few of my own upon the same subject.

I am engaged in practice at a large seaside watering-place, where the local law is, that the medical practitioner must report to the medical officer of health every case of infectious disease under a penalty of £10. You will at once see the unfairness and injustice of this, when I tell you that the medical officer of health is a busy general practitioner in the town. We are compelled to report all our infectious cases to him, and they then become public property, whilst he enjoys the privilege of keeping his cases private. This place consists almost entirely of lodging-house keepers and hotel proprietors, upon whose good word and recommendation the practitioner's living depends. They naturally do not like it to be known that they have an infectious case, as they have to dismiss their visitors, or at least to inform them of the existence of the case, when they invariably rapidly dismiss themselves, and the result is endless trouble, vexation, and loss. All this is avoided by employing the medical officer of health; he can get rid of the infectious case as quickly and privately as possible, and then secretly disinfect or shut up the infected room, and no one is any the wiser. He has rapidly got himself into a large practice, which seems likely to become so large as to include the whole town. In fact, this law gives him an advantage that places him at once out of the way of ordinary competition.

Let me advise all the medical men of any town in which this law is going to be attempted to be passed to oppose the Bill, unless there be a proviso passed at the same time that the post can only be held by a medical man who is not engaged in practice.—Believe me, sir, yours obediently,

A MEMBER OF THE B. M. A.

MORTUARY AT BETHNAL GREEN.

THE opening of a new mortuary for the thriving parish of Bethnal Green adds one to the very insufficient number of these useful institutions in the metropolis.

Mr. Septimus Hansard, the energetic rector of Bethnal Green, to whose exertions the new mortuary is mainly due, gave, in the course of a speech which he made at the opening, on the 8th instant, some striking instances of the need for such a place. He said that he remembered that in the time of the cholera there was one night when nine lay dead of cholera in the houses of a particular close or square. The people all sat about the streets, too frightened to go to bed, and in one place they were burning pots of tar from the windows of the room where a corpse lay. In the course of his ministry, it had been his duty to attend two medical men on their death-bed, who had fallen victims to confluent small-pox. In both cases the relatives had, immediately after death, to remove the bodies to outhouses. On another occasion he saw, in a room not larger than an ordinary closet, three victims of typhoid lying dead, with five living people eating, drinking, and sleeping in the same room. Cases of this kind might be multiplied to any extent, but we cannot overlook one recently reported to the French Society of Public Medicine, by M. Kœchlin-Schwartz. In a narrow room, inhabited by the family of a workman, the father, attacked with black small-pox, was writhing on the only bed, whilst round him his wife and five children, without food or fire, were waiting in despair for their turn to come to be seized with the disease. The poor woman, indeed, was in the throes of labour, and, whilst her husband was in his agony, she brought into the world a sixth child. For cases of this, and many other kinds, a mortuary is an absolute necessity; and we are rejoiced to think that one has now been provided for Bethnal Green. It contains two rooms, each capable of containing thirty coffins, and we do not doubt that it will be found to be of the utmost possible service.

THE REGISTRATION OF INFECTIOUS DISEASE AT NOTTINGHAM.

IT is unsatisfactory and disappointing to have to record that, up to the present time, the Town Council of Nottingham, though their local Act has been in force for two years, have not seen fit to put in force the section of the Act which provides for the compulsory notification to them of all cases of small-pox, cholera, typhus, typhoid, scarlet fever, diphtheria, and relapsing fever occurring in the town. If we may guess from certain words in a recent report of Dr. Edward Seaton, the Medical Officer of Health, this neglect (for we can call it by no other word) has been allowed to continue because the clause would cost money to work. The Town Council apparently do not regard, as important enough for their notice, the economy of human life which would result from their having knowledge of infectious cases immediately on their occurrence, and being thus able to direct the necessary precautionary measures to be taken to prevent the further spread of the disease. Yet they may find, in the last report of their Medical Officer of Health, undeniable evidence of the mischief of thus allowing the clause to remain inoperative. For some time past, scarlet fever has been very prevalent in the borough, and it seems to be now on the increase. The number of deaths from this disease last year was one hundred and eighty-one, and, up to the 28th ultimo, sixty-five more had occurred. The number of deaths that took place in 1877 in the old borough did not exceed twenty-two. The town is then at the dip of the wave-like curve which, recurring at intervals or in cycles of about five years, marks the course of scarlet fever epidemics, and a considerable recrudescence of the disease in the autumn and winter must be expected.

Dr. Seaton tells the Council of his complete conviction that, with the more general adoption of precautionary measures—viz., isolation and disinfection—they might in time confidently look forward to a very considerable diminution in the death-rate from this disease. He says: "The first step towards securing this is by the early notification of first or initial cases to the sanitary authority. Without this systematic notification, as I have already very frequently explained, some of the very worst cases, in a sanitary sense, pass altogether unnoticed. A case of scarlet fever may be nursed from beginning to end in a tailor's or dressmaker's workshop, in a room where hosiery or lace is prepared for the market, or at a milk-shop. Under existing circumstances, such a case may become a focus or centre of infection without the knowledge of the health committee, and without their being able to ensure the adoption of such precautions as are deemed necessary for the public safety. Clause 22 of the Nottingham Improvement Act, 1878, provides for the systematic notification of first or initial cases of scarlet fever in such a manner as to meet the necessities of sanitary authorities, avoiding at the same time the chief difficulties which the experience of other towns showed that it was desirable to obviate. It was drawn up with much care by the Town Clerk and myself, and has been referred to by the Parliamentary Bills Committee of the British Medical Association as substantially the same as the model clause they have drawn up for the use of the many other towns that are now legislating in the same direction. I would strongly urge the committee to put this clause into operation now, with the full conviction that it would, if given a fair trial, be the means of bringing about a great reduction in the amount of scarlet fever, and that it would amply repay the comparatively slight cost entailed in its working."

It may be hoped that, with the facts now put before them by Dr. Seaton, the Town Council will at once decide to put the Act in force without further delay. Indeed it may be a question of law whether, having asked Parliament to clothe them with powers of notification, they can, under the terms of their Act of Parliament, decline to exercise those powers. Section 22 of the local Act enacts that the provisions as to notification by occupiers and medical men *shall* have effect, and the idea of compulsion is carried through the whole of the clause. Whether, however, the present attitude of the Town Council be legal or not, there can be no doubt that it is highly inexpedient; and this not only on general principles, but on account of the excessive amount of scarlet fever which is now prevailing in the borough, and which cannot be effectually coped with without the exercise of the powers conferred upon the authority by an Act which they neglect to enforce.

TYPHOID FEVER AS AN INFECTIOUS DISEASE.

IN his last annual report on the Bishop's Stortford Rural District, Dr. Ogle records three outbreaks of typhoid fever, of which the starting-point was the arrival of a girl, ill with fever, from domestic service. He draws attention to the remarkable fact that, when a case of typhoid fever is imported into a well-to-do house, it rarely spreads to other members of the family; whereas, when such a case is imported into a poor cottage, it does spread in the majority of instances. The explanation of this doubtless is that, in the well-to-do house, there are the necessary appliances of cleanliness and a preference for it; whereas, in the poor cottage, both of these are habitually absent. Taking the generality of cottages, with their deficient appliances, scanty water-supply, and inadequate space, Dr. Ogle regards it as impossible that a case of typhoid fever can be treated in one of them without most serious risk to the rest of the family; and the only safe plan is to remove the case immediately to a proper hospital. In this remark we quite agree; and certain other observations by Dr. Ogle, on the too common practice of masters or mistresses to send home to their families servants falling ill with fever or other infectious ailment, have also our entire concurrence. The family most usually will be living in a small cottage, where there is no proper space for the additional inmate. When the disease is typhoid fever, it is very doubtful whether there is any illegality in sending the case home; for the mode in which the disease is transmitted from one person to another is not such as to make Section 126 of the Public Health Act apparently applicable to it. If, however, the practice be not illegal, it is a very cruel and dangerous one. During Dr. Ogle's tenure of office, he had no fewer than ten outbreaks of typhoid fever in his district that originated in this way. Doubtless his experience could be corroborated by many other officers of health, especially those for districts round the metropolis; and it is time to enter a strong protest against so inhuman and mischievous a custom.

DIPHTHERIA AND MILK.

IN his last annual report on Bradford, Mr. Harris Butterfield records certain cases of diphtheria, which, with great show of probability, he attributes to the use of infected milk. The child of a milk-dealer was taken ill with sore-throat on August 18th; on August 31st another child of the dealer, and the servant of a family living some way off, were attacked with diphtheria; and on September 9th, four cases, in three separate houses (one at the house where the servant was lying), were recognised. The houses were not in a bad sanitary condition, and there had been no communication between the families. The only circumstance common to all was that they obtained their milk supply from the dealer whose children were ill with the disease. Mr. Butterfield thinks it probable that, on two occasions at least, the milk was infected with the poison of diphtheria. On the occasion of his visit, the milk-cans (which were rather dirty) had not been cleansed at half-past eleven in the morning. They were kept in a scullery or wash-kitchen, in which was a sink with an untrapped pipe. Under this sink was a chamber-utensil containing excreta. Near the milk-cans was a wash-tub half full of dirty water, and resting on the milk-cans were two bundles of dirty linen from the bed and person of a child found ill in bed with unmistakable diphtheria. The milk supply from the farm was of course at once stopped, but not before another child, who had partaken of the milk and occasionally visited the farm, had become infected. This last case died, as did also the mother, who contracted the infection while nursing her child.

THE TENURE OF SANITARY MEDICAL APPOINTMENTS.

A TYPICAL instance of the unsatisfactory position of the public health and medical service is afforded by a recent election for the office of Medical Officer of Health in the Melksham rural sanitary district. A year ago, Mr. W. I. Keir was appointed to this office, which he filled with credit to himself and to his authority. At the expiration of his year of office, a motion was brought forward for his re-election, which was unanimously resolved upon, to take effect at the next meeting. At this next meeting, however, another candidate, an old gentleman of 55 years of age, just returned from the colonies, appeared on the scene, and, although there had been no public notice of the vacancy, he was elected in place of Mr. Keir by a majority of one. We understand that the Local Government Board have been appealed to as to the validity of the election, which has been received with the greatest dissatisfaction by the minority of the guardians; and we greatly hope, for the credit of the service, that the Board will see fit to override such irregular proceedings. It cannot be doubted that the uncertainty of the tenure of office of medical officer of health is a hindrance of the greatest possible kind to sanitary progress, and it is as discreditable as it is inconvenient.

ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

THE Local Government Board have just issued a revised set of "instructions" for Annual Reports of Medical Officers of Health, based upon their new orders of March last. The instructions direct that the report is to be presented within six weeks of the end of the year to which it relates, or, at the very outside, within three months. The order in which the proceedings taken and advice given by the Medical Officers of Health is to be recorded is laid down, and instructions are given as to the filling up of the tabular statements to be appended to the report. But the most important paragraph is the following, which sums up very well the desiderata of an annual report.

The report should be chiefly concerned with the conditions affecting health in the district, and with the means for improving these conditions. It should consider these subjects with reference to the future as well as to the past, and the account of the sanitary state of the district generally at the end of the year, should, while marking the point that has been reached in the sanitary state and administration of the district, indicate directions for further consideration and action. The sanitary history of the year under review should include a record alike of the proceedings of the Medical Officer of Health himself and of the proceedings taken under his direction or advice. And the tabular statements of sickness and mortality in the district during the year, to be made on the forms supplied for the purpose, should be the subject of comment in the text of the report, in so far as deductions from them may assist the Sanitary Authority to an appreciation of the lines of action needful in the future.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

REDDITCH.—This district is fortunate in having a particularly intelligent and active medical officer of health, and unfortunate in having a supernaturally idle sanitary authority. Mr. Page has, in his several reports, done all in his power to stir the authority into action; but it was not until a threat of compulsion was received from Whitehall, that the latter took the question of drainage seriously in hand. Mr. Page devotes much space in his report—which is, unfortunately for the district, not printed—to a discussion of the sewage question; and, from the experience of other towns that he has visited, warns the authority against certain errors in the construction of their new works. There are evidently many sanitary arrears to be overcome in the district, for not only are works of drainage wanted, but a wholesale abolition of the old midden cesspits is urgently required. Mr. Page has dealt with the vital statistics of the year in a full and thorough fashion, but he has very unfavourable figures to give. The actual death-rate, calculated on a local census of last year, was as high as 22.5, against 28.9 in 1878 (when scarlet fever was very fatal), and a mean of 21.7 for the years 1876-8. Of the total number of 218 deaths, 34 were from the principal zymotic diseases, 44 from pulmonary diseases, and 21 from phthisis. No fewer than 118 deaths, or 54 per cent. of the whole, were of children under five years of age, a proportion which affords Mr. Page the opportunity of making some valuable remarks on the evils resulting from the delegation of maternal duties to incompetent persons whilst the mothers are at work in the factories. We regret to hear that the *crèche*, which has been voluntarily started in the district, languishes for lack of support by mothers; and would doubt whether its advantages have been made quite well understood by those for whose benefit it was intended. A total of 444 cases of zymotic diseases came under Mr. Page's notice during the year. Of these, more than half (233) were cases of measles, which attained almost epidemic proportions, but was fatal in only six instances. Whooping-cough (108 cases) is the only other disease that calls for mention. With regard to the births of the year, the very unusual number of multiple births deserves to be noticed. Six cases of twin birth out of a total of 352 were registered, together with one of triplets. All the children were legitimate. Of the twin children, eight were male and four female; of the triplets, one was male and two female. No such occurrence in the district of multiple births, either in any single year or in any of the years collectively, has occurred during the thirteen years for which Mr. Page possesses statistics. The mortality amongst these children was excessively high: ten out of the total of fifteen infants dying under a month.

DEVONPORT.—The most remarkable feature of the mortality statistics of this district for 1879 is the terrible fatality of measles. Introduced into the town, in April 1879, by the family of a soldier from a troopship, it spread amongst the children in barracks, and from them into the town proper. By the end of the year, 123 deaths had been registered from it; and during the present year, the disease has remained apparently unchecked. The medical history of the epidemic is not told particularly well, and we trust that Mr. May will consider the whole of the circumstances in a special report, as soon as the epidemic is at an end. The mortality from measles naturally swelled to a very great extent the death-rate amongst children; 417 out of a total of 1054 deaths being those of children under five years of age. The deaths from diseases of the respiratory organs were also above the average, a total of 226 deaths being due to bronchitis, pneumonia, and pleurisy, besides 99 to phthisis. The general death-rate was 21.8, against a mean for four years of 20.18 per 1000. From the description given by Mr. May, it would appear that the sanitary administration of this important town is of a somewhat slack description.

LUTON.—The infantile mortality of this town still remains unduly high: a result doubtless due to the fact that the mothers among the poorer classes are engaged in straw-plaiting when they ought to be attending to their household duties. Mr. Sworder says that he is afraid their high death-rate will continue, however much the sanitary condition of the town may improve, so long as the children are neglected and badly fed. The special trade of the town is also responsible for the high rate of mortality from phthisis, which is mainly due to the sedentary occupation, and to some extent to the low-lying situation of the borough, the relaxing air, irregular meals, and badly cooked food. The general death-rate for 1879 was 18.7 per 1,000; but it is not stated whether or not this is an improvement. Of the total number of 443 deaths, 75 were from zymotic diseases, 16 being due to measles, 22 to diphtheria and croup; and 17 to "fevers". These figures are very large, and we should have liked to see the circumstances of the outbreaks (especially those of diphtheria and fever) more fully considered in the report.

A QUESTION OF PROFESSIONAL DUTY.

SIR,—In reply to "A Question of Professional Duty" by a Parochial Surgeon, I venture to give him my views and opinion upon the case. First, the mother of the child was not justified in calling in another medical man to see her child without acquainting the one in charge; but it is probable, at all events it is possible, that no reference was made either by the mother or the other medical man of the former's attendance, so that would exonerate the medical man; but if not, he was to blame. Second, I do not think the Parochial Board would insist on their medical officer attending under the circumstances; but as the woman did not make a complaint to the inspector, this part may fall to the ground. Third, I think it would not be politic to refuse having anything further to do with the case; and it was wise to attend as was done, although *ex gratia*. Fourth, it would have been perhaps judicious, so as to have prevented a charge being preferred, to have made the inspector cognisant of the particulars without being asked, but there is now no need of noticing it in the monthly return, as "all's well that ends well".—I am, etc.,

ANOTHER PAROCHIAL SURGEON.

POWERS OF ENTRY OF MEDICAL OFFICERS OF HEALTH.

SIR,—In the combined capacity of medical officer of health and private practitioner, I am being placed in an awkward position by the action of a neighbouring medical man; and as the like circumstances may possibly have happened in the experience of some of my *confrères*, I venture to trespass on your space to ask for advice on the subject.

About a month ago, while attending a scarlet fever patient, I was informed by the father that a child living at a public-house which he was in the habit of frequenting and which was situated opposite, was dangerously ill of an "abscess in the throat, or otherwise diphtheria". A few days after this, I observed, in my weekly returns of deaths, that the same child (aged three years) had died, and that the certified cause was acute nephritis, no other disease being mentioned. Also, within the last few days, I have heard that the child's aunt has been ill with a "bad throat". During all this time, the house has been open to the public, and has entertained its usual customers.

Again, in this week's list of deaths, I noticed one of a child aged nine months, certified as having been the result of diphtheria. My inspector of nuisances immediately went to the house, and brought back the news that all the surviving children were exhibiting the extensive desquamation on the hands that is characteristic of scarlet fever; and furthermore, that the medical attendant was the same as in the first-mentioned case.

I refrain, at least at present, from making any comment on the above facts, since they seem to speak loudly enough for themselves; but I should like to know whether (keeping in view the existence of my own private practice in the neighbourhood) I should be justified in making a personal examination of another man's patients under such suspicious circumstances.—I remain, sir, yours, etc., M. O. H.

⁂ We can only answer this question by reference to general principles. A medical officer of health has no legal right to enter any such premises as those referred to in this letter without the consent of the occupier. Whilst Section IV (6) of the General Order of the Local Government Board of November 1872 (and the similar provision in the recent Orders of March 1880), requires a medical officer of health, on receiving information of the outbreak of any contagious, infectious, or epidemic disease of a dangerous character, to visit the spot without delay, and inquire into the causes and circumstances of such outbreak, it does not authorise him to insist on admission, or to compel information for the purpose of satisfying himself as to the nature of the outbreak.

FEES FOR OPERATIONS.

Sir,—Can you tell me to what fee I am entitled from a Board of Guardians for the following case? A man, in the winter, had a severe frost-bite, which caused the extremities of his thumb and some fingers to mortify, necessitating amputation of the thumb of one hand and two fingers of the other hand. I obtained a certificate from another legally qualified surgeon that the operations were required, in accordance with the Poor-law regulations. I amputated the thumb soon after the date of the certificate, but the two fingers I did not amputate until some time afterwards, as I waited until the line of demarcation was formed. The fee for amputation of a finger is £2; and the question is, if I amputate three fingers, can I claim a fee of £2 for each finger. The Board of Guardians have only allowed me a fee of £2 for the case; and I make the following quotation from the letter of the clerk to me on the subject: "You will observe the fees claimed are for the same person, and arising from the same cause or injury; and the Local Government Board's orders appear to imply that in such cases only one fee is to be paid; and if the fees vary, the highest. I was directed to point out to you that the last two operations were performed without a second medical opinion or certificate being procured; and to put the best and fairest construction upon the certificate produced by you in the first instance, it only expresses a probability of a further operation being necessary." I forget the exact wording of the certificate of my medical friend who saw the case, but I think it was something to this effect: "I certify that I have examined A. B., and, in my opinion, it is necessary to amputate the thumb of the right hand and some fingers of the left hand."—I am, sir, yours obediently,

Union District Medical Officer.

⁂ We would strongly advise our correspondent not to press for an additional fee beyond that of the £2 allowed in the case, where he amputated a thumb and two fingers; for, on the grounds on which he made his application, we doubt whether, if the guardians granted it, it would be sanctioned by the auditor, and also because, after the kind letter of the clerk (the Board's legal adviser), it would be a mere waste of time so to do. In cases such as our correspondent describes, the judicious course to adopt is to lay the facts before the Board, and to ask for an additional grant, on the grounds that it has been accompanied by "long attendance, difficulty, or danger"; then, if the guardians entertain it, and grant an extra fee, the application and their decision would have to be submitted to the central board, without whose sanction such vote would not be legal. In the case given, our correspondent can only legally demand a fee of £2.

Kappa.—You do not state whether the sanitary authority propose to ask for the re payment from Government of half the salary of their new officer. If not, we are afraid you have no redress, as no regulations are laid down for the conduct of elections of medical officers of health no part of whose salaries is paid by Government. But if the authority propose to ask for the approval of the Local Government Board to the appointment of your successor, we think you have quite fair ground for appeal. The authority appear to have acted upon Article 8 of the Order of March 11th, 1880, which provides that "if in the case of an officer who may have been appointed for a specified term, the sanitary authority should desire to renew his appointment for a further term or otherwise in conformity with the provisions of this Order, and no fresh arrangement should be proposed with respect to the district or districts, or the terms of the appointment, it shall not be necessary for that purpose that Articles 2, 3, and 4 of this Order should be complied with, but it shall be sufficient if the sanitary authority, at a meeting held after notice given at one of their two ordinary meetings next preceding such meeting, pass a resolution renewing the appointment accordingly on the expiration of the term for which it was made, and the Local Government Board sanction such resolution". The authority having, as we understand from your letter, passed such a resolution to re-elect you at their next meeting, we do not see how it was competent for them to elect anyone else. The question is an important one, and we would advise your appealing to the Local Government Board as to the validity of the election. Under the circumstances, it certainly appears to us to be void.

POOR-LAW MEDICAL APPOINTMENTS.

Barnes, Arthur Richard, M.B., appointed Medical Officer to the Fourth District of the Hailsham Union, *vice* Josiah Sarjant, M.D., resigned.

Boulter, Walter Ernest, M.D., appointed Assistant Medical Officer to the Woolwich Union, *vice* A. K. Hoet, L.S.A.

Tough, W. R., M.B., appointed Medical Officer to the Audlem District of the Nantwich Union.

Wilmot, Alfred, M.R.C.S., appointed Medical Officer to the Burnham District of the Eton Union, *vice* William Fairbank, M.D., resigned.

Wilson, David, M.D., M.B., C.M., appointed Medical Officer to the Paddock District of the Huddersfield Union, *vice* George Wilson, M.D., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

*Bradley, Michael McWilliams, M.D. and C.M., appointed Medical Officer of Health for the borough of Jarrow, *vice* John Spear, M.R.C.S., etc., resigned.

Parry, J. H., L.R.C.P., appointed Medical Officer of Health to the Horfield Local Board, Bristol.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 10th, 1880.

Branthwaite, Robert Welsh, Westbury House, Willesden, N.W.
Pritchard, Owen, 100, Commercial Road, E.
Vaisey, Thomas Frederick, Canterbury Hospital.

The following gentlemen also on the same day passed their primary professional examination.

Daney, Horace Michael, University College Hospital
O'Connor, Thomas, St. Thomas's Hospital.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

The following vacancies are announced:—

ABBEYLEIX UNION—Medical Officer for Durrow Dispensary District. Salary, £100 per annum, with £20 as Medical Officer of Health, registration and vaccination Fees. Election on July 2nd.

BIRMINGHAM GENERAL DISPENSARY—Resident Surgeon to the Aston Branch. Salary, £170 per annum, with furnished apartments, coals, and attendance. Applications, with testimonials, on or before June 21st.

BIRMINGHAM GENERAL DISPENSARY—An additional Resident Surgeon for the Dispensary, Union Street. Salary, £150 per annum, with furnished apartments, coals, attendance, etc. Applications, with testimonials, on or before June 21st.

*BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications, with testimonials, on or before July 1st.

*BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum, with board, lodging, and washing. Applications, with testimonials, to the Secretary on or before July 12th.

*CHELSEA PARISH—Medical Officer to the South-West District. Salary, £80 per annum. Applications, with testimonials, on or before June 22nd.

CHESTER GENERAL INFIRMARY—Consulting Surgeon.

DUNMOW UNION—Medical Officer to the Thaxted District.

ENNISKILLEN UNION—Medical Officer for Holywell Dispensary District. Salary, £120 per annum, with £15 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 26th instant.

*GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Physician to Out-patients. Applications, with testimonials, to the Secretary on or before July 6th.

*HOSPITAL FOR WOMEN, Soho Square—House-Physician. Applications, with testimonials, to the Secretary on or before July 3rd.

*INGHAM INFIRMARY AND DISPENSARY, South Shields.—Assistant House-Surgeon. Salary, £60 per annum, with board, residence, and washing. Applications, with testimonials, to the Secretary, not later than June 23rd.

KENT AND CANTERBURY HOSPITAL—House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications not later than June 25th.

*LEEDS PUBLIC DISPENSARY—Resident Medical Officer. Salary, £80 per annum, with board, lodging, etc. Applications not later than June 24th.

*LIVERPOOL DISPENSARIES—Assistant Resident House-Surgeon. Salary to commence at £108 per annum, with furnished apartments, coals, gas, and attendance. Applications, with testimonials, to the Secretary, not later than June 21st.

*LONDON HOSPITAL MEDICAL COLLEGE—Demonstrator in Anatomy. Salary, £200 per annum. Applications, with copies of testimonials, on or before July 8th.

*LONDON HOSPITAL MEDICAL COLLEGE—Two Assistant Demonstrators. Salary, £90 per annum. Applications, with copies of testimonials, on or before July 8th.

MANCHESTER TOWNSHIP—Medical Officer for St. Michael's District. Salary, £170 per annum.

*MANCHESTER ROYAL INFIRMARY, DISPENSARY, AND LUNATIC ASYLUM—Honorary Assistant-Surgeon. Applications, with testimonials, not later than June 28th.

MIDDLESEX HOSPITAL—Aural Surgeon. Applications, with testimonials, to the Secretary by one P.M. on Saturday, June 19th.

*NEWCASTLE-UPON-TYNE INFIRMARY—Junior House-Surgeon. Salary, £50 per annum, with board, washing, and lodging. Applications, with testimonials, before June 23rd.

*OWENS COLLEGE, Manchester—Demonstratorship in Anatomy. Stipend, £150 per annum. Applications, with testimonials, not later than June 30th.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan—Senior House-Surgeon. Salary, £100 per annum, with apartments and rations. Applications, with testimonials, before June 30th.

*SMALL-POX HOSPITAL, Highgate Hill—Resident Surgeon. Applications, with testimonials, to the Secretary on or before June 24th.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY—House-Surgeon. Salary, £65 per annum, with, board, lodging, and washing. Applications, with testimonials, on or before June 19th.

WESTMINSTER GENERAL INFIRMARY—Physician. Applications, with testimonials, to the Secretary on or before June 21st.

WEST RIDING ASYLUM, Wakefield—Resident Clinical Assistant. Applications, with testimonials, to the Medical Superintendent.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL—House-Surgeon. Salary, £150 per annum, with residence in the Infirmary. Applications, with testimonials, to the Secretary, before June 25th.

*WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Surgeon. Applications, with testimonials, to the Secretary on or before June 28th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*Baumgartner, J. R., M.R.C.S., appointed Honorary Surgeon to the Hospital for Sick Children, Newcastle-on-Tyne.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

Snell.—On June 13th, at 17, Eyre Street, Sheffield, the wife of Simeon Snell, M.R.C.S., of a son.

DEATHS.

Anderson, Alexander, Ext. L.R.C.P., Staff-Surgeon Royal Navy, at Edinburgh, on June 11th.

*Busigny, Charles E., M.R.C.S.Eng., at Worcester, aged 49, on June 11th.

*Evans, Thomas, M.D., Consulting Physician to the Gloucester Infirmary, at Gloucester, suddenly, aged 75, on June 3rd.

Fraser, Roderick, M.D., late of Florence, at Morningside, Edinburgh, aged 64, on June 11th.

Jones, Robert Wynne, M.R.C.S.Eng., at Beaumaris, aged 71, on June 12th.

Mayberry.—On June 12th, at Riversdale, Kenmare, co. Kerry, Ireland, George Mahony Mayberry, Esq., M.D., J.P., aged 65, deeply and deservedly regretted.

Whidborne, George H., M.R.C.S.Eng., at Topsham, Devon, aged 37, on June 10th.

Williams, James, M.D., late of Malvern, at Croydon, aged 60, on June 9th.

Medical Magistrates.—Mr. S. Chaplin has been appointed to the Commission of the peace for the County Kildare; and Dr. Thomas M. Nash of Grouse Lodge, Dumkeeran, for the County Leitrim.

The Birmingham Borough Coroner ordered the exhumation of the body of a child who, though a surgeon certified it had died of scalds from falling into a boiler, had nevertheless been buried before an inquest was held.

Queen's College, Cork.—The following prizes and certificates have been awarded at the Sessional Examinations. *Practical Anatomy:* John J. Lynch, William Barter, Daniel O'Mahony, John S. Nealon (certificate). *Chemistry:* Benjamin Hosford, R. Edward Kelly. *Zoology and Botany:* Francis G. Tooker, William Barter, Richard Edward Kelly, John J. Lynch, Thomas Leslie Crooke (certificate). *Exhibition in Practical Medicine:* Jeremiah Cotter and James Whitton, equal. *Exhibition in Practical Surgery:* Jeremiah Cotter. *Exhibition in Practical Midwifery:* Jeremiah Cotter.

Bequests.—The late Mr. Abraham Mocatta, of Gloucester Place, Portman Square, has left £100 each to the Cancer Hospital, University College Hospital, the London Hospital, and the Metropolitan Free Hospital, and £50 to the Children's Hospital, Great Ormond Street.

Public Health.—During last week, being the twenty-third week of this year, 3,415 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 21 deaths annually in every 1,000 persons living. The annual death-rate was 24 in Edinburgh, 26 in Glasgow, and 42 in Dublin. The annual rates of mortality in the twenty English towns were as follow: Brighton 13, Birmingham 15, Leicester 15, Wolverhampton 16, Bradford 17, Portsmouth 18, Leeds 18, Sheffield 18, Hull 18, Newcastle-upon-Tyne 18, London 18, Oldham 19, Plymouth 19, Salford 20, Norwich 21, Nottingham 23, Sunderland 23, Manchester 23, Bristol 24, and the highest rate 27 in Liverpool. The annual death-rate from the seven principal zymotic diseases averaged 2.8 per 1000 in the twenty towns, and ranged from 0.8 and 1.2 in Leeds and Portsmouth, to 7.3 and 7.6 in Norwich and Sunderland. In London, 1,294 deaths were registered, which were 130 below the average, and gave an annual death-rate of 18.4. The 1,294 deaths included 10 from small-pox, 32 from measles, 65 from scarlet fever, 8 from diphtheria, 48 from whooping-cough, 13 from different forms of fever, and 16 from diarrhœa—altogether 192 zymotic deaths, which were 52 below the average, and were equal to an annual rate of 2.7 per 1,000. The deaths referred to lung diseases, which had declined from 286 to 191 in the four preceding weeks, rose again to 230 last week, and exceeded the corrected average by one; 118 were referred to bronchitis, and 72 to pneumonia. Different forms of violence caused 51 deaths; 40 were the result of negligence or accident, including 17 from fractures and contusions, 3 from burns and scalds, 3 from drowning, and 10 of infants under one year of age from suffocation. Eight cases of suicide were registered. At Greenwich, the mean temperature of the air was 53.9°, and 4.7° below the average. The general direction of the wind was south-westerly, and the horizontal movement of the air averaged 12.2 miles per hour, which was 1.7 above the average. Rain fell on four days of the week, to the aggregate amount of 0.38 of an inch. The duration of registered bright sunshine in the week was equal to 26 per cent. of its possible duration.

Congenital Ankylosis of the Tarsal Bones.—To a previous communication on a rare case of synostosis of the astragalus and os calcis, Dr. Zuckerkandl adds (*Wiener Med. Jahrbücher*, 1880) the description of two new cases of coalition of the tarsal bones in a boy aged 10 and a man aged 29. In these cases, there was on the one side complete bony union, and on the other a transition between the normal separate condition of the bones and synostosis. Disease, as a means of explaining the abnormal condition, was excluded by the special relation of the astragalus and os calcis to each other in the first case; in the second, by the transition of the cartilage of the anterior surface of the scaphoid bone into the cartilage covering the anterior surface of the os calcis, and also by the connection of the two bones by a dense fibrous tissue; and, in both cases, by the absence of any remains of pathological processes and the physiological integrity of the remainder of the joint. There thus remains only the assumption of a congenital interference with development, which perhaps occurs most frequently between the astragalus and os calcis, because the formation of joint-cavities in the embryo takes place latest in this part.

The Increase in Lunacy.—The following statistics on this important subject are extracted from the twenty-first annual report of the General Board of Commissioners in Lunacy for Scotland. "Since 1859, the private lunatics registered in England have increased from 4,980 in 1859 to 7,692 in 1878, or from 25 to 31 per 100,000 of the population; and the pauper lunatics have increased from 31,782 in 1859 to 60,846 in 1878, or from 161 to 245 per 100,000 of the population. In Scotland, the increase has been, for private lunatics, from 1,035 in 1859 to 1,468 in 1879, or from 34 to 41 per 100,000 of the population; and for pauper lunatics, from 4,980 in 1859 to 7,690 in 1879, or from 164 to 214 per 100,000 of the population. The total increase in England has been, for each 100,000 of the population, from 187 in 1859 to 276 in 1878; and in Scotland, from 199 in 1859 to 255 in 1879."

Lately, Mr. C. H. Hull concluded an adjourned inquiry at the Surrey County Lunatic Asylum, Wandsworth, as to the death of George Brown, aged fifty-six, a tailor, who was admitted from the Lambeth Infirmary on March 4th last, and died on the 3rd instant. After hearing the evidence, the jury returned a verdict, "That the deceased died from the effects of fractured ribs; but how these injuries were inflicted there is not sufficient evidence to show".

A Child without Limbs.—At a recent meeting of the district Medical Society of Munich, Professor Ranke showed a female child, five months old, the subject of congenital absence of all four limbs. It was the fourth child of healthy parents; and, while lying in its cradle with the face alone exposed, it presented a perfectly healthy appearance: the facial expression was lively, the eyes followed the movements of the bystanders, and all the senses were well developed. The body was strong and healthy. The shoulder and pelvic girdles, with all their muscles, were present as in the normal condition. The shoulders presented small prominences, formed by the union of the clavicles with the acromion processes, and covered by little cushions of fat. In place of the lower limbs, there was on each side, over the region of the acetabulum, a projection of skin, which could be somewhat retracted by muscular action into the cushion of fat surrounding it. The movements of the body were extremely lively and powerful. The coccyx was well developed: the child, placed on the tubera ischii and the coccyx, could retain the erect position with little support. Dr. Ranke attributed the deformity to arrest of development, and not to intra-uterine amputation. The child at the time appeared healthy and likely to live; but it has since died.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ...... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY...... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY........ Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY .... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club, 8 P.M. Mr. W. H. Gilburt, "On the Histology of Pitcher Plants"; Dr. Patrick Manson, "Further Observations on Filariæ", communicated by the President.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE STATE OF THE HEART IN DEATH FROM CHLOROFORM.

SIR,—In the report of an inquest at Oxford given in the JOURNAL of the 12th instant, Mr. Vachell is stated to have said, "The heart was large, with much fat in the substance of it", and "As far as he knew, no medical man could tell the state of deceased's heart when it was in the condition in which the deceased was". This seems happily to have satisfied the jury; but having been present at an inquest relative to a death from chloroform, where, though no fault was found with the administration, the jury were much dissatisfied, and something like a vote of censure was passed on the administrator, because he did not in that case or usually examine the patients' hearts before anæsthetising, I should like to elicit the opinion of the profession as to whether any advantages are to be gained by examining a heart before anæsthetising, and whether there are any conditions besides fatty degeneration (such as dilatation or valvular disease) which increase the risk of, or contraindicate, anæsthetics. Can fatty degeneration be diagnosed either from symptoms or by physical examination? And if it can, is it the duty of the surgeon in such a case (except where the administration is absolutely necessary to avoid shock) plainly to name the extra risk and incur the chance of rendering the patient more highly nervous, and thus increase the difficulty of giving an anæsthetic or of operating without one; or is one justified, in this as in other cases, in assuming that every patient knows there is a certain risk incurred in taking an anæsthetic?

One other point is the value of feeling the pulse during the administration. Some assert that it is useless, while others think it should invariably be done, among the latter number being generally jurymen at an inquest.

Having largely given anæsthetics myself, as well as having seen much of their administration, I am of opinion that by carefully watching the respiration and colour of the face one best ascertains the approach of danger; but I shall be glad to have the opinion of the members on this as on the other points in question.—Yours truly,

M.B.

CARE OF AN INSANE PATIENT.

SIR,—A "Member of the British Medical Association" who wrote to you under the above heading may be glad to know that we take private patients here at sixteen shillings a week, and that the same thing is done in many other county asylums. It should be added, that the private patients are not treated differently to the paupers, but that all fare alike, such being required by the forty-third section of the Lunacy Acts, 16 and 17 Vic., c. 97.—I am, yours truly,

S. W. D. WILLIAMS, Medical Superintendent.

County Asylum, Hayward's Heath, June 1880.

MR WYNDHAM COTTLE's paper on the Treatment of Ringworm, which was published in the BRITISH MEDICAL JOURNAL for May 29th, was read in the Subsection of Dermatology at the meeting of the British Medical Association in Cork in 1879. An abstract of it was given in the JOURNAL for August 23rd.

THE BRUSSELS DEGREE.

SIR,—At the June examination at the Brussels University, thirteen candidates presented themselves, of whom six were rejected in the first Doctorate, two in the second, and one in the third. The four successful candidates were: Wigg (University College), Bullock (University College), Plummer (Guy's Hospital), and Crean, with honours (Manchester).—I am, sir, your obedient servant,

26, Bury New Road, Manchester, June 15th, 1880. RICHARD CREAN.

SIR,—I should esteem it a favour if any of the subscribers to the JOURNAL would kindly inform me the names of the best makers of a good and useful microscope, at a cost of from £7 to £10, suitable to the requirements of a general practitioner.—I am, sir, faithfully yours,

L.R.C.P.

A QUESTION OF PROFESSIONAL DUTY.

SIR,—I should be obliged by your opinion on the following case. On Thursday, May 27th, 1880, I examined Mr. B. (aged 53) for life-assurance. One of the questions I was called upon by the office to answer was: "Is the applicant suffering from stricture or enlarged prostate?" He was suffering from incontinence of urine. I therefore passed a flexible catheter and drew off about a quart of light coloured urine. I told him, for his satisfaction, that if he applied to his usual medical attendant, he would probably be relieved. I gave no advice, or made no further comment on the case. The next day B. informed me that "Mr. ——, his medical attendant, told him that I had no right to examine him in such a manner, and that he did not believe that there was such a quantity of urine in his bladder". On hearing this, I wrote to Mr. ——, giving him the facts of the case, and stating "that patients often mistook what was said to them, and I should be glad to hear it was so in the present instance, but that I could not allow such a remark (if made) to pass unchallenged". In reply, I received a note as follows: "Mr. —— begs to acknowledge the receipt of Mr. ——'s letter of the 29th." I have communicated further with Mr. ——, but can get no more satisfactory reply. I may say that, having only recently commenced practice in this district, I may be somewhat sensitive to adverse criticism, coming from a gentleman considerably my senior and of much greater local influence. I enclose my card, and am, yours, etc.,

M.R.C.S.

⁂ M.R.C.S. obviously only did his duty in examining the bladder in the circumstances mentioned.

UTERINE HÆMORRHAGE.

SIR,—In answer to Dr. Thompson's letter in the JOURNAL of June 5th, I would reply that I do not undervalue subcutaneous injection of ergotine in suitable cases, but have often employed it when I have had reason to expect a flooding from the character of the pains and pulse. In violent *post partum* hæmorrhage, the circulation becomes so feeble that throwing a drug like ergot under the skin is of no value, as it does not readily become absorbed, and valuable time is lost whilst it is in action. In the above cases, I should apply the styptic iron injection to the uterus, and give the ether and ergot by the hypodermic method to produce reaction and ensure uterine contraction.

For the hypodermic injection of ether, Messrs. Maw and Son have sent me a syringe, the joints of which are packed with brass instead of cemented, as the ether dissolves the cement generally used, and the syringe becomes useless.—Your obedient servant,

FRANK SMITH.

Plumstead, June 9th, 1880.

THE PLAGUE OF FLIES.

SIR,—If, on hot days, "Musca" will sponge his horse's neck and flanks with a cold infusion of walnut leaves, he will find relief from the plague of flies in a way not less agreeable to the rider than to the steed.—I am, etc., SCOTO-CANADIAN.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. FRANCIS FOWKE, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

Found Dead.

STERNE'S days are long gone by, yet there remain several matters that they order better in France. There is always room for improvement where there is opportunity for adoption. Instead of building a morgue, which has the disadvantage of encouraging morbid curiosity, we might with advantage adopt a suggestion of Mr. G. E. Boggis in the *Echo*, and establish in London an office for the registry of all persons found dead, with such a description of their appearance and person as would enable anyone in search of a lost relative or friend to obtain at once such information as could be supplied within a circle of many miles. A great number of bodies are yearly picked up, and too often buried as unclaimed paupers at the expense of the parish where they may be found. The utilisation of dead-houses for medical education would be of great benefit to society. A hospital lecturer on Forensic Medicine might, as opportunity arose, give a practical demonstration to his class of the appearances of the body after different forms of violent death. His pupils, who after qualification would be all more or less certain to figure in the witness-box, would derive great benefit from his instruction. In these days, when the real object of medical education appears to be preparation for satisfying examiners, we must hail with relief any proposal to assist the student in learning how to satisfy patients or juries.

WILL any member kindly inform me where I can find an account of Dr. Liebreich's "Effects of Certain Faults of Vision on Painting"? S. WINTER FISHER.

136, Marine Parade, Brighton, June 2nd, 1880.

Imbecile Children.

SIR,—Can you kindly inform me of any institution or institutions where children of weak intellect are received for moderate payment (say ten shillings to fifteen shillings per week) with the object of developing their latent mental powers?—Yours obediently, J. T.

"Most Benignant" Disease.

SIR,—Much of the recent coinage of medical terms is not very happy. It does not strike us that a great naming genius is abroad, at least in our department of the scientific world. This may be matter for regret; but rather to be deprecated is the arbitrary wresting of English words to new uses which are utterly senseless and which must sound absurd to any but professional ears.

In a letter in last week's JOURNAL, Dr. Drysdale thus speaks of syphilis: "As a general rule, the disease, as I see it....among healthy young women, is most benignant". This reminds me of a remark I once heard from a surgeon; he thought it was a good thing for a man to get syphilis, because whatever should be the matter with him afterwards, we could always cure him by giving iodide of potassium. In this view, Dr. Drysdale's term might be no misnomer; and perhaps a satirist could suggest another reason why doctors should call disease benignant. By a well-understood figure of speech, a disease may be called malignant, and another, contrasted with it, non-malignant; but to speak of a diseased process like syphilis, however amenable to treatment, as positively, yea superlatively, benignant, is surely the imbecility of nomenclature. I had thought the term was dropping out of use, even as applied to tumours.—Your obedient servant,

MEMB. BRIT. MED. ASSOC.

SURGEON A.M.D. asks: Can any of your readers inform me where I can find an article by Surgeon Mulcuhy, R.N., on "The Similarity of Enteric and Malarial Fevers"?

Salaries in Ceylon.

SIR,—In reference to an advertisement in the accompanying *Ceylon Observer*, I send this as a warning to any intending candidates. The salary offered is not really the money paid to a common clerk or storekeeper out here, and is barely sufficient to provide for the necessaries of life in the Coffee Districts, where a rupee has not the purchasing power of a shilling in England, and where the requirements are more. Any medical man accepting such an appointment would find his status in society very anomalous, and would certainly, at the end of the year, find himself out of pocket or in debt. Nothing need be expected from other "emoluments". That is only a pleasant fiction. The work is hard, done all by riding; the roads are not only bad but dangerous, as witness the number of medical men who lost their lives during the last seven years; and finally, the service is very unpopular and uncertain—likely, indeed, to be entirely abolished in the course of eight or ten months. I leave it to you to judge whether it would be judicious in anyone to accept such an appointment.—I am, sir, yours truly, M.D.

Central Province, Ceylon, May 16th, 1880.

Compound Fracture of the Skull and the Antiseptic Treatment.

SIR,—I noticed, in your impression of June 5th, a report of an interesting case of compound fracture of cranium, under the care of Mr. John Croft at St. Thomas's Hospital. The case was specially interesting to me, as it was almost identical, both in extent of lesion and ultimate results, with a case treated by me in the Forfar Infirmary, and reported in the *Lancet* of July 7th, 1877. I should not have troubled you with any remarks on Mr. Croft's case, but for the strong evidence in the report of "Listeromania", as we doubters call it. This is not as yet, in the complete form, as the reporter terms it, a received doctrine by the great bulk of medical practitioners; and in the interests of truth I would object to hasty generalising on one case. In his prologue, the reporter writes: "Such a result can only be certainly obtained from such a system of treatment. An equally successful issue might result from some other plan than 'Listerism'; but on no other known system can the surgeon rely for a succession of such results." But he fails to give us the data on which he grounds this opinion. Again, in his epilogue, he says: "The perfectly aseptic states of the lesions negatived any inflammatory action; and consequently none of the calamities of surgery occurred to mar the progress to recovery." How, then, would he account for the result in my case, where the dressings were by no means Listerian? The lesions were certainly as serious, and the result as successful, or even more so, as my patient left the hospital in less than five weeks, while Mr. Croft's patient was only dismissed in less than eight weeks. This is a subject which, in my opinion, should not be taken up in a spirit of partisanship, but the results of the cases treated by the various dressings should be collected and calmly weighed before passing an opinion. Surely the opinions of men with the experience of Professor Spence, Mr. Sampson Gamgee, etc., are entitled to every respect.—I remain, yours very respectfully, WILLIAM F. MURRAY, F. and L.R.C.S.Edin.

Forfar, June 9th, 1880.

Tricycles.

SIR,—In reply to the inquiries of "An Irish Surgeon", from experience I would recommend the "Improved Triumph Tricycle" manufactured by Warman, Laxon, and Co., Coventry. Without any prejudice or disparagement of the Salvo, I can scarcely understand a letter in the JOURNAL of May 29th, signed J. A. Erskine Stuart, wherein he recommends the "Salvo", and, in conclusion, states that the same does not come up to his first views of its usefulness and adaptability to country practice. I have found very little difficulty in using the "Triumph" over a moderately hilly country.—Yours truly, M. D.

Birmingham, June 1st, 1880.

MR. ISRAEL MATHEWS (Holyhead) asks for directions for the application of the ethylate of sodium in nævi and other vascular growths.

America for Phthisis.

SIR,—Will you allow me to make the following inquiry through your JOURNAL? I have a patient suffering from incipient phthisis, who refuses to go to Australia, but is willing to go either to Kansas or Colorado. I am anxious to know what part of North America is the most favourable for such cases; and if any particular locality of either Kansas or Colorado possesses a climate suitable for such cases?—Yours, etc., A. W.

CORNUBIENSIS should, we think, have discussed the matter first in his own Council before bringing it under notice in the JOURNAL. It is very much a matter of domestic regulation, and one, we feel sure, the Council would like to have laid before it for careful consideration.

F. W. B. WOULD be glad to know of any cases, or reference to cases, or authors who have treated of gouty affections of the throat.

Artificial Legs.

SIR,—I have a patient, a young man, who has had both legs amputated through the calves. Will you or any of your readers kindly inform me what will be the best artificial substitutes for the lost locomotory organs?—Yours obediently, CRUS.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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BOOKS, ETC., RECEIVED.

The Spirit of Nature. By Henry Bellyse Baildon, B.A. London: J. and A. Churchill. 1880.

Craniotomy and its Alternatives. By R. J. Kinkead, A.B., M.D. Dublin: 1880.

Science, a Stronghold of Belief. By Richard Budd Painter, M.D., F.R.C.S. London: Sampson Low and Co. 1880.

Edgar Allan Poe, his life, letters, and opinions. By John H. Ingram. Two volumes. London: John Hogg, Paternoster Row. 1880.

Royat; its Mineral Waters and Climate. By C. H. Brandt, M.D. London: H. K. Lewis. 1880.

A Treatise on Comparative Embryology. By Francis M. Balfour, M.A., F.R.S. Vol. I. London: Macmillan and Co. 1880.

Manual of Diseases of the Throat and Nose. Vol. I. By Morell Mackenzie, M.D. London: J. and A. Churchill. 1880.

Food and Feeding. By Sir Henry Thompson, F.R.C.S. London: Fredk. Warne and Co. 1880.

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CLINICAL LECTURE

ON THE

TREATMENT OF SPINAL CURVATURE BY HAMMOCK SUSPENSION, AND THE APPLICATION OF THE PLASTER, FELT, OR GLUE JACKET.

Delivered May 18th, 1880.

By RICHARD DAVY, M.B., F.R.C.S.,
Surgeon in Charge of the Orthopædic Department at the Westminster Hospital.

GENTLEMEN,—In general practice, no cases have given the practical surgeon greater trouble in treatment than those of spinal curvature. He has to combine the general treatment of such cases with instrumentation; and, until the publication of Sayre's work, this combination was most inefficiently performed. Poverty of the patient's friends, intractability of the patient, importunity of the surgical mechanician, and a rapidly progressive disease, each drove the surgeon to his wit's end; and I say it is only since Sayre lifted the surgeon out of the grip of the machine-maker, and made him comparatively independent of the patient's surroundings, that real progress can be reported. The secret of Sayre's success is so well known, and his plan has been so publicly demonstrated by writing and on actual cases, that it is superfluous here to explain his mechanisms; but I advise those of you who have not yet read his book to carefully peruse it, *On Spinal Disease and Spinal Curvature: their Treatment by Suspension and the Use of Plaster-of-Paris Bandage* (Smith, Elder, and Co., 15, Waterloo Place, London. 1877). The work is written in Sayre's graphic style, and reflects much credit upon one of the most ingenious American surgeons. But, guided by my own experience, I must take exception to one or more points advocated by Sayre, and these exceptions will apply principally—1. To the risk and personal discomfort, both to the patient and surgeon, of the tripod suspension; 2. To the cracking, creasing, and consequent insufficiency of the support, due to the necessary shift of the patient's surroundings; 3. To the weight of the plaster-of-Paris.

With regard to the risk of suspension by the chin and armpits, I have no wish to play the part of an alarmist, nor to unduly exaggerate the dangers of extension to the spine; but, as a pupil of the late John Hilton, I ask if any surgeon who values past surgical records can carefully read Lecture 5 in his work on *Rest and Pain*, and be ready to fearlessly suspend cases of cervical caries?

Noticing, moreover, how Nature expands into such massive bony shields the laminæ of diseased vertebræ, and unites them, on the principle of *vis unita fortior*, I fail to see how even carefully regulated hanging can assist her in the process; and my answer to those surgeons who state that they stop suspension the moment that pain is felt, is, "Your interference has arrived one moment too late". As to the principle of treating these spinal curvatures, I have always illustrated it in my surgical lectures by placing a flexible India-rubber column within a glass cylinder. The flexible tube represents the body and diseased spine; the glass cylinder the rigid columnar support or jacket; and I believe that the more you allow these diseased structures to remain in the recumbent posture, the more closely do you approach the natural pose of rest, or, at any rate, you bid fair to accomplish the maximum of good with the minimum chance of evil.

In 1876, the year of the International Medical Congress at Philadelphia, Professor Sayre did me the honour, in New York, of inviting me to visit his office and showing me in detail his plan on a case of angular curvature. I was at the time impressed with the disagreeableness of the suspension, and mistrusted its absolute necessity. On resuming orthopædic practice in London, I completed a series of experiments by suspending patients in hammocks; and I venture to express my opinion that, in future, more spinal curvatures will be fortified in the manner I am now about to describe than after the suspension-method of Sayre.

A piece of strong canvas is procured, longer than the patient's height; and the arms are passed through two slits in the canvas at suitable points, so that, in the first instance, a loose canvas long apron, with ends one turned downwards over the chest and the other on the floor, fits around the front and sides of the body. This apron is then removed from the patient, and a vest applied, of thicker material and far more open mesh than those usually supplied by the surgical instrument makers. The canvas hammock is next slung, at two fixed points, by attaching its two folded ends with two stout bandages; and the surgeon should test its bearing power by the weight of his own body. The patient is placed in the canvas as represented in this engraving. No dinner-pad is required, because the manipulations are performed after a good meal. (Fig. 1.)

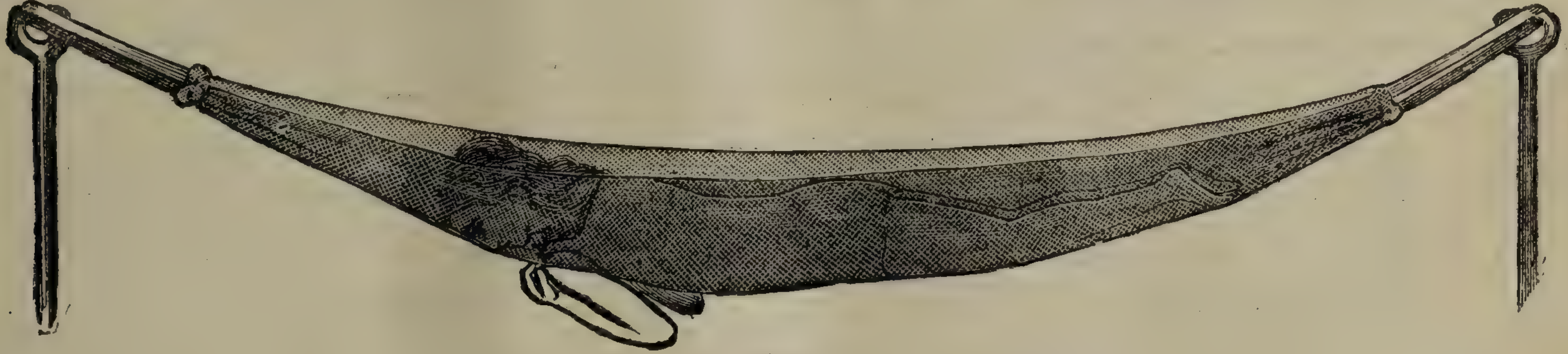

Fig. 1.

At this stage, an aperture in the hammock is made over the patient's lips, to permit free breathing and conversation. The patient is then finally localised in position, according to the variety of spinal curvature (extension by the head, arms, and legs being applied by those surgeons who deem it to be necessary), and the surgeon leisurely applies the plaster-of-Paris or other fixing material, including the canvas, which, of course, has been accurately cut to shape the dorsal contour. After the bandages have been carefully laid on (and the ease of so doing is very great in this position), the patient presents the following appearances. (Fig. 2.)

The free current of air around the patient's body, and, if the surgeon please, the hammock's suspension near to a fire, facilitates the regular

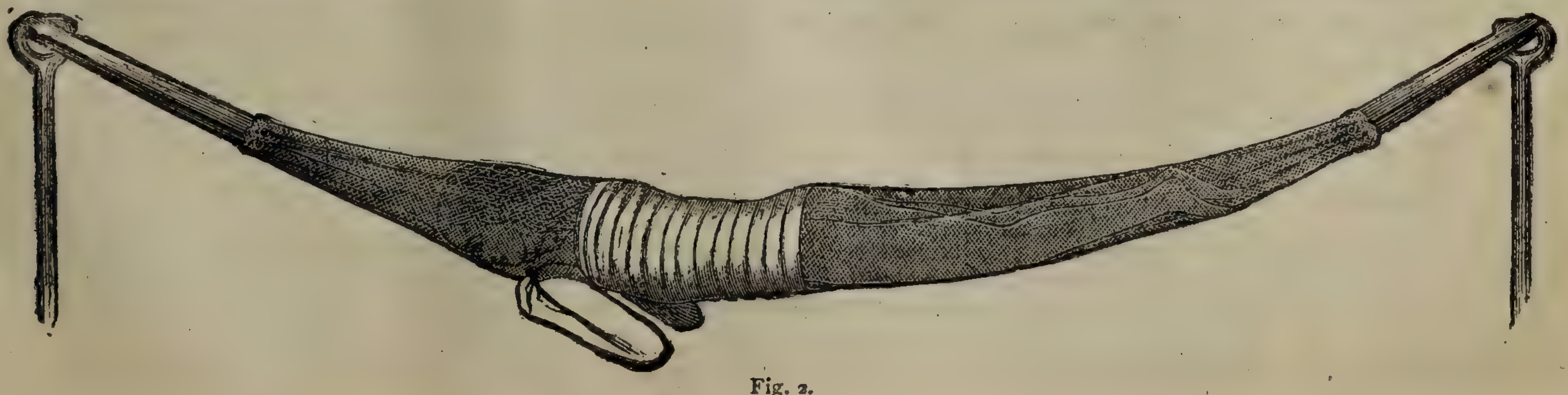

Fig. 2.

and simultaneously complete drying of the plaster; and so very comfortable are young children in these hammocks, that they either enjoy the swinging motion, or not unfrequently fall asleep. When the bandage has firmly set (and not before, for the patient can remain swung for any reasonable space of time), the whole hammock and patient are taken down; the superfluous ends are neatly cut off with scissors, and the general effect is shown in the sketch taken from my last patient (Fig. 3); so that in these instances it may be literally said, and without irreverence, they take up their bed and walk; the canvas remnant acting as an accessory vest to the patient's frame.

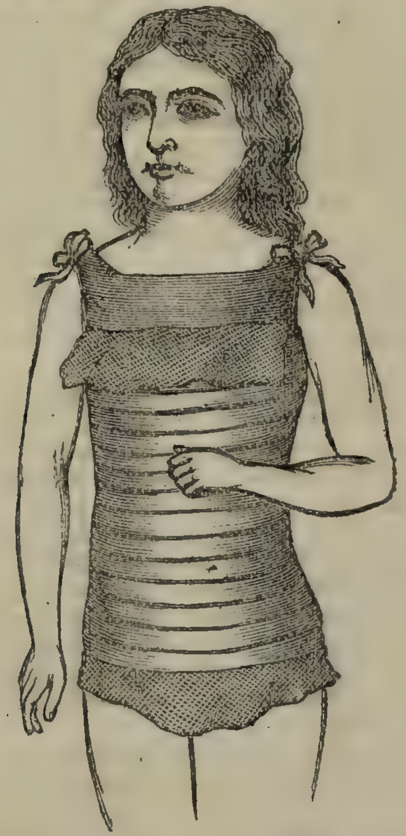

Fig. 3.—Patient in the erect posture; the upper and lower ends of the canvass having been neatly trimmed off.

I am ready to endorse much that has been written by Dr. Walker, Surgeon to the Peterborough Infirmary, on the utility of the recumbent posture (BRITISH MEDICAL JOURNAL, March 1st, 1879); but think that my method negatives No. 4 conclusion in his summary: "The only way in which such a jacket can be applied with the patient recumbent is by the method which I have demonstrated."

Mr. Cocking, the well-known felt manufacturer for spinal jackets, attended one of my demonstrations in the theatre of Westminster Hospital on May 18th, 1880; he considers that this hammock-suspension may prove very convenient for the application of his felt-supports; as yet, he has only tried it in one instance. This hammock-suspension, then, in my own practice obviates all the inconveniences and risk to patients; secures the advantages of Sayre's method; facilitates the manual procedures of the surgeon; permits of quick and equable drying; and necessitates no change of posture between the application of the supporting bandage and its final setting.

The third point is the weight of the plaster-of-Paris. I am experimenting now on felt bandages saturated with a quickly drying solution, but will defer judgment on them until my experience is confirmed by further practical trial.

I can highly recommend a solution of plaster-of-Paris and hair intermixed. You have seen me put up many cases of talipes with this mixture; the hair plays an important intertangling part, and from its elasticity and lightness, a very easy and accurately-moulded cast results. This species of felt packing will undoubtedly supplant the plaster-of-Paris, on the sole argument of its specific weight. Nothing can go against the grain of a thoughtful surgeon more than to handicap an already puny patient with a heavy weight, for most of these clients with paralysed muscles can scarcely carry their own weight, much less that of even a few ounces extra.

One word, in conclusion, on the subject of portability and expense. Any country surgeon can carry hammock and bandages in his coat pocket, and so operate easily at the child's home instead of its being brought to the tripod. The cost of the hammock is under one shilling, and it may be extemporised out of a common sheet or a long night-shirt. I can truthfully state that, although we possess the complete tripod and apparatus at the Westminster Hospital, and have used it seldom, its joints are become very rickety, and it may yet become more impaired from desuetude, giving way to the simpler, but equally practical system of hammock suspension.

THE TREATMENT OF ASTHMA.

By J. B. BERKART, M.D.,

Senior Assistant-Physician to the City of London Hospital for Diseases of the Chest, etc.

II.

CASE II.—Wm. R., a tailor, aged 66, was seen July 29, 1879, labouring under great dyspnœa. He stood with his hands resting on a table, his neck stretched, his chin raised, gasping for breath, and pathetically told me that thus he had passed most of his nights for the last fourteen years. He complained of tightness across the chest, of incessant cough, and of scanty and difficult expectoration. In short and broken sentences, he stated that he had been subject to "colds" for many years previous to the appearance of his asthmatic seizures, which had come upon him with an attack of bronchitis. Treatment had hitherto been of little avail; at times his distressing symptoms had somewhat abated, so that he had been able to do some work, but they had never entirely disappeared. For years he had been unable to lie down at nights; he could sleep only in a half-sitting posture. He had seldom passed a night without spending part of it on the edge of his bed, coughing.

W. R., of average height, pale, emaciated, had, as is typical in such cases, marked kyphosis. The upper costal arches were wide and prominent, the lower contracted. Respiration was heaving, 24; expiration relatively prolonged. Resonance of the upper third of the lungs was deficient, and that of the middle and lower rather tympanitic. Both lungs extended to the sixth ribs. Vesicular murmur was completely masked by sonorous rhonchi, which were heard with inspiration and expiration over the greater part of the chest, front, and back; while at the bases a faint cooing was audible. Cough produced no change in these sounds. There was epigastric pulsation. The heart was covered. The impulse of the apex was neither seen nor felt, and the sounds were drowned by the noise in the lungs. Pulse 78, regular, somewhat large and soft. The patient was with difficulty put to bed, and at 3.45 P.M., ten drops of a two per cent. solution of pilocarpin* were injected into the left forearm. The injection, it is needless to add, was absolutely painless.

3.49 P.M. His face was flushed. Perspiration commenced at the forehead. Tears ran down the left cheek, on account of epiphora of the left side. There was no salivation. The oppression at the chest was relieved; the breathing was less noisy than before.

3.55 P.M. Pulse 84, fuller than before. Breathing was easy and noiseless. The patient could recline. His body was covered with perspiration. There was no salivation. Rhonchi were considerably diminished; inspiration and expiration were now audible over the upper lobes. The obstruction at the bases had diminished.

4 P.M. He looked flushed. There was copious perspiration all over the body. No salivation. Breathing was easy, not accelerated. The patient repeatedly acknowledged the relief.

4.3 P.M. A small quantity of limpid urine passed without pain.

4.10 P.M. Pulse 92, regular, less full, but of greater tension than before. He complained of uneasiness at the epigastrium.

4.12 P.M. He had some nausea. A few thick, yellow, roundish sputa were raised without difficulty. Perspiration continued.

4.30 P.M. Nausea persisted. Breathing was easy. There was no cough nor expectoration. Respirations 20. The rhonchi had disappeared. Pulse 84, small, regular. Perspiration continued.

6 P.M. Perspiration had entirely ceased. There was no vomiting. A cup of tea at five o'clock had immediately stopped sickness. Breathing was easy. The resonance of the chest was considerably improved; respiratory murmur was audible all over the thorax; there were no rhonchi. The patient felt sleepy.

July 30th, 11 A.M. The patient passed a very good night; he awoke only once, at about 2 A.M., with slight cough. For the first time for many years, he had been able to lie down. Breathing was easy, and air freely entered and passed out of the chest.

CASE III.—Henry B. P., carman, aged 37, of intemperate habits, applied at the hospital on February 13th, 1879. He complained of dyspnœa, of cough, of difficult expectoration—the sputa being thick and yellow. Rhonchi were heard all over the chest. His tongue was clean; appetite good. The bowels acted daily. He was ordered to have an ounce of compound cascarilla mixture three times a day. I saw him for the first time on February 20th, 1879, in the presence of Mr. Reilly of Globe Road. There was no improvement in the above symptoms; on the contrary, he felt worse. The patient was suffering from great dyspnœa; his face looked dusky, and over the malar bones quite cyanotic. Respiration was heaving, 24; pulse 84, regular, soft, and small.

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* Messrs. Corbyn and Co. were good enough to place a quantity of pilocarpin at my disposal.

The patient was of middle stature, poorly nourished, and stooping, in consequence of a kyphosis. He had for sixteen years been subject to cough and nocturnal dyspnœa.

On examination, the thorax was observed to be contracted at the bases, the upper costal arches being comparatively wide and prominent. Resonance of the upper lobes was dull, but cleared up towards the bases. Sonorous rhonchi were heard all over the chest. At 3 P.M., ten drops of a two per cent. solution of pilocarpin were injected into the left arm. Three minutes after the injection, the face was flushed, perspiration commenced at the forehead and gradually spread over the body. The pulse became full and bounding. The patient declared himself greatly relieved. On listening to the chest, there were sonorous rhonchi at the right, and cooing at the left, upper lobes, while the bases remained obstructed. Perspiration increased, bathing the whole body. The patient was told to lie down and to rest until the effects of the drug had passed off; but he felt so much better, that he did not think it necessary to wait. However, on proceeding to dress, he became giddy. He was immediately placed upon the couch, but had soon to get up to pass urine, which was done without pain. On regaining the couch, giddiness continued. He then complained of nausea, and in a short time vomited, without effort, a great quantity of undigested food. Vomiting was repeated, and nausea and giddiness persisted. The patient moaned a great deal, and thought he was dying. He had severe pain in the left hypochondrium. The body, previously in a glow, was then covered with cold clammy perspiration. There was no pulse at the wrists, and the cardiac action was feeble; respiration was superficial and slow, and some tracheal rattling was heard. There were, in fact, all the alarming symptoms of collapse. However, the injection of one drop of liquor atropiæ (*P. B.*) changed the scene almost instantaneously. The pulse at the wrists returned, the cardiac action became perceptible, the breathing deeper, and the patient declared himself free from giddiness and nausea. Perspiration ceased, and he felt cold and shivering. The breathing was easy; there was no cough nor expectoration. At 4.30 P.M., the subjective and objective symptoms were greatly improved, and the patient left the hospital. He was ordered to take an ounce of aqua menthæ piperitæ three times a day, *ut aliquid fiat.*

On February 27th, he reported himself greatly improved in health. He had felt nothing but a little cold when he had returned home last week. The cough and expectoration were gone. His breathing was quite easy. He had a good appetite; almost too good, he added, for his means. He was cheerful, dressed in his Sunday clothes, and thought of returning to work. There was still deficient resonance and cooing at the left upper lobe; but the access of air to the rest of the lungs was unimpeded. He presented himself, as I wished him, the same evening, before Mr. Reilly, who was thus able to observe the remarkable improvement.

In May 1879, the patient returned to the hospital. He had resumed his work, but also his dissolute habits. He had again some cough; but, in order to get rid of it as soon as possible, he requested a certificate for admission into a seaside convalescent home.

CASE IV.—J. B., tailor's cutter, aged 27, with no hereditary disposition to disease of the chest, enjoyed good health until he was seized at Glasgow, in September 1878, with nocturnal dyspnœa, wheezing, and cough. These symptoms persisted in spite of treatment when I saw him on December 9th, 1878. The patient was under-sized, very muscular, but pale, and his eyelids were baggy. He complained chiefly of the dyspnœal seizures, recurring almost every night, and accompanied by wheezing so loud as to be audible at a distance. His thorax was roomy, and his vertebral column straight and somewhat twisted to the left. There was deficient resonance in the left infraclavicular region. In both suprascapular fossæ, there was harsh respiration with dry rhonchus which, however, was conducted to them from the larynx, this being in a state of chronic inflammation. There were sonorous rhonchi at both bases. The rest of the lungs, the heart, all the abdominal organs, including the kidneys, seemed healthy. The treatment was continued from December 9th, 1878, to February 12th, 1879, but produced no decided amelioration. The dyspnœal attacks and the wheezing were relieved but returned at intervals of from two to three days. On February 12th, several patches of broncho-pneumonia were detected in the left axillary region and at the angle of the right scapula. There were rhonchi all over. The patient was ordered an infusion of a drachm of jaborandi.

February 13th, 1879. The patient looked pinched. The jaborandi had produced its well-known effects. There was decided improvement of all the subjective symptoms, and the physical signs showed nothing but obstruction of the bases.

March 13th and 19th. The infusion of jaborandi was repeated; and since then the patient had entirely recovered. He had ever since been free from cough and from dyspnœa, and had remained hitherto in the uninterrupted enjoyment of good health.

CASE V.—R. P., stableman, aged 52, of diminutive stature, greatly emaciated and cyanosed, had for many years been subject to cough with difficult expectoration, and to dyspnœa with nocturnal exacerbations. During the last six months, his health had been so bad that he could not do even a little light work. There were the unmistakable signs of chronic broncho-pneumonia; and the dyspnœal seizures were due to recurrent congestions of the lungs and to repeated obstruction of the bronchi. He was treated from the commencement of February to the end of March, 1879, by injections of pilocarpin, six upon the whole, of which each was given at one week's interval. The effect of the pilocarpin was precisely as in the cases above mentioned; only this patient greatly suffered from salivation, owing to the œdematous condition of his buccal mucous membrane—a state he acquired by his excessive smoking of tobacco, of stramonium, and, of late, of tobacco mixed with arsenic. The local application of atropin previously to the injection of pilocarpin did not prevent salivation; nevertheless the patient was anxious to have the injections repeated, such was the relief they afforded him. At the end of March, he had considerably improved. The cyanosis had entirely disappeared. He looked pale, but his breath was free. He could lie down at night and sleep undisturbed by cough or by dyspnœa. There was also considerable improvement in the objective signs. He was then anxious to return to his work. I saw him again in May 1880. He had spent, he told me, a better winter than he had done for many years. He coughed at times; but his breath was much easier. All he now complained of was that he could find no work.

In all the cases above referred to, the asthmatic paroxysms were speedily—within a few minutes—relieved by pilocarpin; and that relief was due, not merely to the suppression of the painful perception of the dyspnœa, but to the removal, as far as practicable, of its immediate and remote causes. Moreover, the improvement lasted long after the effects of the drug had passed off, and in several instances it was almost complete. Considering the decrepitude of those patients, the unfortunate circumstances of their surroundings, and their inability of following the reparative process thus initiated, the success was all that could be expected. Klebs, it appears, has obtained equally favourable results by the same means. "In the very obstinate forms," he writes (*Allgemeine Wiener Mediz. Zeitung*, No. 1, 1880), "of catarrhal inflammation of the lungs proceeding from cavities, which again and again return, usually accompanied by fever, but occasionally without it, I have never seen a lasting benefit from the use of so-called expectorants. Here pilocarpin, one-sixth of a grain applied by subcutaneous injection, has rendered the best services."

A drawback to the administration of pilocarpin may be supposed to exist, in that it occasionally produces nausea, and even collapse. However, as I have already mentioned, these unpleasant after-effects may be to a great extent obviated by precautionary measures, and it is quite possible that the smaller dose, which Klebs recommends, may be sufficient also in the cases of asthmatics, and free from every inconvenience. If, nevertheless, on that score objections were raised to its use, it needs, to refute them, but be remembered, that most of the palliative remedies of asthma—especially the so-called depressants—are attended by very disagreeable symptoms, which often persist for days after their administration; and thus it will be found that, after all, the balance will be in favour of pilocarpin.

It is superfluous to add, that not every case called "asthma" is on that account adapted for treatment by this drug. As is well known, a great variety of affections, with nothing in common but one—and this the most conspicuous—symptom, are comprised by that name, so that the remedial measures must necessarily differ according to the nature of the pathological state.

Again, the place of pilocarpin in therapeutics is determined by its physiological action. In all cases of chronic pneumonia, in which the nutritive disturbance proceeds from the surface of the bronchi and gradually spreads to the stroma of the lungs, or in which it commences in the interstitial tissue and implicates the mucous membrane of the air-tubes—whether the process terminates in atrophy or in sclerosis—there pilocarpin, provided the state of the heart offers no contraindication, will prove beneficial. More speedily and more safely than any other remedy, it relieves the congestion of the bronchial mucous membrane, favours the expulsion of the obstructing plug of the air-passages, prevents the formation of viscid mucus, diminishes the swelling of enlarged bronchial glands, and initiates a reparative process, if such be yet possible, in the infiltrated connective tissue of the lungs. Although in its effect it somewhat resembles that of a warm, or rather of a Turkish bath, it is for many reasons preferable to the latter, even in the intervals between the asthmatic seizures, when alone there can be a question of substitution. To obtain, however, the full benefit it is capable of producing, pilocarpin should be used systematically. It should be injected at intervals, commensurate to the forces and to other circumstances of the patient, until the pathological changes in the lungs are perceptibly improved.

The anatomical changes in the lungs, however, being the result of a combination of causes—local irritation and a constitutional disposition—it is obvious that even this powerful remedy would fail of its effect, unless the diseased mucous membrane of the bronchi be guarded against the injuries, to which, from ignorance of the true etiological factors of asthma, it is continually exposed; just as no dyspepsia can be cured, unless there be the needful restrictions as to diet. What those etiological factors are, I shall mention as I proceed.

ON THE CHARACTERS AND MECHANISM OF THE MOST COMMON FORM OF COMMINUTED FRACTURE OF THE UPPER THIRD OF THE SHAFT OF THE FEMUR.*

By EDWARD H. BENNETT, M.D., M.Ch., F.R.C.S.I.,
Professor of Surgery in the University of Dublin; Surgeon to Sir Patrick Dun's Hospital.

In discussing this subject, I set aside the varieties of comminuted fracture of the trochanteric region of the femur, which occur as the result of the ordinary impacted extracapsular fracture of the neck of the bone, in which the fractures of the trochanters, and, if they occur, of the shaft, are direct consequences of the impaction of the neck, and are secondary to its fracture. Particular attention to this exclusion is essential; for I shall presently demonstrate that a fracture of the neck occurs in the injury I am discussing as a secondary lesion, and with characters quite different from the common fracture, yet very easily mistakable for it in the living.

The title of my paper excludes the simple fractures "through the trochanter major" of Cooper, the intratrochanteric fracture of Hennequin, and "the simple fracture below the trochanter minor" of Cooper. I must also exclude gunshot fractures of the upper part of the femur.

I seek to establish the propositions that the most common form of comminuted fracture of the upper third of the femur is of a definite type; that the secondary fractures are due to a constant cause; and that a fracture involving the neck of the femur, external to the capsule, occurs as one of the secondary fractures or comminutions in the injury.

I am not acquainted with any, except the most superficial, allusions to the details of this injury in the standard treatises on fractures, nor do I know of any authority who offers any solution of the mechanical questions which its study suggests.

The first account of this fracture which I have been able to find is that given in the plate and accompanying text of Sandifort's *Museum Anatomicum* (plate 80, f. 1, 2, 3; Conf. sec. 4 and 288, page 207). Here is figured, with great exactness, a comminuted fracture of the upper third of the shaft of the femur, the comminutions occurring in the upper fragment, separated by fissures, which, wide below, extend upwards as narrowing clefts to the trochanters and neck. The text contains a description which, while it omits all mention of probable or known causes, puts the question of fracture of the neck beyond doubt. "Collum totum fuisse separatum a corpore ossis." A glance at the plate proves that the cause of comminution in this specimen was the intrusion of the lower fragment as a wedge into the upper. The pieces of the upper fragment are united around the lower, while the fissures extending to the neck and trochanters, widely separated below, become narrower as they pass to the base of the neck.

I come next, before examining a series of specimens, to the allusion of Malgaigne, in which he shows that he recognised some points in the detail of this injury; but which also shows, by its meagreness, that his acquaintance with it was most limited. He says, in describing fractures beneath the trochanters: "Quand la fracture est très-rapprochée du petit trochanter, elle est assez souvent comminutive, et combinée avec la fracture extrà-capsulaire." The context of this passage shows that he here separates this from ordinary fractures of the neck outside the capsule; for he devotes special chapters to that injury, and here is dealing with subtrochanteric fractures of the shaft. His statement that, when the fracture is "very close to the lesser trochanter, it is liable to comminution and to be combined with fracture of the neck", is certainly likely to mislead; for in most cases, as I shall show, the primary fracture in these injuries is rather remote from than near to the lesser trochanter. Anger, while he follows Malgaigne almost exactly in his description, furnishes, in his illustrations of subtrochanteric fractures, evidence which supports directly the views I take, both as to the essential characters of this comminuted fracture and of its relative frequency. Each of his three illustrations of comminuted subtrochanteric fracture agrees in character with the specimens I am about to submit, and with Sandifort's case, in the details of the direction of the primary fracture, in the direction of the secondary fissure, and in their extension into the cervical fracture.

1. The first of the specimens is a fracture of the upper third of the shaft of the femur, which shows distinct evidence that it had occurred some time, say a month, previously to the death of the individual from whom it was obtained. We know nothing of the life-history of the specimen. The bone has been broken most obliquely, the prime fracture extending through five inches of its length, from the middle of the anterior surface, immediately below the anterior intertrochanteric line, downward, outward, and backward to the outer side of the bone beyond the junction of the upper and centre thirds of the shaft. The lower fragment, after the prime fracture occurred, was driven into the structure of the upper, and, acting as a wedge, split it lengthwise. We can trace the secondary line of fracture upwards through the anterior face of the great trochanter to its summit, where, turning over the upper border, it passes to the depth of the digital fossa; from this it passes along and above the posterior intertrochanteric line and between the neck and lesser trochanter into the prime fracture. Thus the neck is completely detached with a small portion of the front of the shaft. But the cervical fracture has not undergone displacement. As the fracture turns over the summit of the great trochanter, a little wedge of bone is seen detached, squeezed out, as it were, by the pressure of the sides of the fracture on each other, an appearance clearly indicating that the fracturing force acted from below, as the fissures themselves indicate, for they are widest below. In this specimen I have to notice, lastly, and as most important for my purpose, that there remains a large piece of compact bone jammed in the gaping fissure, from which the secondary fractures spring. This is evidently the apex of the lower fragment, the apex of the wedge, in fact, broken off after it had split asunder the upper fragment. I have gone thus minutely into the details of this specimen, as its features are easily observed, and are of a kind which do not admit of any doubt. The remaining specimens will be seen to agree in their essential characters with it, while a reference to the plates of Sandifort and of Anger shows how closely the lines of their instances follow the same paths. This specimen belongs to Trinity College, being one of the collection of the late Professor Smith, but no record has been preserved with it.

2. The next specimen is contained in the museum of the Royal College of Surgeons, Ireland, for permission to exhibit which I am indebted to the Council of the College (Ea 569). In its details, it closely resembles that which I have just shown. The lines of its fracture are, both primary and secondary, similar. In addition, the neck has been more exactly severed from the shaft; for a fracture splits off the piece of the shaft connected to the lesser trochanter, which, in the previous specimen, retained its connection with the neck. The additional interest attaches to it, that we possess an account of the mode of occurrence of the injury. "It occurred in the infirmary of the Royal Hospital, Kilmainham, in a patient under the care of Surgeon-Major Carte. A pensioner aged 92, while reaching across a table, broke his thigh-bone. He had all the symptoms of fracture of the neck of the bone, and in about one month he died." In this short history, given in the catalogue of the museum, the important fact is clearly stated, that the injury was the result of indirect force, and that its clinical features were such as to lead to the diagnosis of extracapsular fracture: a diagnosis correct, no doubt, in part, but erroneous in so far as it implies that the fracture of the neck was of the ordinary variety. Indeed, the author of the description in the catalogue appears to have considered it to be of the ordinary variety; for he states: "Two distinct fractures were found; one of the upper third of the femur, in which there was no attempt at union, and appeared to be subsequent to an impacted fracture of the neck of the femur." My reading of the characters of the injury is the reverse of this. I see here, as in the last specimen, a primary fracture of the shaft, with secondary fracture of the upper fragment and an extracapsular fracture of the neck, all directly result-

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* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cork, August 1879.

ing from impaction, not of the neck into the trochanteric region, but of the lower fragment of the shaft into the upper. The record of a case I shall presently give shows how readily the error of diagnosis may be made in life, and how important it is to establish it.

3. My next specimen is from the collection of Trinity College. At first sight, this is a fracture of the upper third of the shaft of the femur, which chiefly attracts attention by its great obliquity and by the horrible deformity which characterises its union. The fragments cross each other at an angle of 130°; and a firm callus unites them, the oblique point of each fragment projecting nearly two inches above and below. The upper fragment, however, shows that the lower has split it as in the two preceding specimens, and that the lines of secondary fracture are precisely the same as in the first; while the summit of the great trochanter has had a wedge-shaped piece pressed out by the compression of the sides of its fissures, exactly as in the first specimen. The primary fracture starts from the front of the bone more than an inch below the level of the previous specimen; and no impacted wedge is seen as in No. 1. Either it is concealed by callus, or more probably is absent, the lower fragment being impacted *en masse* rather than pointwise into the upper. The base of the digital fossa and the neck are traversed by a fracture which, though completely detaching the neck, has led to no displacement.

4 and 5. Ea 558 and Ea 589 of the College of Surgeons' collection exhibit similar features; only in these instances the injuries have been caused by forces which acted with greater effect than in the previous cases. The lower fragment in each has been so violently driven into and against the broken surface of the upper, that the secondary fractures have separated completely; the neck, carrying with it a splinter from the front of the shaft, has been set entirely free. In each, the same vertical fracture ascends through the great trochanter and splits it in two.

6. Ea 564 of the College of Surgeons' collection, mounted in spirit, shows similar characters; but the details are not as easily made out, in consequence of the soft parts covering the bone and in part concealing the upper fragment. To an eye familiar with these dry specimens, it is clear, however, that the fissures of the upper fragment are similar to those they present, and the result of the same kind of force.

7. Last of the series is this specimen from the Trinity College collection. It at once reminds one of Sandifort's plate. The union of the fracture is of old date and most complete; but we can readily see the lines of the primary fracture, as in all the preceding, oblique from above, and in front, downwards and outwards; the impaction of the lower into the upper; the splitting of the upper; and the lines of fracture, passing vertically through the great trochanter, then into the digital fossa and neck. This specimen alone shows a comminution of the lower fragment as well as of the upper. A long splinter has split off from the outside of the bone, extending nearly to the lower third of the shaft along its outside.

I have now given the details of the seven specimens of this injury before the meeting, and have merely to note that, with the exclusion of the forms of fracture I have noticed at starting—that is, of comminuted fractures directly secondary to fractures of the neck of the femur external to the capsule, and of gunshot comminuted fractures—they are the only examples of comminuted fracture of the upper third of the femur in our Dublin collections. The testimony of Anger's plates, drawn from the Paris museums, leads directly to the same conclusion as to this being the most common variety of comminuted fracture of the upper third of the femur. I have failed to find any exception to the rule of these specimens in such of the museums of London as I have been able to examine. There only remains for me to give the details of a case of injury of the femur which I have recently observed, which, I have no doubt, is an example of this fracture.

A strong healthy man, aged about 32, slipped in stepping from a loft piled with grain on to the rungs of a ladder which led through a trap to the floor below. Failing to grasp any support, as the piled grain offered no fixed point, he fell with his foot between the uppermost rungs of the ladder, and remained entangled. How long he hung in this position he could not tell, as he stated that he became unconscious almost as he fell. He was found, as far as we could learn, about an hour and a half after his fall, by his son, a boy of eleven years of age. The boy stated that he found his father hanging by his leg from the ladder, with his shoulders resting on the floor (the total height of the ladder was only about six feet, and the man was nearly six feet in height). After being found, he lay on an extemporised bed in the store for two nights and a day, suffering great pain, but unwilling to move or give up personal charge of the store, which was under his care. He was said to be a perfectly sober man, and to have been sober at the time of his fall. On admission to Sir P. Dun's Hospital on the day but one after his injury, I found him lying with the limb everted and shortened an inch and three-quarters; while the thigh was greatly swollen, and distended to the knee by effusion. Traction at the foot reduced the shortening to less than an inch; but the pain of any further effort in this direction became intolerable. During reduction, the trochanter descended and rotated with the shaft of the bone, while a portion of its posterior margin appeared to be displaced backwards. An osseous tumour could be indistinctly made out in the inguinal region over the lesser trochanter; and, during the extension of the limb, crepitus could, though with difficulty, be elicited. I felt satisfied that I was dealing with an extracapsular fracture of the neck of the femur, which had become unimpacted by the complete splintering of the trochanteric region. So satisfied was I of the correctness of the diagnosis, that I wrote it in detail on the bed-card. The limb, being put up in a long splint, lay fairly well; but the patient was most intolerant of a perineal band. One point in the case struck me as most difficult to explain: the occurrence of an extracapsular fracture of the neck of the femur, with fractures of the trochanters, from a cause such as the history of the case indicated. At first, I inclined to the idea that the history was incorrect; that the man had fallen right on to his hip, but that he failed to recollect it. Only direct cross-examination of his son, some days after his admission, removed all doubt of the truth of his statement. When the swelling subsided somewhat in the thigh, after an interval of a fortnight, I detected for the first time a point of bone projecting slightly to the outside of the shaft of the femur, near the junction of the upper and middle third. This point was shaped and directed so as to leave no doubt that it was the apex of the upper fragment of a very oblique fracture of the shaft, oblique from above downwards and outwards. Viewed in connection with the series of specimens I have presented, and particularly with the second instance, in which we have a similar kind of injury and a similar error of diagnosis, I think this case valuable as helping to explain the mechanism of the injury.

I believe that this case and the specimens I have exhibited and quoted establish the fact that the commonest form of comminuted fracture of the upper third of the femur is of a definite type—namely, a primary fracture, oblique from above and in front downwards and outwards, so as to place the lowest point of the upper fragment on the outside of the bone about the junction of its upper and middle thirds, and secondary splittings of the upper fragment, which include a fracture of the neck external to the capsule; that these splittings result from the impaction of the lower fragment into or against the structure of the upper, and that the pieces of the upper fragment may undergo more or less complete disseverance or may remain firmly connected; lastly, that the primary injury results from indirect violence, and it may be chiefly from muscular action; while the secondary fractures are caused by the impaction of the lower fragment into the upper, most likely by the action of the muscles of the thigh.

NOTE ON TINNITUS AURIUM.

By SAMUEL SEXTON, M.D., New York.

ALTHOUGH not a disease in itself, tinnitus aurium is frequently a most distressing symptom of some aural affections, and not unfrequently it is the only one of which the patient is cognisant.

Those ringing or buzzing sounds, synonymous with tinnitus aurium, which are heard in the head or ears under certain circumstances, arise usually from the busy circulation in the immediate neighbourhood of the auditory conductive apparatus; and, in addition to these, but heard more rarely, are also the motions of the heart, the respiratory act, the throbbing of the carotid arteries in their bony canals, and the friction of the ossicula themselves in some anomalous conditions. Moreover, the phenomena which arise from these causes are subject to an increase by the existence of aural hyperæmia, chronic and acute inflammations of the ear, flushings affecting this region, probably due to vaso-motor influences, the excitement of alcohol, quinine, and anæsthetics, and straining at stool or labour.

When tinnitus, however, arises from these subsidiary causes, it is never permanent until certain pathological changes, to be presently mentioned, have occurred in the conductive apparatus.

I shall not include among the enumerated varieties of tinnitus aurium the phenomena of autophony, sounds arising from supposed contractions of the tensor tympani muscle, or from foreign bodies present in the external auditory meatus; although from these two latter causes the most distressing kind of tinnitus results.

Strictly, therefore, sounds of an intracranial origin, or those, in other words, impinging on the drum-head, or ossicles, from within, are concerned in tinnitus aurium. The circulation of the blood here referred to, especially when abnormally active, may set in motion waves of sound that can, under certain circumstances, be heard by the patient himself, some of which, in the healthy state of the auditory apparatus, are usually inaudible. Hence to such sounds only as are audible to the patient himself when the conductive apparatus is in an anomalous condition, should the term tinnitus aurium be applicable. Tinnitus, as a resulting phenomenon of the stimulation of alcohol, anæsthetics, quinin, straining at stool, etc., is probably dependent on temporary conditions only, which, not being pathological in their nature, are therefore excluded.

We will now inquire under what circumstances tinnitus aurium occurs. In other words, why does a person sometimes become familiar with the intratympanic sounds of the circulation, etc., which were hitherto inaudible to him?

Before entering into an explanation of this mooted question, the ground may be cleared up somewhat by recalling to mind the fact that otology has as yet been unable to demonstrate that the auditory nerve is liable to pathological changes which affect its physiological functions; and, therefore, when the tinnitus exists, the sound must arise beyond that region; hence we should seek for explanation in some anomaly in the conductive apparatus itself that enables it to transmit to the auditory nerve sounds usually inaudible.

It is believed by the writer that sounds of which tinnitus is composed have their origin in the circulatory fluid in the neighbourhood of the ear. Some of them, however, may arise from contractions of the tensor tympani muscle, and quite frequently they are found to depend on the friction which takes place during the excursive movements of the membrana tympani and ossicula. It is difficult to believe that new sounds are created by the nerve of hearing itself; and, with the exceptions just alluded to, there are strictly speaking no new sounds. It is probable, nevertheless, that in many instances the sounds of the circulation, when heightened as it were by certain unusual or anomalous conditions, can be heard by the normal ear.

It is to be presumed that the theory of hearing entertained by Edward Weber is nearly the correct one, as far as the mechanism of the conductive apparatus of the ear is concerned. Weber regarded the bones of the ear and the petrous portion of the temporal bone as solid, incompressible bodies, and the fluid of the labyrinth as an incompressible fluid; and the bones of the ear must be considered as solid levers, which transmit waves of condensation and rarefaction to the fluid of the labyrinth, moving it as a whole.* Adopting, then, the theory of Weber, we are to observe what takes place when these excursions become ineffectual disease. In almost all cases, we have tinnitus aurium, associated with the ensuing deafness.

The pathological anatomy of the various anomalies of the membrana tympani and ossicula in disease affords an explanation of the usual symptoms of deafness, including that of tinnitus. The normal excursions of the mechanism are no longer possible, the joints having become ankylosed or more or less separated, the membrana tympani having also suffered from anomalies which affect its plane, tension, texture, etc. Not unfrequently the ossicles are thus drawn from their normal position by the membrane itself, the displacements being easily detected by the eye when an examination is made through a speculum. In the stuffiness of a cold in the head, or the distension of the tympanum from mucous collections in acute aural catarrh, the anomalies just referred to are most decided, and the tinnitus is well marked. Guided by an anatomical knowledge of the parts, I should infer that the malleo-incudal joint was most liable to injury, and that perhaps fixation of the stapes in the fenestra ovalis was not much less frequent.

The moment the integrity of the chain of ossicles and membrana tympani is disturbed, the hitherto unheard sounds of the circulation are transmitted to the auditory nerve by means of conduction through the partly isolated chain of ossicles. In health this could not take place, for sound-waves are then only conveyed to the nerve when impinging on the drum-head by way of the external auditory meatus.

The impracticability of sound-waves of an intratympanic nature ordinarily being heard is made clear by the researches of Helmholtz, who has shown that outward movements of the membrana tympani may be extended considerably before any traction on the stapes through the chain of ossicles is possible.† Hence in health all sounds of the circulation arising *within* the head are usually too feeble to be heard, unless the meatus externus be occluded, as by pressure of the fingers, when the sound will be reflected *back* on the drum-head, causing it to make responsive excursions, the circulation being thus heard as tinnitus so long as the meatus is closed. It is, therefore, when the integrity of the conductive apparatus is no longer maintained, that sounds of the circulation in the neighbourhood of the ear, which were previously unheard by the patient, are now heard by him with greater or less distinctness, and they are the source of the *ringing in the ears* which is then experienced. With this tinnitus, there is frequent coincident-friction sound of the ossicles.

It is thus seen that anomalies of the conductive apparatus, such as were just referred to, admit of the sound-waves of intracranial circulation creating a constant noise in the head of the patient. The sounds from the intracranial circulation should scarcely be designated as *noises*, for their pitch is musical, its quality depending in some measure on the force of the heart's action. The sounds which are sometimes designated as ticking, and are a frequent accompaniment of the singing, jar strangely on the ear, and should be classed as "noise".

The writer has been the subject of moderate singing in the ears for a long time, and has had, therefore, frequent opportunities for its study. When he is at work, or in the midst of a noise, the singing is unobserved; but when everything is quiet, and his attention is not drawn to any particular thing, the phenomenon is seldom out of mind. Sometimes, when first lying down in bed at night, the tinnitus increases, as it also does when he awakes suddenly. If he have been riding in a noisy conveyance, or standing near an engine letting off steam, or by the surf at the sea-side, there is afterwards for a time a continuance of the same sounds, the tinnitus seeming to assume the phase of the latest impression made on the organ of hearing. Patients from the different walks of life, describing the symptoms of tinnitus, are very likely to compare it to some sound with which they have long been familiar, as the surf, a waterfall, the wind in the trees, escaping steam, motions of machinery, etc.*

As might be expected, this symptom often carries with it great terror to the patient. He fancies that he is pursued by warning voices of impending death, or that the sounds are forerunners of some grave cerebral affection, or that they at least prognosticate an ever-advancing aural disease, which threatens total deafness.

The patient can usually be promptly assured, as regards these matters, of the simplicity and harmlessness of tinnitus aurium. When the patient once has this symptom associated with chronic diseases of the ear affecting the conductive apparatus, it seldom if ever entirely disappears, but it does not necessarily indicate activity in the aural affection, and is not prognostic, therefore, of advancing aural disease.

Tinnitus aurium is a symptom of frequent occurrence in old age, and may depend partly on trophic changes in the blood-vessels themselves or the tissues in which they are situated, thus altering the sounds of the circulation.

As intimated before, there are unmusical sounds sometimes heard in the ears in addition to the singing. These sounds are described by patients as resembling the ticking of a clock, the interrupted revolution of machinery, the puffing exhaust of a locomotive engine, etc. The unmusical sounds are not of so frequent occurrence as the singing, are seldom if ever experienced unaccompanied by the latter, and they are usually synchronous with the heart's action. I have witnessed the most striking examples in persons advanced in consumption, where the middle ear was the subject of a rapidly advancing purulent but painless inflammation, with breaking down of the structures composing the conductive apparatus. These patients describe noises occurring with the beating of the pulse, which resemble the tapping together of small pieces of wood or the like, or the ticking of a clock. In some instances these noises are affected by the position of the head of the patient, disappearing when a horizontal position is assumed, or they are in other instances only experienced in that position. These sounds are probably dependent in part on the concussion of the carotid artery, which, when transmitted to the ear, sets in motion the somewhat detached ossicles, giving rise to sounds of ticking, grating, etc. The presence of fluids in the tympanum would doubtless facilitate more or less the transmission of such vibrations. In some instances the singing tinnitus is not observed, while the ticking, etc., persists. Not unfrequently, I have seen examples where shaking the head seemed to occasion a rattling of the ear, in some instances the patient described the sensation experienced as noises occasioned by something loose in the ears or head.

Most persons must have experienced hearing the beating of the heart when the meatus is closed by the pressure occasioned by lying with the ear on a pillow. When the anomaly of separated ossicles exists, the heart's action is often heard uninterruptedly during the waking hours: a disagreeable and often alarming sensation.

Hearing the pulsation of the carotid artery is familiar to everyone.

In the absence of the drum-head, there is probably always less tinnitus, more or less fixation of the ossicles existing under these circumstances, especially of the head of the stapes in the fenestra ovalis, and the sounds of the circulation are not of sufficient intensity to be heard under these circumstances. An expression of wonderment can scarcely be suppressed in contemplating the mechanism of the conductive apparatus of the human ear; for, were the sounds of the intracranial circulation, or of the voice (autophony), heard at all times, the resulting interference with sound reaching the ear from without *viâ* the meatus externus would be too great to permit perfect hearing. The construction of the mechanism of the ear, however, is of such a character that no interference takes place so long as the integrity of the conductive apparatus, which in this connection should be regarded as inclusive of the petrous bone, remains in a normal state as an "incompressible whole".

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* *Vide* Helmholtz, translated by Buck and Smith, New York, 1873.

† Helmholtz, *op. cit.*, page 33.

* Tinnitus aurium is beautifully described by Sir William Wilde: *vide* his work, page 91, American edition, 1853.

In offering a new explanation of the origin of tinnitus aurium, contrary to that still held by eminent authorities, I will briefly allude to the course of investigation by which I was led to adopt my views. Although clinical observation has been the means of clearing up this subject somewhat, I am of the opinion that, when workers more competent than myself shall fully explore this subject from a physical rather than a physiological standpoint, their efforts will be rewarded by greater advances in this special field of otology than have hitherto been made.

My convictions, as I have already intimated, were reached mainly through clinical observations, the first result of my researches being the discovery that in certain individuals the acuteness of hearing was affected by the position of the head. A gentleman over seventy years of age was seen, who could not hear his watch ticking when it was laid upon his upturned ear; but when the position of his head was reversed, and the ear held over the watch, he could hear it distinctly. Soon afterwards, my attention was directed to a youth who was quite deaf from a non-purulent inflammation of both drum-heads, probably involving the drum also, induced by salt water bathing, but was suddenly restored to good hearing for a short period of time by diving into the water of the Hudson. The temporary improvement seeming to be due to the pressure exerted by the water on the drum-membranes, I was led to repeat the experiment by condensing the air in the meatus externus, when a like result was obtained.*

Clinical experience like this led to the conclusion that many anomalies of audition, hitherto supposed by me to arise from abnormalities in the inner ear, were really due to pathological conditions of the conductive apparatus.

In some cases, rarefaction or condensation of air in the meatus externus will greatly lessen severe tinnitus, perhaps by temporarily readjusting the displaced ossicula.†

ON OSTEOMALACIA (MOLLITIES OSSIUM) OCCURRING IN A CASE OF CHRONIC DEMENTIA,

WITH ILLUSTRATIVE SPECIMENS OF THE AFFECTED BONES.‡

By RINGROSE ATKINS, M.A., M.D.,
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THE specimens which are before me, and to which I am about to briefly call your attention, are interesting examples of an affection, which, though stated to be not an unfrequent accompaniment or complication of chronic cerebro-mental disease, is yet in my experience rare; and the facts of the case are such as, I believe, warrant me in bringing them before this Section of our Association.

Osteomalacia, or mollities ossium, as you are all aware, consists in a decalcification and gradual liquefaction of the bone-tissue, the etiological factors of this condition being, in the majority of instances, as yet obscure. It is characterised in the long bones by a gradual dilatation of the medullary canal, with thinning of the cortical substance, and which is, to a great extent, accompanied by a "fragilitas ossium", and often even by total softness and flexibility of the bones; and of this state the portions of the different bones on the table are well marked examples. They were taken from the body of a male patient, J. M., aged 55, for over fifteen years an inmate of the Cork District Lunatic Asylum, and for the last seven years of that period bedridden from contractions and rigidity of the lower limbs. He had originally been a soldier; and while in India some years before his admission to the asylum, he had, I presume in a paroxysm of mental alienation, removed the entire scrotum and testes. For several years subsequent to his admission, he was a lithe, active, and, I am told, a good-looking creature; while the reputation of his dancing powers still followed him when he first came under my observation towards the end of the year 1873. He was then, and had been for some years, a bedridden and aged-looking cripple, with the peculiar effeminate physiognomy and scanty and almost colourless hair of those deprived of the organs of generation. As he lay in bed, the knees were fixed immovably in the flexed position, and the joint-ends of the bones appeared enlarged, but this was only comparatively so, from the degree of emaciation to which the thighs and legs had been reduced; the former were partially flexed on the pelvis, and quite immovable. He very frequently complained of intense pains, which he located in the knees principally, and would cry out lustily if any manipulation were attempted on them; though in general he was one of the most uncomplaining and self-satisfied patients I ever knew; lying always on his back, from which he could by no means move himself; answering invariably, when questioned as to his condition, with a smile that he was quite well and hoped to be soon able to rise. He could use the arms and hands, and was scrupulously neat and clean in his habits and surroundings. He never allowed himself to get wet or dirty; and it may be to this that his complete immunity from any trace of bedsore during the seven years he so lay is to be attributed. He was, as I have just remarked, emaciated to an advanced degree; all the muscular groups of the limbs and the trunk being equally involved. His appetite was excellent; and, during the four years I knew him, he never suffered from any acute illness or functional disturbance of any organ. His mental condition was characterised by mild though persistent dementia, accompanied with delusions, which, curiously enough, were frequently of a most amatory nature. He knew the names of some of those immediately attending on him, while he entirely mistook the identity of others, though he recognised their appearance. He frequently fancied that the devil came to torment him when the apparently arthritic pains came on.

On Friday, November 30th, 1877, when paying my morning visit to the asylum hospital, I found him in his usual condition, contented and good-humoured; but on my return to the dormitory where he lay, in a little time, having passed along the wards, I found that, during that time, a strange fatality had occurred. The room which he occupied was a small associated dormitory, which, on the occasion in question, was being dusted down by a fellow-patient, a generally harmless and quiet young man. While the latter was thus employed, our patient requested him to desist, as he disliked the dust and disturbance; and, in return, the other came over to his bed, and playfully threw himself on him, with the effect of at once breaking both thighs about their upper thirds and both lower limbs, the right being fractured in the middle, the left in the lower third. The position the limbs had now assumed was very strange-looking; the thighs were completely flexed on the body, and their anterior surfaces lay along the abdomen, the knees resting on the clavicles; the calf of each leg was in close apposition with the posterior surface of each thigh, and the heels touched the buttocks. He made no cry or complaint of pain, and said to me that "it was a thing of nothing"; movement, however, of the broken limbs caused sharp pain. As the limbs could in nowise be straightened, and as the diseased condition of the bones was now made evident, from the slight force which had been sufficient to do such extensive damage, small splints secured with bandages were applied, merely to give support to the powerless legs, which lay a dead weight on the abdomen. After about a week, however, the groin and lateral surface of the abdomen at the left side began to strip and inflame, while small eschars formed at the seat of the fractures of the femora. The knees were further raised and supported on a kind of bridge placed across the bed. On the next day, quietly and without any indicative signs, he died.

I made a *post mortem* examination of the body twenty-four hours afterwards, and removed the head and portion of the humerus, the head of the femur, and the knee-joint, all from the right side. On first inspection, the surfaces of the bones, beyond being slightly enlarged, presented no deviation from the normal condition. On touching them, however, they were found to be almost as fragile as rotten timber. Any of the bones of the lower extremities mentioned could with facility be cut through with a scalpel, and the vertebral column cut during the removal of the spinal cord was in a similar condition. The head of the humerus was equally soft; but the calvarium was not notably affected. On section of the bones removed, the medullary portion was seen to be vastly enlarged, and the cortical layer proportionally diminished in thickness, being, over the heads of the humerus and femur, reduced to the thinness of paper; the cancellous tissue formed at the expense of the cortical was extremely delicate and friable, and its trabeculæ were everywhere loaded with a semifluid oily or fatty-looking material, which I have removed in great part by boiling. The cancellous tissue was not present in the shafts, but it made up almost entirely the heads of the bones, the morbid process being farthest advanced in the tibiæ and femora and least in the bones of the upper extremities. So softened was the osseous tissue, that a fine section was cut from the end of the tibia, and the patella was cut in halves with the scalpel, without the slightest resistance. The lower portion of the femur was so reduced in thickness as to be quite translucent. The brain, beyond some slight convolutional atrophy, showed no gross change. The spinal cord was smaller than usual. Prepared sections showed, in the brain, some thickening and irregularity in the course of the entering cortical vessels, while those deeper down were frequently seen surrounded with the remains of yellow exudation, or dotted with granules and nuclei, while irregularly edged spaces indicated where others had fallen out in the preparation of the specimen; the nerve-cells were more or less affected with pigmentary degeneration; some still preserved their outlines, though bereft of their branching processes and granular; while, again, large oval and but slightly coloured naked nuclei, surrounded by clear spaces, remained to testify to their once having formed part of now destroyed nerve-cells. The neuroglia superficially was coarse, and sparsely dotted here and there with fine brownish granules of hæmatoidin and leucocytes. In the spinal cord, the vessels were thickened; relatively more so than those in the brain. Throughout the cervical and dorsal regions, the nerve-cells of the anterior cornua were affected in different degrees, and unequally at each side. In several of the cervical sections, the majority of the cells had wellnigh disappeared or remained as granular rounded masses; in others, the latter condition predominated; while in the lumbar and sacral sections, beyond some yellow pigmentation and the occasional absence of the processes, the cells were intact. In several sections from the lower cervical and middle dorsal regions, the grey matter forming the junction between the anterior and posterior cornua was softened, and where frayed out presented a fibrillar appearance. The central canal was, throughout the entire length of the cord, completely obliterated by an agglomerated mass of nuclei (this condition is very frequently met with in many cords, and little if any pathological importance can be attached to it). The white columns were somewhat coarse, but presented no definite histological lesion. Sections of the right median nerve showed the intrafunicular connective tissue somewhat coarse, but the nerve-tissues, beyond being here and there diminished in size, presented no alterations of a morbid character. Similar examination of the right sciatic nerve revealed advanced degenerative lesions; to the naked eye, the different funiculi appeared widely separated from each other; and on staining with carmine, the intervening tissue became delicately coloured, and was found to consist of tracts of fine areolar tissue and clusters of adipose cells, with wide-mouthed vessels running through it, the walls of which were sclerosed and densely coloured; the funicular sheaths were much thickened and fibroid; and the funiculi themselves, which were in parts reduced in size, had shrunken from their sheaths. The nerve-tubuli composing the funiculi were for the most part normal in appearance, though many must have shrunken or disappeared to account for the reduction in size of the funiculi. The muscular tissue from the right biceps was but little altered, some of the fibres being here and there granular, and losing their striation; this condition was far advanced in the muscular tissue of the right semimembranosus, the fibres being reduced to granular masses, still preserving their outline, scarcely if at all coloured by carmine, while almost all trace of transverse striation had been lost. The fibres were separated from each other, and surrounded by adipose tissue, which gave to a piece of the muscle a greyish yellow appearance, and rendered it flabby and gelatinous and difficult to harden, while the biceps muscle quite retained its normal naked eye appearance, and this condition of the muscles thus corresponded, it will be seen, in the same ratio with the nerves and bones in the same situations.

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* *Vide* account of this case, *New York Medical Record*, January 13th, 1877.

† For a discussion on this subject, see paper by the author on the Relations of the Conductive Mechanism of the Ear to Abnormal Hearing (*Transactions of the American Otological Society*; Boston, 1879.)

‡ Read in the Section of Psychology at the Annual Meeting of the British Medical Association in Cork, August 1879.

Disease of the bones has been, as I have mentioned at the outset, now for a considerable period recognised as an accompaniment or complication of insanity. In the year 1842, Dr. Davey detected the existence of osteomalacia in those dying insane; and in a number of the *Medical Times* for that year, describes a case, occurring in a female patient, where six spontaneous fractures of the long bones had taken place; the same physician, in 1857, stated that he had met with six cases amongst the patients dying at Hanwell and Colney Hatch; and further, that the greater number of these cases were affected with general paralytic insanity. Drs. Clouston, Rogers, Brown, and Sankey have more recently (1870) called attention to a similar condition, directing attention especially to its presence in the ribs, thus rendering them excessively prone to fracture, and causing censure to be unjustly cast on attendants or others who may be in charge of such patients, and who may be blamed for using unnecessary violence where, in reality, the injuries received were, if not wholly, at least in great part, the result of disease and not external force. More recently still, Dr. Morselli of Florence has, in an able article in the *Revista Sperimentale di Freniatria e di Medicina Legale*, reviewed the entire literature of the subject, recording at the same time five cases coming under his own observation in which fractures of the ribs had occurred or were found *post mortem*. Dr. Morselli states that his conclusions have led him to believe that there is, in insanity, a tendency to softening and atrophy of the cortical part of the bones, with hypertrophy of the medullary canals and fatty degeneration of the medulla, and that this condition is usually not recognisable during life. To the direct relation between morbid states of the osseous system and definitely diseased conditions of the nervous centres, much interest has attached since attention was directed to their causal connection by M. Charcot. At the Manchester Meeting of the Association, that eminent pathologist exhibited specimens of the bones from a case of locomotor ataxy; in these, however, the heads of the long bones were deprived of their cartilages, and worn away and eroded, but not softened; while in that condition with which we are now engaged no external deformity had become evident, the morbid alteration being confined to the degeneration and semiliquefaction of internal portions of the bones, leaving their surfaces unaffected. Hence it becomes a question whether there be any connection as regards causation or dependence on primary nervous lesions between the two conditions. M. Charcot is of opinion that the deformities of the articular ends of the bones in ataxy are due to a lesion of the anterior cornua of the grey matter of the spinal cord consisting in a disappearance or diminution in the numbers of the motor ganglion cells there situated. In the case I have just recorded, microscopical examination revealed the existence of a lesion of this nature, though not to such an extent; and further, there were accompanying it muscular atrophy and degeneration and atrophic changes in the peripheral nerves, disturbances of nutrition which are known to be consecutive to destruction or degeneration of the motor ganglion cells of the cord.

Looking, however, to the facts of the case, it may be asked if these different lesions, which microscopical examination has revealed, are not the result, together with the osteomalacia, of the functional inertia to which the members were condemned from the long-continued disuse. In M. Charcot's ataxic cases, a certain degree of motility had been preserved; hence, this argument did not there hold good to such an extent as it does in the present instance, where the immobility, at least as regards the lower extremities, was complete. That this functional inertia played some part in the causation of the degeneration of the osseous tissue is, I think, rendered highly probable when the correspondence between the distribution of the latter and the inutility of the limbs is taken into consideration. The bone-softening, as can be seen in the specimens, is much farther advanced in the lower limbs, which were perfectly useless, than in the upper, which still retained the power of movement; and, further, the fact that the spinal column, which rarely moved, partook in the disease adds weight to this; while the same consideration applies to the muscles and peripheral nerves, which were affected in a like degree to the bones. Further, I have seen many cases where the destruction of the motor ganglion-cells had reached to a greater degree without any evidence of this having led to degeneration of the bones. Against such a view, however, it must be borne in mind that of all the many cases of permanent loss of motor power from cerebral hæmorrhage or other causes, spontaneous fractures of the limbs or breaks from slight injuries are in the highest degree infrequent; and here, of course, the same functional inertia is in existence; hence it is possible, and even probable, that in such cases as I have been considering, the primary nervous disease may have played a causal part in the alteration of the osseous structure, though as to whether this depended in any way on the histological lesion in the spinal cord, or had its origin in a defective nerve-nutrition generally, is by no means easy to say. Further, I should like to have the opinion of those around me, as to whether the loss of virile power could have had any influence in the induction of the lesions which these bones exhibit.

In osteomalacia, lactic acid has been found in the medulla of the hollow bones, and Billroth thinks it highly probable that the bone is dissolved by this acid, the lime passing into the blood, and being often excreted in large amount in the urine as oxalate of lime; but the causes which influence this production are as yet involved in obscurity.

A CASE OF HEREDITARY TENDENCY TO FRAGILITAS OSSIUM.

By R. W. GREENISH, M.R.C.S.

FROM the scanty literature of this subject, so little attention appears to have been given to it, that I am induced to record the following case, which came under my notice during my residence as assistant house-surgeon to the Huddersfield Infirmary, for permission to publish which I am indebted to Messrs. S. Knaggs and T. Brewer, surgeons to the institution.

J. G., aged 18, was admitted into the infirmary on August 23rd, 1878, with an ununited fracture of the left thigh. The following particulars were obtained from him. At the age of twelve, he broke his right thigh, and some years afterwards the fracture was repeated; in both instances uniting in the normal time. Both forearms had been broken, each three times, but he was unable to remember at what date. When very young, he broke his left thigh, which united and remained so till three years ago, when it was again broken, and this time did not unite till the expiration of a year. In a few months subsequently, it loosened again, but reunited shortly afterwards. Six months ago, it again broke, and it had remained ununited till his admission. Beyond this, he had never had any illness of importance. He had two sisters and two brothers; of the latter, one broke his arm and leg at the same time from a severe machinery accident. His father broke his thigh once. His grandfather broke his thigh several times, and was a cripple through the frequency of the fractures; he is said to have died from cancer.

The boy was somewhat stout, but flabby, pale, and very dull in intellect. There had been a fracture of the right thigh, which was firmly united. There was no evidence of fracture in the upper extremities. In the left femur, there had been a fracture a little above the middle; the fragments overlapped one another; no movement could be obtained between them, but the attempt gave rise to great pain; as far as could be made out, there was no bony union. As there was great wasting of the muscles of that limb, galvanism was resorted to, from which he seemed much improved, and was sent to a convalescent home.

On September 2nd, 1879, he was readmitted to the infirmary, with the left thigh again broken, and, so far as could be made out, in the same place. He stated that, while at the home, he was obliged to use crutches, but could put his foot to the ground. He was treated with long splint, weight-extension, and a gum and chalk bandage over the seat of fracture. He was discharged with the fractured bone quite firm.

R. G., aged 17, cousin to the above, was admitted on August 2nd, 1879, with fracture of the left femur. He stated that, ten years ago, he broke his left thigh; six years ago, his forearm (probably Colles's fracture); and three years ago, his forearm, about the middle. He had three brothers; two of these had had four fractures each, the other had had eight. His only living sister had been exempt from any. He had four other sisters, one of whom had three fractures. His father had had two fractures. Most of these occurred from slight accidents. The patient himself had enlarged submaxillary glands, but otherwise seemed quite healthy. The fracture united firmly.

In this family, the grandfather was an invalid from numerous fractures. He had three sons: one had one fracture; and of his children, one had thirteen and another two. His next son had two fractures; and of his children, one had four, another four, another eight, another four, and one that died three. The third son and two daughters had no fractures, nor had their descendants, as far as could be made out.

This case shows an hereditary tendency more decidedly than any case I have been able to find, and also very strikingly the early age at which it commences, the eldest in the latter case being only seventeen. Several other cases of fragilitas ossium are on record: thus Holmes, in his *System of Surgery*, quotes from Gibson *(Institute of Surgery*, vol. i) a youth of nineteen who had twenty-four fractures; and from Esquirol *(Practical Treatise on Fractures)* another with as many as two hundred. Earle *(St. Bartholomew's Hospital Reports)* records a case of eight fractures in a child of ten years; and Fleming *(Edinburgh Medical Journal*, vol. viii) fifty-three between the age of one and a half years and twenty-four. In all of these cases, union took place rapidly. Stanley *(Diseases of Bones)*, however, quotes a case of five fractures, with subsequent yielding of callus, and the patient had to be discharged incurable. Savory also mentions a case in which yielding of the callus took place. In all of these cases, only one member of the family was subject to the disease in question; but there are a few on record in which it seems to have been hereditary. Thus Arnott *(Medical Gazette*, June 1833) mentions a case of a child, fourteen years old, who had thirty-one fractures; and her sister, six years old, with nine. Jones of Louisiana (BRITISH MEDICAL JOURNAL, January 1870) records a case of a mulatto that had fifty fractures, with a cousin affected in the same way; and Stanley *(Diseases of Bones)* quotes Dr. Pauli of Leipzig, with a case that ran through three generations, but no particulars are given.

This disease seems to be quite apart from the more malignant one generally termed "mollities ossium"; for, while the latter occurs almost without exception after puberty, the former has in nearly every instance begun before that age, and often very early in life. In mollities ossium, too, the fracture rarely united; while, in fragilitas ossium, non-union is the exception—in fact (as Holmes has pointed out) it very often occurs more readily than is normal. Another form of tendency to fracture has been shown to occur in asylums; but here there has been a marked wasting of the bone tissue, and union is very rare. As regards the case I have given, there was no cause for the predisposition that I could find. Fractures were common in the Huddersfield district: thus, in twelve months, there were one hundred and thirty-three fractures attended at the infirmary, against fourteen dislocations, or 9.5 to 1.

AN ACCOUNT OF THE MICROSCOPICAL APPEARANCES IN A CASE OF ATHETOSIS.

By FLETCHER BEACH, M.B., M.R.C.P.,
Medical Superintendent of the Darenth Asylum.

SOME excellent microscopical drawings of the affected parts of the brain in the third case described in my recent paper (June 12th, p. 884), were made for me by my friend Mr. Marsh, of the Lincoln County Asylum. On examining them with No. 7 Hartnack, the chief changes noticed were, 1, great increase in the number of vessels; 2, distension of many of these vessels; 3, extensive infiltration of the tissue with leucocytes, especially in the perivascular sheaths of the vessels.

These changes were seen especially in the grey matter of the right inferior parietal lobule and first temporo-sphenoidal convolution. Examination of this part showed great infiltration of the white and especially the grey matter with leucocytes. The perivascular sheaths of all the vessels presented these bodies, which in some places formed a single layer, in others many layers, being in such quantity as to compress the vessel they surrounded. Generally they were rounded, but, where subjected to pressure, they assumed an oval or angular appearance. In several places, the vessels were much distended, and their sheaths filled with leucocytes, while further on the walls were absolutely crammed with these bodies, exerting pressure on the vessel, and reducing its lumen considerably. In two places, the leucocytes had escaped into the surrounding tissue. Here and there they were collected into dense masses, forming so-called "miliary abscesses". Very often the leucocytes were in such numbers as to entirely obscure the vessel, so that its course and distribution could only be seen by the direction taken by them. Many of the vessels contained clot, and in a few cases mixed with it were rounded bodies, which stained with carmine, showing their recent character. In some of the vessels, the blood-corpuscles had undergone a granular change, and in two specimens the clot appeared dark in the centre, the surrounding portions shading off gradually. In one vessel, the clot presented curved pressure-lines, with their long axes across the vessel, described by Dr. Gowers as being due to exposure to pressure by the blood-current. Many of the vessels were surrounded by spaces. The nerve-cells generally were unaltered. The grey matter of the left inferior parietal lobule and first temporo-sphenoidal convolution, and that of the left occipital convolution, showed excess of leucocytes, but no great excess of vessels. A few of these presented perivascular sheaths filled with leucocytes. In order to be certain as to the amount of change present, these sections were examined side by side with some from a man killed by an accident. The appearances described are very similar to those present in the medulla from a case of hydrophobia, exhibited a few years ago by Dr. Gowers at the Pathological Society. That the changes should be most marked in the right side of the brain, is no more than might be expected from the symptoms existing during the life of the patient.

EXPERIMENTS ON LIVING ANIMALS.—The report from the inspectors of the number of experiments performed on living animals during the year 1879 under licences granted under the Act 39 and 40 Vic., cap. 77, distinguishing painless from painful experiments, issued last week, shows that the total number of experiments performed under the licences and certificates was about 270. Dr. Busk says: "The number of experiments in which there is reason to believe that any material suffering was caused appears, from the statements received from the operators themselves, and from my own consideration of the nature and probable effects, as regards the production of pain, of the experiments under the certificates to have been about twenty-five. Of these, fifteen were cases in which disease followed the inoculation of infectious matter, but in which no painful operation was performed; and ten were experiments upon as many frogs, in which an incision of the skin was required for the introduction beneath it of a medical substance. In none of the other experiments under these certificates, as I am assured by the experimenters, was any appreciable suffering inflicted. As in all other experiments except those done under the above certificates, the whole proceeding is conducted whilst the animal is in an unconscious condition; no pain is inflicted if the provisions of the Act are duly observed, and this there is no reason to suppose is not in all cases carefully attended to."

CLINICAL MEMORANDA.

CASE OF ACUTE PNEUMONIA WITH UNUSUALLY HIGH TEMPERATURE: RECOVERY.

On May 7th, Adelaide D., aged 8, returned from the country. It was a cold day, with an east wind blowing, and the child travelled up from Somersetshire by train. The following day, she appeared poorly. On the 9th she had symptoms of a cold, and was kept indoors. On this day, she ate a good dinner in the middle of the day. At four o'clock in the afternoon, she had a severe rigor.

On the 10th, at 11 A.M., her temperature was 104.2°; respirations 40; pulse 150. She was thirsty, complained of headache, her tongue was coated, and she said she had some pain all over her chest. She was listless, and asked not to be moved. There was incessant hacking cough; no expectoration. There was no dulness to be heard over any part of the chest, either at the back or in front; but there was, about the middle of the *left* lung, behind, some sonoro-sibilant rhonchus, and, at the end of inspiration, a puff of crepitation. I ordered her to have a large linseed-meal poultice applied over the back, and to take five grains of nitrate of potash and five drops of ipecacuanha wine every four hours. Diet, milk and beef-tea; no stimulants.

On the 11th, at 9 A.M., the temperature had fallen to 100.6°; respirations 32; pulse 124. It seemed as if a crisis had taken place on the third day. The crepitation behind could scarcely be detected, and there was no dulness anywhere.

On the 12th, she was much worse; at 10 A.M., the temperature had risen to 104.2°; respirations 40; pulse 120. There was no crepitation or dulness behind, but over the whole of the right lung in front there was more or less bronchitic subcrepitant rhonchus. She was ordered to continue the same treatment, and the right chest to be poulticed in front.

On the 13th, at 10 A.M., the temperature was 103.4°, respirations 50, pulse 140. There was now tubular breathing over the whole of the right lung in front, and dulness on percussion, extending from the apex to below the nipple. There was no delirium, but she was quite deaf. She was ordered to have bark and ammonia, and a dessertspoonful of port wine every four hours; the chest still to be poulticed.

On the 14th, at 10 A.M., the temperature was 104.2°, pulse 150, respirations 50. She took nourishment badly. She could only take a little iced milk and the wine. The physical signs were the same.

On the 15th, at 10 A.M., the temperature was 105°, respirations 54, pulse 150. She was very restless; there was no lividity. She perspired freely. The dulness in front was *wooden*. She took very little except the wine. She was given some egg, milk, and whiskey mixture, but it made her violently sick.

On the 16th, at 10 A.M., her aspect was much worse. Muscular prostration was extreme. The temperature (in the axilla, and confirmed by two thermometers) was 106°; respirations 60; pulse 150. There was no alteration in the physical signs; but the child was apparently dying of hyperpyrexia. The temperature was going up a degree each day since the 13th, when it was 103.4°. My partners, Drs. Long and Gibbings, discussed with me what we should do under these circumstances. We decided not to apply cold, unless the temperature continued rising, but to give full doses of quinine. I gave, therefore, five grains every four hours. This was a full dose for a child eight years old. I also insisted on the little patient taking iced champagne, port wine, and egg mixture. At 7 P.M., one hour after the third dose of quinine, there was a change. The temperature had fallen to 101.2°; respirations 58; pulse 136. The patient was quite deaf. The quinine was reduced to one grain every four hours.

On the 17th, at 10 A.M., the temperature was 99°, respirations 40, pulse 100. There was no change in the physical signs; but the patient was rapidly improving, and took her nourishment well. She was ordered to discontinue the poulticing, and to have iodine liniment applied over the right lung in front.

On the 18th, at 10 A.M., the temperature was 97, respirations 26, pulse 100. Redux crepitation was heard at the right apex. In forty-eight hours, the temperature had fallen *nine degrees*. From this date, the child's recovery was rapid and complete. The crisis in this case undoubtedly took place on the eighth day, May 16th; and the point of interest is, had the quinine anything to do with the fall of temperature, or was it altogether crisis? In a disease like acute pneumonia, having generally an abrupt crisis, it is almost impossible to discover how much is due to the treatment, and how much is due to the natural course of the disease. If a sudden improvement follow venesection, which was the treatment some years ago; or the application of cold, as is now recommended; or the administration of full doses of quinine, as in my case, we are not always able definitely to decide how much was treatment, and how much was in spite of treatment. I have a strong impression that the quinine was of use in my case.

Frederick H. Daly, M.D., Queen's Road, Dalston.

"RÖTHELN": IS IT A NEW DISEASE?

In spite of what has been written on this disease, I confess that as yet I am not convinced that it is anything but a *second* modified attack of measles in those that have already had that complaint. This I also found to be the opinion of several of my professional brethren, whom I met at the annual meeting of the South-Western Branch at Plymouth on the 19th of this month.

In the Journal of last week, Dr. J. Robinson, whilst maintaining the distinctness of rötheln as a disease, in a measure confirms my view, as he says, "the majority of my cases occurred in children the greater portion of whom had had an attack of measles at some time previously"; again, "I saw the disease in three adults, all of whom had measles in childhood, and one of them scarlatina".

The cases that I have seen comprise both children and adults, and, as far as I can ascertain, *all* have previously had measles; and in every case, whilst the eruption has been very marked (covering the whole body), and resembling that of measles, the feverish symptoms, although in some cases severe at first, have not lasted above two or three days; in one well-marked case, the patient, a servant, insisted on going down on the third, and resumed her work on the morning of the fourth day from the first appearance of the rash.

Measles in the ordinary form are present in this city, and I do not see a greater modification in this disease than in variola after vaccination. John Woodman, F.R.C.S. (by Exam.), Exeter.

THERAPEUTIC MEMORANDA.

OLEATE OF BISMUTH IN ECZEMA.

In 1876, Messrs. Hopkins and Williams prepared, at my suggestion, an oleate of bismuth; and subsequently I wrote a paper describing its mode of preparation and therapeutical uses, which was read by Mr. Betty at the Pharmaceutical Society on the 9th of December, 1876, and duly reported in their journal. I had then already had some experience of its value; and a more extended trial has warranted me in describing it as an useful remedy in many cases of catarrhal inflammation of the skin. I have found it specially useful in gouty eczema. Suitably diluted, it is very serviceable in gonorrhœal discharges and in otorrhœa.

Louis Lewis, M.D., Albert Street, Regent's Park.

DANGER ATTENDING THE ADMINISTRATION OF CHIAN TURPENTINE.

Chian turpentine has been proposed as a remedy in certain forms of cancer; it is therefore desirable that those who prescribe it should know that a very serious result may follow its administration, since it appears to be sometimes absolutely indigestible; indeed, it may reasonably be inquired whether it is *ever* digested.

A patient of mine, suffering from cancer of the pancreas, eager to catch at any straw, procured, unknown to me, a box of Chian turpentine pills from Mr. Clay of Birmingham. She took in all about thirty pills; when, finding herself no better, but rather worse, she discontinued the medicine. She began the pills on April 27th; on May 25th, or about three weeks after taking the last pill, she vomited a solid, sticky, yellow, fish-shaped mass, smelling strongly of turpentine, weighing one hundred grains, and measuring two inches and a half by three-quarters of an inch, and being in depth a quarter of an inch, apparently a crude undigested block of Chian turpentine.

William F. Marsh Jackson, M.R.C.S.

Cork District Lunatic Asylum.—Dr. Hatchell, one of the inspectors of lunatic asylums in Ireland, has recently visited this institution, and reports that he found every part of the asylum in all respects in a most satisfactory condition, with the exception of the airing-yards, which are at present unavailable for want of sanitary arrangements. He saw all the patients, and they seemed to be most carefully attended to, being well cared for and cleanly in their persons. There are at present in the asylum 435 males and 439 females, making a total of 874. Of this number, 227 are chargeable to the city of Cork and 647 to the county. Their sanitary condition is very satisfactory, there being at the time of inspection only four patients in bed in the divisions who did not require to be sent to hospital, and eight in the latter department, making but twelve confined to bed out of the entire number.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

GUY'S HOSPITAL.

A CASE OF STRETCHING AND SUBSEQUENT SECTION OF THE GREAT SCIATIC NERVE.

(Under the care of Mr. GOLDING-BIRD.)

[From the report of Mr. J. W. LONG.]

W. A., AGED 21, a grocer's assistant, was admitted into Guy's Hospital, under Mr. Golding-Bird, on February 6th, 1878. An abstract of his case is as follows. He was a pale, fair-haired, thin, and excitable lad, in a bad state of health, and was then suffering from an inflamed bursa under the tendon of the left sartorius, over the inner tuberosity of the tibia. On March 1st, the bursa was opened under the spray; but the incision was very slow to heal, and had barely closed by May 1st, when he was discharged on crutches. There was then some evident thickening of the synovial membrane of the left knee, and limited movement in the joint. In spite of treatment, he went from bad to worse till November 27th, 1878, when, having been readmitted, the left knee-joint was excised. In three weeks, the wound had healed, when suddenly ostitis appeared in the ends of both the bones. On January 21st, 1879, a sequestrum was removed from the femur; and on the 26th amputation through the lower third of the thigh was performed; antero-posterior flaps—skin and muscle—were made. The stump healed by primary union; but ostitis set in again on February 9th, with so severe and constant pain, that the lad was nearly worn out. In the stump, though very carefully examined, no special spot of pain could be found; but any pressure on the thickened end of the bone aggravated his suffering: the pain was referred generally to the foot. He was now sent to the seaside until June 27th, being treated during that time with tonics and unguentum hydrargyri; and, on an examination of the stump at this last date, the bone was found reduced in size, and the pain could be increased only by pressure upon two spots in the posterior flap, one on either side of the median line. The lad was in constant pain, but it was worse when he was sitting than standing. On July 2nd, these two spots were explored, and about two inches of each popliteal nerve were removed. The pieces of nerve were not bulbous, but ended in cicatricial tissue. On July 15th, the wounds had quite healed, but the pain was just the same, still referred to the foot, and following exactly the final distribution there of the great sciatic nerve. The patient's general health was now suffering from the constant pain and loss of rest, in spite of injections of morphia; and therefore reamputation was performed somewhat above the middle of the thigh. The stump healed by primary union, and on August 16th the lad was discharged to Bognor, as unrelieved as ever. He was readmitted into Guy's on September 29th, 1879, with his general health much improved, but the pain as severe as before, though slightly altered in character; it was now more paroxysmal, and confined to these spots—viz., across the heads of the metatarsal bones, between the great and second toes, on the outer side of the ankle, and in the heel. On firm pressure being made over the great sciatic nerve, in the buttock, the pain was at once intensified. It was therefore decided to stretch the trunk of the great sciatic nerve; and this was done on October 3rd. The nerve was cut down upon (under the spray) between the tuber ischii and great trochanter; the forefinger was slipped around it, and the nerve forcibly tugged several times, till it rose from the wound like the handle of a bucket. It was then seized between the thumb and finger, and forcibly pulled in the direction of both its central and peripheral attachments. It was then returned to its place, and the wound closed. On October 4th, the pain was much less intense, though still referred to the same spots in the foot. Morning temperature 98.8°. Later in the day the pain shifted, and, leaving the heel entirely, was confined to the front of the foot. On the evening of the 5th, the patient described the pain as more severe, and as proceeding from the spine, and passing along the line of the incision in the buttock to the stump and foot. On the 7th, the pain was increasing in severity, and worse in the evening and night, augmenting from about 5 P.M. Its character was again changed: the pain on the outer side of the foot and between the great and second toes was numb; that across the heads of the metatarsal bones was intermittent; but that in the heel as intense as ever. The patient remained thus a fortnight, and on October 21st he desired that something further might be done to relieve him of the pain in the heel, which was unbearable. The stump was very carefully examined, and a small spot was found in the middle of the cicatrix at the edge of the posterior flap, on the pressing of which, all the pain in the foot was much increased: the stump had frequently been examined for any tender spot before, but this was the first time that one was found. It was now excised; and, though examined with the aid of osmic acid, no trace of nerve-structure could be found.

On October 31st, the stump could be pressed anywhere without pain, but the patient was not otherwise relieved; and pressure in the buttock over the sciatic nerve gave as much suffering as before the nerve was stretched. On November 4th, the sciatic nerve was again exposed as before, under the spray, and an inch of it excised; the next day, the pain was reduced to "pins and needles", but could be still localised as formerly. On November 17th, the lad was up and about, the pain being but slight, and of the character just named: there was loss of sensation in the lower end of the posterior flap; the patient could bear his weight on the stump, and was discharged to Bognor.

On January 6th, 1880, he returned to town, and reported himself well; he could still feel "as though he had a foot", but that was all, excepting an occasional neuralgic pain along its outer side.

REMARKS.—This is an interesting example of the class of cases often seen, where, after section of a nerve, by amputation of the limb, persistent neuralgia—true nerve-pain without any discoverable material cause—remains. Neither bulbous nerves nor nerves ending in cicatricial tissue explain the pain this patient suffered; and, though accompanied by ostitis, it appeared to be independent of it. He belonged to an excitable and imaginative class of beings, who mostly furnish like cases, and whom general treatment and even reamputation fail often to cure. The failure of the stretching of the sciatic nerve to give relief can only be accounted for on the assumption that insufficient extension was employed. The nerve was, however, pulled till the patient's hips were almost raised from the table, and until it seemed on the point of being torn from its attachments. It lay in wrinkles when returned to its bed, as though actually longer.* Since reamputation—*i. e.*, a fresh section of the nerve—had been unsuccessful, it was surprising that a fresh division of the nerve, as was done on November 4th, should have cured; but the fact remains that it did so.† Such a step would not have been justifiable had the pain been in an entire limb; but permanent paralysis of a thigh-stump is of little consequence.

MIDDLESEX HOSPITAL.

CASES OF CANCEROUS DISEASE.

(Under the care of Mr. HENRY MORRIS.)

(*Continued from page 926.*)

CASE IV. *Excision of the Right Half of the Lower Jaw for Epithelioma of the Face, frequently recurrent, affecting the Bone.*—Edward McC., aged 46, who had been in the army, was admitted on October 7th, 1879, into Forbes Ward, for epithelioma of the face. His parents were both dead. His father had died of old age; his mother of dysentery, in India. There was no history of phthisis or of cancer in the family. One year ago last March, the patient had first noticed, whilst smoking a new clay pipe, that it stuck to his lips, and, in taking it from his mouth, some skin was torn away, and a little bleeding occurred. A small hard lump appeared three months afterwards, and the glands of the neck began to swell; he was told by a medical man he had cancer of the lip, and was advised to have it removed. He then went to Guy's Hospital, last June twelvemonths, and was operated upon by Mr. Golding Bird, who removed the cancer and gland. The patient stated that the wound closed up in three days, and he was out of the hospital in a fortnight after the operation. The disease recurred in a gland on the opposite side in September (three months after the operation), which Mr. Durham removed at Guy's Hospital. About the end of May, another swelling appeared in the right cheek, and he received a blow on it by the chain of a travelling crane. The lump then grew larger, and he saw his club doctor, who removed it on June 2, 1879. The next morning, swelling appeared in the cheek, which had continued until the present time. About five weeks later, he again went to Guy's Hospital, where another gland was removed from beneath the jaw. He was there told that nothing more, short of removal of the lower jaw, could be done, but to this he would not consent at that time.

On admission (October 4th), just above the lower border of the horizontal ramus of the jaw to the right of the symphysis, was an elongated narrow granular sore, an inch and a quarter in length, the granulations of which were red and discharging a little yellow pus. Amongst the granulations existed a fissure, extending obliquely backwards and upwards to carious bone, and an offensive discharge, consisting chiefly of saliva, escaped through it. Between this sore and the attachment of the mucous membrane to the upper jaw, all the tissues of the cheek, excepting the skin, were indurated and thickened, causing much swelling of the right side of the face, and leading to œdema of the lower right eyelid. The outer surface of the angle of the jaw was obscured by a closely adherent firm mass, about the size of half a walnut, which was continuous below the angle, with a considerable and hard mass extending back to the somewhat obscured anterior edge of the sterno-mastoid muscle. This again was continuous with another mass, which spread downwards along the side of the larynx. The mass, behind and below the jaw, was rapidly increasing—indeed, it was only during the last few days that it had assumed anything like its present proportion. His sufferings were very great, causing him to sit up more than half the night, and, as he said, "driving him wild". The severe nature of the only useful operation and its doubtful advantage were placed prominently before the patient; but, at his request, to use his own words, "that a nerve should be cut if the entire removal of the diseased parts could not be effected", Mr. Morris operated.

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* Compare *Die Nerven-Dehnung als Operation in der Chirurgischen Praxis*, by Vogt, p. 33, case 8.

† *Ibid.*, p. 51. The combined operations may have secured this result: not neurotomy only.

October 9th. *Operation.*—An anæsthetic being administered, an incision was commenced at the symphysis in the usual way, but, instead of being carried along the lower border of the jaw, it was taken along a somewhat lower level, in a curvilinear manner, so as to include the diseased tissues on the outer surface of the jaw. Another incision was carried along the face, above the ulceration, and the facial flap, including the skin only, was dissected up. The jaw was then divided by means of a straight finger-saw. The growth was cut through behind the angle, and the jaw removed at the articulation, with a portion of the growth still attached. Hæmorrhage, which was not great, was stopped. Next, by prolonging the horizontal incision backwards as far as the sterno-mastoid muscle, the posterior part of the cervical mass was enucleated entire with the scalpel; whilst its anterior portion, which was soft and easily crushed, was gouged away from beneath the muscles. Finally, the thickened tissues of the cheek were cut away from the skin of the face and along the alveolar border of the upper jaw. Sutures brought together the edges of the wound at the fore and hind parts, and three hare-lip pins approximated them at the centre, where, owing to the free quarter given to the ulcerated part of the skin, the edges could not be brought into apposition. The jawbone was much diseased on its outer surface, especially at the junction of the alveolar border with the vertical ramus. To the naked eye, the appearances of the growth attached to the bone were those of a firm whitish fleshy structure.

4.15 P.M. An injection of morphia (one-fourth of a grain) was administered immediately after the operation. He had been sleeping soundly since the operation; but now awoke, and expressed himself free from pain. Pulse 68. 9 P.M. Temperature 101.8°; pulse 88.

October 10th, 9 A.M. Temperature 99.8°. He had had a very good night, and expressed himself much relieved by the operation. The wound was looking quiet. 9 P.M. Temperature 100.2°; pulse 76.

October 11th, 9 A.M. Temperature 101.2°; pulse 84. All the sutures, including the hare-lip pins, were removed. He had complained of no pain since the operation, and had only a tired feeling when the head was long in one position. There was no gaping after the removal of the sutures. The aperture left at the centre of the wound was not larger than the surface of a prune; the wound was dressed with terebene oil.

October 12th, 9 A.M. Temperature 100.2°; pulse 76. The patient was very comfortable. He had had no pain since the operation. He slept well. The wound was looking well.

October 14th. Temperature 98.4°; pulse 80. He complained of a little pain in swallowing. The wound was discharging very freely.

October 17th. Temperature 98°; pulse 68. The wound was looking healthy and healing by granulations. There was a little swelling under the throat, which was very tender. Mr. Hartley (house-surgeon) opened it, and about one ounce of pus escaped, and the patient expressed himself relieved.

October 18th. Temperature 98.4°; pulse 68. He felt much easier this morning, and had had a very comfortable night.

October 20th. Temperature 98.4°; pulse 72. There was not much discharge from the wound. He was very comfortable, except in swallowing, when he had a little pain.

October 23rd. Temperature 99°; pulse 72. The discomfort in swallowing continued. He felt very drowsy. The discharge was decreasing, the wound looking healthy.

October 24th. Temperature 100.2°; pulse 80. The wound was healed with the exception of a place of the size of a florin, opposite the former site of the angle of the jaw. In the centre of this was a hole large enough to admit the tip of the little finger, through which a probe could be passed inwards and backwards above the epiglottis. There was considerable brawny swelling of the right cheek and temple. The right eyelids were partially closed from œdema. Two drachms of puriform fluid were squeezed out from below the wound. He complained of nothing excepting swallowing. This difficulty was one of slight pain during deglutition, rather than of obstruction or of food going into the air passages. The fauces acted normally.

October 28th. The patient had permission to go out for a few hours, to receive some club money or pension, and did not return. It was understood he had acted in a similar manner at Guy's Hospital.

REMARKS.—The operation was undertaken solely for the relief of suffering, which was of such an extreme character and so impatiently borne that the man's sanity was considered in danger if ease and sleep were not obtained. In this state, and being urged by the patient himself "to do anything, even if it was only cutting a nerve", Mr. Morris did not feel justified in refusing to give him the advantage of the temporary benefit which could accrue from the removal of the disease, even though a speedy recurrence seemed inevitable. The relief from suffering, and the marked improvement in his mental disposition which followed the operation were enormous. How long this was maintained was not known, as he left the hospital within three weeks of the operation, and has not since been heard of.

EAST RIDING OF YORKSHIRE ASYLUM.

GASTRIC ULCER: SUDDEN DEATH FROM HÆMORRHAGE INTO THE STOMACH.

(Reported by H. G. JAMES, L.R.C.P., Assistant Medical Officer.)

W. S., aged 55, a tall spare man, was admitted October 25th, 1871, under transfer from the North Riding Asylum, where he had been for several years previously. He was in fair bodily health, suffering from melancholia.

For two years and a half after admission, he seems to have enjoyed fairly good health, but subject at times to attacks of extreme despondency, when he would assert that he was going to die, etc. On May 2nd, 1873, he had a severe attack of hæmatemesis, which produced great prostration: he was treated with opium, chloric ether, ammonia, and ice. Under this treatment he rallied, but two days afterwards he had a recurrence of the hæmorrhage, which produced still greater prostration and necessitated his being fed for some days with nutrient enemata. After this period, he seems to have enjoyed fair bodily health up to the autumn of 1878. During the last year of his life, the fits of depression occurred more frequently, and he sometimes became noisy and excited in the intervals between these attacks. On November 13th, 1878, he was reported as having been more than usually depressed for the last few days; he said he was going to die. From this period, he began to lose flesh, and became pale and tremulous.

On January 26th, 1879, at 3 A.M., I was called to see him. He lay in bed with his feet drawn up and his hands clasped over his chest. His face and lips were livid; the respirations were feeble and gasping, the pulse scarcely perceptible; he was unable to articulate. There was no vomiting, nor discharge of any sort from the mouth or rectum. He was seen by the night-watch an hour previously, when he did not complain of anything, but was wakeful. Stimulants were given, and a hot jar applied to his feet; but he never rallied, and died at 4.30 A.M.

Post mortem appearances, thirty-five hours after death. The dura mater was much thickened, and adherent throughout its whole extent to the skull. It was divisible into two layers: the inner layer presenting a fibrillated appearance. The vessels of the pia mater were congested. The brain weighed 51¾ oz. The corpora striata were soft. There was mucoid degeneration of the choroid plexus. Two ounces of fluid escaped on removal of the brain. The pericardium contained about half an ounce of clear fluid. All the cavities of the heart were empty, except the left auricle, which contained some fluid blood. There was some atheroma of the aorta, but the valves were competent. The muscular structure was pale. The posterior surface of both lungs was congested. The liver was normal. The kidneys were pale, waxy looking; they gave no reaction with iodine solution. The stomach was enormously distended, and was found to be filled with blood, fluid and coagulated, presenting a dark grumous appearance. On examination of the walls of the stomach, two ulcers were found near the pyloric end; they were each about the size of a shilling, and were distant from one another about an inch. They involved the entire thickness of the stomach, except a thin layer of its external fibrous coat. The margin of one of the ulcers had a hard cartilaginous feel. The greater portion of the ascending duodenum was filled with blood.

A point worthy of notice in the above case is the great amount of hæmorrhage which took place into the stomach, without any of the blood being vomited or passed by stools; its sudden occurrence; and the absence of pain or other premonitory symptom. In fact, the symptoms before death resembled more those of heart-disease than of any abdominal affection.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 2ND, 1880.

W. S. PLAYFAIR, M.D., President, in the Chair.

Fœtal Monstrosity.—Dr. CHALMERS showed, for Dr. Maclaurin, a fœtal monster in its seventh month. There was a single head, and the bodies were united in front as low as the umbilicus. The monster presented by the feet, and was expelled by the natural forces.

Retroflexion of the Uterus.—Dr. CHAMPNEYS showed a specimen of a retroflexed uterus, in which the wall on the concave side of the curve was much thicker than the other.—Dr. GRAILY HEWITT pointed out that at the early stage of the affection thickening might occur at the concave side of the bend, but later on there was atrophy.

Pathological Anatomy of Erosion of the Cervix.—Dr. GALABIN showed microscopical sections of two totally different forms of erosion. The first closely approximated to true ulceration. Epithelium was entirely lost, as well as the normal papillæ, and the tissue resembled granulation-tissue. It was bounded by intact squamous epithelium toward the os, as well as on the other side. The second resembled an extension outwards of a surface resembling the interior of the cervical canal, but with hypertrophy of tissue in a villous form, as described by Ruge and Veit. The apparently eroded surface was covered with cylindrical epithelium.

Encephalocele.—Dr. CLEVELAND showed a child born at full term, the subject of a large encephalocele, from the practice of Mr. G. S. Walker of Kilburn. The mother had a severe mental shock about a fortnight after quickening. The tumour was about the size of a cocoa-nut. The child lived forty-four hours, and died of inanition.

Uterine Tumour.—Dr. T. CHAMBERS showed a tumour, diagnosed as fibro-cystic of the uterus, which he had that day removed with the ovaries by abdominal section antiseptically. The incision was twelve inches long. The broad ligaments were transfixed and tied, the cervix inclosed in the author's parallel clamp, the tumour cut away, the cervix afterwards transfixed and tied. One artery was not controlled by the clamp, and required separate ligature.—Dr. BANTOCK said that, in applying a parallel clamp to the cervix, the tissues at each side, containing numerous vessels, could not be sufficiently compressed to prevent bleeding. Some circular pressure was necessary. Moreover, he had found that, however tight ligatures might be at first, they became loose after a time on account of the nature of uterine tissue. He was inclined to recommend Kœberle's serre-nœud, the constricting force to be applied gently, and increased from day to day.

Two Cases of Extra-uterine Fœtation, with Results.—Dr. CHARLES H. CARTER related these cases. The first patient, aged 38, was admitted as an urgent case of extra-uterine fœtation. She was in a very critical state; pulse 150. There was a tumour toward the right side as high as the umbilicus, and continuous with a soft doughy mass occupying the pouch of Douglas. Menses had ceased, and she had supposed herself pregnant, in December 1878. In April 1879, she was in St. Bartholomew's Hospital under Dr. Matthews Duncan, with supposed retroversion of the gravid uterus; and an attempt was made to push up the swelling. At the end of August, she passed a large substance by the vagina; and was readmitted in September. Extra-uterine fœtation was then diagnosed, the fœtal heart having been heard on her first coming to the out-patient room, but afterwards ceasing. The uterine probe entered six inches into the abdominal hardness, and the point felt as if less than the thickness of the unimpregnated uterine wall covered it. The patient left against advice. A fortnight before her admission under the author on January 13th, 1880, she was seized with abdominal pain. A superficial abscess, pointing near the umbilicus, was opened on the 26th, and fœtid pus and *débris* let out. On February 12th, a piece of bone was felt by a probe; the opening was enlarged, and the fœtus extracted. The placenta did not come away with the fœtus, and the discharge was very offensive for three days. A discharge took place *per vaginam* on the 23rd, and the patient afterwards quickly recovered. The second patient, aged 34, was admitted in July 1879 for what was supposed to be pelvic cellulitis. The uterus was fixed, and there was a swelling on the left side up and about an inch above the iliac crest. She went out on October 8th, the swelling being smaller. At the end of October, some fœtal bones were passed *per rectum*, and she was readmitted in December. Discharge of bones went on until May, when some large flat pieces were nipped in two and extracted. The author thought that, if he had diagnosed this case in the earlier stage, he should have been justified in endeavouring to evacuate the cyst through the abdomen.—Dr. POOLE asked if the hand introduced into the rectum would not have been useful in the second case. He thought that the small female hand, or that of a medical man of small stature, might be turned to useful account.—Dr. CHAMPNEYS asked if the fluid had been examined for bacteria in the first case. It seemed to be one of septic intoxication as opposed to septic infection, in which living and prolific element was introduced.—Dr. GODSON said that the first case illustrated the difficulty of diagnosing between a retroverted gravid uterus and extra-uterine fœtation, and the importance of not using too much force in attempting to replace.—Dr. GERVIS referred to the aid in diagnosis to be obtained from noticing the hardening of the fundus of the retroverted uterus.—Dr. CARTER, in reply, said that the incision was not made with strict antiseptic precautions, though the cavity was frequently washed out with carbolic lotion. He had not examined the fluid for bacteria.

Report on Sixty-seven Cases of Uterine Distortion or Displacement treated during Seven Years at All Saints' Institution for Ladies.—Dr. GRAILY HEWITT presented a report of cases treated during seven years. The patients were governesses, ladies dependent on their own exertions in various ways, wives of curates, etc. The cases comprised various forms of uterine displacement, associated with great weakness, with a slow but disguised form of starvation, and more or less complete inability to walk or move about in the ordinary manner. In several cases, the patients were bed-ridden; in others, power of locomotion was so impaired that employment had to be relinquished; in others, the malady, though not so severe, had been found intractable. Great weakness, more or less inability to walk (uterine dyskinesia), and general malnutrition, were coupled with various degrees and forms of uterine distortion and displacement, causing pain on locomotion, sickness, menstrual irregularities. The sixty-seven cases were resolved into two classes: (A) forty-five of anteversion or flexion; (B) twenty-two of retroversion or flexion. (A). Thirty were single, fifteen married. The severity of some of these may be judged of by the time required for treatment. One, a case of chronic invalidism, was under treatment fifteen weeks, at intervals spread over thirteen months. Another, whose most distressing symptom was obstinate sickness, was cured satisfactorily only after two years and a quarter, and spent twenty-five weeks in the institution. A completely bedridden case, with hysterical symptoms of long standing, was under treatment over one year—thirty weeks in the institution. The cure was finally complete in these cases. Other similarly obstinate cases were mentioned. In one case of chronic anteflexion not long under treatment, circumstances prevented a return for further treatment, and after upwards of a year the affection proved fatal. (B). Of the cases of retroversion or flexion, fourteen were single, eight married. One patient required fourteen weeks' treatment, the chief symptom being sickness. In another, treatment was afforded at intervals during over two years. The uterus was much retroflexed, and the ovaries dragged downwards. Locomotion, impossible at first, was finally fairly restored. One was a case of almost complete paraplegia, complicated by a spinal injury; but the power of locomotion was greatly improved under treatment. Of the whole sixty-seven, a very large proportion were restored to health and usefulness. The treatment adopted was as follows. The patients were kept recumbent: in the dorsal position in cases of forward displacement, in the semi-prone position in cases of backward displacement. In most of the cases, semi-starvation being recognised as existing, sometimes of some years' standing, food easily assimilable was frequently given, sometimes every hour; in case of sickness, nutrient enemata. Some cases required months of careful dietetic treatment to restore general strength. To restore the uterus to proper condition, simple measures were employed; in some, positional treatment, such as prone or dorsal or knee-elbow position, systematically and frequently; but in most cases other measures were necessary. In cases of forward displacement the cradle-pessary, in backward the Hodge's pessary, were employed. The sound was used at intervals to aid in restoring the uterus to proper shape, when the uterus was found hardened in its distorted shape. The sponge-bath, frictions of the skin, great care to prevent constipation, were other subsidiary measures. The principle adopted was to gently elevate the fundus uteri; to straighten the canal; to avoid what was likely to interfere with mechanical restoration; to nourish the frame and harden the tissues by careful feeding, and thus harden and set the uterus in its normal shape. The cases offered strong evidence of the connection between the health of the body generally and that of the generative organs, especially of the uterus; and they showed that, if the strength were not adequately sustained during the growing age, the uterus was liable to suffer, and to become weak and incapable of resisting the physical strain and tension of an ordinary active life. It was quite easy to trace, in the early history of the cases, this almost universal predisposition. These considerations showed that local uterine treatment could not be expected to be permanently successful unless measures were taken to remedy the extreme general weakness. The physical change most evident in the uterine tissues in cases of prolonged insufficiency of food, was softening and loss of tonicity. A second general conclusion was the remarkable frequency with which these patients were affected with physical powerlessness, an incapability of locomotion varying in degree. This peculiar symptom the author had termed "uterine dyskinesia". It was present in a marked form in almost all the cases, and in most it was the prominent symptom. Physical exertion produced a temporary exaggeration of the existing internal malady, caused pain, and was thus given up; hence a helpless invalidism in many cases. This physical inability was not imaginary or fanciful, though often erroneously so considered. Another general remark was as to the frequency of sickness or nausea as a troublesome symptom and complication in these cases. The cases proved that distortions and displacements of the uterus, when aggravated or increased temporarily or persistently by particular exertions, were liable to produce an exceedingly troublesome form of sickness or nausea. This was a reflex symptom. A secondary effect was starvation. Later on, the stomach itself became diseased, and the power of secreting gastric juice was more or less lost.—Dr. GERVIS had seen cases in which the postural method had been adopted for many months with only the result of impairment of the patient's health. He would fear that, if fully carried out, it would benefit the position of the uterus only to the damage of the patient's general health. Dr. Hewitt spoke of leaving pessaries undisturbed for several months. He thought they ought to be removed at moderately short intervals, for the sake of observing the position of the uterus, as well as for cleanliness. His belief as to flexions was, that their importance largely depended upon the amount of obstruction induced by them in the cervical canal. He had for some time treated very few cases of anteflexion with pessaries, but rather by dilating the cervical canal with uterine bougies, with a very satisfactory result.—Dr. ROUTH believed that uterine disease, as a cause of mental symptoms and even insanity, was often overlooked; but he could not concur with the practice of keeping patients long reclining, and thought general debility and other symptoms were likely to be aggravated thereby. He differed also as regards the use of the cradle-pessary, from which he had never seen any good result. He had seen serious inflammation follow its use in less experienced hands. In the case of anteflexion, he believed that nothing short of an intra-uterine stem would cure the patient. If his own variety of it, or that of Dr. Wynn Williams, were used, the patient might be allowed to go about, and the stem kept in five or six months.—On the motion of Dr. BANTOCK, seconded by Dr. ROGERS, the discussion of Dr. Graily Hewitt's paper was adjourned until the next meeting.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 3RD, 1880.

SIR JOSEPH FAYRER, K.C.S.I., M.D., President, in the Chair.

Endemic Plague in India.—Dr. FRANCIS read a paper on this subject. After pointing out, on a map of India, the position of Kumaon and Gurhwal—the only portion of the Himalayan chain in which the plague (known locally as Mahamurree, Poolkiarog, and Golarog) had appeared, although others were, perhaps, in a state quite as unsanitary—the author alluded to the ethnology of the people, who claimed a Rajpoot descent, and gave a brief sketch of the physical geography and geology of the country and of the approaches to it from the plain of Thibet. Of the ground available for this purpose, there was but little, comparatively, under cultivation; the population was sparse and scattered. The people possessed but little stamina, their food consisting chiefly of cakes made from a certain grass, and simple herbs, in which nettles abounded. The Kumaonee wore cotton, the Gurhwalee woollen clothing; this last affording a favourable nidus for the residence of the mahamurree poison. The personal habits and general surroundings of both classes (of the Gurhwalee especially) were filthy in the extreme; overcrowding and defective ventilation were conspicuous; and the plague-stricken dead were superficially buried by the survivors in a rocky soil in the immediate vicinity of their homes. Rats were found dead in the morning, as if suffocated, on the floor of the sleeping-apartments; and dead snakes were occasionally picked up near the villages, with now and then, it was said, a jackal. Mahamurree, known since 1823, but in existence probably much earlier, frequently accompanied by glandular swellings and hæmorrhages, and characterised in its most fatal forms (carrying off 95 per cent. of those affected) by the extreme brevity of an attack without any prominent symptoms, was endemic bubonic plague, caused by an animal poison generated by the operation of local conditions. It was in no way modified by malaria, which here, as in other parts of India, induced intermittent and remittents. Cholera was sometimes fatally prevalent, as was foot-and-mouth disease in cattle; but both existed independently of mahamurree. The disease usually broke out towards the end of the rains, and continued (often) till the beginning of December, when it became quiescent. It might break out again in March and continue till May, when for the time it disappeared altogether. It was intensely contagious amongst the people themselves; but the pilgrims who annually visited the shrines situated near the snow-clad peaks and the Bhotiyehs, living in villages from 7,000 to 12,000 feet above the sea's level, and conveying merchandise between the plains of India and Thibet, and *vice versâ*, were, it was believed, never attacked—at least not in the present days. Europeans, too, escaped; and yet several medical officers had been brought face to face with the disease. The author referred to the Pali plague—a disease having much the same general characteristics as mahamurree—which, first known in the west of India in 1815 (though not then under that name), and becoming quiescent after existing for four years at various points not far removed from that of its origin, reappeared in 1836 at the village of Marwar, which gave to the disease its present name. It finally disappeared in the hot season of 1837, since which date, while mahamurree broke out from time to time, especially when hygienic regulations were relaxed, it had not been heard of; and yet, said Dr. Don at the conclusion of the paper, Pali was twenty years ago, and doubtless was still, in an unsanitary state. Probably, as Dr. Lawson observed, there was a law affecting the reappearances of the disease, in which case the Pali plague might again appear some day. During this last exhibition of the Pali disease, fevers of various kinds were raging throughout the tract of country intervening between this part of the west of India and that part of the Himalayas where mahamurree maintained its ground. Thus, while the Pali plague was in Rajpootana, remittent fever was very prevalent in Jilwarra; intermittent in Jeypoor and the district around it; and in Rohilcund, up to the very foot of the hills where mahamurree was rife, a kind of yellow fever was decimating the country. It seemed as if a common factor was at work, leading to the development of epidemic disease, each, *suî generis*, being brought out under the influence of local conditions. Whilst acquiescing in the opinion that both the Pali and Himalayan plague *might* be imported—the former through the medium of the Cluppales or cotton-workers, amongst whom it first appeared, receiving plague-infected merchandise from Egypt; and the latter by pilgrims—the author strongly believed that in both cases the local conditions favourable to the development of plague were abundantly in operation, requiring no assistance from without; and that, as had been most satisfactorily proved in the case of mahamurree, sanitary reform, rigidly enforced, was efficacious in preventing it. He added that, if the coming generation taught in schools the value of hygiene, and would co-operate heartily with the authorities in carrying it out, there was no reason why mahamurree, like other pestilential diseases in other countries, should not be finally eradicated from India.

TUESDAY, JUNE 15TH, 1880.

SIR JOSEPH FAYRER, K.C.S.I., M.D., President, in the Chair.

Continued Fevers in India.—A special meeting of the Society was held to discuss certain papers which had been read during the past session, on the Continued Fevers of India and Tropical Climates. Three of these papers, one by Deputy Surgeon-General Dr. J. Ewart, one by Surgeon-General Dr. C. A. Gordon, C.B., and one by Dr. W. G. Don, were printed and circulated amongst the members, together with others known to be interested in the subject; they dealt specially with the questions, whether the common continued fever of those countries was enteric fever, and if so, whether it was due, as in this country, to a specific poison associated with conditions of excremental filth.

Surgeon-General MURRAY expressed an opinion that continued fever in tropical countries differed materially in its signs and type, according as those attacked were natives or Europeans.—Sir WILLIAM SMART referred to the marked mildness of the various forms of continued fever in the island of Bermuda, and he gave the result of his experience in China, where he alleged enteric fever was recognised as a distinct disease in 1859; but, as no history of its incidence upon the natives prior to that date could be ascertained, it was inferred that it had been generated amongst the British forces, who at that time were exposed to local conditions of excremental poisoning.—Inspector-General LAWSON held, as the result of experience at Mediterranean stations, that simple climatic causes did not lead to enteric fever, unless indeed as a predisposing cause in special localities, where fœcal influences also obtained.—Surgeon-Major WHITE referred especially to Assam, where fever of the enteric type had prevailed until conditions, which up to that date had led to the excremental fouling of water, were abolished; and then the disease subsided.—Dr. BUCHANAN could only profess to look at the subject of Indian fevers by the light of experience gained in the study of continued fevers in England. Referring to the papers especially under discussion, he pointed out that attempts seemed to be made to identify a disease, now by means of some anatomical character, now by means of clinical symptoms, or, thirdly, by an appeal to considerations of cause. The last means of identifying disease appeared to him questionable. In England, we were content to know enteric fever by the total of its symptoms and pathological appearances; and to proceed from that standpoint to the investigation of cause. We had long known the clinical disease, and had not yet become fully acquainted with the circumstances of its production. Given a continued fever with more or less diarrhœa and spleen enlargement, with special characters of temperature-curves, with successive crops of rose spots on the skin, and with certain anatomical characters in the fatal cases, we now knew it as enteric fever. In England, having come to know the disease, and not till then, we had gone on to learn lessons about its association with one and another external condition, and then by degrees we were learning its causation. But the numerous and valuable results that inquiries about causation had heretofore yielded, did not prevent our having, but rather led us to have, ever fresh doubts whether we knew all the conditions for the appearance of the disease, and assuredly had taught us that we did not yet know the conditions for its production. Inquiry as to the way in which fever had made its appearance in a household—to say nothing of inquiry, in a stricter sense, as to "cause"—had been found to involve a process of living over again, as it were, the life of each patient before his attack, with differentiation of his life from that of other people. That process was difficult enough of accomplishment under the conditions of English society, but must needs be incomparably more difficult where a fever occurred in individuals of an alien race, having traditions and caste-notions, separating them by wide intervals from the people who were endeavouring to investigate the origin and spread of disease among them. The impression that Dr. Buchanan had reached from a study of the three papers was, that it was perfectly permissible to regard much of the described fever of India as being identical with European "enteric fever". It was modified, no doubt, by circumstances of Indian life, yet did not appear to differ more from our own enteric fever than one case or one outbreak might differ from another case or from another outbreak of this multiform disease when it was witnessed in Europe. It was not from any single one of the three papers that he had formed this opinion, but it was essentially from observation of what the three papers, taken together, appeared to him to agree upon.—Mr. NETTEN RADCLIFFE dealt in detail with many points specially referred to by Surgeon-General Gordon, who, though admitting that, so far as symptoms and pathology were concerned, a disease resembling enteric fever did prevail in India, yet denied that it was etiologically the same, and even threw doubts as to the views held as to the etiology of the disease in England. Mr. Radcliffe pointed out that Dr. Gordon had stated that the continued fevers of India were but one single form of fever, whereas, in his paper, he at once proceeded to divide them into as many as twelve groups. Dr. Gordon had further quoted, in support of his views as to the unity of "fever", an opinion of a distinguished author, which was penned as far back as 1843, since which date that author had, as was well known, not only changed his views, but had accepted the classification of the continued fevers proposed by Stewart and Jenner. Dr. Gordon's use of the term causation was most misleading and unscientific, points being referred to as causes which in reality were nothing more than conditions associated with the prevalence of disease. The study of climatology in connection with disease was of the utmost importance, but the assertion that an infectious fever was of climatic origin, when even the local circumstances under which it existed were not recorded, was damaging to the cause of epidemiology; for, although it was obvious that climate governs every condition of life, health, disease, and death, yet that did not necessarily constitute it a cause of any special disease. Dr. Gordon's materials were also misleading, and, having been obtained as the result of the issue of circulars to a large body of medical officers spread over a vast area, they were almost necessarily untrustworthy. Anyone having experience of the difficulties associated even in this country in investigating causes of epidemics, must know how little value attached to data got together in such a manner. But even accepting the facts recorded in the returns issued, they, in some important respects, led to conclusions diametrically opposed to those embodied in Dr. Gordon's paper. As to the 175 cases on which Dr. Gordon based his conclusions, it was admitted that only seven were real cases of enteric fever, the others being so-called "climatorial" fever. Of what value, it was asked, could seven cases, scattered over thirteen years and throughout a wide territory, be, in determining a question of this kind? But Mr. Radcliffe proposed to accept the diagnosis as given by the recorders, and was not prepared to admit a greater margin of error in diagnosis than would have occurred if a similar number of medical practitioners had been applied to by circular in England. Twenty-five per cent. of the total cases furnished no evidence whatever, either in one way or another, with reference to the question of etiology; and, deducting these cases, it was found that by far the greater proportion of the remainder, according to the reporters, had occurred under conditions of "fæcal effluvium from latrines", or the patients had been exposed to chances of infection to local conditions which are known to be chiefly associated with enteric fever. He was quite unable to reconcile these data with Dr. Gordon's statement that, in not a single one of these cases was there any evidence of the existence of such "causes" of enteric fever as govern the prevalence of that disease in Europe.—Dr. W. DICKSON considered that, in tropical climates, the continued fevers were attended by many more complications than in Europe, and to this was due many of the differences of opinion which were held with regard to them.—The PRESIDENT, quoting from official statistics, drew attention to the fact that enteric fever was recognised as the principal fatal fever in many parts of India, but, at the same time, he expressed a conviction that there is a form of "fever" in tropical climates which, as regards its cause, is not identical with the enteric fever of this country.—Dr. GORDON, who quoted largely from official and other reports, explained, with reference to the comments which had been made, the circumstances under which the inquiry on which his report was founded had been directed, and stated that he had necessarily been kept within the limits laid down by the Army Sanitary Commission. He maintained the opinion that, in hot climates, a fever resembling enteric fever in its symptoms prevailed, but that it was due to climatic influences, and not to filth or other specific causes; he further stated that ulceration of Peyer's patches took place in connection with a form of fever which was alone due to climatorial causes.—Dr. W. G. DON maintained similar views, asserting that local unsanitary conditions occupied, in the production of continued fever, a less important influence than that of climate, and that enteric fever would still prevail in tropical climates if all those conditions were removed.—Dr. EWART argued, from his experience, that enteric fever as it prevailed in India was not due to the causes assigned to it; he denied that so-called malaria had any influence in producing it, and, as the result of lengthened experience, he stated that he had never met with that disease except where it was dependent on the same causes as those with which its prevalence in England was associated.—Dr. A. P. STEWART had, at a previous meeting, declared himself entirely opposed to the doctrine enunciated by Dr. Gordon, and had expressed the opinion that views such as those held by Dr. Gordon and Dr. Don reminded him of the state of medical opinion in this country twenty-five years ago, before the pathology of enteric fever, and the difference existing between that disease and the other continued fevers, were understood; and he felt that, after perusing the papers, he had nothing to add to the statement he had then made.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 28th, 1880.

E. HEADLAM GREENHOW, M.D., F.R.S., President, in the Chair.

Disease of the Mastoid Bone.—Mr. HENRY MORRIS read notes of two cases. The object of the communication was to point out the value of trephining the mastoid bone as a palliative measure, even when recovery was not possible; to show the value of a simple incision through the soft tissues over the mastoid as a curative measure in cases of periostitis of that bone; and to record a case in which a severe attack of herpes of the face and mouth was associated with thrombosis of the lateral sinus and internal jugular vein. CASE I. *Otitis Media: Suppuration of the Tympanum and Mastoid Cells, with Caries of the Petrous Bone, followed by Thrombosis of the Lateral Sinus and Suppuration between the Dura Mater and Bone: Trephining of the Mastoid: Extensive Herpes of the Face and Mouth: Pyæmia: Death.*—Alfred S., aged 31, had for years suffered from deafness and a discharge from the left ear. Ten days before admission, on November 14th, 1879, the discharge became more profuse and offensive; pain and redness over the squamous and mastoid bones of the same side, and shivering, followed. On November 16th, he suddenly lost consciousness, and his breathing became stertorous. Two hours later, the mastoid bone was trephined, and some very stinking pus escaped. Immediately his pulse improved, the stertor ceased, and after a few hours he regained perfect consciousness; but the following day, symptoms of pyæmia were pronounced. On November 19th, a few herpetic vesicles appeared on the right cheek and lips, which, by the next day, had spread over the greater part of the right side of the face, and to a less extent on the left side. Before his death, on November 27th, the eruption on the face had become quite confluent, and had scabbed over. The throat, mouth, and tongue were also similarly affected. At the *post mortem* examination, the left lateral sinus and internal jugular vein, as low as the junction with the subclavian, were plugged with a firmly adherent discoloured clot, and there was also a thin clot in the longitudinal right lateral sinus and in the torcular Herophili. Trephining in this case not only prolonged life and restored consciousness for some days, but it entirely removed the agonising pain suffered for several days before. The herpes might possibly be explained on the hypothesis of active venous congestion, resulting from the blocking of the lateral sinus and the extension of the thrombus along the whole course of the jugular vein. It was, however, quite impossible to deny the neurotic origin of the eruption, and it was even suggested that the congested state of the vessels might have given rise to nerve-irritation by direct pressure. Another fact requiring notice was the tendency in this patient to capillary congestion of the face and neck, as indicated by a temporary deep red rash, which latterly had been always produced by his taking the smallest quantity of stimulants. Arguments against the *venous congestion theory* were advanced, such as were offered by the absence of any similar eruption in recorded cases in which the internal jugular had been compressed or ligatured, or even in cases in which the superior vena cava itself had been occluded; but it was pointed out that there was an important difference in the effect upon the circulation between thrombosis extending from the lateral sinus, and ligature of the internal jugular vein. CASE II. *Otitis Externa: Suppurative Periostitis of the Mastoid Bone: Incision over the Mastoid Bone: Recovery.*—The interest of the following case rested simply on the effect of treatment. At the end of July 1879, a gentleman, aged about 50, had been bathing in the sea; the water was very cold, and on the following day he was attacked with severe earache. The earache proper soon subsided, but he became subject to violent seizures of neuralgic pain, with marked nocturnal exacerbations. The pain extended all over the left side of the head, but was most severe behind the ear. The hearing on this side became greatly impaired. On September 7th, he came to London, the symptoms continuing the same. He had not slept for several nights, and was well-nigh worn out with pain. The membrane of the tympanum was sound, but the skin over the mastoid bone was red and very tender. The ticking of a watch could not be heard close to the ear. Leeches and hot sedative applications failed; the tissues over the mastoid bone became more red, tender, and swollen, and at one spot, as large as the finger-tip, there was more elasticity than elsewhere. On September 11th, a straight vertical incision was made down upon the bone, which was soft and easily penetrated with the knife, and a little pus escaped. Relief was immediate and complete; within a week, the wound was all but healed, and the patient was now perfectly well and his hearing as good as ever. The case showed that in some instances an incision was all that was necessary, not only for the relief of intense suffering, but for complete recovery, by taking off the tension of the inflamed periosteum and superficial structures. If, however, the local pain continued after, or cerebral symptoms supervened upon, the simple incision, perforation of the mastoid bone by the trephine or drill should be performed; whilst nothing short of trephining could be expected to do good in cases where rigors, tenderness on deep pressure, and œdema over the mastoid bone followed shortly after acute suppuration of the tympanum.—The PRESIDENT thought the latter of the two cases was of especial interest. He detailed particulars of the case of a gentleman who, after typhoid fever, had intense pain in the ear, accompanied by deafness, for which Mr. Hinton perforated the tympanum. But not until the mastoid process was trephined was relief obtained; this occurred with the discharge of pus from the wound, and the deafness was thereby cured.—Mr. MARSH had seen two similar cases in children, both of which were cured by trephining, although in one instance the child had been comatose before the operation.—Mr. BRYANT considered that early surgical interference in such cases was most desirable. He instanced a case of inflammation of the brain in a child, in which there was much tenderness over the mastoid process. This being cut down upon, its bone was found to be softened. The inflammation, however, subsided, and the child escaped with his life, but remained deaf. Another child, with inflammation of the brain, comatose, and hemiplegic—these symptoms being due to inflammation of the ear—came under Mr. Bryant's care; he gouged out the external meatus, and removed the ossicles of the middle ear. The parts were all found to be bathed with pus, which welled up from still deeper parts. The child, however, recovered, though with paralysis of the parts supplied by the portio dura. In other cases of inflammation of the brain, coming on in the course of otitis, the surgeon could do no harm by freely opening the middle ear and allowing the pus to escape, as deafness had been already produced by the disease.—Dr. F. TAYLOR inquired what was the condition of the optic disc in Mr. Morris's first case. He had seen a child suffering from mastoid disease, which had died with thrombosis of the jugular vein and pyæmia thereby caused, and apparent meningitis, in which there was, moreover, congestion of the optic disc, which seemed to confirm the diagnosis of meningitis; but in which case, after death, there was found to be no inflammation of the membranes of the brain.—Mr. BARKER remarked that the mastoid cells were but imperfectly developed in many bones. There were none in children, and this condition of their absence persisted in many cases into adult life. This was the result of his examination of over two hundred cases. Upon trephining deeply, therefore, the surgeon was very liable to open the lateral sinus. If there were an escape of pus from the mastoid, it usually occurred at about the level of the external auditory meatus. Trephining should be done at a level with the upper border of the external bony auditory canal. These cases of otitis should rather be dealt with at an early stage by incising the membrana tympani, and washing out the middle ear. They then recovered, and a large mass of mastoid cell-disease was thereby avoided. This simple early treatment was certainly preferable.—Mr. CARRINGTON remarked upon the physiological mechanism of the blindness in Dr. Taylor's cases.—Mr. MORRIS did not think that, in either of his cases, the eyes were examined; but there was in neither case any affection of the sight. In the second case, there were no brain-symptoms. In the first case, the earliest indication of brain-trouble was the fit, and death was due to thrombosis of the lateral sinus. The incision was made down to the bone, and, the periosteum being stripped off, pus escaped. A portion of the bone was found to be soft, into which a probe was passed, and pus thence freely escaped. It had been pent up between the dura mater and the bone. He (Mr. Morris) would hardly have thought there was so frequently a diminished development of the mastoid cells as Mr. Barker had indicated. The cells in his case opened into the external auditory canal, nearer its floor than its roof.

An Unusual Case of Cardio-pulmonary Murmur.—Dr. F. TAYLOR read notes of this case. The patient, a blacksmith by trade, aged 38, had suffered from his chest for twelve months. He was first taken ill with cold clammy sweat, and continual cough and expectoration. The sweating stopped after a time, but the cough persisted, and he lost flesh. In February he gave up work. When first seen, he was of ordinary build, rather spare, with anxious expression of face. He was spitting a good deal of dirty yellow phlegm; his breath was slightly fœtid; and he complained of a peculiar noise which he had heard in his chest for two or three months. The chest was flat, fairly symmetrical, and with a wide epigastric angle. The right side was practically normal; the left side, on the other hand, was nowhere healthy, and presented the physical signs of a considerable cavity in the anterior axillary line, just below the level of the nipple. At this point there was tympanitic percussion-note, with marked cavernous breathing, and very distinct whispering repetition of the voice. Elsewhere on this side of the chest there were more or less impaired resonance, and even complete dulness, deficient or soft bronchial breath-sounds, and deficient vocal resonance, or whispering bronchophony, the physical signs being more marked below than above. In addition to this, there was audible over the whole chest a loud double sound synchronous with the heart's beat, and musical in quality. It was heard faintly on the right side and at points of the chest distant from the heart, loudly over the præcordia, louder at the apex than the base, and loudest in the anterior axillary line three inches from the nipple, at the point where there were the other physical signs of cavity. The sound could also be heard at a distance of twelve inches from the chest, and when he opened his mouth it was audible from a much greater distance, the vibrations being obviously intensified by resonance in the passage through the mouth, and giving one for the moment the impression that they actually originated in the larynx. These sounds were no doubt produced by the strokes of the heart against the walls of the pulmonary cavity; they were intensified by resonance in the interior of the cavity, and their unusual transmission to the pharynx and mouth was probably the result of a very free communication of the cavity with a bronchial tube.

Cancer of the Pylorus: Ulceration of the Cancerous Growth: Abscess: Gangrene of the Left Foot and Leg.—Dr. WHIPHAM read notes of this case. On November 27th, 1879, a man, aged 48, was admitted under Dr. Whipham's care, into St. George's Hospital. Symptoms of stomach-disease declared themselves in October 1878; in January 1879, he became an out-patient at St. Thomas's Hospital, when Dr. Greenfield discovered a hard mass, movable by respiration, in the region of the pylorus; the patient at this time suffered from pain and vomiting. In June, the tumour was less evident to palpation; but, the other symptoms persisting, the man was admitted into St. Thomas's, and, after undergoing treatment there for a few weeks, was again made an out-patient, but was subsequently readmitted in September. Merely a fulness over the pylorus was detected at this time. The vomiting, which had been a prominent symptom for eight months and a half previously, entirely ceased on July 16th, 1879. When the patient was admitted into St. George's Hospital, he was pale, complained of pain in the hepatic region, and of tenderness on upward pressure towards the under surface of the liver. No definite tumour could be detected, nor any enlargement of the spleen or lymphatic glands, although there was a sensation of fulness to the right of the gall-bladder. Microscopic examination of the blood showed a great excess of leucocytes, most of which exhibited active amœboid movements; and subsequent examination of the blood on a warm stage showed far more active movements of these white corpuscles. On December 9th, the abdominal pain had nearly ceased, and at once signs of gangrene appeared in the toes of the left foot, which extended until the lower two-thirds of the leg and the foot were involved. Shortly before death, a minute quantity of albumen was found in the urine. At the *post mortem* examination, the lower part of the femoral artery was found to be blocked by clot; an abscess was discovered lying between the stomach and the liver. The abscess was the result of ulceration of a cancerous growth affecting the pylorus; owing to the ulceration, perforation of the stomach had occurred, and thus an abscess had formed in the situation described. The points of interest in the case were: 1. The entire cessation of vomiting five months previously to the patient's death; 2. The disappearance of the tumour, or perhaps the concealment of the swelling, owing to the formation of the abscess; 3. The occurrence of gangrene; 4. The apparent increase of the white corpuscles in the absence of any great enlargement of the spleen or lymphatic glands: it was suggested that this apparent increase of leucocytes might have been due rather to a deficiency of the red corpuscles; 5. The entire absence of that dryness and want of elasticity of the skin which are characteristic of cancer.

Unilateral Morphœa, with Exostoses and Corneal Opacity.—Mr. STREATFEILD exhibited this patient, and read notes of the case. James B., aged 45, agricultural labourer, came to the Moorfields Eye Hospital, three weeks ago, for impairment of vision of the left eye. In infancy, he had had a "strong" inflammation in that eye, and had often had a "cold" in it, but this had probably nothing to do with his present state. On admission, all the lower exposed part of the cornea of the left eye was opaque. The opacity was ill-defined, and extended upwards beyond the centre of the cornea. There was no redness at any part around the cornea, no zone, as in any ordinary keratitis, nor any other sign of inflammation of the eye. But it did not seem like an old opacity, and his eyesight had only been so bad for a fortnight before he came to the hospital. The eyelids could not be widely opened, and all the movements of the eyeball were limited. He had since been three weeks an in-patient, and the corneal opacity was much less in extent, and his vision, therefore, considerably improved since his admission. The state of the cornea seemed to resemble in appearance the preliminary irregular opacity of the cornea, which was seen to occur from nutritional change or otherwise in some cases of paralysis of the fifth nerve. There was, however, no insensibility of the cornea. There was a peculiar brawny condition of the skin and subcutaneous parts of the left side of the face, the face had no wrinkles on that side; and, within the mouth, there were exostoses of the lower jaw and of the hard palate on the same side. Six months ago, he could hardly open his mouth at all. Mr. Hutchinson had informed Mr. Streatfeild that, irrespectively of the eye-affection, it was a case of extreme rarity.—Mr. HUTCHINSON said the case was of interest, as it exhibited altered nutrition in various tissues connected with the fifth nerve. In the skin there was unilateral scleriasis, the forehead and cheek felt brawny and tense; there was, in fact, fifth-nerve morphœa. There was no defect of sensation in the skin, and no defect of power in the muscles supplied by the fifth nerve. There were unilateral exostoses about the mouth in the left halves of both the upper and lower jaws. In a skull exhibited by Mr. Hutchinson, and already described in the Pathological Society's *Transactions*, there were exostoses in the same situations as in Mr. Streatfeild's case. Both were due to disturbances of nutrition, to overgrowth of one part and undergrowth of another. The man now exhibited could not move the eye perfectly, the impaired nutrition being probably due to a sclerosed condition of the cellular tissue of the orbit, and not to paralysis of the muscles of the orbit, as all the orbital muscles were equally weakened, while none were perfectly paralysed. The movements of the iris were perfect. The ulceration of the cornea was just at that point, too, where the cornea rested against the hardened edge of the lower eyelid, which was as tough as leather. Morphœa was probably a disease of the vasomotor filaments of the fifth nerve.

The PRESIDENT delivered a short address respecting the work of the session just concluded; and the meeting ended.

REVIEWS AND NOTICES.

MANUAL FOR THE PHYSIOLOGICAL LABORATORY. By VINCENT HARRIS, M.D. (Lond.), M.R.C.P., and D'ARCY POWER, B.A. (Oxon). London: Baillière, Tindall and Cox. 1880.

THIS manual consists of a series of separate pages on the tissues and organs of the human body, which have been for several years distributed among the students of the physiological laboratory at St. Bartholomew's Hospital, where the authors are respectively Demonstrator and Assistant Demonstrator of Physiology. Hence the work is not an untried venture, not a mere "aid", to save students from the trouble of thinking, observing, and dissecting. It teaches the use of the microscope in histology, and how tissues may be minutely examined by the aid of that instrument, and it is written up to the very latest views and discoveries; avowedly, too, under the supervision of Drs. Klein and Russell, and Mr. Baker. The directions for preparing tissues are given very clearly, and we hope that the student will carry them out, although we know full well that many will only learn by heart the verbal descriptions, to their own detriment, and in defiance of the object for which the book was written. The chemical department is very good, and highly necessary now that the practitioner is expected to do more practical work in that direction than the mere boiling of urine and nitric acid in a test-tube—the limit of chemical experiment among many medical men, even at the present day. As might be expected, considering the task which scientific terms impose on the printer, there are several misprints, the gravest of which, perhaps the only one of practical importance, is the confounding of the "intralobular" and "interlobular" veins. These terms are often confusing to the lecturer and teacher as well as to the student. On the principle that mariners substituted "port" for "larboard", which was often confounded with "starboard", we trust that some authority on the liver like Dr. Klein or Dr. Wickham Legg may abolish one or both of these clumsy expressions. Would not "portal plexus" and "hepatic plexus" be far preferable?

GLAUCOMA: ITS CAUSES, SYMPTOMS, PATHOLOGY, AND TREATMENT. By PRIESTLEY SMITH, Ophthalmic Surgeon to the Queen's Hospital, Birmingham. London: J. and A. Churchill. 1879.

THIS work, as we learn from the preface, presents in its original form, with the exception of a few alterations, the Jacksonian prize essay of 1878. Written, as it necessarily was, within a strictly limited period of time, it has not that completeness which a monograph on such an important and difficult subject as glaucoma confessedly is might fairly be expected to possess. The author, however, while alive to certain shortcomings in this respect, has preferred to lay his work before the profession without delay. In doing so, we think he has acted rightly. His book might undoubtedly have been easily increased in size, but it is very questionable whether its intrinsic value would thereby have been enhanced. A work such as the present is valuable chiefly for what it contains of original facts or speculations. The author, having once framed his theory, and having found it consistent with the clinical facts within his reach, has undoubtedly done well in submitting it forthwith to the examination of other workers in the same field.

Briefly stated, the author's theory of glaucoma is essentially a mechanical one. He discards altogether the theory of a neurosis of secretion, as held by von Graefe and Donders, preferring to believe, with Wecker and Leber, that the affection is entirely one of obstructed excretion. He adopts the views of Leber as to the channels of filtration which exist in the immediate neighbourhood of the angle of the anterior chamber. The drawings and preparations he gives are all more or less illustrative of the fact first demonstrated by Max Knies, namely, that, in eyes blinded by glaucoma, these channels of filtration are often found to be occluded. We think, however, that the author accepts these conclusions somewhat too fully. All glaucomatous eyes have not a shallow anterior chamber or an occluded iritic angle, and yet all the worst symptoms of pressure have more or less been present throughout such cases. Some of the difficulties which lie in the way of the acceptance of this theory the author combats with considerable skill, and, we may add, success. Nevertheless, after a very careful study of his work, we feel that his theory is one of only partial application. It is one which leaves a large number of important clinical facts still insufficiently explained, the truth probably being that glaucoma is not exclusively due to any one single cause.

While, however, following in the wake of the conclusions of Leber and Max Knies, the author is not satisfied with merely taking them for granted. He has evidently spared no trouble to test thoroughly the truth of every statement which he advances. At the outset of his investigations, he was met by the practical difficulty of finding any standard by which to test variations of intraocular pressure. This preliminary difficulty he has to a certain extent overcome by means of a tenometer, of an ingenious but somewhat complicated structure. In this instrument, an uniform weight is used as a basis of calculation of pressure, instead of, as in Mounik's, an uniform impression. The most serious objection to the author's instrument is that, with each increase of tension, it becomes less sensitive. This, together with one or two other imperfections, will probably be fatal to its use on any large scale as an instrument of clinical research.

As regards the treatment of glaucoma, no operation finds much favour with the author except iridectomy. Sclerotomy, in spite of the reception it has met with among continental ophthalmologists, has not, he considers, a future before it. He would limit its use mainly, if not exclusively, to eyes in which the sight had already perished, and in which, save for the patient's personal feelings, enucleation would be a far safer and more certain procedure. Eserin he has known in some cases to be of great value. In his opinion, it acts by enlarging the "circumlenticular space"; in other words, by removing the edge of the lens from the dangerous proximity of the ciliary processes.

Taking this book as a whole, it is without doubt a valuable contribution to the literature of a special subject. It is written with great clearness and perspicacity, and in a thoroughly calm and judicial tone. There is very little special pleading about the author's arguments, which are often convincing, but always intelligible and well put. The book shows, also, abundant traces of honest work and careful research. The most has been made of the very ample stores of clinical material at the author's disposal, as shown by an excellent appendix of carefully reported cases with which the volume ends.

THE LAY OF THE BELL (DAS LIED VON DER GLOCKE) AND OTHER BALLADS BY SCHILLER. Translated into English Metre. By ANDREW WOOD, M.D., LL.D., F.R.S.E., Fellow of the Royal College of Surgeons of Edinburgh, Member of the General Council of Medical Education and Registration of the United Kingdom. Pp. 148. Edinburgh: W. P. Nimmo and Co. 1879.

DR. ANDREW WOOD has already on several occasions made a public appearance as the author of translations of portions of classical authors. He has published at intervals very successful renderings into English verse of the *Satires*, the *Epistles*, and *Art of Poetry*, of Horace; the *Don Carlos* of Schiller; and Lessing's *Nathan the Wise.* His present contribution is a translation of some selected portions of the poems of the great German poet Schiller; viz., the Lay of the Bell *(Das Lied von der Glocke);* the Knight of Toggenburg *(Ritter Toggenburg);* the Message to the Forge *(Der Gang nach dem Eisenhammer);* the Maiden's Lament *(Des Mädchen's Klage);* the Infanticide *(Die Kindesmörderin);* the Cranes of Ibycus *(Die Kraniche des Ibykus);* the Ring of Polycrates *(Der Ring des Polycrates).* In this volume, the original German text and the English translation are printed side by side on facing pages, so that anyone having a moderate acquaintance with German may easily compare them.

It would be a task of some difficulty to render such an elaborate composition as the celebrated *Lied von der Glocke* into English or any other language, in such a way as to preserve at the same time the metre and the vigour of the original; and Dr. Wood, excellent as his translation is in many respects, has not always succeeded in overcoming this difficulty. This is most apparent in the portion of the poem which describes the destruction of the house by fire. The short, irregular, impetuous lines of Schiller are scarcely represented by the more stately metre into which Dr. Wood has translated them. Taking the translation altogether, however, the English reader will obtain a very accurate impression of the language and meaning of the German poet.

The remaining portions of the book are of high merit, as faithful renderings of the original, in which the metre is for the most part preserved, at the same time that the meaning is accurately given and the spirit of the original writer closely followed.

Prefixed to the translation is an introduction containing an analysis of the *Gedichte* translated, which will be found useful in illustrating and explaining them. We cordially recommend Dr. Wood's book as a pleasant companion for the leisure hour, and hope that we shall have from him more work of the same kind.

THE Irish Local Government Board last week forwarded a sealed order to the guardians of Dundalk Union, for the appointment of a trained midwife for the Carlingford Dispensary District. This proceeding caused much dissatisfaction, one of the guardians stating that it was a most unnecessary appointment.

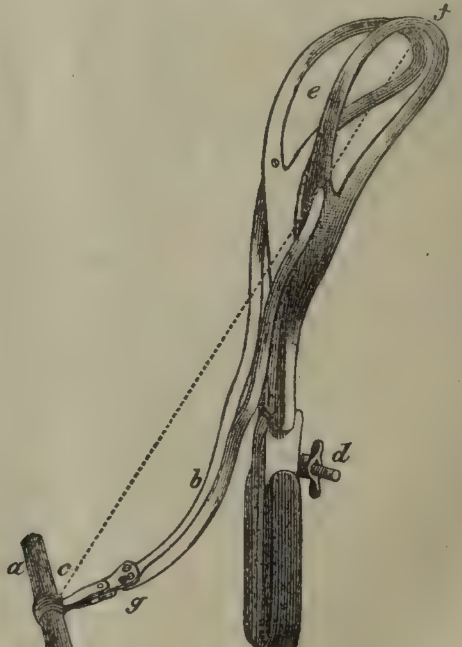
NOTES ON BOOKS.

The Religion of the Future. By JOHN BEATTIE CROZIER, M.B. London: E. Kegan Paul and Co. 1880.—This is a bold title indeed, but justified by the bold speculations into which most intellectual men plunge in these days. The "method of Zadig", which Mr. Huxley discusses in a recent number of the *Nineteenth Century*—the mere deduction that a dog has crossed a path because his footmarks can be traced along it—is mere prosaic common sense: the true basis of real science, no doubt, yet never so attractive to the human mind as the solution by detail of that which in its entirety must be insoluble. Dr. Crozier's work is chiefly an able commentary and criticism on the speculations of Carlyle, Emerson, and Herbert Spencer. He believes as much in intuition as in logical analysis, and as much in proof of existence from the inner consciousness as the attempt to account for the world from the observations of the outer senses. From this confession, anyone familiar with modern metaphysics may judge of the tenour of this work, which deserves perusal, whatever may be the reader's views. Respect is due to a medical man who does not fear to discuss great questions in print or in conversation. He more becomes a learned profession than any one of his brethren who says, what has so often been said before, "I think all sorts of things, you know; but I never talk about them, for fear of damaging my practice".

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW FORCEPS.

SINCE Tarnier introduced his forceps, there have been various attempts on the part of British accoucheurs to adopt his principle of axis-traction in a simple manner. The subjoined woodcut shows how Professor A. R. Sampson has modified the well-known Sampson's forceps. To each blade is affixed a curved rod. The rod (*b*) on the left blade has the traction handle (*a*) joined to it. Thus, the right blade has only a traction rod, which locks with the traction handle by a simple slot (*g*). The old handles are made smoother and lighter. The letter *d* marks the fixation screw. There are thus only two pieces in the forceps. When the forceps is applied and traction made, it can be seen by the dotted line that this is in the exact proper axis. The blades are introduced just as those of the old Sampson forceps are, viz.: the left blade first and to the left side; the right blade is then passed to the right side—the only point being that, while it is being passed, the traction-rod should be swung to the front. When the blades are locked, it is then swung back and fixed by the slot (8). The forceps is represented as it will be when passed and while traction is being made.



This forceps has been used on several occasions, and with great success. Mr. J. Gardner, 45, South Bridge, Edinburgh, is the maker.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1880.

Subscriptions to the Association for 1880 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. Francis Fowke, General Secretary, 161, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 26th, 1880.

THE VACCINATION QUESTION.

The debate of the 11th instant, in the House of Commons, with regard to compulsory vaccination, was unquestionably the most important that has been held on the subject since 1871, though it cannot be averred that any new arguments were imported into the discussion. Mr. Peter Taylor, Mr. Hopwood, and Mr. Samuelson brought up again the same worn out and exploded arguments that have done duty before, perhaps thinking that a new House of Commons might be disposed to regard them as novelties through never having heard them in its collective capacity before. But, though Mr. Taylor kept an easily amused House in smiles and good humour during the whole of his speech of nearly an hour's duration, there was really nothing whatever in his remarks. It suited his purpose and that of his co-thinkers to take out from their surroundings some striking facts, and then to build up a superstructure of baseless argument upon them. It mattered not to Mr. Taylor that the percentage of mortality amongst unvaccinated persons who catch the small-pox is the same now as it was before vaccination was known. He was content to ascribe the vastly decreased mortality from that disease to the improved methods of medical treatment now in vogue. He was not concerned with the unanswerable figures of Mr. Marson and other investigators showing the fatality from small-pox to be in inverse proportion to the perfection of vaccination-marks; it was sufficient to him to raise a laugh because an honourable member had said that he was a living instance of the power of vaccination, because he, being vaccinated, had had the small-pox and did not die.

Quoting a paragraph from Mr. Ernest Hart's little book on the *Truth about Vaccination*, to the effect that "the number of attacks [of small-pox] of persons efficiently vaccinated and successfully revaccinated is extremely small", Mr. Taylor ingeniously attempted to discredit the word "efficiently" by arguing that no person could be said to be efficiently vaccinated who took small-pox. With quips like these did he endeavour to convince the House that compulsory vaccination is "wrong, tyrannous, and impolitic". Disregarding the deliberately expressed conviction in favour of vaccination of all the leaders and the great mass of the medical profession both at home and abroad, Mr. Taylor brought prominently forward the eccentricities of certain obscure individuals, as though they represented the views of the profession at large, or were proof conclusive of the "present unsettled condition of medical opinion" with regard to vaccination. If the question were any other than that of vaccination, the notion that the practice must be discredited because certain units out of many thousands of medical men do not believe in it, would at once be scouted. Yet here certain unknown practitioners, who have expressed themselves blatantly and irrationally on the subject, find themselves glorified into the position of leaders of medical opinion. It cannot too strongly be pointed out that no practitioner of any importance is on the side of the antivaccination league, whose ranks are recruited from two or three obscure licentiates of the Colleges, certain homœopaths, a few ministers, a lawyer or two, the crotchety people who arraign themselves against compulsory laws of every kind, a number of unscrupulous people who live by fostering the opposition to vaccination, and their ignorant dupes. The number of people who have real and sincere conscientious objections to vaccination we believe to be extremely small, and they are not usually found amongst the ranks of the loud-voiced agitators against the law. That such persons do exist cannot be doubted, and it is not right to class them amongst the inflammatory individuals who inundate our breakfast-tables with antivaccination post-cards and pamphlets. It has been their misfortune that they have been of necessity ranked amongst the agitators, whom, in the interests of order and law-abiding, it is absolutely necessary to repress.

Mr. Taylor's arguments were not answered by anyone, probably because it was felt to be unnecessary to reply to them, as they answered themselves. In his speech were inextricably mingled perversions, misstatements, and actual inaccuracies, which have often done duty before and have as often been exposed. It is needless to attempt to answer them here, for they have been already dealt with in these columns over and over again. After a personal and careful hearing of Mr. Taylor's speech, we were unable to discover in it a single argument that has not been raised and refuted before. His oration was clever and amusing, and, delivered with plentiful emphasis and in smoothly flowing periods, was in its way remarkable; but divested of its graces and scanned by the light of truth, it vanishes into thin air.

The remaining speakers who objected to vaccination addressed themselves mainly to the subject of prosecutions. Mr. Hopwood, Mr. Samuelson, and Mr. McArthur were unable, however, to resist following the lead of Mr. Taylor, in presenting to the House particulars of cases of alleged injury from vaccination which they believed to have been caused. These, however, may fairly be placed in the same category as the others, and do not need refutation. Unquestionably, the subject of prosecutions is an important and delicate one. As the Local Government Board said, in their now historic letter to the Evesham Guardians of September 1875: "When in a particular case repeated prosecutions have failed in their object, it becomes necessary to carefully consider the question whether the continuance of a fruitless contest with the parent may not have a tendency to produce mischievous results, by exciting sympathy with the person prosecuted, and thus creating a more extended opposition to the law." It is only, however, in a very few districts in the country, and in cases where the law has been absolutely set at open defiance by a particular agitator, that the Vaccination Acts have been administered with sufficient severity to call for question. Certainly no such rigour has been observed as to justify the severe denunciations which Mr. Hopwood, in his most solemn and vindictive manner, hurled at the law.

At the same time, we do not doubt that there will be many sympathisers with the proposal of the Government to do away with cumulative fines for non-compliance with the vaccination laws. If the vaccination laws are to be carried out to the letter, nothing would suffice but to have the children of unwilling citizens vaccinated by force without the consent of their parents. No Parliament, however, as Mr. Dodson observed in his speech, would be willing to go thus far; and the most that can be done is to endeavour to secure the vaccination of the greatest possible proportion of children as they are born. The Parliamentary Committee of 1871 well summed up the position in these words: "There are three classes of children who being, by the conduct of their parents, left unvaccinated, are themselves in great danger, and may become centres of infection to others. 1. There are the children who are utterly neglected by their parents. 2. There is the much larger number of children of parents who, still not denying their duty or desiring to disregard it, postpone its fulfilment; and who, from carelessness or forgetfulness, delay to protect their children until driven to the vaccine station by the panic fear of an epidemic. 3. There are the children of those parents, very few in proportion to the whole population, who assert that vaccination will do harm. With regard to the first and second of these classes, there can hardly be any objection to the principle of a compulsory law, though there may be practical difficulties in its application; but, in dealing with the third class, it becomes necessary to weigh the claims of the parent to control, as he thinks fit, the medical treatment of an infant child, against the duty to the State to protect the health of the community, and to save the child itself from a dreadful disease." The Government decision announced by Mr. Dodson for the abolition of multiple penalties for the same offence is hardly a logical one, but it will be remembered that this was one of the recommendations of the Select Committee of 1871, and that in the Vaccination Act of 1871, as it left the Commons, there was a clause (passed by a majority of fifty-seven against twelve) exempting a parent from further prosecution if he had been previously adjudged to pay the full penalty of twenty shillings, or had been previously twice adjudged to pay any penalty in respect of the same child. This clause was expunged in the House of Lords through the influence of Lord Redesdale, seven peers voting for it and eight against it. The Bill came back to the House of Commons on the last day of the Session, when to object would have involved the loss of the Bill, which was urgently needed in consequence of the small-pox epidemic then raging. The Bill, therefore, became law without it; and, though an attempt was made, in 1872, by Messrs. Pease and Leeman and Sir Thomas Chambers, to revive the clause, the law has up to the present remained in its present form. Mr. Sclater-Booth said, indeed, in commenting upon Mr. Dodson's speech, that in the last Parliament he had made inquiries with a view to seeing whether such a clause would be passed by the House. He had come to the conclusion that it could not have been passed then, and he believed it could not now. The Government, however, have definitely decided to test the opinion of the House on the question, and have brought in a Bill identical in its terms with the expunged clause of 1871. Whether it be wise for the sake of a few misguided individuals to thus hamper the administration of the vaccination laws, which are admitted on all hands to be generally working extremely well, is a question which is now engaging the anxious consideration of our Parliamentary Bills Committee. It will be remembered that, in 1871, the Committee made a firm stand against the clause in question, and were successful in getting it rejected in the House of Lords. The fact that nine years have since passed away without any serious attempt to alter the law in this respect, and that, on the contrary, an Act was passed in 1874 to render proceedings under the Vaccination Acts more easy of accomplishment, raises serious doubts as to the wisdom of the proposed concession to the antivaccinators. It may be hoped that wiser counsels will prevail; or, at all events, that the manifold defects of the Bill may be removed before it receives the Royal assent. To this object the Parliamentary Bills Committee is now devoting its attention, and we hope to be able shortly to chronicle the results of its labours.

SOME BUSINESS ASPECTS OF PROFESSIONAL LIFE.

AN American contemporary, the *Louisville Medical News*, under the Shakespearian motto, "Put money in thy purse", discusses in a picturesque way some of the financial difficulties which members of the medical profession encounter. Probably few questions are more often fraught with difficulty and complication, than those of money relations subsisting between medical men and their patients.

To begin: there is much difficulty in appraising the commercial value of medical services. A patient can hardly ever form a proper judgment of his own case. Nevertheless, if he think it a severe one, he is often willing to pay much more highly for its management than ordinary medical tariffs require him to do; and, on the other hand, he may sometimes be annoyed by being called on to meet charges which he thinks excessive for the treatment of illness never looked on by him as dangerous, and which may yet have given much trouble, have taken up much time, and have even excited some anxiety in the mind of his medical attendant. The medical man has not only all these points to consider in making his charges, but, in addition, many more. Not to mention the position in life of his patient, which must, for a long time to come, we imagine, be a more or less accurate gauge of the price he ought to be charged for medical services, the medical man has to consider his own standing and the dignity of his calling, which, though it has always been ready, up to its power—and even beyond its power—to help the suffering, quite irrespectively of its own immediate interest, has nevertheless always maintained that the labourer is worthy of his hire. Feeling this, the medical attendant has yet, on the one hand, more for his own sake than for his patient's, to prevent himself from becoming mercenary; and, on the other, to struggle lest his desire to do good should lower the value of his services in the eyes of the world, by inducing him to charge too low a price for them. Long before the time of Adam Smith, the world had tacitly assumed that utilities were worth in the main the price they fetched in the market, nor did it consider medical services an exception to this rule, albeit (as that shrewd author also observed) it was apt to consider that the honour of being consulted counted for part of the remuneration. True it is, in one sense, that this ought not so to be, and that what is freely offered without money and without price may yet have the highest possible value, not to recognise which argues moral obtuseness in the recipient. Nevertheless, in another sense, the maxim has its use; and there is much to be said for the view that, if the seller do not put a high value on his goods, it is no part of the buyer's duty to do so. For this reason, we are disposed to think—not, of course, laying down any hard and fast line, and by no means wishing to interfere with the exercise of that discretion which we hope will always characterise the profession in its dealings with the public—that medical services should either be gratuitous to those who cannot pay for them, or that they should be charged to those who can pay at a rate fairly proportionate to the means of the recipients. Nominal rates, which do not measure the value of the work done, and which have no relation to the means of the patient, seem almost always to have the effect of lowering the profession in the eyes of the public, and therefore of destroying its usefulness.

No other profession is called upon to work on such terms. Lawyers of all ranks, architects, analytical chemists, civil engineers, are well remunerated for the work which they perform. Medical men, on the other hand—though, as a rule, no less highly educated, and often much more so—frequently drudge on at rates which would be ludicrous if they were not so common. Curiously also, the services which are least paid for are often just those which are the most laborious of all, involving loss of rest at night and other irregularities, which not only dislocate other engagements, but actually shorten life; for, in tables of mortality, it is the fate of doctors to occupy a very low stratum. Where seven clergymen or farmers attain the age of seventy years or upwards, only four medical men reach that term of life. This is not marvellous when the excessively laborious character of their occupation is considered; while this feature in the work is, to a great extent, inseparable from the nature of the calling. It is interesting, however, to observe the equanimity with which the present generation, with all its sentimental regard for the value of the life of animals, and its desire to save them needless suffering, yet contemplates the enormous waste of life which is incurred by cutting short the days of medical men. Few people, either in the profession or out of it, indeed actually realise what this waste is. If the nine thousand subscribers to the BRITISH MEDICAL JOURNAL attain an average age of fifty-six (which is probably higher than they do reach), it is surely not Utopian to hope that they *might* each average ten years more of life, supposing their work were better distributed. But, if this were brought about, no less than ninety thousand years of life would be added to the community in each generation. When it is further recollected that these thousands of years of life would be the most valuable of all, long experience being then under the direction of the ripest judgment, the gigantic loss to the nation may be better estimated. The value of a professional man's opinion bears, in the common mind, not so much an arithmetical as a geometrical relation to his years; and probably a great part of the reason of this is, that few men comparatively reach the age when their opinion becomes so valuable. While the necessary irregularity and hardship of the life account for a good deal of this, much of it, we are convinced, depends on preventable causes, and on none more than on the performance of low-class midwifery. This sort of work being necessarily underpaid, the men who take it are compelled to do three or four times the amount of it which would be necessary if the work were more highly remunerated.

This is not the place to discuss the ethics of a state of society in which the mass of the people are too poor to afford more than from half-a-guinea to a guinea as a midwifery fee, nor to discuss whether medical men ought to be called upon thus to sacrifice their lives in order to supplement the wages of the operatives; but the effects on medical longevity are so terrible as to demand notice. At least, if midwifery is to remain the chief part of the practitioner's work, he may fairly demand that it shall be undertaken at such rates as shall be remunerative, and which shall not compel him to leave his family to struggle alone, just at the time when his presence would be most useful in helping to place them in life. If this higher rate of payment cannot be exacted, then the work ought to fall into the hands of nurses, properly trained for that special sphere, and who should be competent to manage any ordinary case, having recourse to medical assistance where interference is required. The numbers of such nurses might be so proportioned to the numbers of births, as to make the calling one of no extraordinary risk to life.

As to gratuitous services, whatever may be said against them (and we are deeply sensible both of their gross abuse and of the evils they have sometimes caused), in the present condition of society they are to some extent necessary. The time may come when prudence and forethought, the effects of a wide spread moral and intellectual education, may have eliminated all the avoidable poverty and misery that afflict the world. But that time is not within sight of a generation, four per cent. of whom are recipients of poor-law relief; and, therefore, for all practical purposes, gratuitous medical services are a necessity to many who, though they do not actually require poor-law relief, are yet unable to provide for themselves when any emergency overtakes them; although the number of persons receiving actually gratuitous advice will be no doubt reduced materially as the provident system comes more and more into operation. We are not, of course, arguing the case whether it is the duty of the medical profession or of the public to provide gratuitous assistance. All we say is that it has to be provided; but we do not think that medical men would wish to fail in contributing their part, even if they had the chance of doing so. From the professional point of view, the system of gratuitous service (and also the provident system) offers some advantages, particularly in the training of the junior members of the profession, whose teaching might have to be entirely abstract and theoretical, if it were not for the presence of the sick poor. As such patients are generally treated in hospitals, it may not be out of place here to suggest the presentation of a small honorarium to the medical and surgical officers; which, while it would be much less than just compensation to them, would not add much to the burdens of the subscribers. In hospitals attached to medical schools, the appointments have an indirect remuneration from the students who attend the lectures, and from the increased reputation thereby obtained. But, in other hospitals, this latter compensation counts for very little, and the former does not exist at all. The argument advanced by some, that hospitals ought to be chargeable on the rates, is sometimes supported by the suggestion that it would then be more easy to include in the charges to be levied an honorarium for the medical officers. Such a scheme might have its advantages; though, for our part, we do not see why ordinary subscribers might not be asked to take so reasonable a step. Many other aspects of this interesting question present themselves —such, for instance, as the business relations of the profession to the clergy; the desirability or otherwise of fixing a minimum fee; the rates of remuneration proper to practitioners and to consultants; what arrangements it is proper to make as to attendance on servants, etc.; but enough has been said to indicate the complexity that underlies so apparently simple a subject as the remuneration of medical men.

SECONDARY DEGENERATION OF THE SPINAL CORD.

AMONGST the contributions continually being made to the science of Medicine, not the least important are the courses of lectures annually delivered by Professor Charcot at Paris, and uniformly published in the *Progrès Médical.* Of these there are two series: one being given at the École de Médecine by Dr. Charcot in his capacity of Professor of Pathological Anatomy to the Faculty; the other at the Hospice de la Salpêtrière in his capacity of Physician to that institution; and whether he be treating essentially of the anatomical side of disease, as in the former course, or of the clinical, as in the latter, Professor Charcot generally succeeds in introducing new and striking observations into his teaching, and in rendering his lectures interesting and suggestive, not only for his immediate audience, but also for the profession at large. The plan which M. Charcot adopts for his systematic course at the École de Médecine is each year to select some one branch of pathology, and to follow it up closely, rather than to extend his range over a wider area at the cost of thoroughness; and last year his choice fell upon the pathological anatomy of the so-called "systematic" lesions of the spinal cord. By the term "systematic" he means those lesions which, though extending throughout the greater part of the length of the cord, confine themselves more or less accurately to one region in its transverse section. Ever since careful microscopical examinations of diseased spinal cords have been made, it has been recognised that there is a strong tendency for morbid conditions to affect it in a curiously partial manner; that a lesion of one of the white columns, or of one horn of grey matter, tends to spread, not by involving the neighbouring white substance of other columns or other contiguous regions of grey matter, but by advancing along the column or horn of grey matter first attacked, until perhaps this portion of the cord is more or less affected throughout the whole of its extent. Familiar instances of this fact are to be found in the affection of the posterior columns seen in cases of locomotor ataxy, and of the anterior horns in infantile paralysis and progressive muscular atrophy.

This regional circumscription of morbid processes in the spinal cord is of great interest, not only from the pathological but from the physiological point of view. As was remarked by Professor Charcot at the commencement of his course, the study of the normal cord had done comparatively little to aid physiologists in elucidating the problems relating to its functions. The landmarks by which anatomists could divide it into separate regions are too few to be of much practical service; collections of nerve-fibres having widely different functions are tied together into a compact whole incapable of anatomical subdivision; and the organ is too small and too sensitive to allow of anything more than rough experiments being made by physiologists. Owing, however, to the tendency of various diseases of the spinal cord to pick out certain functional regions and to confine themselves mainly to these regions, it has become possible to arrive at much more accurate conclusions regarding the functions of different parts of the cord than had previously been the case; and there can be no doubt that the next few years will result in the discovery of many new facts to add to those which have already come to light.

One of the most interesting facts to which Professor Charcot called special attention in his lectures, was the existence of certain bundles of fibres in the antero-lateral columns, which are peculiarly liable to undergo secondary degeneration in connection with lesions involving the motor regions of the cerebral hemispheres. This secondary degeneration is seen in many cases of old-standing hemiplegia, and it affects two separate tracts situated on opposite sides of the spinal cord; for instance, a patient, who has suffered from left hemiplegia the result of some lesion in the motor tract of the right cerebral hemisphere, will be found to have secondary degeneration of a band of fibres in the right half of the spinal cord forming part of the antero-lateral column and lying close to the anterior median fissure; and of another band of fibres in the left half of the cord, also forming part of the antero-lateral column, but situated in its posterior part. These bands are known as the "direct" and the "crossed pyramidal tracts" respectively. They differ from other portions of the white matter of the spinal cord, in being directly connected with the surface of the brain. This connection has been proved in two ways: firstly, by the fact that at the time of birth, when the rest of the spinal cord has arrived at a high degree of development, but the brain is still in a comparatively early stage, these particular bundles in the cord correspond strictly in their degree of development to that seen in the brain; they have not arrived at their proper relative size, and the nerve-fibres of which they are composed have not yet received their sheath of medullary substance. The second proof lies in the onset of the secondary degeneration above described. In both instances, it is possible to trace the course of these fibres with fair accuracy. After passing up the cord to the medulla oblongata, they form the anterior pyramid of that body, the "crossed" band by its decussation giving rise to the well known decussation of the anterior pyramids; thence they can be traced through the pons Varolii and crus cerebri to the posterior half of the internal capsule, by which they pass to the motor region of the cortex in the neighbourhood of the fissure of Rolando. They thus constitute a series of commissural fibres passing directly from the surface of the brain to the spinal cord, without communicating in their passage with any of the large ganglionic masses at the base of the brain. Any lesion of the brain which affects either those portions of the cortex from which they arise, or those portions of the internal capsule, of the crus cerebri, or of the pons in which they lie, will give rise to secondary degeneration of these tracts. On the other hand, no lesion of the large ganglia, of the anterior half of the internal capsule, or of any other portion of the cortex than that near the fissure of Rolando, will cause any change in these tracts.

The central origin and the course of the fibres composing the pyramidal tracts having thus satisfactorily been determined, it still remains to trace them to their peripheral destination. This has proved less easy than the former task. Only two solutions were at all probable; the one being that the fibres pass straight into the anterior roots of the nerves, and the other that they pass into the grey matter and become directly connected with the cells of the anterior horns, which would thus act as intermediary agents between them and the nerve-roots. Two facts oppose the first hypothesis. In the first place, the anterior roots are at birth highly developed, at which period the pyramidal tracts, as before said, are in an embryonic condition. This does not seem as though the two sets of fibres can be directly continuous. In the second place, in cases where degeneration has become exceedingly marked in the pyramidal tracts, it is very rare to find any degeneration of the anterior roots of the nerves. On the other hand, some recent observations made by Professor Charcot and others tend to prove the direct connection of the fibres of the pyramidal tract with the large cells of the anterior horns. It is a well known fact that these cells maintain the nutrition of the muscles; and as these cells almost always remain healthy in cases of hemiplegia, it is very rare to find marked degeneration of the paralysed muscles in such cases. In certain instances, however, Charcot has seen rapid wasting of muscles on the paralysed side supervene in patients suffering from hemiplegia, and in whom the presence of secondary descending degeneration had been indicated by rigidity of the paralysed limbs, the symptom most commonly seen in such cases. In these instances, he has invariably found after death that the degeneration involved the anterior horns in addition to the usual pyramidal tracts; and though he has not found it easy in practice to trace degenerated fibres from the pyramidal tracts to the cells of the anterior horn, he feels justified in assuming that the connection exists, and that the cell-degeneration is directly due to an advance of the retrograde change from the pyramidal fibres. Thus it has been possible to trace a fasciculus of nerve-fibres from its central connection with the cortex of the brain to its peripheral distribution in the muscles.

There is one other point of interest to which Professor Charcot called attention in connection with the pyramidal tracts. It has long been known that only a portion of the fibres forming the anterior pyramid in the medulla oblongata decussate, though it has generally been found that by far the larger proportion of the fibres do so. Some little time ago, Flechsig, to whose researches much of the information contained in Professor Charcot's lectures is due, published a series of observations on the anterior medullary pyramids. He ascertained that the decussation is liable to great variations, and he grouped these variations into three chief types. In the first type, there is a partial decussation, presenting the same characters on the two sides. In the great majority of cases, the band of decussating fibres is very much larger than the band which does not decussate, generally in the proportion of ten or fifteen to one. But the proportion is very variable, and in extreme cases it is entirely reversed, only a very small proportion of fibres decussating. In the second type, a complete decussation takes place on both sides; whilst in the third type, there is partial decussation on one side and complete decussation on the other. To the wide variability in the amount of decussation seen in the case of the first type, we may trace the existence of those strange but well authenticated cases of hemiplegia in which the paralysis takes place on the same side as the lesion of the brain.

The change we have just described is a *descending* degeneration following a lesion higher in the cranio-spinal axis than the seat of degeneration. Professor Charcot devoted several lectures to the study of *ascending* degenerations; in other words, to those which occur in the spinal cord or its upward prolongation as the result of lesions situated *below* the degenerated fasciculi. Space will not allow us to go fully into these changes; but it may be said briefly that two sets of fibres are liable to undergo this degeneration; 1. A thin band forming the extreme outer portion of the posterior half of the antero-lateral column, and known as the "direct cerebellar fasciculus"; 2. That portion of the posterior column which borders the posterior median fissure, and which forms the well known posterior median column of Goll. There is, in addition, a degeneration of the rest of the posterior column for a short distance above the seat of the original lesion. These degenerations only result when the original lesion occupies the white matter of the cord; a simple lesion of its grey matter, as in infantile paralysis or progressive muscular atrophy, being wholly powerless to produce them. It would appear, however, that ascending degenerations of this kind may occur, not only as the result of lesions in the spinal cord itself, but of disease of the nerves after their exit from the cord. At present, the number of clinical observations in proof of this conjecture is very small indeed, but it will probably be found that, when the attention of the profession has been more widely drawn to this series of phenomena, the number of strictly authentic cases of this nature will be largely increased.

We have given but a mere outline of the subject of secondary degenerations of the spinal cord, but we think we have said enough to indicate the great importance that attaches to them in the elucidation of the problems relating to the anatomy and physiology of the cord. Many points still require to be cleared up, but the surest way of arriving at a further knowledge of the functions of its different parts, is to combine full and accurate clinical observation of cases where these functions are modified, with careful microscopical examination of the cord in such cases after death.

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M. DUJARDIN-BEAUMETZ has been elected a titular member of the Academy of Medicine in Paris, in the section of Therapeutics.

THE Attorney-General has been appointed Chairman of the Select Committee on the Law of Libel, and Mr. Meldon of that on the Births and Deaths Registration (Ireland) Bill.

SMALL-POX last week caused eight deaths in London and its outer ring of suburban districts, whereas no death was referred to this disease in any of the nineteen large English provincial towns. It caused fourteen more deaths in Dublin during the week.

THE death-rate in London last week was only 17.7 per 1,000, which is a lower rate than has prevailed in any week since the end of September last. During the past eleven weeks of the current quarter, the death-rate in London has averaged only 19.6, against 22.7 and 23.1 in the corresponding periods of 1878 and 1879.

THE Emperor of Russia has conferred the decoration of the Red Cross upon Sir J. G. Tollemache Sinclair, M.P.; Mr. John Draper;

Mr. Arthur Eden; Captain H. T. Ellis, R.N.; Mr. Lewis Farley; Sir Francis Lycett; Mr. Lionel Robinson; and Major G. de Winton, in recognition of their services on the committee for relief of sick and wounded Russian soldiers in the late war.

THE number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 227 and 221 at the end of the two preceding weeks, rose to 229 on Saturday last, which is a higher number than at any time since the middle of April 1879; 50 new cases were admitted to these hospitals during last week, against 50, 39, and 31 in the three previous weeks. The Highgate Small-pox Hospital contained 9 patients on Saturday last.

HACKNEY COMMONS.

AT the last meeting of the Metropolitan Board of Works, the Works Committee submitted an agreement which had been drawn up for the purchase by the board of the rights of the lord of the manor of Hackney Commons, and recommending that the seal of the board be affixed thereto. Mr. Richardson, Chairman of the Committee, in supporting the recommendation, remarked that, while it was satisfactory that the commons had been acquired for the recreation of the public, it was to be regretted that it had cost so large a sum as £33,000. The recommendation of the Committee was approved of.

ANTIVIVISECTION.

SIR ALEXANDER MALET took the chair this week at the annual meeting of the International Association for the Total Suppression of Vivisection, at which the speakers included Lord Haldon, the Marquis Townshend, the Earl of Shaftesbury, Dr. Rutherford, the Rev. Canon Goddard, the Rev. H. N. Oxenham, and Mr. G. Macilwain. Resolutions were passed demanding the total suppression of vivisection; expressing satisfaction that "the cause of antivivisection is steadily progressing throughout the country, and has gained largely in the present Parliament"; and desiring that the Home Secretary should be requested to order a return from all those who have obtained Government licence to make experiments upon living animals, etc.

THE INCREASE OF POPULATION.

AT the last meeting of the Statistical Society, Dr. W. A. Guy, F.R.S., in the chair, a paper was read by Mr. R. Price Williams, C.E., "On the Increase of Population in England and Wales". Mr. Williams said the total increase of the population in England and Wales during the whole of the last century was only 3,417,536, the average decennial rate of increase being nearly 5 per cent., whereas during the present century, up to 1871, there was an increase of nearly 14 millions, the average decennial rate of increase being over 14 per cent. The rate of increase in the decade 1811-21 was the maximum attained in this century, viz., 18 per cent., as from that period down to the census of 1861 the rate of increase of the population had continuously diminished. He observed that a great increase of the population took place at the time when steam power began to be used for manufacturing purposes, and, while the towns increased, the rural districts were found to diminish. Mr. Williams estimates that the population of England and Wales, by the census of 1881, will be 25,735,900. In the case of the population of London, the decrements were very slight indeed, showing that it had not reached that declining stage in the rate of its increase long since arrived at in the case of Liverpool, Manchester, and many other large towns. The population of London had increased from 958,863 in 1801, to 3,251,913 in 1871. He did not think there was sufficient data for estimating the future increase of the population of London for any lengthened period, and he regarded as unreliable the enormous estimates which had recently appeared in connection with the question of the water-supply of the metropolis, where the population in the course of the next century was estimated at over 17 millions. Mr. Williams had been engaged for some years past in analysing the different census-returns, the result being a series of fifty-two tables, indicating the population and rate of increase or decrease of the population of each county in England and Wales, for each decade from 1801 to 1871, subdivided as follows: (*a*) Large towns containing a population of 20,000 inhabitants and upwards; (*b*) Population of small towns containing a population from 2,000 to 20,000 inhabitants; (*c*) Population of the rural districts, including small towns or places with less than 2,000 inhabitants. These tables, being too voluminous to be attached to the paper, were produced in manuscript to the meeting.

GUY'S HOSPITAL.

WE are informed that, at the annual meeting of the governors on Wednesday, Lord Cardwell, the President, dissatisfied with the state of disorganisation to which the proceedings of the Treasurer have led, tendered his resignation, and Mr. H. Hucks Gibbs was elected President. After a long sitting, in which the recent events were discussed, and the disastrous facts of the situation, for which Mr. Lushington is responsible, were very temperately and judiciously stated by Dr. Pye-Smith (who was specially requested to attend), the house-surgeons, who were last week suspended by the Treasurer, having expressed in a letter to the governors their regret for the communication made by them to the public papers and withdrawn the same, were called in and reappointed. It is fortunate for the Treasurer that this course was adopted; otherwise yet more serious consequences must have followed, which could but have tended to bring out in stronger light the hopeless nature of the contest into which he has precipitated himself. To that contest there can but be one end. It is impossible to maintain in office a superintendent of nursing whose removal the medical staff unanimously require. It is still open to Mr. Lushington to restore concord and good order by consultation with the medical staff. In a little time, this alternative may no longer be open, and only a more disagreeable one will remain to him—that of retiring from an office which he will for the first time have brought into discredit. Personally, Mr. Lushington is so amiable and well-meaning a man, that the disastrous persistency in error which he has shown in administering the duties of the office of Treasurer must be to all who know him a source of peculiar regret.

CIVIL LIST PENSION.

IT is seldom that members of the medical profession are able to keep up their classical studies to such an extent as to produce a work like the elaborate *Concordance to the Odyssey and Hymns of Homer*, a handsome quarto, which has recently been published by Dr. Dunbar of Garelochead, Dumbartonshire, through the medium of the Clarendon Press. The fact that the book has appeared under official Oxford auspices, as a companion to Mr. Prendergast's similar *Concordance to the Iliad*, is, of course, an ample proof of its great literary merits. This, however, seems to be a case of hereditary proclivity; for Dr. Dunbar is a son of the late Mr. George Dunbar, Professor of Greek in the University of Edinburgh, who was the immediate predecessor of Professor Blackie. We regret to learn that the preparation of the voluminous MS., in minute and exquisitely formed Greek characters, which occupied Dr. Dunbar for several years, seriously affected his eyesight. It is satisfactory, however, that Mr. Gladstone has promptly recognised the importance of this addition to Homeric literature by granting Dr. Dunbar a pension of £80 a year on the Civil List. It will be remembered that Dr. Dunbar was the author of an interesting paper on "The Medicine and Surgery of Homer", which was published in this JOURNAL in January of the present year.

WOOLSORTERS' DISEASE.

THE Town Clerk of Bradford has publicly invited all woolsorters who have anything to communicate with reference to this disease to confer with him with a view to a searching inquiry, and, if possible, the adoption of such precautionary and sanitary measures as will prevent the recurrence of the disease. It is stated that woolsorters employed at

Saltaire, Queensbury, and by several firms in Bradford, have already been in communication with the town clerk, and that he is actively engaged in collecting evidence as to the collection and treatment of Van mohair and infectious wools, so as to ascertain the best means of preventing the disease, and obtaining data for the framing of regulations under which the treatment and manufacture of infectious wools may be safely carried on.

COLOUR-BLINDNESS AS A CAUSE OF RAILWAY ACCIDENTS.

Dr. Keyser, who has spent eight months in examining train *employés* of railroads that centre in Philadelphia, has found colour-blindness in 3½ per cent. of the whole number so marked that they were unable to distinguish one colour from another, while 8½ per cent., although able to tell colours, were unable to distinguish shades, and were thus rendered incapable of performing duties required of railroad men. Two of the colour-blind men had educated themselves to know that red is a bright intense colour, as distinguished from green, which they described as dull. But when light green was put before them, they called it red. They explained that the green light had at times shown red to them, and they had stopped the trains. But suppose the red had shown green!

THE MONSTROSITY OF THE SIAMESE-TWINS TYPE.

The united twins, which were described in the British Medical Journal of the week before last, died on the morning of the 10th instant. Dr. C. S. Thompson of Bideford states that the one with a weak spine was the first to succumb, and that the other died in a few seconds, with a slight convulsion, which, as he suggests, may have been due to thrombosis. The condition of bronchial catarrh was the immediate cause of death, increased if not produced by the frequent exposure of the "twins" to the gaze of the curious. No persuasion would induce the parents to allow a *post mortem* examination.

THE GERM THEORY OF DISEASE.

After describing a serious outbreak of typhoid fever, which occurred in the Chester County Asylum last autumn, involving thirty-two persons, and proving fatal in four instances, Dr. Davidson, the medical superintendent of that establishment, proceeds in his annual report addressed to the Committee of Visitors of the Asylum, to throw discredit upon the germ theory of disease. "This specific germ (of typhoid fever)," says Dr. Davidson, "*supposed* to be generated in the intestinal canal, has never yet been discovered by means of the microscope nor detected in the laboratory; and I venture to think it is not unlikely sooner or later to be found, like some other now exploded theories in medicine, that the specific germ, so much talked about, only exists in the cineritious matter of the brains of a few theorists." It would have been well, we think, for Dr. Davidson, especially when addressing a lay audience, to speak more modestly and respectfully of a theory which has been and is entertained by men with cineritious matter of exceptional depth and breadth, and of superlative quality. The theory of Budd and Tindall will still, we suspect, weigh more with the medical profession than the simple assertion of Dr. Davidson, to whose attention we commend the lectures of Dr. Cayley, which lately appeared in our columns. The strong adhesion of Dr. Davidson to the pythogenic theory of typhoid fever, and his belief in its spontaneous origin from noxious gases, makes it all the more extraordinary and inexcusable that such a state of matters as that which he describes should have existed in an institution of which he has had the medical care for many years. "On the man-holes being opened", he says, "much to my amazement, I found the new drains, which had not been three months in operation, all more or less obstructed, while at several places they were completely blocked up, although the asylum engineer stated that he had flushed all the drains as far as means had been provided for so cleansing them, only four days prior to my inspection. At every point of opening, the odours were so offensive as to be almost overpowering, a state of matters which plainly indicated to my mind that the drains were defective in carrying power, wrong in construction, and not at all adapted for carrying away the sewage of an asylum." It is not, then, perhaps, too much to ask how such drains came to be laid down, no doubt at great cost to the county, and why they were in such a filthy and neglected condition? Some one ought to have been responsible for their construction and efficiency. We can conceive no more important part of an asylum medical officer's duty than the vigilant superintendence of all sanitary arrangements, and we think the attention of the Commissioners in Lunacy ought to be given more closely than it has hitherto been to the sanitary state and appliances of the hospitals that are under their department. Their Board would, indeed, be much strengthened and enhanced in usefulness by having added to it a commissioner with qualifications and experience like those possessed by the medical inspectors of the Local Government Board.

THE SAINT GOTHARD TUNNEL DISEASE.

Signor E. Perroncito has just communicated to the Paris Academy of Sciences, in conjunction with Professor Concato, a note on the causes of the pernicious anæmia which found many victims during the formation of the St. Gothard tunnel. In a former communication, they had pointed out the existence in the intestines of the patients of the parasite known as *ankylostoma*, and which, in their opinion, should be termed *Dochmius duodenalis*. Fresh observations have convinced Professor Perroncito of the parasitic nature of this disease, and also that it is produced by three different species of worms: the *Dochmius duodenalis* of Dubini, the *Anguillula stercoralis*, and the *Anguillula intestinalis* of Bavay. In some cases, the *ankylostoma* existed alone or in a large majority; in others, on the contrary, the *anguillulæ* predominated or were met with exclusively, although it was not always possible to clearly establish a diagnosis between these two varieties of infection. These assertions rest essentially on the following facts. 1. Certain subjects eliminate chiefly eggs presenting all the characteristics of *ankylostoma*, and which, after incubation, give birth to larvæ belonging to this species. 2. In other patients the dejections contain a smaller or larger number of eggs presenting the anatomical characteristics and the extremely irregular hatching of the eggs of the *ankylostoma*, but producing larvæ very distinctly different from the former by their characteristics and by their habits, and which Signor Perroncito refers to the species *Anguillula intestinalis* (Bavay). Likewise, in cases especially infested by *Anguillulæ*, he has frequently found, in recently evacuated fæces, amongst a more or less considerable number of eggs, a fair amount of larvæ extremely active, and presenting all the characteristics of *Anguillula stercoralis* (Bavay). The writer has cultivated the larvæ of these three species under special conditions, and has been able thus to observe the various phases of their life in a free condition. He concludes by saying, that everyone who returned from the Saint Gothard tunnel suffering from pernicious anæmia or olighæmia was infested by so considerable a number of *ankylostomata* and *anguillulæ* that the presence alone of these worms sufficed to explain the development of the anæmia.

A DIFFICULT CASE OF STONE IN THE BLADDER.

At a recent meeting of the Imperial Medical Society of Vienna, Professor Dittel related the following case. A merchant, aged 48, had for ten years suffered from disease of the bladder, and for four months had had symptoms of stone. Having ascertained the presence of a calculus, Dr. Dittel performed lithotrity twice. A quantity of detritus, consisting of phosphate and oxalate of lime, was removed; but the principal mass of the stone resisted crushing, and Dr. Dittel suspected that it was sacculated. He directed an assistant to introduce his finger into the rectum and push the stone forward; but still he was unable to seize it. As a result of the lithotrity, a large number of fragments of stone came away; but one remained so firmly fixed in the fossa navicularis, that urethrotomy was necessary for its removal. After four days, a similar accident occurred, and the wound had to be reopened to remove the fragment of stone. On May 2nd, Dr. Dittel performed lateral lithotomy. On introducing his finger into the bladder, he reached the diverticulum, but found that the stone was so closely grasped by it that, after trying for an hour, he found it quite impossible to pass his finger between the calculus and the wall of the sac. He therefore decided to perform the high operation, but was still unable to dilate the diverticulum with the finger. He then introduced a scoop between the wall of the diverticulum and the stone, and endeavoured, until he became wearied, to raise the calculus from its bed; an assistant then continued the attempt, using the symphysis pubis as a fulcrum, and applying leverage with all his force until the handle of the scoop was bent. After these attempts had been carried on for an hour and a half, the stone was at last broken up and removed in fragments. Considering the severe handling which the parts had undergone, the most unfavourable result was naturally expected, especially as parenchymatous hæmorrhage from the wound set in some hours after the operation, rendering it necessary to plug the rectum. The patient became collapsed, and nausea, vomiting, and other symptoms of peritoneal irritation appeared. The case, however, ran a favourable course. Fourteen days after the operation, the patient was free from fever, and the wounds were perfectly clean.

ANOTHER DEATH FROM BROMIDE OF ETHYL.

THE *Philadelphia Medical Times* of June 5th reports the death of a patient under bromide of ethyl at the Jefferson Medical College Hospital, and adds that it will probably lead to the general recognition of the fact which it has before insisted upon, that it is a dangerous agent. The patient was about to be operated upon for stone in the bladder, but expired as the first incision was being made. As the production of anæsthesia was supervised by Dr. Levis himself, it is hardly probable that any valid excuse can or will be offered. Professor Pancoast informs the writer that he recently saw another case nearly die from the bromide; "so that," our contemporary adds, "whilst we can admire the enterprise and courage of the surgeons who have so heartily advocated the use of this substance, we think that they will agree with us that further experiments will require justification."

CREMATION.

AT Milan, on Sunday, the remains of the "Apostle of Cremation", Giovanni Polli, were disposed of according to that system, the ceremony being attended by the Cremation Society, and telegrams of condolence being received from a number of *savants*. This is the sixty-eighth case of cremation in Milan since 1876.

ENGLISHWOMEN AS DOCTORS IN CHINA.

A LETTER from China in the *Temps* mentions that Miss Howard, an English lady, has been appointed doctor to the Countess Li, as also to the management of a hospital established at Pekin by the foreign residents. The Countess Li, who supplies all the medicine for the patients, is a great friend to animals.

BOGUS DIPLOMAS.

A RECENT telegram from Philadelphia announces that, through the exertions of the *Public Record*, a newspaper of Philadelphia, the operations in selling bogus medical diplomas have probably been broken up. The proprietor of the *Record* has been for several weeks gathering evidence, his city editor, under assumed names, getting medical diplomas from the American University of Philadelphia, the Eclectic Medical College of Pennsylvania, and the Livingstone University. This work was done in connection with the Government authorities. Everything being ready, Dr. John Buchanan, the chief dealer in bogus diplomas, and three others of his faculty, have been arrested and charged with using the mails for improper purposes, also with fraud. Buchanan has been held in bail for 10,000 dollars to answer the charge in the United States Court. The papers captured in Buchanan's office showed a sale of 3,000 spurious diplomas, while there was a large quantity on hand. Buchanan's trade was chiefly with Germany; but some diplomas were sent to England. His prices varied from 65 to 110 dollars each. Nearly all the diplomas used were antedated. Buchanan's colleges are legally incorporated by the Pennsylvania Legislature, but this exposure will be made the basis of forfeiting the charters.

ASYLUMS WITHOUT LOCKS.

DR. RUTHERFORD, of the Barony Parochial Asylum at Woodilee, near Glasgow, intimates in his annual report that, mainly through fully occupying the patients, and thereby counteracting the tendency to manifestation of their insane ideas, it has been found practicable to carry out the open-door system of treatment. All the doors in the asylum open with ordinary handles, and only the chief attendants are in possession of a key. No untoward event has as yet occurred to lead Dr. Rutherford to change his opinion that, by the diminution of apparent restrictions upon liberty, greater quietness and contentment are secured, which has its effect in promoting recovery and contentment. The open-door system, as it is called, has prevailed more or less in English asylums for twenty or thirty years past, almost every asylum having had its farm, and laundry, and convalescent ward, with unrestricted egress and ingress to the patients located in them; but the peculiarity of the system as now developed in Scotland is that all the doors of the asylum are understood to remain unlocked, the patients having constant opportunities of quitting their wards and the establishment, if disposed to do so. If this be not what is meant by the open-door system—and if that appellation be used to imply merely that a considerable number of doors are left open—then we cannot help regretting that a misleading phrase should have been employed. If, on the other hand, the open-door system is really what it professes to be, we must congratulate those who have originated it, not only on having improved the condition of the insane, but on having achieved a moral triumph which has not yet been equalled in any sane community; for we do not know any town or country in which private houses are conducted absolutely upon the open-door system. To secure complete confidence, however, in the thoroughness of the system, it would seem desirable that the doors of the asylums in which it is carried out should not only "open with ordinary handles", but should be constructed without locks, and that the chief attendants should be deprived of their superfluous keys; for the existence of locks and keys is calculated to create the suspicion that some doors are sometimes locked; and, if that be so, the open-door system is merely a pretentious myth, for it is, of course, obvious that an asylum might be so arranged that a very small number of locks might entail a very large amount of restriction of liberty. The exact number of locks necessary to insure safety in any asylum would, of course, depend very much on the character of the patients received into it, and of the population from which they were drawn, and on the number of nurses and attendants employed. In a Scotch asylum, containing lunatics drawn from an industrious and law-abiding race, and afflicted with the less formidable varieties of insanity, a small number might suffice; while in an English asylum, in which general paralysis and epilepsy abound, and in which the patients are of turbulent disposition, a larger number might be indispensable. Then, in any asylum, the locks might be diminished in number *pari passu* with an increase in the number of the attendants, the only limit to this process being the long-suffering of the ratepayers. Wherever the open-door system was adopted, vigilant supervision would be imperatively necessary to insure that some subtle and more objectionable form of coercion did not take the place of the passive resistance of the lock. It is unfortunate that the open-door system should have been vaunted as a beneficent discovery without sufficient emphasis being placed on the circumstances which must limit its extension, as asylum medical men, who are simply prudent and regardful of the public safety and the welfare of the patients committed to their charge, are apt to be suspected of obstruction and a blind adherence to routine when they decline to sanction its adoption in the hospitals for which they are responsible. Dr. Rutherford's opinion that, by the diminution of apparent restrictions upon liberty, greater quietness and contentment are secured in asylums, is certainly not original nor peculiar to himself. It has been the guiding principle of the humane treatment of the insane since that was first inaugurated; and the effort has always been to remove not only apparent, but real restrictions on lunatic liberty, as far as that could be done without public risk or the sacrifice of the paramount objects which must always be held in view in dealing with the insane. But hopeless would have been the attempt at humane treatment, and sad the condition of the insane to-day, if the founders of that treatment had not proceeded with caution and sagacity, indulging in no rash experiments. There must be some limit to the removal of restrictions on the insane; if not, the simplest and wisest course would seem to be to abolish lunatic asylums altogether and at once; for, disguise it as we may, they are, after all, but costly and elaborate engines for the imposition of restrictions.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

MR. REGINALD HARRISON has issued the following letter to the Fellows who signed the requisition addressed to him, requesting him to become a candidate for the Royal College of Surgeons.

> "After mature consideration, I have decided to ask that my name shall be withdrawn from the list of candidates for election into the Council of the Royal College of Surgeons at the approaching election in July. In taking this step, I am chiefly prompted by the desire to avoid placing myself in antagonism with interests which, together with other Fellows of the College, I have long endeavoured to maintain in the selection of representatives in the Council. I thank you for the distinguished mark of favour you have personally shown me in the memorial I have received, and for the expression of opinion therein contained, that the claims of Liverpool for the distinction referred to should not be overlooked."

In taking this course, Mr. Harrison has undoubtedly been influenced by a desire to refrain from any position in the forthcoming contest which could unfavourably influence the prospects of the increased representation this year of provincial Fellows, which would be effected by the election of Mr. Cadge of Norwich. No doubt the retirement of Mr. Reginald Harrison will cause some disappointment to those who, on valid grounds, entertain the opinion that the earliest opportunity should be taken of obtaining for so important a medical centre as Liverpool a representative in the Council, and who found in Mr. Harrison a candidate whose known public spirit, administrative experience, and personal qualities of tact and activity added great weight to his scientific claims as a surgeon of acknowledged merit and ability. These claims, however, will lose nothing in their importance by the patriotic and graceful course adopted at this juncture by Mr. Harrison; on the contrary, when urged anew, as no doubt they will be, they will have gained redoubled force by what has now occurred.

BABY-FARMING WITHOUT INSPECTION.

MR. SPENCER CLARKE, the coroner for North Hants, has resumed an adjourned inquiry as to the death of Daniel Lacey, aged 12, who is alleged to have died from starvation and neglect whilst an inmate of the Farnborough Orphanage. Mr. Erl, solicitor, appeared for Mrs. Pashley, the resident proprietress of the Orphanage. This is the second death which has taken place at the above institution within the past two months. The evidence offered showed that the body of the child Lacey presented a shocking appearance, being reduced to a mere skeleton of skin and bone. Although the child was twelve years old, his body only weighed twenty-seven pounds, while it was only forty-eight inches in length. Dr. Barker, who had made a *post mortem* examination, said the body was a mere skeleton covered with skin. The jury returned a verdict of manslaughter against Hannah Pashley, whom the coroner committed for trial.

ANTISEPTIC METHODS.

AT a meeting of the Boylston Prize Committee of the Harvard University, Boston, the premium of 150 dollars offered for the best dissertation worthy of a prize on the previously announced subject: "Antiseptic Treatment: What are its essential details? How are they best carried out in practical form?" was unanimously awarded to the essay bearing the motto, "Truth our guide". On the envelope bearing this motto being opened, the author was found to be Mr. Watson Cheyne, Assistant-Surgeon of King's College Hospital, London. In the letter from the Secretary of the Committee announcing this award, Dr. Hodges, the Secretary, adds: "The great excellence of this dissertation has led the Committee to add to the award the gold medal of the Boylston prize." This prize has always been one of those regarded as the most honourable in America, inasmuch as the adjudicators have shown themselves very critical in awarding their honours, and on many occasions have, when the essays have not come up to a high standard, declined to make any award; this was the case last year. Mr. Cheyne is to be congratulated, not only on attaining the honour which is creditable to himself and to English medical literature, but on being the author of an essay which will have the effect of disseminating in a popular and compact form the necessary details for carrying out the antiseptic treatment.

HOSPITALS FOR THE INSANE.

THE Duke of Grafton, as chairman of St. Andrew's Hospital for the Insane, at Northampton, reports that that important institution, which now accommodates upwards of three hundred lunatics of the middle and upper classes, is in a flourishing condition, with an income of £34,000 a-year, and a considerable surplus of receipts over expenditure, which enables many improvements to be carried out for the benefit of the inmates. The surplus last year was £7,888 16s. 10d.; which gives some idea of the profits which are derived from asylum management. It is to be remembered that the rates of board at St. Andrew's Hospital are low when compared with many private asylums; that its inmates are treated in the most liberal way as regards diet and amusements; and that its officers are handsomely remunerated for their services, Mr. Bayley, the medical superintendent, having a salary of £1,100 a-year, with house, coals, gas, and vegetables. And yet nearly £8,000 were realised as a profit on the working of this asylum for last year. The satisfactory condition of the hospital and its progressive development, upon which the Commissioner in Lunacy comments, is to be attributed in great measure to the zeal of Mr. Bayley, who is ably supported by a well paid and contented staff.

VITAL STATISTICS OF 1879.

ACCORDING to the Registrar-General's annual summary of births, deaths, and causes of death in London and other large cities during 1879, there has been a considerable improvement apparent in the health of London in recent years, though the death-rate in 1879 was slightly higher than the average of the last nine years, being 23.3 per 1,000 as compared with 22.9, the average in 1871-9. In the 53 weeks of 1879 the births in London amounted to 134,096, the deaths to 85,540, so the natural increase of population was 48,556, or at the rate of 131 daily. The estimated increase of population over the previous year was 43,423, or 119 daily. The London birth-rate in 1879 was 36.5 per 1,000. In regard to the causes of death, it is noticeable that deaths by small-pox in London are rapidly diminishing. They numbered 2,544 in 1877 and 1,416 in 1878, while last year they were but 458. The Registrar-General remarks that the greatest hygienic deficiency in London now is its partially polluted water, drawn chiefly from the Thames and the Lea. According to Dr. Frankland's reports, the daily supply to London is now about 134 millions of gallons; of this, 126 millions were in 1879 sometimes polluted by sewage matters—68 millions grossly, and 58 millions to a less degree, while only eight millions of gallons were uniformly of excellent quality, fit for dietetic purposes. While the Thames and the Lea are much polluted by organic matter, the water of the chalk wells, from which the Colne Valley and Kent Companies are supplied, is comparatively free from such matter. The conclusion drawn in the Registrar-General's report is that a measure should be passed by the Legislature to take the supply of this necessary of life out of the domain of profitable speculation, and transfer it to some public authority. The mean temperature of the year was 46.2 degrees, which was 3.3 degrees below the average of the previous 38 years. The rainfall in 1879 was remarkably heavy; 31.3 inches fell, or 6.0 inches above the average of the preceding 64 years. There has been a reduction in the mortality of the 20 large English towns which are included in the report. The average death-rate of 1871-75 was 24.8 per 1,000; the average in 1876-79 was 23.4. Of foreign capitals, Christiania had the lowest death-rate in 1879—viz., 17.5, and St. Petersburg the highest, as much as 40.0.

SCOTLAND.

CHAIR OF PRACTICE OF MEDICINE IN ANDERSON'S COLLEGE, GLASGOW.

AT a meeting of the Trustees of Anderson's College on Tuesday, Dr. Samson Gemmell was elected to the chair of Practice of Medicine vacant by the recent appointment of Professor Charteris to the chair of Materia Medica in the University. Dr. Gemmell has been, for the last six years, assistant to Professor Gairdner both in the University and in the Western Infirmary, so that he has had ample opportunity of acquiring a thorough knowledge of medicine both theoretical and practical. This appointment gives great satisfaction both to the profession in Glasgow and to a large number of young graduates and medical students who have had the benefit of Dr. Gemmell's instruction.

FIFE AND KINROSS ASYLUM.

THE report of Dr. Arthur Mitchell, Commissioner in Lunacy, states that the death-rate is low, and the bodily health of the inmates good, while, under the superintendence of Dr. J. J. Brown, the asylum is maintaining its high character, and making marked progress in important directions. There are 322 inmates in the asylum, the greatest number yet reported.

HEALTH OF EDINBURGH AND GLASGOW.

THE mortality in Edinburgh last week was 18 per 1,000, considerably lower than it has been for some time. Nine deaths from zymotic diseases were equally distributed among the three divisions, under which is Edinburgh, defined in the report. In Glasgow, the death-rate last week was 22 per 1,000; during the past fortnight, the deaths from measles have been more numerous than they have been for three years. As to unwholesome underground houses, ten have recently been condemned as unhealthy and illegal.

ENTERIC FEVER IN GLASGOW.

DR. RUSSELL, Medical Officer of Health of Glasgow, has published his report on the recent outbreak of enteric fever in certain districts of the city, and in it he mentions certain facts which deserve attention. On April 24th, Dr. Russell was informed of an outbreak of fever in a district in Glasgow, and he at once began to inquire as to its cause. All the cases at first reported to him obtained their milk-supply from the same dairy, which for convenience we may call No. 1; but, residing above this dairy, was a family in which the fever existed, and they were supplied by another dairy, which we shall call No. 2. On farther inquiry, it was found that dairy No. 1 obtained a considerable quantity of milk from No. 2; and there being a gradually increasing number of cases who got milk from No. 2, the farms supplying it were investigated, and in one farm the dairymaid and the farmer's child were found affected with enteric fever. The supply of milk from that farm was at once stopped, and the epidemic was checked. In March and April, there were 508 cases of fever in the northern district, and, of these, 73 per cent. were customers of the suspected dairies; and, with regard to the deaths, 58 per cent. of all who died of enteric fever since April 1st were customers of the dairy No. 2, or of shops supplied by them. Closer dates corresponded as well. The sickening from fever rose to 42 on the week ending April 17th, to 151 on the week ending April 24th, 123 on May 1st; and afterwards it suddenly fell to 33 on May 8th, to 12 on the 15th, and to 4 on May 22nd. All this was in what may be called the infected area, and the height of the epidemic was coincident with a milk-supply in the district which came from a farm where enteric fever existed, and it subsided as soon as the milk-supply was stopped. In order to remedy the dangerous element in the milk-supply of cities, Dr. Russell agrees with Sheriff Spens in thinking that, not only should dairies themselves be inspected, but all the farms should be so also; any case of fever occurring at a farm should be at once reported to head-quarters, and the milk-supply of that farm temporarily stopped.

REGISTRAR-GENERAL'S RETURNS.

THE death-rate in the eight principal towns of Scotland for the week ending Saturday, June 12th, 1880, was 24.8 per thousand of estimated population. This rate is 4.4 above that for the corresponding week of last year, and 3.0 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 17.1 per thousand—and the highest in Perth—viz., 35.1 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.3 per thousand, or 0.4 above the rate for the previous week. An increase occurred in the number of deaths from measles in Glasgow, while in Dundee no fatal cases of that disease were recorded. Acute diseases of the chest caused 116 deaths, being an increase of 21 on the number recorded during the previous week. The mean temperature was 50.9, being 1.5 below that of the week immediately preceding, and 211 below that of the corresponding week of 1879.

IRELAND.

THE election for a Coroner to the East Riding of the County Cork takes place this week; but we regret to find that the medical candidates have withdrawn from the contest.

CORK STREET FEVER HOSPITAL.

THE seventy-sixth annual report of this hospital, for the year ending March 1880, has just been issued. Owing to the fact that Dublin has not been free from small-pox since 1871, that disease may be said to have become as permanently existing in the city as the many other forms of zymotic disease which go to swell its large death-roll. Consequently, the year has again been one of unusual strain upon the resources of the hospital; for, although the total number of admissions was but little over half of that in the preceding year, it was still greatly above the average, and was largely composed of cases of small-pox—a disease which, in its treatment, entails much more than ordinary labour and expenditure. The total income of the institution has, therefore, we are sorry to observe, not kept pace with its expenses; and the managing committee are again obliged to appeal to the public for pecuniary aid to meet the great demand on the resources of the hospital. Cork Street Hospital furnishes the only accommodation for small-pox patients at present in the city, with the exception of a few beds at the Hardwicke Hospital and the Workhouse Hospital at Kilmainham—all the other hospitals having closed their doors against this class of patients. The medical report for the year is from the pen of Dr. Reuben J. Harvey, one of the physicians to the hospital. The total number of admissions were 1,083, and the mortality 186, or 17.58 per cent. Six hundred cases of small-pox were admitted during the year, and 119 cases died. These figures indicate a very marked improvement on those in the report of last year—namely, 1,509 admissions and 357 deaths; and not only are the numbers less, but the average mortality, which last year reached the very unsatisfactory rate of 23.6 per cent., has this year fallen to 19.8 per cent. The statistics of the cases of typhus are particularly worthy of notice. Of a total of 94 cases, 9 of which proved fatal, 57 were admitted in the months of January, February, and March, in nearly equal numbers for each month. This number exceeds by 11 the greatest number of admissions in any quarter of the five years under consideration, while in each of the three preceding quarters of the present year the number of admissions was not only greatly below the average, but markedly less than in any quarter of the preceding four years. The immunity from typhus in the first three quarters of the hospital year was the reverse of what was anticipated; for an increase in typhus cases is frequently observed when a small-pox epidemic shows signs of waning. The increase in the last quarter was almost exclusively due to an epidemic of this disease which occurred in the North Dublin Union, and which was confined to the female department. From this source alone 40 out of the 57 cases came. The pressure on the accommodation in the wards usually devoted to typhus became so great, that it was found necessary to open for typhus patients the sheds, erected for small-pox in 1878. Not a single case of variola occurred amongst either the patients or the nurses during their sojourn in this building. This fact is particularly interesting and satisfactory, as it removes any misgivings as to the capability of disinfecting a wooden building of the kind. The walls of this building consist of a double sheeting of deal, the interval being filled with pine sawdust. It is worthy of consideration whether a building thus constructed may not have special powers of resisting infection—whether, in fact, the immunity from small-pox infection observed here may not, in some measure, be due to the antiseptic power of the pine sawdust. Ninety-eight cases of scarlatina were admitted, with a mortality of 27, or 27.5 per cent. Some of the most important of the valuable tables contained in the report are those showing the manner in which vaccination modifies the type and mortality of small-pox. One fact remains unaltered that, while more than two-thirds of unvaccinated cases die, seven out of every eight of the vaccinated cases recover. Of 74 unvaccinated cases, 50 died. But this high death-rate is not the only calamity which the experience of this epidemic proves to be specially the fate of the unvaccinated. Of the whole 74 cases, there was scarcely one that could be called really light. Of the 24 that recovered, one-half were detained in hospital for a period of from one to three months; and boils, abscesses, ophthalmic trouble, etc., occurred in these cases with a frequency and severity altogether out of proportion either to their numbers or even the apparent severity of the primary attack. Their experience of the earlier part of the small-pox epidemic leads both Dr. Harvey and Dr. J. W. Moore to the conclusion that, however true it may be in general that the presence of an attack of one form of zymotic disease tends to afford protection against the infection of another, it is certainly not true of small-pox and scarlatina. The experience of the past year not only corroborates this view, but forces them to the belief that a person affected with small-pox is, *ipso facto*, specially prone to take scarlatina, and *vice versâ*. Dr. J. W. Moore contributes, as usual, a series of four meteorological tables, which enable the reader to institute a comparison between the conditions of weather during the year and the prevalence of disease in the same period, and afford a standard of reference to the principal meteorological factors in a long series of years. The report is an interesting and valuable one; and it is not to the credit of the Dublin hospitals that Cork Street is the only one of them that issues anything like a scientific or complete statistical report of the annual work it has done.

SPINAL CONCUSSION OR HYSTERIA?

An action for damages laid at £2,500, for personal injuries sustained by a forewoman in a milliner's shop, through the alleged negligence of a well known firm of Dublin apothecaries, was tried before the Lord Chief Baron and a special jury last week. While passing one of the Defendants' establishments, a shutter, carelessly placed by a porter against the shop, was blown down by the wind, and, in falling, struck the plaintiff on the back of the head. The carelessness and the injury were admitted, and the plaintiff was offered a sum of £500 as a solatium. This, however, was refused, and the action was taken. A large number of medical witnesses were examined on both sides, and the usual much-to-be-regretted contradictory scientific evidence was given. On behalf of the plaintiff, it was sworn that she had suffered concussion of the spine, and would probably never fully recover her former health. For the defendants, it was pleaded that she was suffering more from hysteria than from organic disease; and that, in all probability, she would eventually regain perfect health. The jury took this view, and awarded the lady only £350. There was some very remarkable medical evidence given for the plaintiff, which caused much astonishment in the minds of some of the medical as well as of the legal profession present who heard it enunciated.

MEDICAL OFFICERS OF LUNATIC ASYLUMS IN IRELAND.

Attention has recently been directed to a number of grievances under which the medical officers of Irish lunatic asylums labour, and which we trust will shortly be removed, so that they may be placed on a similar footing with their English brethren. First, as regards retiring pensions, the rate is fixed according to the Superannuation Act of 1859, which provides that the medical officer shall receive one-sixtieth of his pay for every year he has served; that is, after fifteen years' service he would be allowed one-fourth of his salary as superannuation; but the English medical officer, with similar duties to perform, would obtain two-thirds after the same period of service. But, besides this anomaly, is the fact that the medical officer can only claim the number of years he has held his last office, and not the number of years he has held in the service; so that, when a physician leaves an asylum and is transferred to another, the time he has served in the institution or institutions he has left will not be considered so far as it concerns his claim for a pension. These are, few will deny, most substantial grievances, and we trust that rules acting in so unjust a manner will be modified by the authorities. The ordinary duties of medical officers of asylums are extremely harassing, and a considerable amount of anxiety and responsibility must necessarily devolve upon them; and, therefore, for these additional reasons, they should not be treated in the exceptionable manner to which we have briefly alluded.

HEALTH OF BELFAST.

From the Report of Dr. Browne, medical superintendent officer of health, for May, we learn that only thirty-three cases of zymotic disease were under the observation of the dispensary medical officers; one case of small-pox, and twelve cases of enteric fever, were removed to the Union Workhouse, the usual disinfecting, and other sanitary operations having in each instance been duly attended to. The births registered during the four weeks amounted to 617, and the deaths to 421, being equal to 24.71 per 1000 on the corrected population. The deaths from zymotic diseases have been remarkably small in number; but the mortality from phthisis, and other chest-affections, has continued largely during the entire month, due probably to the keen easterly winds which prevailed at evening and night. One death from small-pox was recorded, but none from scarlatina. The question of erecting a disinfecting establishment in the Borough, at an estimated cost of £636, and an annual expenditure of £200, is at present under the consideration of the Belfast Town Council.

THE ELECTION INTO THE COUNCIL OF THE COLLEGE OF SURGEONS.

This election will take place on Thursday afternoon next, under regulations similar to those which have been in force in recent years, but which are still as far as ever from being satisfactory to the Fellows at large, both metropolitan and provincial. As, however, these are matters which cannot be amended without the obtainment of a new charter, it comes to be a matter for consideration whether such amended charter should not be sought for.

Voting-papers should be permitted, in order to give provincial Fellows the opportunity of voting without the trouble of undertaking a journey to town. This reform would place all Fellows on an equality, so far as the facilities for recording their votes are concerned, and is much needed.

Another point respecting the election which requires amendment is the circumstance that the period of time during which the ballot is kept open is not definite and precise. The ballot begins at two o'clock, and cannot be prolonged beyond three hours, *i.e.*, five o'clock; whilst it may be closed at any time between two and five o'clock if no vote be given after the chairman shall have notified his intention to close the ballot at the end of ten minutes, unless a vote in the interval be recorded. As was last year pointed out in these columns (vol. i, 1879, page 871), this uncertainty as to the time of closure of the ballot is an especial hardship to provincial Fellows, and probably often detains at home voters who could and would come to Lincoln's Inn towards the end of the voting time, but who now do not present themselves, inasmuch as it is doubtful whether they may not find the ballot closed, and their journey in this respect fruitless. It was suggested that the President and other officials of the College who conduct the election might, at any rate one day in the year, sit out the full three hours. To do this, there need be no reference to the Secretary of State for an alteration of the by-laws; a notification beforehand on the part of the President that he will not avail himself of the permission to close the ballot which is now granted him by the by-laws, but will keep the ballot open under all circumstances until five o'clock, would at once remove the grievance, and obtain for the President who should initiate this much needed reform the thanks of all the Fellows who take an interest in the proceedings of their College. We trust that Mr. Holden or one of his immediate successors may approve and adopt the suggestion which, in the interests of the Fellows themselves, we have deemed it our duty to advocate.

PAYING PATIENTS AT ST. THOMAS'S HOSPITAL.

A MEETING of the General Board of Governors was held on Wednesday in the board-room of St. Thomas's Hospital, for formally adopting the draft order of the Charity Commissioners with regard to the admission into the hospital of two additional classes of patients, viz., (1) remunerative paying patients, and (2) poor paying patients. Mr. Alderman Stone, treasurer, was in the chair; and there were present, Aldermen Rose and Breffit, and the following governors: Dr. Carpenter, the Reverend Dr. McEwan, the Reverend Mr. Greenwood, Messrs. Goolden, Bonham Carter, Dunn, Laurence, Ingall, Gressell, Doulton, Curting, Pitts, Rolls, Bucker, Stiff, Oastler, Studhurst, Stapleton, and Hogg.

The CHAIRMAN went at some length into the subject of the scheme which we subjoin, together with the draft order of the Charity Commissioners. The scheme had been suggested and drawn up on the ground that the funds of the hospital were not adequate for the maintenance of the number of patients for whom it was originally designed; it was, in fact, overbuilt, and in consequence of which some wards were closed. He was of opinion that a great want would be met, and that a large number of patients, who were able and willing to pay, would gladly avail themselves of this opportunity of entering a hospital for a small money payment, where they would be sure of securing skilled medical and surgical attention, together with the most careful nursing. They would also receive attention in regard to diet, which would be of the best, and well prepared. His opinion was that it would fill very rapidly, for the want was very great. They had received, and were constantly receiving, the most urgent applications from patients who were desirous of paying. It was suggested that two of the four wards now empty should be set aside for this class of patients; and he had no doubt that they would ultimately bring in sufficient profit to enable them to pay off a portion of the existing debt. The second class, called "the poor paying patients", who simply paid the actual expenses of their food and treatment, was a class which was not at first contemplated in the scheme. By this means he thought they would be enabled to fill one of the two remaining wards; and it was always necessary there should be one empty ward. It was calculated that each ward would cost £1,500 yearly to maintain it, and that 3s. daily from each such patient would as nearly as possible amount to that sum. The really poor, who were intended by Edward VI to be taken into that hospital, was a class that no longer existed; but a large number of the patients who were now admitted were persons who could very well pay 3s. a day, or £1 1s. per week. The question of medical etiquette had been raised; but he could not recognise the difference between those who ostensibly and openly paid and those who paid by donation. He thought that before long the very wide question would arise, whether they should not require small money payments from out-patients. A large sum of money was spent in administering to those out-patients medicines which cost them nothing, but the hospital authorities a great deal; and this class, who were not so poor but that they could go to provident dispensaries, he was of opinion should pay a small sum for the benefits which they received. Their desire was not to gain a profit out of these poor paying patients, but to fill as many of the wards as possible. The general idea was one approved by the Charity Commissioners; and one of the commissioners had himself inspected the building, and expressed his entire satisfaction with the arrangements.

Mr. Alderman ROSE said that the remark of the Chairman that the class of patients for whom the hospital was originally intended had disappeared was to him a startling announcement. His experience, at St. Bartholomew's Hospital and elsewhere, was, that the class of individuals who were glad to avail themselves of the benefits of such an institution was on the increase. He thought it was an experiment which it was wise to try; but he asked, if all the hospitals were to try the experiment and become self-supporting, what would become of the medical profession?

Mr. FRANCIS M. GOOLDEN expressed a hope that, now that some chance was to be given for patients to be admitted into the hospital on payment, they would no longer see, what he had frequently seen in going round the wards, persons who were capable of paying £50 a year. The pauper class had been provided for by the country, and he now hoped some distinction would be made between those who could pay and those to whom it was really a boon and a blessing which ought to be multiplied in every direction. He agreed with what had been said concerning out-patients. They came to the hospital with or without a letter, very often without, and were merely treated as surgical or medical cases; and no one seemed to have the power to inquire whether they could afford to pay or not. He rejoiced that the opportunity had now arisen of classifying the persons who reaped the advantages of the foundation.

Mr. BONHAM CARTER, speaking on the question of the medical and surgical staff, said the difficulties which had arisen were not personal difficulties at all, but arose simply from the view they took of their duty to the profession to which they belonged. It was not a question as to the time given to the patients, but that, being members of the medical and surgical staff of the hospital, they would, in being called upon to attend paying patients, have extensive advantages which other members of the profession would not. They began by seeing, in an administrative point of view, serious reasons for not allowing practitioners who were on the medical staff of the hospital to attend paying patients; but, after a full discussion of the subject, the Committee were induced to withdraw, and to yield to the representations made to them by the medical staff, and not to restrict remunerative paying patients to any particular number of the medical and surgical staff. The objections of some members of the medical and surgical staff to attend the poor paying patients was not a question of time, but arose from a feeling of professional etiquette; but he had no doubt, in the course of their experiments as they went on, they would find those objections removed. Alderman Rose had asked, "Had they received the opinion of the medical profession generally outside of the staff?" They had not received a single objection. It was raised as a matter of discussion how the admission of poor paying patients would affect a district not far from the hospital; and they came to the conclusion that it would most decidedly benefit them. They had frequent applications from practitioners who were desirous of sending patients into hospitals; for instance, cases which required greater skill and more particular medical treatment. There was nothing meant uncomplimentary to the ordinary medical practitioner, if he wished to call in greater skill and ability; he was of opinion that they were conferring a great boon upon the ordinary practitioner. They, too, would have the immense advantages with regard to nursing of being nursed by thoroughly competent women.

Dr. CARPENTER (Croydon) said he happened to be the only medical governor present. He assumed, however, from their non-attendance, that the medical governors supported the scheme, or they would have been there to give utterance to their objections. There were paying patients whom it was proposed to admit for the purpose of obtaining a profit; and there were the poor paying patients whom it was proposed to charge three shillings a day for their maintenance; but there was no proposal in the scheme for the purpose of obtaining a *portion* of the costs. It appeared to him a fault in the scheme that arrangements were made for those who could bear the entire cost of the maintenance, and not for those who could only pay a part of the cost and not the whole. He thought the scheme would have been of better service if it had included the admission of a certain number of patients who should, as they did now in many of the cottage hospitals in the country, contribute a portion (for instance, five shillings per week) towards his or her maintenance. That was, he thought, the direction in which the hospital would have to go; for, under the laws of the land, the extreme poor were provided for in the infirmaries of the unions—the very persons it was intended by Edward VI to benefit; and in regard to the common class of persons, who were able to pay *something* towards their maintenance, a very strong effort was now being made by a body of gentlemen for the establishment of provident dispensaries, that should enable persons to obtain medical assistance for themselves as out-patients, and would relieve the hospitals of a very large portion, unless the hospitals came to some such arrangement as the provident dispensaries, and received something towards the expenses, if it were but sixpence or a shilling a day. Many governors might dislike the idea, but it would, he thought, come to be the case with all the hospitals in London. They would all fall into the same category, and persons would be admitted into their wards by payment of something towards their maintenance. The present hospital had got into this difficulty through being over harsh, but he thought it a fortunate thing that it was so, for, by the establishing of the paying wards, they were providing a place where medical men, who were often placed in very great difficulty, would be able to send their patients, where they would be taken care of and where they would recover more rapidly. The profession would be pleased with the arrangement, and especially when they saw the noble manner in which the staff of St. Thomas's Hospital had stood out for the rights and dignities of their profession. Some remarks were made as to the etiquette of the profession, and it was for the public interest that the profession stood out for the maintenance of that etiquette. He thought they had done their duty in the course which they had taken, and by assisting, as he understood they had done, in bringing out the scheme, they had shown themselves to be above the spirit of self. He had no doubt it would be found extremely satisfactory to all, and an ultimate advantage to the medical profession in various ways, and, he hoped, to St. Thomas's Hospital. He would have liked to see an amendment made to that part of the scheme which called upon the patients to pay the entire cost of their maintenance. It would be doing what St. Thomas's Hospital was intended to do, viz., to help those who could not help themselves.

Mr. H. DOULTON said the subject was one which had received very careful consideration, and he thought that St. Thomas's Hospital was particularly fortunate in having such very valuable men on its staff as Mr. Simon and Dr. Barker.

It was then resolved *nem. con.*: "To confirm the resolution of the Grants Committee; and that it be referred to them to take the necessary steps to complete the order of the Charity Commissioners, with the alteration now suggested; and, when completed, to carry the same into effect."

In the scheme, after reciting the conditions which render the changes necessary, the following proposals are made.

"I. *As to the Reception and Treatment of Remunerative Paying Patients.*—1. That two out of the four empty wards, comprising Block No. 2 of the hospital, viz., the 'Adelaide' and 'Alice' wards (the former capable of containing sixteen beds and the latter twenty-four beds), be at once made fit at a cost not exceeding £500 for the reception and treatment of remunerative paying patients, and be devoted exclusively to such patients so long as the governors shall think fit. 2. That the two above-mentioned wards, and one small ward for one patient in the said Block No. 2, shall be called and known by the name of 'St. Thomas's Home for the Reception and Treatment of Paying Patients' (hereinafter called 'St. Thomas's Home'). 3. That the Treasurer and House Committee, or in cases of emergency the Treasurer alone, shall be at liberty to entertain applications by or on behalf of remunerative paying patients for admission into St. Thomas's Home. That such applications be entertained, as well when a patient is willing and able to make payments for nursing and medical attendance, as also when the friends of a patient are willing to make and secure such payments on the patient's behalf. 4. The Treasurer and House Committee, in considering applications for admission falling within the last preceding rule, shall have an absolute discretion as to complying with or refusing the same, and shall be at liberty to call for references or recommendations in respect of any patients seeking admission as last aforesaid. 5. The charge for each patient to be admitted under this present scheme into either of the two first mentioned wards of St. Thomas's Home shall be eight shillings per day, and the charge for each patient to be admitted under this present scheme into the said small ward of St. Thomas's Home shall be twelve shillings per day, and one-half of the above charges, respectively, shall be made for each day during which a bed is kept empty for a patient; but the Treasurer and House Committee shall be at liberty to take into consideration the state, position in life, and circumstances of every proposed patient, and the nature of the case requiring treatment, and as the result of such consideration to require a higher daily sum than the minimum charge. 6. That payments in respect of each patient shall be made weekly and in advance, and shall be secured in every case in such manner as the Treasurer and House Committee shall determine, and shall be made to the Steward at his office in the hospital on Saturday, and if the patient shall leave before the expiration of any week, then such patient shall only pay for the number of days he or she shall have remained in St. Thomas's Home. 7. The Treasurer and House Committee may determine the patient's term in St. Thomas's Home by a week's notice, or less if necessary, upon a medical certificate of the resident officer hereinafter referred to, that such patient is in a condition to be removed. 8. That every patient admitted into St. Thomas's Home, whether into one of the two first mentioned wards or into the said small ward, shall be under the professional charge of a resident officer of superior medical and surgical qualifications, and aged not less than thirty years, who shall neither be holding any other office in the hospital nor in the medical school connected therewith, nor be engaged in any business out of the hospital. Such resident officer shall be appointed by the governors of the hospital at a salary not exceeding £500 *per annum*, and shall (when necessary) have a junior assistant, who shall also be appointed by the governors at a salary not exceeding £100 *per annum*, and under conditions approved by them; but no person shall be appointed by them as junior assistant who is under any official engagement in the hospital or in the medical school connected therewith. 9. All patients admitted under this present scheme into St. Thomas's Home will, for their ordinary medical and surgical treatment, be patients of the superintending officer thereof, and of him exclusively, as their ordinary medical and surgical attendant, but every patient may at any time, at his or her option, employ at his or her own expense, as consultant with such superintending officer, under the ordinary usages of consultation practice, and subject to the rules of the establishment, any legally qualified medical or surgical practitioner, whether attached to the hospital or not, whom he or she may prefer, but subject as to any medical or surgical practitioner not on the staff of the hospital, to his exclusion or removal at the discretion of the treasurer and house committee, or, in cases of emergency, of the treasurer alone. And all patients so to be admitted as aforesaid must in all respects conform to the regulations from time to time prescribed by the treasurer and house committee for the due government and management of St. Thomas's Home, especially as regards the admittance of friends, and all other matters incidental to their position as patients in St. Thomas's Home. The payments to be made as aforesaid by remunerative paying patients will entitle them to their board, medicine and medical and surgical attendance and appliances, and to be nursed and attended by the nursing staff of the hospital."

"I. *As to the Reception and Treatment of Poor Paying Patients.*—1. That as many patients as could be contained in the remaining two wards of block No. 2 (that is to say 52) shall, upon their agreeing to pay the actual cost incident to their reception and treatment, be received as vacancies occur into eleven of the general or ordinary wards of the hospital in equal numbers, and so that not more than five patients shall be in any one of such wards at the same time. 2. That the provisions with regard to applications for admission of poor paying patients into the hospital, and to the determination of each patient's term in the hospital, shall be the same as those hereinbefore contained concerning remunerative paying patients. 3. The charge for each poor paying patient admitted into the hospital under this present scheme shall be 3s. per day. 4. The payments in respect of each patient shall be made weekly and in advance, and shall be secured in every case in such manner as the treasurer and house committee shall determine, and shall be made to the steward, at his office in the hospital on Saturday; and if the patient shall leave before the expiration of any week, then such patient shall only pay for the number of days he or she shall have remained in the hospital. 5. Poor paying patients admitted into the hospital under this present scheme will be treated exactly in the same way as the ordinary patients for the time being are treated, and must in all respects conform to the regulations from time to time prescribed by the treasurer and house committee for the due government and management of the hospital, especially as regards the admittance of friends, and all other matters incidental to their position as patients in the hospital. The payments to be made as aforesaid by poor paying patients will entitle them to their board, medicine, and medical and surgical attendance and appliances, and to be nursed and attended by the nursing staff of the hospital."

"II. *General Observations.*—The accompanying statement will show the estimated receipts and expenditure consequent on the admission into the hospital of remunerative paying patients, and the annual profits likely to arise to the governors therefrom. The above-mentioned minimum charges of 8s. or 12s. per day, to be made for each patient of the above class, according to whether the patient is admitted into one of the two large wards or into the small private ward in St. Thomas's Home, are considered by two senior members of the medical staff of the hospital, who have been consulted on the subject, to be fair and reasonable. The diet of each ordinary patient admitted into the hospital costs at the present time on an average £17 per annum, and it is estimated that the average annual cost of the diet which each remunerative paying patient will require will be between £25 and £35 per annum. It should also be mentioned that the medical and surgical staff of the hospital concur in the proposal of the governors, that any remunerative paying patients shall be at liberty at any time to employ, at his or her own expense, as consultant with the superintendent officer above referred to, under the ordinary usages of consultation practice, any legally qualified medical or surgical practitioner, whether attached to the hospital or not, whom he or she may prefer. As respects the proposed arrangements for admission into the general or ordinary wards of the hospital of poor paying patients, it should be mentioned that the governors believe that the funds which it is expected will be derived from that source will, within a very short period, probably at the end of a year or eighteen months after the scheme is in full operation, enable the governors to reopen the remaining two empty wards of block No. 2 for the reception of ordinary non-paying patients. The governors propose that the foregoing scheme for the admission into the hospital of both remunerative and poor paying patients shall continue in operation so long only as the funds and revenues of the hospital shall be inadequate for the maintenance of the full number of patients of a non-paying class, for which the hospital was designed, and that so soon as the funds and revenues will allow of the full number of patients of the last-mentioned class being maintained, the foregoing scheme shall cease and be at an end. It may be mentioned that the sum of £1,500 or thereabouts is the estimated annual cost to re-open for the reception of patients of a non-paying class each of the wards which are now closed, five in number."

The draft order of the Charity Commissioners is as follows.

1. "During a period of ten years from the date hereof, the governors may admit into the hospital, and may provide for the maintenance and treatment therein of patients, in consideration of payments at a daily rate, as follows: *a.* A number of patients not exceeding forty-one, at a daily rate of not less than 8s.; *b.* A number of patients not exceeding fifty-two, at a daily rate of not less than 3s. 2. The governors may expend a sum not exceeding £500, out of the income of the hospital, in providing any fittings and furniture which may be necessary for the reception of the said patients. 3. The governors may make rules and regulations, not being inconsistent with this order, for the admission, maintenance, treatment, and discharge of the said patients. 4. The period hereinbefore limited for the admission of the said patients may be extended, and the number of, and rates of payment to be made by, the said patients may be varied from time to time by the governors with the sanction of the said board."

Mr. HILL proposed, and Mr. GOOLDEN seconded, a vote of thanks to the Committee, who had performed their work with so great ability.

A printed statement of estimated receipts and expenditure on admission of paying patients shows the following as the probable results.

Annual Cost.

	£	s.	d.
Two wards, containing together forty patients, and one small ward for one patient, with extra diet, at £35 each patient	4,005	8	0
Two wards, containing forty patients, and one small ward for one patient, with diet, at £25 each patient	3,595	8	0
Two wards, containing together forty patients, and one small ward for one patient, with diet, at £17 each patient ..	3,267	8	0

Income.

	£	s.	d.
From two wards and one small ward, with diet, at £35 each patient	2,053	0	0
From two wards and one small ward, with diet, at £25 each patient	2,463	0	0
From two wards and one small ward, with diet, at £17 each patient	2,791	0	0

THE ANNUAL SHOW AT THE COLLEGE OF SURGEONS.

ACCORDING to the usual custom, introduced by Professor Flower, all specimens added to the museum of the College during the past twelve months, and fully prepared, will be exhibited in the theatre on June 28th, 29th, and 30th; on July 1st they will remain there for the inspection of Fellows, that day being fixed for the Council elections. The greatest feature in the recent history of the museum is the acquirement of the Barnard Davis great ethnological collection of skulls and skeletons, which is still in process of transference to Lincoln's Inn Fields in instalments; but space will not admit of their being placed in the theatre, therefore visitors interested in ethnology must seek them in the museum.

Among the new pathological specimens are several more instructive for the student than remarkable for rarity. The want of such specimens has long been felt; and we explained their use when, at the beginning of the year, we quoted the Conservator's printed circular, which contained a list of desiderata of this kind. We trust that this appeal for useful material, forwarded to all medical men in a position to supply it, may be more heartily responded to than has been the case up to the present date. Of this category are specimens of atrophied and brittle ribs from insane patients, presented by Dr. T. Rogers and Dr. S. W. D. Williams; also some examples of union of wounds in the abdominal walls, and of amputation-flaps. The Barnard Davis collection has supplied two pathological additions—one illustrating extreme hypertrophy of the skull, the other showing advanced atrophy of the same part of the osseous system. Dr. Barnard Davis has presented a fine dissection of the pelvic viscera and mutilated external organs of a male Scoptzi, one of a fanatical sect in Russia, which enforces on its adherents amputation of the penis as well as castration. In this specimen, the vesiculæ seminales are much atrophied, and the vasa deferentia reduced to slender threads. Mr. Hacon has presented a dislocation of the first phalanx of the little finger on the metacarpus. A singular specimen, the history of which is of a kind likely to figure in text-books, is a portion of the timber of a ship's deck, with a piece of a tibia impacted in it. The patient, a sailor, from whom the timber was purchased, fell from the mast on to the deck, breaking his leg, and this portion of the tibia, found to be impacted in the wood, was sawn off on the spot. He recovered, and the injured leg remains useful to this day; the history is well authenticated. Through the liberality of Dr. Bantock and Mr. Knowsley Thornton, a large number of ovarian and uterine specimens are to be found among the additions; in this category are specimens of small diseased ovaries, removed for the relief of intractable dysmenorrhœa by Mr. Spencer Wells and Mr. Lawson Tait. Among specimens exhibited at London societies during the past session, are the artificial anus made by the wound of a parrot's beak in the loin of a sheep, presented by Mr. John Wood; and the cystic kidney, successfully removed by Mr. Knowsley Thornton from a child aged six. Several microscopical slides will be already familiar to members of the Pathological Society; and fellows of the Obstetrical will recognise, among the additions to the teratological series, a pair of specimens showing the rectum opening respectively into the bladder and into the vulva.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-EIGHTH ANNUAL MEETING.

THE Forty-Eighth Annual Meeting of the British Medical Association will be held at Cambridge, on Tuesday, Wednesday, Thursday, and Friday, August 10th, 11th, 12th, and 13th, 1880.

President: DENIS C. O'CONNOR, A.B., M.D., Professor of Medicine in Queen's College, Cork.

President-elect: G. M. HUMPHRY, M.D., F.R.C.S., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

An Address in Medicine will be delivered by J. B. BRADBURY, M.D., F.R.C.P., Physician to Addenbrooke's Hospital; Linacre Lecturer in Physic.

An Address in Surgery will be delivered by TIMOTHY HOLMES, M.A., F.R.C.S., Surgeon to St. George's Hospital.

An Address in Physiology will be delivered by MICHAEL FOSTER, M.D., Hon. M.A., F.R.S., Prælector in Physiology in Trinity College, Cambridge.

The business of the Association will be transacted in Eight Sections.

SECTION A.: MEDICINE.—*President:* George Edward Paget, M.D., D.C.L., F.R.S., Cambridge. *Vice-Presidents:* George Johnson, M.D., F.R.S., London; P. W. Latham, M.A., M.D., Cambridge. *Secretaries:* W. B. Cheadle, M.A., M.D., 2, Hyde Park Place, London, W.; D. B. Lees, M.A., M.D., 2, Thurloe Houses, Thurloe Square, London, S.W.

SECTION B.: SURGERY.—*President:* William S. Savory, M.B., F.R.S., London. *Vice-Presidents:* William Cadge, F.R.C.S., Norwich; John Wood, F.R.C.S., F.R.S., London. *Secretaries:* John Chiene, F.R.C.S.Ed., F.R.S.Edin., 21, Ainslie Place, Edinburgh; George E. Wherry, M.B., M.C., F.R.C.S., 63, Trumpington Street, Cambridge.

SECTION C.: OBSTETRIC MEDICINE.—*President:* W. S. Playfair, M.D., London. *Vice-Presidents:* H. Macnaughton Jones, M.D., Cork; Henry Gervis, M.D., London. *Secretaries:* R. N. Ingle, M.D., F.R.C.S., 21, Regent Street, Cambridge; C. E. Underhill, M.D., 8, Coates Crescent, Edinburgh.

SECTION D.: PUBLIC MEDICINE.—*President:* Henry W. Acland, M.D., LL.D., F.R.S., Oxford. *Vice-Presidents:* Arthur Ransome, M.A., M.D., Manchester; Thomas Pridgin Teale, M.A., F.R.C.S., Leeds. *Secretaries:* William Armistead, M.B., St. Mary's Villa, Station Road, Cambridge; Thos. J. Walker, M.D., 18, Westgate, Peterborough.

SECTION E.: PSYCHOLOGY.—*President:* J. Crichton Browne, M.D., LL.D., F.R.S., London. *Vice-Presidents:* G. F. Blandford, M.D., London; P. M. Deas, M.B., Macclesfield. *Secretaries:* G. M. Bacon, Hon. M.A., M.D., Lunatic Asylum, Fulbourn, Cambridge; Henry Sutherland, M.A., M.D., 6, Richmond Terrace, Whitehall, S.W.

SECTION F.: PHYSIOLOGY.—*President:* William Rutherford, M.D., F.R.S., Edinburgh. *Vice-Presidents:* Arthur Gamgee, M.D., F.R.S., Manchester; Robert McDonnell, M.D., F.R.S., Dublin. *Secretaries:* W. H. Gaskell, M.A., M.D., Grantchester, Cambridge; William Stirling, D.Sc., M.B., Marischal College, Aberdeen.

SECTION G.: PATHOLOGY.—*President:* Sir James Paget, Bart., D.C.L., LL.D., F.R.S. *Vice-Presidents:* Samuel Wilks, M.D., F.R.S.; W. Howship Dickinson, M.D. *Secretaries:* W. S. Greenfield, M.D., 15, Palace Road, Albert Embankment; Charles Creighton, M.A., M.D., Anatomical Museum, Cambridge.

SECTION H.: OPHTHALMOLOGY.—*President:* William Bowman, F.R.C.S., F.R.S., London. *Vice-Presidents:* Henry Power, F.R.C.S., London; Henry R. Swanzy, M.B., Dublin. *Secretaries:* W. A. Brailey, M.A., M.D., 38, King's Road, Brownswood Park, London, N.; David Little, M.D., 21, St. John Street, Manchester.

A Subsection of Otology will be formed, of which Mr. W. B. Dalby, F.R.C.S., of London, will be Chairman, and Dr. James Patterson Cassells of Newton Terrace, Sauchiehall Street, Glasgow, honorary secretary.

Treasurer: R. M. Fawcett, M.D., 3, Scrope Terrace, Cambridge.

Honorary Secretary to Museum: G. Wallis, Esq., Corpus Buildings, Cambridge.

Honorary Local Secretaries: Bushell Anningson, M.A., M.D. (Hon. Medical Secretary), Walt-ham-sal, Barton Road, Cambridge; A. P. Humphry, Esq., M.A. (Hon. Reception Secretary), Corpus Buildings, Cambridge.

Letters relating to the strictly medical work (Sections, Museums, etc.) of the meeting should be addressed to Dr. Anningson; other letters to Mr. A. P. Humphry.

TUESDAY, AUGUST 10TH, 1880.

2 P.M.—Meeting of Committee of Council.
2.30 P.M.—Meeting of the Council of 1879-80.
4 P.M.—Short service, with sermon by the Bishop of Ely in King's College Chapel
8 P.M.—General Meeting in the Senate House. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 11TH.

9.30 A.M.—Meeting of Council of 1880-81.
11 A.M.—Second General Meeting in the Senate House. Address in Medicine.
12.30 P.M.—Conferring Honorary Degres in the Senate House.
2 to 5 P.M.—Sectional Meetings.
9 P.M.—Soirée in the Fitzwilliam Museum by the Reception Committee.

THURSDAY, AUGUST 12TH.

9.30 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting in the Senate House. Reports of Committees.
11 A.M.—Address in Surgery in the Senate House.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Hall of Trinity College.

FRIDAY, AUGUST 13TH.

10 A.M.—Address in Physiology in the Senate House.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting in the Senate House.
4 P.M.—Garden party in the grounds of King's College by the President.
9 P.M.—Conversazione in St. John's College.

The following subjects have been arranged for discussion in the various Sections.

1. Medicine.—On Hysterical Anæsthesia, opened by Dr. Bristowe; and on Asthma, introduced by Dr. Andrew Clark.

2. Surgery.—On the Treatment of Wounds, by Professor Lister; and on Stricture of the Urethra, by Sir Henry Thompson.

3. Obstetric Medicine.—On Uterine Hæmostatics, by Dr. Atthill; and on the Removal of Uterine Tumours by Abdominal Section, by Mr. Spencer Wells.

4. Public Medicine.—On the General Working of the Public Health Administration in Great Britain and Ireland, opened by Dr. Alfred Carpenter and Dr. Francis T. Bond; and on Diseases communicable to Man from Diseased Animals when used as Food, by Mr. Francis T. Vacher and Mr. Edmund J. Lyon.

5. Psychology.—On the Influence of Alcohol on the Causation of Insanity.

6. Physiology.—The evidence derived from Clinical Observations and Physiological Experiments as to the seat of the formation of Urea in the Body, by Professor Gamgee, F.R.S.; and on Sleep and Hypnotism, by Professor W. Preyer of Jena.

7. Pathology.—The Influence of Injuries and Morbid Conditions of the Nervous System on Nutrition, by Mr. Jonathan Hutchinson; and on Micro-organisms, their relation to Disease, opened by Professor Lister.

8. Ophthalmology.—The Nature of Glaucoma—some points relating to the perception of Colours, by Professor Donders.

Subsection of Otology.—The following questions will be discussed, viz.: The Therapeutic Value of Electricity in Ear-Diseases, and the Comparative Value to the various Mechanical Aids to Hearing, with special regard to the several kinds of Artificial Drumheads, and to those Instruments which assist Deafness, conducting or transmitting Sound, either directly or indirectly, to the Organs of Hearing.

ANNUAL MUSEUMS.

The Pathological Collection will be in the Anatomical Museum.

Honorary Secretary to the Pathological Collection: C. Creighton, M.D., Anatomical Museum, Cambridge.

The Exhibition of Surgical Instruments, Microscopes, Pharmaceutical Preparations, Dietetics, and Sanitary Appliances, will be in connection with the Reception Room in the Guildhall.

Honorary Secretary: G. Wallis, Esq., Corpus Buildings, Cambridge.

EXCURSIONS.

On Saturday, August 14th, there will be excursions to Ely, Peterborough, and Audley End.

Honorary Secretary Excursion Committee: G. Wallis, Esq., Corpus Buildings, Cambridge.

Notice is hereby given that, at the Annual General Meeting of members to be held at the Senate House, Cambridge, on Tuesday, the 10th day of August next, at eight o'clock in the afternoon, the following regulations for the conduct of Annual Meetings will be proposed for adoption, on behalf of the Committee of Council.

General Control of Meeting.

1. The programme of the Annual General Meeting shall be under the control of the Committee of Council. The following regulations shall guide the Committee of Arrangement and any local Committee that may be formed.

Necessity of Limiting the Expenditure.

2. The gradual and constant increase of the members of the British Medical Association renders it expedient to express the strong opinion of the Committee of Council, that the medical men of the locality at which the Association holds its meeting should not deem it necessary to incur a large expenditure; as, otherwise, the choice of a place of meeting must be more and more limited to the larger towns of the kingdom.

Annual Dinner.

3. The Annual Dinner shall be under the control of the Committee of Council.

Papers to be Read at Meeting.

4. All paper intended to be read at the Annual Meeting shall be forwarded, together with an abstract, to the Secretaries of Sections, ten days before the Annual Meeting takes place, excepting the Addresses of the Presidents of Sections, or the Addresses to be delivered in General Meeting.

Directions for Sections.

5. The President, Vice-Presidents, and Secretaries of Sections shall form a Committee of Reference, with power to accept, decline, or postpone any paper, and to arrange the order in which the papers shall be read.

Grouping of Papers for Discussion.

6. The papers in each section shall, as far as possible, be grouped together, so as ensure a general discussion on kindred subjects.

Length of time to be occupied by Papers or Speeches.

7. No communication shall occupy more than fifteen minutes, and no person shall be permitted to speak more than once or for more than ten minutes during the discussion thereon.

Resolutions at Annual Meetings.

8. No motion shall be brought forward at the Annual Meeting, unless it has been proposed by the Committee of Council or a Committee of the Association, or notice of the same shall have been given on the previous day, in writing, to the General Secretary, to be entered on the Agenda of the day and printed in the daily journal. This does not apply to amendments moved in due form.

Meeting of Committee of Council. Meeting of Council.

9. The Committee of Council shall meet on the first day of the Annual Meeting, in the afternoon. The Council of the Association shall meet subsequently, and the first General Meeting of the Association shall be held in the evening.

Reports of Committees.

10. All reports of Committees of the Association shall be printed in the JOURNAL before the Annual Meeting.

SPECIAL NOTICE.

ACCOMMODATION IN CAMBRIDGE.

MEMBERS of the Association who propose to bring ladies to Cambridge on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, A. P. Humphry, Esq., 56, Corpus Buildings, Cambridge. The prices at which lodgings will be obtainable vary from three shillings to one guinea per day (inclusive of attendance) for a bed-room and sitting-room.

Hotels.—The following are the principal hotels in Cambridge.

"Bull" (Trumpington Street).—Bed, 3s. 6d.; sitting-room, 6s. to 10s. Attendance, 1s. 6d.; breakfast, from 2s.

"Lion" (Petty Cury).—Bed, 3s. 6d.; sitting-room, 5s. to 7s. 6d. Attendance, 1s. 6d.; breakfast, from 2s. 6d.

"Hoop" (Bridge Street).—Bed, 5s.; sitting-room, 7s. 6d. Attendance, 1s. 6d.; breakfast, from 1s. 6d.

"University Arms" (Regent Street).—Bed, 2s. 6d.; double bed, 3s. 6d.; sitting-room, 5s. Attendance, first day, 1s. 6d.; following days, 1s. Breakfast, with meat, 2s. 6d.; plain, 1s. 6d.

Applications for hotel-accommodation should be addressed direct to the landlords.

FRANCIS FOWKE, *General Secretary,*
British Medical Association.

161A, Strand, London, June 3rd, 1880.

COMMITTEE OF COUNCIL:
NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, London, on Wednesday, the 7th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, May 29th, 1880.

LANCASHIRE AND CHESHIRE BRANCH.

THE forty-fourth annual meeting of this Branch will be held at the Assembly Rooms, Free Trade Hall, Manchester, at 2 P.M. on Wednesday, June 30th.

The Report of the Council will be read; the President (Mr. E. LUND) will give an Address; and the ordinary business of the Branch will be transacted.

Communications.—1. Mr. J. Farrar: A Case of Poisoning by Gelsemium; recovery after three hours' artificial respiration.

2. Dr. W. Carter: Two Cases of Brain-Disease, with specimens.

3. Dr. Dreschfeld: Demonstration on the Histological Changes in the Kidney in some acute affections, in the pre-albuminuric stage of Bright's Disease, and in some rarer forms of Bright's Disease.

4. Dr. Lloyd Roberts: On Extra-Uterine Pregnancy.

5. Dr. Oxley: On Sayre's Treatment of Spinal Disease.

6. Dr. Haddon: On the character of the Sore-throat in what is called Rötheln.

7. Dr. Glynn and Mr. Paul: On some of the Results of Bronchial Compression.

8. Mr. Paul: Two Specimens of Pulsating Tumour of Bone.

9. Mr. W. Whitehead: Two Cases of Removal of Cystic Tumour from the Neck.

10. Dr. H. Simpson: Specimen of Aortic Aneurism.

Luncheon will be provided at the place of meeting from twelve to three o'clock.

The dinner will take place at the Queen's Hotel, at 5.30 P.M. Tickets, 10s. 6d., exclusive of wine. Gentlemen intending to be present are requested to forward their names, as soon as possible, to the Honorary Secretary.

A. DAVIDSON, M.D., *Honorary Secretary.*

2, Gambier Terrace, Liverpool, June 1880.

NORTHERN COUNTIES OF SCOTLAND BRANCH.

THE annual meeting will be held at Forres, in Charleson's Hotel, on Wednesday, July 14th, at twelve o'clock; Dr. AITKEN (Inverness), President, in the Chair. Luncheon at 2.15 P.M.

The Secretary requests all members intending to read papers or to be present, to favour him with an intimation of this by July 7th.

J. W. NORRIS MACKAY, M.D., *Honorary Secretary.*

WEST SOMERSET BRANCH.

THE annual meeting of this Branch will be held at the Squirrel Hotel, Wellington, on Thursday, July 22nd, at 3 P.M., under the Presidency of J. MEREDITH, Esq., M.D.

Dinner at half-past five o'clock punctually.

Members who may wish to read papers, or make any communications to the meeting, are requested to send notice to the undersigned.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, June 21st, 1880.

METROPOLITAN COUNTIES BRANCH.

THE twenty-eighth annual meeting of this Branch will be held at the Ship Hotel, Greenwich, on Wednesday, July 7th, 1880, at 4 P.M.

At 6.30 P.M. the members will dine together; S. O. HABERSHON, M.D., F.R.C.P., in the Chair. Tickets, one guinea each. Members intending to be present are specially requested to give notice to the Secretaries on or before July 5th.

ALEXANDER HENRY, M.D. }
W. CHAPMAN GRIGG, M.D. } *Hon. Secs.*

57, Doughty Street, W.C., June 14th, 1880.

EDINBURGH BRANCH.

THE annual general meeting of this Branch will be held at 5, St. Andrew Square, Edinburgh, on Tuesday, June 29th, at 4 o'clock P.M.

CHAS. E. UNDERHILL, *Honorary Secretary.*

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE annual meeting will be held at the Hospital, Swansea, on Wednesday, June 30th, at 11 A.M.; T. D. GRIFFITHS, M.D., President-elect.

Members desirous of reading papers, etc., are requested to communicate with one of the Honorary Secretaries without delay.

ALFRED SHEEN, M.D., }
J. HANCOCKE WATHEN, } *Honorary Secretaries.*

May 25th, 1880.

NORTH OF ENGLAND BRANCH.

THE annual meeting of this Branch will be held in the Lecture Room of the Literary Society, Fawcett Street, Sunderland, on Wednesday, June 30th, at 3 P.M.

Dinner at the Queen's Hotel, Fawcett Street, at 5 P.M. Tickets, 6s. 6d., exclusive of wine.

T. W. BARRON, M.B., *Honorary Secretary.*

Durham, June 9th, 1880.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE annual meeting of this Branch will be held at the Grand Hotel, Birmingham, on Tuesday, July 6th, at 3 P.M. An address will be delivered by the President, Mr. R. PROSSER.

The annual dinner will also take place at the Grand Hotel, at 5 P.M. precisely, for the convenience of country members. Dinner tickets (exclusive of wine), five shillings each. Members intending to be present are requested to communicate with the Honorary Secretaries on or before July 3rd, in order that suitable arrangements may be made.

E. MALINS, M.B., 8, Old Square, } *Hon.*
E. RICKARDS, M.B., 14, Newhall Street, } *Secs.*

Birmingham, June 9th, 1880.

BATH AND BRISTOL BRANCH.

THE annual meeting of the above Branch will be held on Thursday, July 1st, 1880, at the Mineral Water Hospital, Bath, at 4.30 P.M., when J. BEDDOE, M.D., will resign the Chair to ALEXANDER WAUGH, Esq., President-elect.

The dinner will be held at the Grand Pump Room Hotel, Bath, at 6.30 P.M. The Bath Secretary earnestly requests all members intending to be present to favour him with their names on or before Monday, June 28th.

R. S. FOWLER, }
E. C. BOARD, } *Hon. Secs.*

Bath, June 14th, 1880.

THAMES VALLEY BRANCH.

THE next meeting of this Branch will be held at the Greyhound Hotel, Richmond, on Thursday, July 1st, at 6 P.M.

Dr. Balmanno Squire will read a paper on the Treatment of Skin-Diseases as practised at Leukerbad, in Switzerland.

The dinner will take place after the meeting, at 7 P.M.

Members who intend to read papers or make any communication are requested to give notice as early as possible.

FREDERICK J. WADD, *Honorary Secretary.*

June 16th, 1880.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THIS District held a meeting at the London Hospital on May 20th; FREDERICK WALLACE, Esq., L.R.C.P.Lond., in the chair.

Paper.—Dr. BERKART read a paper entitled Chronic Synovitis of the Knee-Joint: its Origin, Symptoms, and Consequences. The disease, he stated, occurred in connection with varicose veins, and was frequently mistaken for rheumatism. Having described a case, Dr. Berkart went on to inquire what connection there was between the enlarged joints and the dilated veins. Sir James Paget had stated that gout was the cause of both. Dr. Berkart believed that fatty degeneration or atrophy of the deeper muscles, by interfering with the volume of blood, caused enlargement of the adjacent synovial membranes. Two causes of the atrophy might be mentioned: first, thrombosis of lower extremities (it must be remembered that varicose veins gave facilities for clotting); and secondly, dyspepsia with fermentation, pressure on, and displacement of, the heart, and circulation of impure watery blood. Gouty remedies were hurtful.

A conversation by the members present followed; and a vote of thanks to Dr. Berkart was unanimously agreed to.

SPECIAL CORRESPONDENCE.

PARIS.

Statistics of the Blind in France.—Variola and Vaccinia.—Spontaneous Horse-Pox.—Dr. Fournier's Clinical Lectures.—Dr. Desprès on Syphilis.

IN his address at the laying of the foundation-stone of the new ophthalmological clinic referred to in my last, the Director of the Quinze-Vingts made the startling assertion that, from the official statistics furnished to Government in 1876, it was ascertained that in France alone, including Algiers, there were 31,631 blind persons, as follows.

Children born blind	1,656
,, blind by accident or disease	3,089
Adults born blind	4,322
,, blind by accident or disease	22,564
	31,631

The cause or causes of blindness are not given; but, judging from the statistics of the clinics in existence, it was assumed that a very great number of cases resulted from purulent ophthalmia in infancy, badly treated or not treated at all, owing to ignorance of the nature of the malady, either on the part of the parents or of the medical attendants; and it was suggested that, by early attention to all cases of sore eyes in children, the number of blind people would be considerably reduced.

The everlasting question as to the identity or non-identity of variola and vaccinia is being revived at the Academy of Medicine. The identity of these two affections has long been accepted as an established fact; but while M. Pasteur, who raised the discussion, admitted their common origin, he denied that, to produce what is called horse or cow-pox, it was necessary that the small-pox virus should pass through the organism of animals. According to him, the virus of small-pox and that of vaccinia are identical, and the latter is simply an attenuation or dilution of the former. In support of his argument, he adduced the results of his experiments in the production of cholera in fowls, in which he obtained a virus so potent as to kill in a short time the fowls inoculated with it; whereas, with the virus attenuated, those that were inoculated with it were completely protected against the influence of the more potent virus. This M. Pasteur compares to a sort of vaccination; and he has been led to conclude from the above experiments that similar attenuations can be produced from the variolous to the vaccinal virus without the intervention of the organism of animals. But how it was to be effected M. Pasteur did not say. Moreover, he added, the relation between horse-pox, cow-pox, human vaccinia, and human variola, has never been fully established, but has been founded on observations without any scientific value. Several members took part in the discussion, all of whom vehemently protested against the theory advanced by M. Pasteur; and M. Depaul said that M. Pasteur was egregiously mistaken if he thought he could in his laboratory upset the experience and observations that have been accumulating for centuries in the history of medicine. M. Pasteur, however, at the next meeting of the Academy, performed, in presence of the members, certain experiments in support of his theory of the cholera of fowls. He exhibited two small glass balloons, one containing some fowl-broth perfectly clear, and the other some of the same broth to which was added on the previous day a small drop of a liquid containing the parasite of the cholera of fowls. The latter specimen of broth was already altered in appearance; it became lactescent, and under the microscope presented myriads of microbia. An infinitesimal quantity of the liquid, about a thousandth part of a drop, when injected subcutaneously into a fowl, killed the bird in a few hours; but the injection of the clear broth even to the extent of one, two, ten, twenty cubic *centimètres* produced no effect whatever. And, as a further proof that the microbia in question are the cause of the malady, M. Pasteur filtered the infected broth and injected a pretty large quantity of the liquid in a fowl without producing any effect. These experiments simply surprised the members present; but none, I believe, were convinced of their value; so that the matter stands where it was before the discussion commenced. I have endeavoured to render the subject as intelligible as possible; but, if I have not succeeded in doing so, I must refer your readers to the report itself, which will be found in the *Bulletin* of the Academy of May 25th.

About the beginning of last month, M. Alexandre, a distinguished veterinary surgeon, discovered the existence of spontaneous horse-pox in a well-known stable in the Champs Elysées, in a horse recently imported from Germany. Three pustules, which were characteristic, were found in the horse's mouth, and proved by competent judges to be the *bonâ fide* disease. The circumstance is so rare, at least in France, that it is looked upon as an event; and, through the indefatigable exertions of Dr. de Pietra Santa, one of the founders and most zealous members of the Société d'Hygiène of Paris, two heifers were inoculated in succession from the least developed of the three pustules, and the inoculation followed the normal course in both cases. Sixty pustules in all were produced in the two heifers; and M. Chambon, the well-known vaccinator, inoculated a third; so that we in Paris may now reckon upon having a good supply of pure animal lymph, which will be jealously guarded against any adulteration or admixture. Other vaccinations and revaccinations have since been practised on human subjects from the third remove of the original horse-pox; and Dr. de Pietra Santa has promised to communicate the results to the Academy of Medicine, not only of the above experiments, but of other comparative experiments he has undertaken with the other two sources of vaccination; viz., that originally from the cow, and that from the human subject.

Dr. Fournier, the recently appointed Professor of Syphilitic and Cutaneous Affections, inaugurated, at the opening of the summer session, his clinical course of lectures at the Hôpital Saint-Louis; and, after paying a grateful tribute to his former masters, and particularly to Ricord, the father of modern syphilography, he entered into the subject matter of his predilection—viz., syphilis—the manifestations and symptomatology of which are pretty well known; but its position as a diathesis is less generally understood. He defined syphilis to be "a diathetic malady, resulting from the absorption of a particular virus which is contagious and hereditary, essentially chronic, revealing itself by certain manifestations which are subject to a certain chronological order. It is a malady imported into the system, and the result of the accidental introduction of a principle foreign to the body; it is essentially a specific disease." He then went through the different phases of the malady; and, on referring to the treatment, he said that it was evident that a malady so terrible in its consequences and so prolonged in its course required a treatment proportionally energetic. To abandon such a malady to itself, he added, is an idea which germinated in the minds of certain individuals; but pure expectation has shown its results; it is very properly condemned by the profession. Moreover, experience has shown that, the malady being specific, its treatment is also specific; and the only remedy which up to the present time can claim to be a specific for this particular malady is decidedly mercury. The treatment, like that of diathetic affections in general, ought to be of long duration; or, in other words, for a chronic malady, it is necessary to apply a chronic treatment. The specific remedy in the malady under notice should be continued for at least two years. Dr. Fournier's lecture is very interesting, and is published *in extenso* in the *France Médicale* of May 29th.

Dr. Desprès, Surgeon to the Hôpital Cochin, entertains other views than those enunciated above as being the classical treatment for syphilis: views equally founded on long experience and in almost similar circumstances to those in which the eminent physician named in the preceding paragraph acquired his experience. According to Dr. Desprès, mercury, the so-called specific, is not only useless in syphilis, but positively dangerous. The malady, which manifests itself by certain signs or lesions, runs through a course extending to eighteen months or two years; and this it does, whether mercury be administered or not. The advantage, however, is on the side of the non-mercurial treatment, as it does not produce the so-called tertiary symptoms, which Dr. Desprès looks upon, not as the natural sequence of the disease, but as the result of the abusive administration of the otherwise most useful drug called mercury. But what would militate against Dr. Desprès' theory is this: according to the experience of other eminent syphilographers, the secondary and tertiary symptoms of syphilis have appeared in cases where no mercury was administered. Dr. Desprès' treatment consists, first in the administration of general tonics, and of ferruginous preparations later on; and, if he administer mercury at all, it is in the form of the iodide of mercury, the least dangerous of all the mercurial preparations, as it contains but a small proportion of the drug. I must say that, as far as France is concerned, Dr. Desprès, I believe, is singular in his notions respecting the nature and treatment of syphilis; and yet he asserts with unmitigated assurance that he has never in all his practice, extending now to nearly twenty years, met with a single case of the tertiary lesions of syphilis in which the non-mercurial treatment was adopted; and it is this treatment he has always carried out in his private as well as in his hospital practice.

UNIVERSITY OF OXFORD.—In a Congregation holden at Oxford, on June 10th, the following degrees were conferred. *Bachelors in Medicine:* Joseph Armitage, New College; Alexander Haig, Exeter College.

CORRESPONDENCE.

VOTING AT THE ROYAL COLLEGE OF SURGEONS.

SIR,—Will you kindly insert in your next number of the JOURNAL the following correspondence relative to voting by proxy at the Royal College of Surgeons? and oblige your obedient servant,

Spalding, June 23rd, 1880. EDWIN MORRIS, M.D., F.R.C.S.

"Spalding, June 22nd, 1880.

"Dear Sir,—Several Fellows of the College have written to me, to know if you are prepared to pledge yourself to support *vote* by duly attested proxy-papers. As the law now stands, the larger part of the constituency is virtually disfranchised, and it is the determination of several Fellows not to vote for any candidate who will not support *vote* by *proxy*.

"It is my intention to make your reply public.

"I am, dear sir, yours truly, EDWIN MORRIS.

"To Sydney Jones, Esq., George Street, Hanover Square, London."

"16, George Street, Hanover Square, June 22nd, 1880.

"My dear Dr.,—I am quite prepared to support vote by duly attested proxy-papers. I think that this is a right to which the provincial Fellows have a very decided claim.—Yours faithfully,

"Dr. Morris, Spalding. SYDNEY JONES."

THE DINNER OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—I have received the annual notice of the dinner of the Fellows of the Royal College of Surgeons on the day of the election of two members of the Council. Much as I should like to support Sir James Paget, who is to take the chair, and to meet old friends, I cannot venture again to brave the awful heat of the unventilated room in which it is the custom to boil the guests at the 'Albion'. Why this dinner should be persistently held in the city, when the majority of the stewards live at the West End, I am at a loss to understand. And why we are asked to pay twenty-five shillings for the dinner, I must leave the honorary secretary to explain.—Yours obediently,

CHRIS. HEATH, F.R.C.S.

THE EXHIBITION OF SURGICAL INSTRUMENTS AT THE ANNUAL MEETINGS OF THE ASSOCIATION.

SIR,—The annual meetings of this Association afford opportunities to the manufacturers of surgical instruments of exhibiting specimens of that skill and originality which it is desirable to encourage as much as possible. It would be in every way advantageous, if special means were adopted for expressing just criticism at our annual meetings of the various exhibits which are submitted to the members on these occasions; and I believe that some such system as is adopted at our international exhibitions, where the different classes are defined and the rewards are adjudicated by well qualified jurors, would be a great encouragement to those who are anxious to show their superiority in an important department of medical and surgical practice. I have no doubt that several members of the Association, who are well qualified to perform the duties of jurors, would assist in carrying out these suggestions.—I am, faithfully yours, ROBERT LEE.

6, Savill Row, W., June 21st, 1880.

SIR JOHN LUBBOCK AND THE DENTAL DIPLOMA.

SIR,—In reply to "F.R.C.P." in your issue of to-day, permit me to point out that Sir J. Lubbock's Act had nothing to do with the granting of a special dental diploma, as this was already provided by the Medical Act of 1858, which conferred the necessary powers upon the College of Surgeons. Everyone will sympathise with "F.R.C.P." in his anxiety to prevent confusion and to guard against the lowering of the profession, but the recent legislation does not tend towards these undesirable results. In the first place, it had been previously decided in the higher courts of law that a totally unqualified dentist could not be prevented from styling himself surgeon-dentist; so that there was nothing to enable the public to distinguish between qualified and unqualified practitioners. All that the Dental Act has done in this matter has been to compel all dentists at present in practice to register, and to provide that, in future, no one commencing practice shall be allowed to style himself dentist or surgeon-dentist unless he possess the dental diploma or a medical qualification. No doubt it is quite as logical for a college to issue a diploma to a chiropodist, an oculist, an aurist, or a bone-setter, as to a dentist, but it is very questionable whether it is necessary or expedient to do so. After all, professional interests—which, however, are not damaged by the Dental Act—must yield to those of the public, for whom alone professions exist; and it can be easily shown, by reference to the history of dental reform during the last twenty-five years, that the creation of a numerous dental profession composed of fairly educated men, like the dental licentiates, was an urgent public necessity, which could be met only by the measures which have culminated in Sir John Lubbock's Act.—I remain, your obedient servant,

HENRY SEWILL, M.R.C.S., L.D.S.

6, Wimpole Street, June 19th, 1880.

SIR,—"F.R.C.P." either forgets or does not know that it requires a special education for a man to become an expert dentist, and that that special education is not, as a rule, to be obtained at our general hospitals. The College of Surgeons requires of those who are presenting themselves for the final M.R.C.S. a knowledge of the common everyday diseases of the eye and ear, but they do not expect him to know how to plug a tooth with gold (the everyday work of the dentist), the analogy between the dentist, aurist, and oculist does not hold good. The fact is, dentistry, as a specialty, is unique, and consequently requires unique diplomas and legislation.

May I ask "F.R.C.P." whether he considers his two reasons as in any way conclusively convincing, for I would venture to point out that he does not tell us how the confusion was brought about; and that his second reason is only a probability. Surely something more tangible than arguments of that sort are necessary to prove the unwisdom of the Royal College of Surgeons, the Government of the country, and Sir John Lubbock, not to mention the Dental Reform Committee and the large majority of the dental profession.

I have in my mind's eye at this moment one or two surgeons who, without any special education, devoted themselves to dentistry, and some teeth that had been filled by one of them, that came under my care afterwards, would been been better filled by the veriest tyro at the Dental Hospital of London. I should be only too glad if all dentists would take the M.R.C.S., but if they can only take one diploma, it is much more important that the one should be the L.D.S. A dentist, I hold, should begin with making most of his specialty, and then, if he can, as a secondary thing, let him take the qualification in general surgery or medicine, or both.—Your obedient servant,

MORTON SMALE, Dentist to the London Hospital.

89, Seymour Street, W.

EUCALYPTUS GLOBULUS.

SIR,—I have read the letter of Mr. Charles Roberts with a feeling of amazement, not to say scepticism. He says he has distributed the seeds of *nineteen* different kinds of eucalyptus, and the number of packets has been *five hundred*. I am sorry he did not think of some of his old friends in my locality, seeing his kindness has been almost bountiful. From five hundred packets I would in a few years undertake to supply every member of the British Medical Association with a specimen of eucalyptus of some kind, but not of nineteen different kinds. Four years ago I got some most excellent seed of the eucalyptus globulus, and I gave a portion to the gardener of Mr. G. W. Elliot, M.P., of Langton Hall, who has been as successful as myself in rearing some fine young trees.

Mr. Roberts is entirely in error when he states that the plan of propagating by cuttings has not been tried. Both Mr. Stevenson, a gardener, and I have successfully struck cuttings; and one fine young tree from a cuttting, struck about August 1877, has been sent to the Editor of the BRITISH MEDICAL JOURNAL. From bottom of pot to topmost branch it measures a little more than four and a half feet. It is well branched, and was re-potted about six weeks ago. I may say from time to time I have tried, solely upon myself, the effect of the young twigs in acute attacks of catarrh. No benefit was derived, and a person might as well chew parsley for coryza as the eucalyptus globulus twigs. I have no faith in its efficacy at all in intermittent fever, septicæmia, scarlatina, and other affections when taken internally. My opinion in regard to the efficacy of the eucalyptus in malarial districts is, that on account of the large quantity of moisture required for its growth, and in order to keep up healthy nutrition in the leaves, etc., it drains, so to speak, marshy places, and thus hinders that decomposition, by the obstruction of moisture from malarial soils, upon which the generation of miasm depends. I know of no plant, shrub, or other tree that will stand such drenching as the eucalyptus globulus, provided a temperature of 50 F. to 75° F. is kept up. The tree, so to speak, lives on water, and thrives in any kind of soil. The peculiar bluish-green colour of the leaf is very striking, and the square form of the younger portions of the tree, with the round form of the trunk, and the opposite leaves of the young shoots, and alternate of the old, are worthy of note. Eucalyptus globulus is so difficult to manage in our climate that, except as a curiosity, few will care to trouble themselves about its cultivation. I have just been informed by Mr. Stevenson, who had many fine plants, that on account of his greenhouse being neglected on the night of a very keen frost in December last, all his young trees perished, as did fuchsia, etc. This shows that young trees grown from cuttings, and more than a year old, are no more proof against severe frost than trees grown directly from seed. I think that the numerous opinions, diverse as they are, concerning the purification of certain places by emanations from the eucalyptus tribe, are akin to those wild and plainly absurd ideas that the potato disease begins in the haulin. In marshy and malarial districts the good effect is produced by eucalyptus tree drainage, if one may use such an expression.—I am, etc., HENRY BROWN.

Northallerton, June 21, 1880.

SIR,—Your correspondent, Mr. C. Roberts, has missed the gist of the remarks in my former letter, as what it was written to show was, that it was a waste of time to try to grow young gum trees in the open, untilled, and undrained Campagna. No one can know better than I that eucalypti, when tended and planted in a carefully prepared soil, do thrive and grow most luxuriantly in and near Rome, as I have had the proof of this before my eyes for nine years. But the expense of planting the Campagna, and using such measures as to ensure the survival of even a fair proportion, say one half of the trees would be, to my mind, prohibitive of the trial. Your correspondent is probably unaware that there are eight hundred square miles of more or less malarial Campagna, and he evidently does not know that almost every winter there are several nights when there are at least 6° Centigrade of frost on the Agra Romano. Mr. Roberts has made a mistake as to the winters preceding the last having been especially cold ones all over Europe. The winter of 1878-9 was, on the contrary, exceptionally mild and rainy to the south-west of the Apennines.

I have no prejudice against the eucalypti, unless it is a prejudice to object to them on æsthetic grounds. I have travelled in Australia, and should be sorry to see the Roman Campagna resemble the "bush" in Victoria. As the trees require pollarding when young, the stems not increasing *pari passu* to the height, everyone with an artist's eye will shudder at the thought of the landscape of the Campagna being formed by pollarded gum-trees, as may actually be seen on a limited scale near one of the gates of Rome.

The remedies for the Campagna would be draining and cultivation, not planting it on any large scale nor with any particular tree, and it is to the support of a scheme of this kind that all my efforts have been directed for many years. It is too wide a subject to enter into the reasons for believing that extensive plantations would simply keep up the evil they were meant to remove, but those whom it interests will find much valuable information in Professor Tommassi-Crudeli's work on the *Distribution of the Water in the Roman Subsoil.*

One word as to the value of the eucalyptus as a medicine. I have used it frequently, and I can only say that that man trifles with the life of his patient who treats, with preparations of eucalyptus only, any severe case of pernicious malarial fever in the climate in which that fever has been contracted.—I am, etc.,

YOUR CORRESPONDENT AT ROME.

Rome, June 21st, 1880.

ALLEGED ILLTREATMENT AT THE HIGHGATE INFIRMARY.

SIR,—In your issue of last week I read a paragraph with the above heading, referring to an inquest held by Dr. Hardwicke on Charles Stapleton, a labourer, who died in the Gray's Inn Road Workhouse after removal from the Highgate Infirmary on May 11, he having been the day previously admitted into that infirmary. The finding of the jury was, that death was from exhaustion following upon drink and pneumonia, and that death was accelerated by removal from Highgate, etc. As medical officer of the Highgate Infirmary, by which name this institution has been known for the past ten years, I beg to state that no such person as Charles Stapleton has ever been treated here, and that no case of the sort described has occurred at this infirmary. I would therefore feel obliged if you would, by inserting this letter in your next edition or by other explanation, remove the impression, which is now pretty general, that this is the institution referred to.—I am, Sir, yours truly, C. MCCANN, Principal Medical Officer.

Central London Sick Asylum District, Highgate Infirmary, June 22nd, 1880.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, June 18th.

Condemned Meat.—In answer to Mr. Anderson, Mr. SHAW-LEFEVRE said: No meat which has been condemned as unfit for food is now sold by the Admiralty in open market. In consequence, I believe, of representations made by Mr. Plimsoll, arrangements were made in 1878 for the sale of all beef and pork condemned as unfit for human food to a soap-maker of high standing, under a guarantee to melt it down. This arrangement is still in force, and there is no reason to believe that any such meat finds its way into the mercantile marine.

Army Medical Officers.—Mr. Meldon asked as to a promise alleged to have been made when the Army Medical Department was being reorganised, that in future exchanges between medical officers would be allowed under the same regulations as for the rest of the service.—Mr. CHILDERS said: In reply to the hon. and learned gentleman, I have to say that I cannot find any record of a promise having been given by my predecessor such as the question implies; and I may state that no order of any description has been given on the subject since I took office. If, however, he will privately point out to me the promise to which he refers, I will look carefully into the whole question, which has not come before me in any shape.

Reports of Famine Fever.—Mr. A. M. Sullivan wished to know whether the Government had received any confirmation of newspaper reports of the occurrence of cases of famine fever in the county of Mayo? —Mr. W. E. FORSTER was glad the question had been asked. On the appearance of the reports he telegraphed to the Local Government Board to send a medical inspector to make inquiry with regard to the fever. He had a communication from the Mansion House Committee that morning, and no allusion was made to fever. The reports had probably some basis in fact, but he hoped they would turn out to be exaggerated. A few days ago he heard of fever in the district, but there was reason to believe it had originated in the workhouse, and it appeared probable that it was typhus fever rather than famine fever. Three or four days ago he had been obliged to dissolve a union because the guardians were unable to cope with the distress. He had written and telegraphed that every attention that could be paid should be paid, and if it was a matter of money, to save life the money must be spent.

Thursday, June 24th.

Medical Officers of Health.—Dr. FARQUHARSON asked the President of the Local Government Board when the return, ordered in July 1879, of the number of sanitary districts in England and Wales in which medical officers had been appointed, would be presented to the House. —Mr. DODSON said that the return was ordered late in the session of 1879. It applied to 1700 sanitary authorities, and embraced a vast number of inquiries. It was not possible to present it to the House within the session, and consequently it became a dropped order.

MILITARY AND NAVAL MEDICAL SERVICES.

MR. JOHN INGLEFIELD ACHESON, Deputy Inspector-General of Hospitals and Fleets on the retired list, died at Southsea, on June 2nd. He entered the service in November 1837, and was first appointed to the *Vestal*, with which he served on the North American and West Indian stations. He was next afloat in the *Lark*, schooner, on surveying service on the same station, and then went to the Pacific, as additional to the *Dublin*, flag-ship. While on the latter station, he was employed in our store-ship at Valparaiso. He obtained his promotion to surgeon in November 1846, and served afterwards in the *Kingfisher* brig, on the African Coast, from 1848 to 1850. As surgeon of the *Leopard*, commanded by the present Sir George Giffard, he served during the Russian war in the Gulf of Bothnia; at the reduction of Bomarsund (1854), and at all the operations in the Black Sea in 1855 (Baltic, Crimean, and Turkish medals, and Sebastopol clasp). After the war, Mr. Acheson served in the Mediterranean as surgeon of the *Princess Royal* from 1856 to 1858, and was then appointed to the *Victory*, at Portsmouth. He was afterwards surgeon of the *Cornwallis*, on Coastguard service in the Humber, and as staff-surgeon of the Woolwich Yard from March 1867 to 1869, and of Portsmouth Dockyard from July 1869 until his retirement in 1872.

MILITIA SURGEONS.

SIR,—May I trouble you for information if surgeons to militia regiments still exist, or is the rank abolished, and how such appointments are obtained? I find in the *Army List* that though the surgeons-major are down, the surgeons seem very scarce.—I remain, yours obediently, IGNORAMUS.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

SANITATION OF THE DWELLINGS OF THE POOR.

At the last meeting of the Charity Organisation Society, the Rev. S. A. Barnett said that he had a personal interest in the proper working of the Artisans and Labourers' Dwellings Act. A very large part of his parish had been condemned in 1875, but up to the present time nothing had been done to remove the houses. Out of thirty-two schemes, in only one instance were dwellings being rebuilt. There was danger lest the vestries, preferring Mr. Torrens's Act, should set the Dwellings Act entirely aside. This was enough to justify his motion, that the Special Committee on Dwellings for the Poor should be reappointed. He spoke regarding the defects in principle and in administration as an outsider, and not as an expert. As to the latter defects, it appeared that there were too many authorities to whom reference was necessary before action could be taken, viz., the Home Secretary, the Board of Works, the Vestry, etc.; hence was occasioned much needless delay. The Board of Works, too, had more work to do than they could get through. Further, the cost was enormous, as could be seen by a reference to the vestry reports; six sites cost the ratepayers a sum that would yield £30,000 a-year. The inclusion of "Street Improvements" in the Act, often desirable in themselves, but not directly affecting the question of the provision of better dwellings, led to expenses which should not be placed to its credit. The compensations also were extravagant. Thus weekly tenants had £1 a-year for each year of their past tenancy, and stories were rife of traffic in old rent-books bought to serve as proof of past tenancy. The compensation to leaseholders appeared abnormal. In one instance, the leaseholder had raised the rent £10 on his tenant, because he had received a notice under the Act, and the tenant urged that he could not afford to move, because he was, as tenant, expecting compensation himself. Much was heard, too, about bad bargaining on the part of the board. He moved that the special Committee be resummoned to consider these and other points. He hoped that the assistance of the Colleges of Physicians and Surgeons, of the Parliamentary Bills Committee of the British Medical Association, and of the Medical Officers of Health, would be obtained.

Sir U. Kay-Shuttleworth seconded the motion. The work of the Special Committee had in great measure led to the Act which had been passed, and the Society was under an obligation to see what experience had been gained regarding it. A strong case had been made out for inquiry. The Act had been useful in some towns, as the returns showed, though it had failed in London. Legislation was necessary on the main lines of the Act, but amendments should be introduced into it, and into the administration of it. He had pressed Sir Richard Cross to combine the Bill with the preceding legislation on the subject, more particularly Mr. Torrens's Act of 1868—out of which the House of Lords had struck the clauses relating to rebuilding and compensation, and thus reduced the Act to one for demolition only. Had this suggestion been adopted, spaces cleared under the one Act would have been covered under the other. It was ridiculous to compensate weekly tenants. The character of the condemned property should also be taken into consideration; yet, till the Amendment Act of 1879, there was no recognition of this principle. Much money would have been saved had it been clearly set forth in the first instance. With regard to the terms of the reference to the committee, he thought that the committee should consider the working of the Act in London and elsewhere, comparing recent action in this direction in Scotland and Ireland; the effect on the working people themselves—whether the demolition had not produced harm; the results to the ratepayers, for it would be a gain to them if good property was substituted for bad, and the streets were improved; the causes of delay, discomfort, or injury; and, lastly, the remedies for the present state of things.

Sir Charles Trevelyan supported the motion, which was adopted in the following form:

That the Special Committee of the Society on the Dwellings of the Poor be reappointed, and that the following gentlemen be requested to serve upon it, power being given them to add to their number, viz.: Lord Napier and Ettrick, the Earl of Aberdeen, the Earl of St. Germains, the Earl of Lichfield, the Earl of Shaftesbury, Earl Fortescue, the Duke of Westminster, Lord Norton, Lord Mount Temple, Lord Cranbrook, Lord Stanhope, Right Hon. Sir R. Cross, G.C.B., M.P., Right Hon. Sir Stafford Northcote, Bart., M.P., Right Hon. W. H. Smith, M.P., Sir B. Leighton, Bart., M.P., the Marquis of Exeter, Sir J. M. Hogg, Bart, M.P., Major Sir Harry Verney, Bart., M.P., Right Hon. J. G. Talbot, M.P., Right. Hon. J. S. Stansfeld, M.P., T. Brassey, Esq., M.P., F. S. Corrance, Esq., T. Hughes, Esq., W. McArthur, Esq., M.P., S. Morley, Esq., M.P., W. T. McCullagh Torrens, Esq., M.P., W. E. Welby, Esq., H. R. Brand, Esq., M.P., W. H. James, Esq., M.P., J. R. Hollond, Esq., M.P., Sir Sydney H. Waterlow, Bart., Sir Curtis M. Lampson, Bart., Sir Matthew Ridley, Bart., M.P., Hon. Evelyn Ashley, M.P., Ernest Hart, Esq., Chairman of the Parliamentary Bills Committee of the British Medical Association, Dr. Greenhill, Dr. Pagenstecher, Miss Octavia Hill, Miss Conns, C. Catliff, Esq., R. W. Monro, Esq., J. Moore, Esq., C. R. Stokes, Esq., R. Vigers, Esq., R. D. Wilson, Esq., Hon. T. Pelham, Sir Charles Trevelyan, Bart., K.C.B., Sir U. Kay-Shuttleworth, Bart., Major-General Cavenagh, Admiral Gardner, Colonel Lyon Fremantle, Dr. Hawksley, Dr. Hardwicke, Jabez Hogg, Esq., Rev. E. Capel-Cure, Rev. R. J. Simpson, Rev. G. M. Murphy, Rev. F. W. Verney, Rev. W. Denton, Rev. S. A. Barnett, J. Beal, Esq., F. Burdett Roberts, Esq., J. S. Storr, Esq., Martin Ware, Esq., W. H. Williams, Esq., T. Wright, Esq., R. H. Blake Humphrey, Esq., M. Blakiston, Esq., H. T. Boodle, Esq., W. S. Dugdale, Esq., Robert Freeman, Esq., W. Gilbert, Esq., G. M. Hicks, Esq., W. H. Hall, Esq., R. M. Hensley, Esq., J. Cleland Burn, Esq., E. Bond, Esq., G. Godwin, Esq., J. J. Manley, Esq., Hodgson Pratt, Esq., J. Soames, Esq., Robert Walker, Esq., W. M. Wilkinson, Esq., R. Barrington, Esq., H. A. Freeman, Esq.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

*Fisher, G., L.R.C.P.Ed., reappointed for the fifth time Medical Officer of Health to the Albury Rural Sanitary District.

Smyth, W. J., B.A., M.D., reappointed Medical Officer of Health for the Shipley District for three years.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 17th, 1880.

Cooper, William Astley, Widnes, Lancashire.
Ersohn, William Robert, Easingwold, Yorkshire.
Harries, Arthur John, Tufnell Park Road, N.
Prothero, Richard, Everton Road, Liverpool.
Tucker, Joseph, Chulmleigh, North Devon.

The following gentlemen also on the same day passed their primary professional examination.

Coveney, John, London Hospital.
Harris, Walter Thomas, Guy's Hospital.

University of Cambridge.—Third examination for the degree of M.B.—Part I. (Examined and approved.)

Class I.—McAlister, M.A., St. John's. Class II.—Buller, B.A., Trinity; Collier, B.A., Jesus; Ground, Downing; Hill, B.A., Downing; G. L. Johnson, B.A., Caius; Leighton, B.A., Trinity; Mahomed, Caius; Marshall, M.A., St. John's; Nichols, B.A., Catherine's; Parker, B.A., Caius; Weldon, B.A., Caius; Young, B.A., Caius.

King and Queen's College of Physicians in Ireland.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, June 7th, 8th, 9th, and 10th, the following candidates were successful.

For the Licence to Practise Medicine.—Mathew Digan, M.R.C.S.Eng. (London); George Digby, Dublin; Isabella Margaret F. J. Foggs (London); Jane Russell Grant (London); Arthur Robt. Harper (Dublin); Jas. Alfred Johnston (Dublin); Henry Westenra Lentaigne (Dublin); John McArdle (Dublin); Sydney Pedler Morris (London); James O'Dwyer (Dublin); Francis Alleyn Owgan (London); Henry John Colpoys Tweedy, M.D.Univ.Dubl. (Dublin); Alice Vickery (London); John Warnock (Dublin); Stewart Woodhouse, M.D.Univ.Dubl. (Dublin).

For the Licence to Practise Midwifery.—Matthew Digan, George Digby, Isabella Margaret H. J. Foggs, Jane Russell Grant, Arthur Robert Harper, Hugh Harris (Dublin), James Alfred Johnston, Henry Westenra Lentaigne, John McArdle, Sydney Pedler Morris, James O'Dwyer, Alice Vickery, and John Warnock.

The following Licentiates have been admitted to the Membership of the College.

O'Brien, Richard Alfred, 1864, Hong Kong.
Croker, Arthur (1865), London.
Scott, James Hamilton (1867) Camberley.
Wood, John, Surgeon R.N. (1868), Yokohama.
Elmes, William Henry, Surgeon R.N. (1869), Queenstown.
Browne, David John (1869), Londonderry.
Wrightson, Edward Willington (1872), Halesworth.
Hartigan, William (1876), Hong Kong.
Boulton, Edward Joseph (1859), Surgeon-Major A.M.D.
Murray, James (1874), London.
Walter, William (1874), Manchester.
Yeo, Robert Frederick (1875), Surgeon R.N.
Sophia Jex-Blake (1877), Edinburgh.

MEDICAL VACANCIES.

Particulars of those marked with an asterisk will be found in the advertisement columns.

THE following vacancies are announced :—

ABBEYLEIX UNION—Medical Officer for Durrow Dispensary District. Salary, £100 per annum, with £20 as Medical Officer of Health, registration and vaccination Fees. Election on July 2nd.

*BRADFORD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Resident Medical Officer. Salary, £200 per annum. Applications, with testimonials, on or before July 1st.

*BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum, with board, lodging, and washing. Applications, with testimonials, to the Secretary on or before July 12th.

*DUDLEY DISPENSARY—Resident Medical Officer—Salary, £120 per annum. Applications, with testimonials, to the Honorary Secretary on or before July 6th.

ENNISTYMON UNION—Medical Officer for Ennistymon Dispensary District. Salary, £100 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 10th July.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Physician to Outpatients. Applications, with testimonials, to the Secretary on or before July 6th.

*HOSPITAL FOR WOMEN, Soho Square—House-Physician. Applications, with testimonials, to the Secretary on or before July 3rd.

LONDON HOSPITAL MEDICAL COLLEGE—Demonstrator in Anatomy. Salary, £200 per annum. Applications, with copies of testimonials, on or before July 8th.

LONDON HOSPITAL MEDICAL COLLEGE—Two Assistant Demonstrators. Salary, £90 per annum. Applications, with copies of testimonials, on or before July 8th.

MANCHESTER ROYAL INFIRMARY, DISPENSARY, AND LUNATIC ASYLUM—Honorary Assistant-Surgeon. Applications, with testimonials, not later than June 28th.

NAAS UNION—Medical Officer for Clane and Timahoe Dispensary District. Salary, £125 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on 28th instant.

OWENS COLLEGE, Manchester—Demonstratorship in Anatomy. Stipend, £150 per annum. Applications, with testimonials, not later than June 30th.

*PLYMOUTH PUBLIC DISPENSARY—Honorary Surgeon. Applications, with testimonials, etc., to the Secretary, on or before July 12th.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan—Senior House-Surgeon. Salary, £100 per annum, with apartments and rations. Applications, with testimonials, before June 30th.

WEST RIDING ASYLUM, Wakefield—Resident Clinical Assistant. Applications, with testimonials, to the Medical Superintendent.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton—Surgeon. Applications, with testimonials, to the Secretary on or before June 28th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BERESFORD, F. J., L.R.C.S.Ed., appointed Assistant-Surgeon to the Leeds Amalgamated Friendly Societies' Medical Aid Association, *vice* Joseph I. Lewes, M.R.C.S.

BRANNIGAN, H. C., L.R.C.P.Ed., appointed Assistant House-Surgeon to the Liverpool Infirmary for Children.

HAWKINS, F. D. Cæsar, M.R.C.S., appointed House-Surgeon to the Belgrave Hospital for Children, *vice* Richard J. Bryden, M.R.C.S , resigned.

MACBRYAN, Henry C., L.R.C.P.Ed., L.R.C.S.Ed., late Clinical Assistant to the West Riding Asylum, Wakefield, appointed Third Assistant Medical Officer at the South Yorkshire Asylum, Wadsley, near Sheffield.

O'CONNOR, Bernard, A.B., M.D., M.R.C.P.Lond., 40, Brook Street, W., appointed a Physician to the Western General Dispensary, Gerrard Street.

WHITEHOUSE, John, L.R.C.P., appointed House-Surgeon to St. Peter's Hospital for Stone, *vice* D. G. Johnston, M.B., resigned.

WRIGHT, G. St. John, M.B., appointed House-Surgeon to the Sheffield General Infirmary, *vice* C. M. Goyder, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 0d., which should be forwarded in stamps with the announcements.

MARRIAGE.

FORRESTER—JUSTICE.—At St. Mary's, Cheltenham, on the 22nd instant, by the Rev. James Badnall, B.A., Vicar of Endon, Staffordshire, James S. Forrester, Surveyor Army Medical Department, only son of the late William Forrester, Surgeon-Major Madras Army, to Marie Clarisse, eldest daughter of the late Reverend John Justice, Rector of Ightfield, Whitchurch, Shropshire.

DEATHS.

HOLROYDE, Elkanah, F.R.C.S.E., J.P., formerly of Manchester, at Sydenham, aged 77, on June 19th.

SEYMOUR.—On the 16th instant, aged 49, Almeric Walter Seymour, M.A., M.R.C.P., of 18, Montpelier Place, Brighton, son of the late Edward James Seymour, M.D., of Charles Street, Berkeley Square.

BEQUESTS.—Mr. Elias Hughes Thompson, late of Belfast, has bequeathed £100 to the Belfast Royal Hospital, £100 to the Belfast Charitable Society, and £100 to the Belfast Deaf and Dumb Institution. Mr. Joseph Bigger has left £50 to the Belfast Royal Hospital.

IT is announced that the Local Government Board have called the attention of the sanitary authorities of London to an outbreak of small-pox at Antwerp, which is reported to be of a somewhat serious nature.

DR. MÉHU, *pharmacien-en-chef* of the Necker Hospital in Paris, has been elected a member of the Academy of Medicine in Paris, in the section of Pharmacy.

A STATE BOARD OF HEALTH has been established for New York, and the members, nine in number, have been appointed.

PUBLIC HEALTH.—During last week, being the twenty-fourth week of this year, 3,281 deaths were registered in London and twenty-two other large towns of the United Kingdom. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living. The annual death-rate was 19 in Edinburgh, 22 in Glasgow, and 39 in Dublin. The annual rates of mortality in the twenty English towns were as follow : Portsmouth 12, Brighton 15, Leicester 15, Plymouth 15, Leeds 16, Newcastle-upon-Tyne 16, London 18, Wolverhampton 18, Birmingham 18, Nottingham 18, Bristol 19, Oldham 19, Hull 19, Bradford 20, Manchester 21, Sheffield 22, Salford 22, Sunderland 25, and the highest rate 27 in Norwich and in Liverpool. The annual death-rate from the seven principal zymotic diseases averaged 2.9 per 1,000 in the twenty towns, and ranged from 0.3 in Newcastle-upon-Tyne and 1.4 in Oldham and Wolverhampton, to 5.4 and 6.3 in Liverpool and Sunderland. Measles showed the largest proportional fatality in Sunderland and Plymouth ; scarlet fever in Norwich, Sunderland, Sheffield, Salford, and Bradford ; and whooping-cough in Liverpool, Birmingham, and Salford. Nine deaths were referred to fever (principally enteric) in Sheffield. In London, 1,243 deaths were registered, which were 122 below the average, and gave an annual death-rate of 17.7 per 1,000, a lower rate than has prevailed in London in any week since the end of September last. The 1,243 deaths included 6 from small-pox, 23 from measles, 59 from scarlet fever, 9 from diphtheria, 56 from whooping-cough, 14 from fever, and 21 from diarrhœa—being altogether 188 zymotic deaths, which were 46 below the average, and were equal to an annual rate of 2.7 per 1,000. The deaths referred to diseases of the respiratory organs, which had been 191 and 230 in the two previous weeks, declined again to 198 last week, and were 11 below the corrected weekly average ; 103 were referred to bronchitis, and 67 to pneumonia. Different forms of violence caused 55 deaths ; 41 were the result of negligence or accident, including 23 from fractures and contusions, 11 from drowning, and 5 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 58.9°, and 0.6° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 8.8 miles per hour, which was 1.4 below the average. Rain fell on six days of the week, to the aggregate amount of 0.88 of an inch. The duration of registered bright sunshine in the week was equal to 27 per cent. of its possible duration. The recorded amount of ozone was very slight in the early part of the week, but exceeded the average on Friday and Saturday.

ROYAL COLLEGE OF SURGEONS.—The following are the names of the candidates for seats in the Council of the College on Thursday, the 1st proximo, with the names of the Fellows nominating them; viz.: No. 1. Mr. W. Cadge of Norwich, nominated by Messrs. William Bowman, James F. West (Birmingham), Sir Henry Thompson, Thomas Smith, T. W. Crosse (Norwich), and J. T. Clover. 2. Mr. William Adams, Henrietta Street, nominated by William Mac Cormac, George Critchett, Furneaux Jordan (Birmingham), Henry Smith, Walter J. Coulson, and James F. West (Birmingham). 3. Mr. Joseph Lister, Park Crescent, nominated by H. Smith, John Couper, W. Mac Cormac, William B. Page (Carlisle), T. Smith, and Christopher Heath. 4. Mr. Thomas Bryant, Upper Brook Street, nominated by Edward Cock, Sir H. Thompson, W. Mac Cormac, J. Couper, Henry Morris, and W. D. Husband (York). 5. Mr. Sydney Jones, George Street, nominated by John Simon, W. Mac Cormac, C. Heath, Edwin Morris (Spalding), John Croft, and Francis Mason. 6. Mr. John Whittaker Hulke, Old Burlington Street, nominated by John Wiblin (Southampton), George Lawson, H. Morris, W. Morrant Baker, Arthur E. Durham, and Sir Joseph Fayrer. 7. Mr. Thomas Smith, Stratford Place, nominated by Joseph Lister, Alfred Willett, C. Heath, A. E. Durham, William Cadge (Norwich), and J. Croft. 8. Mr. Matthew Berkeley Hill, Wimpole Street, nominated by F. Le Gros Clark (Sevenoaks), A. E. Durham, G. Critchett, C. Heath, T. Smith, and C. H. Marriott (Leicester).

FLOATING HOSPITAL FOR MEMPHIS.—The *New York Medical Record* quotes from the *Nautical Gazette* a proposal to establish at Memphis a floating hospital building, two storeys in height, to be moored to the river-bank. It could be removed, in case of a yellow fever epidemic, to a less exposed place.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ...... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY ...... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY .. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY .... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.

FRIDAY .... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY .... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th. S., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, W. S., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the General Secretary and Manager, 161, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

VACCINATION FROM THE CALF.

SIR,—Might I trouble you to tell me the proper method of performing the operation of vaccination in the calf? Awaiting your reply, for which I shall be extremely obliged, I remain, yours faithfully, JOHN R. MCGEE, Surgeon, etc.

255, Manchester Road, Bradford, Yorks, June 22nd, 1880.

⁂ We should advise our correspondent to go to Brussels, and study the whole procedure under the guidance of Dr. Warlomont. The details are not to be learned by written directions.

LOCUM TENENS.

NOTWITHSTANDING the written communication which Dr. Godson addressed to us intimating his resignation of the post of paid *locum tenens* at the General Lying-in Hospital, York Road, Lambeth, which he had only undertaken under the mistaken impression that he was "doing an act of kindness" to Dr. Hayes and Dr. Fancourt Barnes, who had preferred charges against the lady-superintendent and the chairman of the Board of Management, we understand that Dr. Godson is still continuing to fill the singular and invidious post which he was announced to have resigned.

THE ROYAL IRISH UNIVERSITY.

As the first meeting of the Senate of this University was held only on Thursday last (the 24th instant), no arrangements have yet been made as to curricula of study, qualifications for degrees, or the fees chargeable. Under the charter, degrees will be granted in medicine. The Senate have to submit a scheme to Parliament before April next, for the proposed working of the new university.

F.R.C.S.—The precise rule on the subject of correction of manuscripts accepted for publication in the JOURNAL is, that the editor reserves to himself the right of striking out or suggesting the alteration of any passages which appear to be personally offensive, or otherwise unsuitable for publication. Any proof or manuscript bearing such alterations or suggestions is forwarded to the author, who has the right to accept the suggestions or altogether withdraw his communication, as he thinks best.

THE DIAGNOSIS OF RÖTHELN.

SIR,—Dr. Robinson's article on the above subject has done very little to give rötheln that indisputable title to a special disease which he claims for it. He says: "In its initial stages, progress, and decline, rötheln presents such distinctive characters.... that it is rather a matter of surprise that there should be such ambiguity and doubt as to its proper position in nosological medicine." One naturally, then, looks for those diagnostic signs in his description of the disease, yet what does one find? "In the simple form, the rash is well out, the sore throat is slight, and the irritation of the bronchial mucous membrane is moderate, with slight coryza and sneezing". How does this differ from a slight attack of measles? Then again, "In the severe form, the catarrhal symptoms are still very perceptible, but the brunt of the attack is borne by the throat." Who would say that this is not scarlatina?

Further, what are the distinctive characters in the following description of an intermediate variety: Period of incubation, about six or seven days; disease appearing with slight cold, followed by sudden and considerable rise of temperature, headache, sore throat, watering of eyes, convulsions, sometimes vomiting, etc.? Are not all of these symptoms applicable to one or other of the diseases, scarlatina and measles?

As regards the rash, it appears on the second day, being less crescentic in form and of a brighter colour than measles, perceptibly raised above the skin. Roberts, in his *Handbook of Medicine*, in the chapter on measles, says the eruption is crescentic, semilunar, *or irregularly circular* (the italics are mine); the tint is variously described as rose-coloured, dark raspberry, lilac, and yellowish red; and Dr. Sidney Ringer says it is brighter and more intensely red on those parts of the body which by exposure have become florid. How, then, are we to distinguish these two diseases from a comparison of the brightness and form of the rash? Then, again, what is there distinctive in a temperature of 103° or 104°?

Lastly, the only evidence worthy of note is that most of Dr. Robinson's patients have had, or are stated to have had, an attack of measles or scarlatina, and some have had an attack of both diseases; can Dr. Robinson prove this, as nothing in the history of cases of this sort is less worthy of credence than the statement of a parent that a child has had scarlatina or measles? And if this evidence be correct, it only goes to prove that one attack of these diseases does not protect from a second in all cases, but that where a second attack occurs it is modified in its character.

I am afraid I have trespassed too much on your valuable space; but I cannot resist entering a protest against the growing tendency to give new names to any disease because it does not quite agree with a typical case as described in any textbook; and until more distinctive characters are proved for rötheln, I shall continue to believe that this disease exists only in the imaginations of scientific hair-splitters.—I enclose my card, and remain, DUBITANS.

June 22nd, 1880.

UTERINE HÆMORRHAGE.

SIR,—In reference to Dr. F. Smith's letter on Uterine Hæmorrhage in this day's JOURNAL, in which he described an improved syringe invented by Messrs. Maw and Son, for the hypodermic injection of ether, as he says, "the ether dissolves the cement generally used, and the syringe becomes useless", perhaps you will allow me to observe that this idea is hardly a novel one, nor does the credit of devising an instrument free from the objection in question belong entirely to either Dr. F. Smith or to Messrs. Maw and Son. At the last meeting of the Association, in a paper published in the JOURNAL of April 17th, I related my experience of the use of ether in certain cases of *post partum* hæmorrhage, and said: "In injecting ether, less than a drachm is insufficient; and as the ordinary hypodermic syringe is too small, and is cemented with a gum which is dissolved by the ether, and, as I have found, may give way at a critical moment when it is impossible to replace it, I have had a syringe especially made for this purpose, which holds about a drachm and a half, and has no joints which can be thus acted on." The syringe, which I showed, was made for me by a Dublin instrument-maker, Mr. While of Upper Sackville Street. The screw is cut on the cylinder, which is graduated, and the instrument is so arranged that it may either be used for throwing in a large dose of ether by a single movement of the piston, or for the gradual injection of the smallest quantity of any other fluid.—I have the honour to be, sir, your very obedient servant, THOS. MORE MADDEN.

33, Merrion Square South, Dublin, June 19th, 1880.

MICROSCOPES.

SIR,—In reply to your correspondent "L.R.C.P." as to the best and cheapest microscope for general use, I would recommend the "International", made by M. Pillischer, 88, New Bond Street. It is a capital instrument, firm and well made, and possesses all the requisites of a microscope for ordinary work. It has a magnifying power up to 420 diameters, and, moreover, is very cheap, the price being £7 10s.—Yours truly, JAMES ROBINSON, M.D.

Dunscar, near Bolton, June 22nd, 1880.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to Mr. **FRANCIS FOWKE**, General Secretary and Manager, at the Journal Office, 161, Strand, London, and not to the Editor.

CHIAN TURPENTINE.

SIR,—In the JOURNAL of June 19th, I see some remarks made by Dr. Marsden on the administration of "Chian turpentine" in cancerous disease; and with him I think we have failed in the above drug to find a specific, notwithstanding Professor Clay's high commendation of it. I have at present a case of malignant disease of the rectum in which I have given Chian turpentine a full trial for nearly four weeks, that is, I administered six grains of the drug with six grains of sulphur (made up into pills by Wyleys and Co., of Coventry, and the purity of the sample was undoubted) every four hours, day and night; and though at first the woman declared that it relieved her of the intense pain, and had a "wonderful effect on her appetite", still the relief, etc., were but temporary; and the pain returning with all its old severity, I was obliged to resort to morphia suppositories, which she, before the administration of Chian turpentine, used, but which I ordered her not to use while under the turpentine treatment, in order to give the latter a fair trial.—Yours truly, L.R.C.S.I.

June 23rd, 1880.

TWO CASES OF TRIPLETS.

SIR,—As a triple birth occurs but once in 5,561 cases in Britain, in 6,568 cases in France, and in 9,765 cases in Germany, the following is perhaps deserving of a passing note. On May 22nd, 1880, at 6 P.M., I was called to Mrs. B., in her second confinement. At about 7.30, the head was in the perinæum; a drachm of fluid extract of ergot was given, and a small child quickly expelled; the head of another child was then detected, the membranes artificially ruptured, and the second child delivered in about a quarter of an hour. The abdomen still felt very large; and, on examination, the head of a third child was felt, covered by the membranes, which were ruptured by the finger; the head quickly descended, in company with the right hand beside it, and the third child was delivered in about a quarter of an hour after the second. The placenta, which was a large crescentic mass, was expelled in a few minutes with very little hæmorrhage; the three children progressed fairly well till the 25th, when the middle one died. All three children were males. —Faithfully yours, C. W. BAINES, M.D.Edin.

Eagle House, Dursley, June 1st, 1880.

SIR,—About ten o'clock on the morning of the 11th instant, I was called upon to attend the wife of a mechanic in her third confinement. She stated that she was twenty-eight years of age, that she was only in her seventh month of pregnancy, that she had been in labour about three hours, and that there had been a profuse discharge of water. Upon examination, the head was found pressing upon the perinæum; and after a few pains, which were somewhat tardy, a female child, of apparently about six months, was born. It now became evident that there was another child to follow; and upon again making examination, the head was found to be occupying the brim of the pelvis. After a delay of a few minutes, there being no pains, I introduced two fingers, and pressed gently, though firmly, upon the posterior wall of the vagina; this had the effect of producing an uterine contraction, accompanied with an expulsive effort upon the part of the mother, and was followed immediately by the birth of the second child. This was a male, and somewhat smaller than the first. I now passed my hand over the abdomen, and feeling satisfied that the uterus still contained something more than placentæ, I applied a binder, and proceeded once more to examine. Upon introducing my fingers, I came upon what I took to be another bag of membranes, containing, as I supposed, another fœtus. I ruptured this without much difficulty, and felt about for its contents; but not being able to discover any portion of a child, I began to withdraw my hand, feeling rather curious to know what would follow. In doing this, there was a profuse gush of water, which, when my hand was entirely removed, literally poured away, and judging from what we succeeded in catching in a vessel, must have measured not less than three or four pints. After this, the lower extremities of a third child presented, and its birth was completed without difficulty. This child measured twelve inches in length; it had a bleached appearance, and was somewhat œdematous about the back and nates; it showed signs of life for about ten minutes. Upon examining it, I found that what I had supposed to be the membranes was nothing more or less than an enormously distended abdomen; and upon looking more closely, I found there was an absence of the genital organs, their situation being occupied by a small round pendulous growth, without any aperture whatever. The anus was imperforate, and there appeared to be an absence of the rectum. Near the umbilicus there was an opening which had been made by my fingers when I supposed I was rupturing the membranes. It was through this the fluid had escaped, and it was found to communicate with the bladder. This organ was enormously enlarged, occupying, in fact, the whole of the abdomen and pressing upon the thorax to such an extent as to have interfered very perceptibly with its development. After the birth of the third child, the uterus contracted firmly, expelling the three placentæ, which though attached to one another, were yet distinct. There was no hæmorrhage, and the mother has since been making a good recovery. The first child lived six hours, the second nine, and the third about ten minutes. The duration of labour was four hours.—I am, etc.,

Epping, June 17th, 1880. TREVOR FOWLER, L.K.Q.C.P.I., L.R.C.S.I.

A YOUNG MEMBER had better consult any of the standard treatises on Surgery, or special treatises on Aural Surgery, under the head of Tinnitus Aurium.

DOUBLE AMPUTATIONS.

SIR,—In answer to your correspondent "Crus" in the JOURNAL of to-day's date, I would inform him that I have fitted artificial legs with success in several cases such as he describes; and what is perhaps more to the point, I am now fitting a case of double amputation; and from an interview which I had with the patient yesterday, I think it highly probable that I shall be fitting another case of the kind in the course of a week. In this latter case, the right leg is amputated through the knee-joint and the left foot, about four inches above the ankle.—I remain, yours faithfully, H. J. STUMP.

53, Bolsover Street, Great Portland Street, June 19th, 1880.

LACERATED PERINÆUM.

SIR,—As forceps are more frequently used now than formerly, and many have made objections to their use on the score of lacerating the perinæum, etc., let me say that in a large midwifery practice, extending over fifteen years, I have found them a great blessing to the patient, a lacerated perinæum being a very rare occurrence. With the forceps firmly on, the head can be controlled and guided in the proper direction, and will prevent mischief instead of producing it, as Mr. Donovan correctly points out in your last issue.—I am, etc., L.R.C.P.

AN EX-MAYOR TRIED FOR MURDER.

THE *Globe* has a strange story under this head. The manager for eighteen years of a private lunatic asylum at Villers, named Albert Estoret, was tried last week at Beauvais for the murder of an inmate named Appert. The asylum contains lunatics of a quiet disposition, who are employed in agriculture. On March 3rd, Appert, who was of a sullen temperament, but manageable if treated mildly, refused to obey an overseer's order to proceed to work. Estoret coming up, began to abuse him, and Appert was about to rush on Estoret, when the latter snatched a cane from a cupboard. The cane broke, and Appert struck Estoret twice with a shovel, but was overpowered by the attendants. He was then struck by Estoret; and, on his resisting an order to undress to undergo a cold bath, Estoret administered a blow on his arm, upraised to protect his head, which fractured it. After the bath, Appert's arm was dressed with spirit of camphor, and he was kept out of the doctor's sight for five days. One of the keepers urged that he should be sent to the infirmary. Estoret, feigning consent, placed him in a covered cart, and apparently started for Clermont, but, diverging to a by-road, strangled his victim and buried him in the ditch of a potato-field. Returning to the asylum, he stated that Appert had escaped. But he had been seen to diverge from the road; the marks of the cart were traced, and the body was ultimately discovered, with a cord still round the neck. On his arrest, Estoret alleged that he had killed the man in self-defence, and to this he adhered on being interrogated by the judge. A number of witnesses gave him an excellent character. Indeed, he was the mayor of the commune, and took a prominent part in the elections of 1877. The public prosecutor called for a conviction without the benefit of extenuating circumstances.

O.—We cannot give any opinion upon the very imperfect statement of facts submitted; and, in fact, in any case we should require to have a statement from both parties.

COMMUNICATIONS, LETTERS, etc., have been received from:—

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BOOKS, ETC., RECEIVED.

Le Livre de la Maitresse de Maison et de la Mère de Famille. Par Ad. Bitard Paris: Maurice Dreyfous. 1880.

The Hysterical Element in Orthopædic Surgery. By R. M. Shaffer, M.D. New York: J. P. Putnam's Sons. 1880.

God's Acre Beautiful; or, The Cemeteries of the Future. By W. Robinson, F.L.S. London: 1880.

On Deafness, Giddiness, and Noises in the Head. By Edward Woakes, M.D. London: H. K. Lewis. 1880.

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